Enhanced Recovery in Medicine: A Realist Evaluation

Submitted by Helen Newman-Allen,

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Abstract

Background: Enhanced recovery programmes (ERPs) are a multicomponent approach to managing and delivering care with the aim of improving care quality and speed of recovery. Originally introduced in elective colorectal surgery, they are now widespread in many surgical disciplines. Growing interest in the potential of ERPs to deliver similar benefits in acute internal medicine (AIM), has led to their introduction into this specialism. Although ERPs represent a promising model of care in this context, little is known about how they are applied and their impact on recovery.

Aim: The aim of this research was to understand how, why and under what circumstances ERPs work, or do not work, for people admitted to hospital with acute medical illness.

Methods: Realist methodology was used to build, refine, and test theoretical explanations in the form of ‘programme theories’, that explain how underlying casual mechanisms of change and associated contextual factors lead to outcomes. The study was conducted in a National Health Service (NHS) hospital in England. Initial theories were developed through reviewing literature and interviewing practitioners. A card-sorting exercise with practitioners was used to prioritise these theories, which were then refined and tested using observational and interview data, gathered in an acute medical unit (AMU) and a specialist medical ward.

Findings: The findings show that ERPs in medicine comprise multiple interacting interventions bundled together and delivered in a flexible and adaptive manner. Biological, psychological, and social mechanisms were identified operating conjointly, at multiple levels, reflecting a broad conceptualisation of recovery. Enhancements in recovery were explained by key mechanisms of (1) proactive discharge planning, (2) involving patients and carers in shared decision making and the care process, (3) encouraging an active role and sharing responsibility for recovery, (4) individualising care, (5) communicating and sharing information. Contextual factors influencing specific mechanisms included multidisciplinary collaboration, congruence with organisational priorities, patient characteristics, practice norms, access to information systems, leadership support, availability of resources, workload pressures, the ward environment, the unpredictability of acute illness trajectory.

Conclusion: This research contributes knowledge to the field of enhanced recovery, by providing explanatory programme theory of how and why ERPs work in a medical setting. The findings can be used to support further research and inform practitioners and decision makers developing and evaluating ERPs at other NHS hospitals.

COVID-19 Impact Statement

The progress of this thesis was delayed (and temporarily brought to a halt) because of the COVID-19 pandemic. At the start of the pandemic, I was required to return to my full-time role as an NHS physiotherapist to support the frontline clinical services response to the pandemic. Therefore, I was unable to continue working towards the submission of my PhD and interrupted my studies. On returning to my studies the following challenges were evident:

- Due to travel restrictions, redeployment of staff and operational pressures at the NHS case hospital, it was not possible to obtain routine hospital data as planned. I therefore changed the scope and design of the study to focus on qualitative data.
- Plans to conduct a further period of fieldwork at another NHS hospital were impossible to implement due to access restrictions.

The above challenges took a considerable toll on my health and wellbeing.

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Abbreviations

A&E	Accident and Emergency Department (also known as ED)
ADLs	Activities of Daily Living
AHPs	Allied Health Professions
AIM	Acute Internal Medicine
AMU	Acute Medical Unit (also known as EAU)
ASA	American Society of Anesthesiologists
CA	Cancer
CAQDAS	Computer Assisted Qualitative Data Analysis
CDU	Clinical Decision Unit
CGA	Comprehensive Geriatric Assessment
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CMO	Context-Mechanism-Outcome
COPD	Chronic Obstructive Pulmonary Disease
CPD	Continuing Professional Development.
DHSC	Department of Health and Social Care
DOSA	Day of Surgery Admission
DVT	Deep Vein Thrombosis
EAU	Emergency Assessment Unit
ED	Emergency Department
EDD	Expected Date of Discharge
EPMA	Electronic Prescribing and Medicines Administration
ERAS	Enhanced Recovery Association in Surgery
ERM	Enhanced Recovery in Medicine
ERPs	Enhanced Recovery Programmes
GI	Gastrointestinal
GP	General Practitioner
HCA	Healthcare Assistant
HRQOL	Health-Related Quality of Life
ICO	Integrated Health and Care Organisation
ICU	Intensive Care Unit
IM	Internal Medicine
IRAS	Integrated Research Application System
IPTs	Initial Programme Theories
PT	Programme Theory

IT	Information Technology
IV	Intravenous
LOS	Length of Hospital Stay
MAU	Medical Assessment Unit
MBP	Mechanical Bowel Preparation
MDT	Multidisciplinary Team
MRT	Middle-Range Theory
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
NMC	The Nursing and Midwifery Council
NSAIDs	Nonsteroidal Anti-Inflammatory drugs
OPEL	Operational Pressure Escalation Levels Framework
OA	Osteoarthritis
OT	Occupational Therapist
PCA	Patient-Controlled Analgesia
PCC	Patient-Centred Care
PE	Pulmonary Embolism
PJs	Pyjamas
PONV	Postoperative Nausea and Vomiting
PROs	Patient Reported Outcomes (also known as PROMs)
QUDAS	Qualitative Data Analysis Software
RAMESES	Realist and Meta-Evaluation Standards
RCEM	Royal College of Emergency Medicine
RCOA	Royal College of Anaesthetists
RCP	Royal College of Physicians
RCT	Randomised Controlled Trial
RN	Registered Nurse
SAFER	Senior, All, Flow of patients, Early discharge, Review model
SAM	Society for Acute Medicine
SDM	Shared Decision Making
SDEC	Same Day Emergency Care
UK	United Kingdom
UTI	Urinary Tract Infection
VTE	Venous Thromboembolism
WHO	World Health Organisation

Glossary of terms

Adverse event (AE)	Unintended harm that is caused by health care management rather than the underlying disease process.
Acute illness	An illness of abrupt onset. Often of short duration, rapidly progressive, and in need of urgent care.
Acute internal medicine (AIM)	Part of internal medicine concerned with the immediate and early specialist management of adult patients suffering from a wide range of medical conditions who present to, or from within hospitals requiring urgent or emergency care.
Acute medical unit (AMU)	A specialised area of a hospital where patients presenting with acute medical illness from emergency departments and/or the community, can be assessed and treated for up to a designated period (typically between 24 and 72 hours), prior to discharge or transfer to medical wards.
Ambulatory care sensitive conditions (ACSCs)	Conditions where effective management and treatment in the community and primary care can help prevent the need for hospital admission.
Afferent nerve impulses	Carried from sensory stimuli towards the central nervous system and brain.
Allied Health Professionals (AHPs)	Fourteen professionally autonomous health care practitioners typically regulated by the Health and Care Professions Council, including art therapists, dramatherapists, music

	therapists, dietitians, paramedics, physiotherapists, podiatrists, occupational therapists, operating department practitioners, orthoptists, osteopaths, prosthetists and orthotists, radiographers, speech and language therapists.
Ambulatory care	Clinical care that is provided as an outpatient, without the need to stay in hospital overnight as an inpatient.
Anabolism	A metabolic process in which complex molecules are synthesised from simpler ones with the storage of energy.
Avoidable admission	An admission to hospital which would be unnecessary if earlier or different action was taken to prevent deterioration.
American Society of Anesthesiologists (ASA) grading	Physical status classification system for assessing the fitness of patients for surgery. Categories are: (1) a healthy person, (2) a person with mild disease, (3) a person with severe disease that is not a threat to life, (4) a person with severe disease that is life threatening, (5) a person who is not expected to survive without the operation, and (6) A declared brain-dead person (Mayhew et al., 2019).
Care bundle	‘A care bundle is a set of evidence-based practices that when used together in a reliable way can improve patient outcomes’ (Lavallée et al., 2017).

Care pathway	Also known as protocols, clinical pathways, and care plans. A structured multidisciplinary, evidence-based plan detailing the steps that will be taken in the care or treatment or a for a specific clinical problem, procedure, or episode of healthcare in a specific population.
Catabolism	The breakdown of complex molecules in living organisms to from simpler ones, together with the release of energy.
Chronic illness	A long-term or permanently established illness.
Cognitive impairment	Disturbances of any higher mental processes, such as thinking, memory, reasoning and attention ranging from mild to severe.
Convalescence	The gradual recovery of health and strength after illness.
Co-morbidity	Other co-existing illness in addition to the illness which is currently most significant.
Continuous professional development (CPD)	Learning and development undertaken by health and social care professionals to keep their skills and knowledge up to date and ensure their ability to practise safely and effectively.
Day Surgery	Planned surgical procedure for patients who return home the same day.
Delirium	A disorder common in older adults arising as a direct consequence of

	another condition. The primary feature is disturbance in attention and awareness accompanied by impairments in cognition and changes in behaviour. It has an acute onset and fluctuating course.
Emergency admission	An admission to a hospital emergency department that is unpredictable and at short notice because of clinical need.
Emergency medicine	Field of practice concerned with the treatment of illness or injuries requiring immediate medical attention, affecting patients of all age groups.
Expert patient programme	Programme to assist people with long-term medical conditions to manage their own health with specialist support from health care professionals and other agencies.
Frailty	A clinical syndrome more common in older adults, in which the body’s physical and mental systems gradually decline and lose their in-built reserves and ability to respond to stressors.
Holistic approach	Provision of support for the whole person, which considers and individual’s physical and mental health needs, social, emotional, and spiritual wellbeing.
Handover	Process of communication between incoming and outgoing clinicians, to relay information about patients’ status and needs.

Hawthorne Effect	A concept pertaining to factory experiments carried out in the 1920's in which individuals modify an aspect of their behaviour in response to their awareness of being observed.
Hospital readmission	When a person who has been discharged from an inpatient hospital stay is admitted again for the same or related care within a specified period.
Iatrogenic complication	An adverse effect resulting from a therapeutic procedure undertaken on a patient, that is not associated with the patients' underlying disease.
Insulin	Hormone essential in governing body metabolism. Insulin has many actions, including securing the storage of nutrients, changing the oxidation from fat to carbohydrates, while also activating glucose transport into muscle and fat and glycogen and fat storage as well as protein anabolism.
Insulin resistance	Below-normal effect of insulin for glucose, protein, and/or fat metabolism postoperatively.
Intensive care	The care of seriously ill patients.
Intermediate care	A short period of intensive rehabilitation and treatment to enable patients to return home following hospitalisation, or to prevent admission to long term residential care. Models of care include bed-based and community-based services.

Intraoperative period	The time-period of the operation itself.
Internal medicine (IM)	‘Speciality concerned with the care, investigation, diagnosis, and management of all medical needs, including acute medical problems of both inpatients and outpatients’ (Jones & Dyer, 2022).
Laparoscopic surgery	Surgery that is performed by inserting a camera and instruments into a small incision in the person’s abdomen. In contrast to open surgery in which large abdominal wounds are created to access the surgical site.
Medicines reconciliation	A process of identifying an accurate list of a person’s current medicines and comparing it for inconsistencies with the current list in use and documenting any changes.
Metabolic	Physical and chemical processes by which the body is built and maintained, and by which energy is made available.
Multi-morbidity	The co-occurrence of multiple diseases or health conditions within a single person.
Multidisciplinary team (MDT)	A diverse group of professionals working together to contribute to patient care.
Nasogastric tube	A plastic tube that is inserted through the nose, down the throat into the stomach. It can be used to administer drugs, nutritional support and remove liquids from the stomach.

National Institute for Health and Care Excellence (NICE)	Provides national guidance and advice to improve health and social care professionals.
Nursing and Midwifery Council (NMC)	Regulatory body that maintains a register of nurses, midwives, and health visitors.
Non-steroidal anti-inflammatory	Drug which reduces pain, fever, inflammation and may prevent formation of blood clots.
Nociceptor	A receptor for pain located in the skin or organs, stimulated by various kinds of tissue injury (chemical, mechanical, thermal).
Normothermia	The state at which core body temperature is functioning at its optimal level (approximately 36.8 °C) but ranging anywhere from 36 °C to 37.5 °C in a healthy person.
Nursing notes	A record of nursing assessment, diagnosis, decision making and care planning, or delivery and evaluation. For example, observation charts, fluid balance tables, nutrition records, medication administration.
Medical notes	Systematic documentation of individual patient’s medical history, clinical findings, diagnostic test, progress, and medication.
Pathophysiology	Abnormal physiological processes associated with disease or injury.

Patient-reported outcome measures (PROs or PROMS)	Measure of the status of a patient’s health condition, health behaviour or healthcare experience that comes directly from the patient without interpretation by a clinician.
Perioperative period	The time-period from hospital admission until discharged. Which includes the three major phases of surgery; preoperative, intraoperative, and postoperative.
Physiological	Normal healthy functioning of the body.
Polypharmacy	The concurrent use of multiple medications for one person (typically four or more), which increases the likelihood of adverse outcomes such as, side effects from drug interactions, falls and mortality.
Postoperative nausea and vomiting (PONV)	Nausea, retching, or vomiting occurring in the postoperative period following anaesthesia as a side effect of surgery.
Postoperative period	The time-period from the finish of an operation until the patient is fully recovered.
Preoperative period	The time-period lasting from the decision to have surgery until the beginning of the operation.
Primary care	Care provided by GP practices, dental practices, community pharmacists and opticians. These services often provide the initial point of contact between the general population and the healthcare system.

Quality Improvement	‘The systematic use of methods and tools to try to continuously improve quality of care and outcomes of patients.’ (Alderwick et al., 2017)
Regional anaesthesia	Technique in which drugs are administered directly to the spinal cord or nerves to locally block incoming (afferent) and outgoing (efferent) nerve signals.
Social determinants of health	Circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.
Sequelae	An abnormal condition resulting from a previous disease.
Shared decision making (SDM)	‘Shared decision making is a collaborative process that involves a person and their healthcare professional working together to reach a joint decision about care.’ (NICE, 2021).
Somatization	The expression of psychological or emotional concerns as physical symptoms.
State anxiety	Unpleasant emotional arousal in face of threatening demands or dangers.
Trait anxiety	Stable individual differences in the tendency to respond with state anxiety in the anticipation of threatening situations.

Venous thromboembolism (VTE)	A condition in which the blood clots in a vein causing morbidity and mortality. The term includes both deep vein thrombosis (DVT), i.e., clots in the deep veins of the body and pulmonary embolism (PE), which occurs when a clot breaks free and enters the arteries of the lungs.
Ward round	Visits made by the medical team to each patient on the hospital ward under the care of the consultant, to monitor progress, clarify diagnoses, relevant problems and agree a management plan.

Chapter 1: Introduction

This chapter introduces the topic, rationale and scope of the research and outlines the thesis structure. Section 1.1 describes the research context. Section 1.2 discusses the motivation for conducting the study. Section 1.3 describes the aims and scope of the research. Section 1.4 considers the significance of the study. Section 1.5 explains the terminology used in the thesis. Section 1.6 outlines the structure of the thesis and provides a summary of the content of the remaining chapters.

1.1 Background

Enhanced recovery programmes (ERPs) are an increasingly recognised approach for organising and delivering care after major or complex surgery (Department of Health, 2010a; NHS England, 2022). They are also referred to as ‘fast-tack surgery’, ‘accelerated or rapid recovery’ or ‘Enhanced Recovery After Surgery’ (ERAS). The concept is based on the application of multiple distinct interventions applied throughout the entire duration of the perioperative (preoperative, intraoperative and postoperative) care period (Ljungqvist et al., 2017). ERPs represent an innovative and major change to the way in which surgical care is managed and delivered compared with conventional practices. ERPs comprise evidence-based care processes, meaning that current best evidence is used in making decisions about the care of individual patients (Sackett et al., 1996), replacing some needless or potentially harmful traditional approaches in surgical care with evidence-based practices. Interventions include preoperative patient education, minimally invasive surgical techniques, tailored anaesthesia and multimodal pain control and postoperative rehabilitation. When implemented together, these interventions have been shown to improve care quality and clinical outcomes, through the aggregation of marginal gains. That is, multiple, small improvements throughout the process collectively achieve a greater output (Durrand et al., 2014). The key outcomes of surgical ERPs include reducing the incidence of complications (Zhang et al., 2020), shortening length of hospital stay (LOS) (Greco et al., 2014), cost savings (Joliat et al., 2020) and improving quality of life (NICE, 2020a).

The concept of enhanced recovery originated in Europe in the 1990s in the specialism of elective colorectal surgery (Kehlet, 1997). Since then, the concept has spread globally across an expanding range of surgical disciplines, including gynaecology, urology, breast, heart and thoracic (chest), vascular and orthopaedics (ERAS, 2023). ERPs have been described as the 'gold standard' in many fields of planned surgical care (Slim & Kehlet, 2012). While initially focused on elective procedures, that is surgery planned in advance, there is now emerging evidence that the ERP approach may benefit patients undergoing emergency surgery (Ceresoli et al., 2023; McKechnie et al., 2023). Emergency surgery is the term used for operations performed immediately for serious or life-threatening conditions. From a policy perspective, adoption and spread of ERPs in the UK NHS is supported by national guidance (Department of Health, 2011; NICE, 2020b), and is endorsed by professional bodies (Khan et al., 2009; RCOA, 2022; RCP, 2013).

Due to the reported clinical and cost effectiveness of these programmes in surgery, there is growing interest in the wider application of ERPs into the speciality of acute internal medicine (NHS Improvement, 2012). Acute internal medicine (AIM) is the medical speciality that focuses on the assessment, investigation, diagnosis and management of adults who have an urgent or severe medical illness (Jones & Dyer, 2022). Persistent concerns have been raised about the quality and experience of care for this group of patients (Covinsky et al., 2003; Sullivan et al., 2013) mandating change and innovation. In some UK NHS hospitals, ERPs are being implemented in practice in this new setting, modelled on established programmes in surgery (NHS Improvement, 2012; Phillips & Horgan, 2014). The Royal College of Physicians (RCP) has recommended the application of ERPs for all hospital inpatients after acute medical admission (RCP, 2013, 2022a). To date, however, there has been little research examining ERPs implemented in medicine (NHS Improvement, 2012). Therefore, there is a clear need for research to be undertaken on this topic.

1.2 Motivation for the study

The challenge of delivering healthcare to an aging population (British Geriatrics Society, 2022) with increasing rates of chronic conditions and growing expectations of healthcare is resulting in a continual rise in acute medical admissions (Dean et al., 2022). There is also a recognised need to improve the care provision for patients admitted to NHS hospitals with acute medical illness (RCP, 2022b). Older people make up the largest proportion of hospital admissions (British Geriatrics Society, 2022) and improving care quality for this group is particularly important (Bridges et al., 2019). Hospitalisation for acute illness in older adults has been linked with clinical complications such as falls, delirium, infection, rapid decline in mobility and other functional decline (deconditioning), which may lead to permanent disability (Palleschi et al., 2018).

Innovations in healthcare practice are essential to meeting these challenges and to achieve high standards of care quality and safety (RCP, 2006). Policy makers have called for policy to focus on supporting staff and patients to redesign how care is delivered (BMJ, 2023). In recent years, various new initiatives have emerged within NHS hospitals to increase the effectiveness and quality of acute care (Dean et al., 2022). For example, Same Day Emergency Care (SDEC) pathways, which is the process of managing and treating acute patients on the same day, without the need for inpatient admission (RCEM and SAM, 2019); 'Hot' clinics, to rapidly assess primary care referrals threatening admission (Yousaf et al., 2012); models of consultant cover (Aziz et al., 2020); speciality care pathways for specific illnesses such as frailty (Jones & Dyer, 2022). ERPs are an example of such new ways of working implemented at the front line of care. ERPs are 'care pathways', that is, interventions for organising care processes and decision making for well-defined groups of patients, over a defined period (Schrijvers et al., 2012). Care pathways are complex (Rycroft-Malone, 2008) and operate in increasing complex healthcare systems (Plsek & Greenhalgh, 2001).The use of care pathways in healthcare services can lead to advantages and disadvantages for patients and healthcare professionals (Schrijvers et al., 2012). Therefore, before conventional practices are replaced and resources are devoted to them, new initiatives require evaluation.

The difficulties of introducing innovations into routine practice in healthcare are well known (Grol & Grimshaw, 2003; Kelly & Young, 2017). Subdisciplines of implementation science and knowledge mobilisation have emerged in response to this persistent challenge (Sanders & Haines, 2006). Interventions often fail to achieve expected improvements. One problem is often a lack of understanding of how interventions work (Weiss, 1997). Medical Research Council (MRC) guidance argues that a good theoretical understanding of how interventions cause change is needed to design and apply more effective interventions (Skivington et al., 2021). Davidoff et al. (2015) argue that the explicit application of theory can facilitate the development and improvement of healthcare interventions and maximise the transfer of learning between differing project contexts.

A key concern in replicating surgical ERPs, is how well the approach might translate to acute medicine, where there are few defined procedures, and the presentation of the same medical condition may vary from less severe to life threatening (Kehlet, 2013). Furthermore, medical patients are characterised by multimorbidity, clinical complexity and non-specific diagnoses. Understanding the mechanisms that underpin recovery in ERPs remains ‘a black box phenomenon’ (Gaudillière et al., 2014). Therefore, it has been suggested that research in acute medical ERPs should commence with ‘prospective hypothesis-generating studies’ (Kehlet, 2013).

To date, previous research has predominantly focused on demonstrating the safety and effectiveness of ERPs in elective surgery, using individual randomised control trials and outcome focused, aggregative systematic reviews and meta-analyses (Neville et al., 2014; Nicholson et al., 2014; Zhang et al., 2020). A key focus has been the impact of programmes on physiological and economic outcomes, such as reduced clinical complications, shortening LOS and increased efficiency. However, recovery is a multidimensional concept and can be viewed from different perspectives (Lee, Tran, et al., 2014). Therefore, as well as clinically driven aspects, some authors have noted psychological and social dimensions of these programmes, describing ERPs as a ‘holistic’ form of care (Phillips & Horgan, 2014). Significantly less research attention has been given to examining ERPs from a patient perspective (Rydmark Kersley & Berterö, 2021; Wang et al., 2023). Few studies of ERPs in surgery have considered the viewpoint of carers (Rymaruk et al., 2013).

Reviews of studies have shown implementation of ERPs in practice to be challenging (Stone et al., 2018). Studies highlight inconsistencies in staff and patient adherence to programmes (Gustafsson et al., 2011). This suggests that previous research approaches may not be sufficient to unravel the complexities of ERPs, and further investigation and greater understanding of how and why they work in practice is needed.

1.3 Aim and scope of the study

The need for research into ERPs in medicine was noted in section 1.2. The current literature on this topic is underdeveloped, consisting of fragmented grey literature generated by practitioners implementing programmes. Which provides practical insights rather than academic, as programmes have not been researched. In addition, areas in the surgical literature are underdeveloped. The surgical literature is dominated by studies evaluating the effectiveness of programmes and offers little theoretical insight into the underlying social and psychological causal mechanisms and contextual factors associated with change. These areas provide the basis for the research aim, which is, to understand how ERPs in medical settings work for whom, under what circumstances and why?

The research questions addressed in this thesis are:

1. What are the key characteristics and processes of ERPs in medicine?
2. What are the underlying causal mechanisms of change in medical ERPs?
3. How do contextual factors influence (enable or inhibit) the mechanisms?
4. What are the outcomes (expected and unexpected) of medical ERPs?

This research uses realist evaluation (Pawson & Tilley, 1997; Wong et al., 2016) to develop theoretical explanations (programme theories) underpinning ERPs for patients admitted to hospital with acute medical illness. The study focused on a single in-depth case study at an NHS acute hospital in England, and covered the staff, adult patients admitted to hospital with acute medical illness and their carers'. This generated a rich dataset that I became intimately familiar with. The scope of the study was limited due to COVID 19 access and travel restrictions.

1.4 Significance of the study

Improving recovery in acute medical care in hospitals is a significant challenge, particularly in the current context of an aging population and increasing demand. There is a need for greater insight into how ERPs may benefit patients in this specialty. This research seeks to address this, by exploring the mechanisms through which programme interventions are thought to lead to intended outcomes.

To the best of my knowledge, this is the first study to investigate ERPs in medicine. This research contributes to the existing body of knowledge in the field of enhanced recovery through the development of fourteen new theories in this setting.

The findings impact and benefit different stakeholders, including policy makers, hospitals, and individuals. The programme theories developed through this research indicate areas for consideration when implementing and designing future ERPs. Generalisable programme theory, transferable to other contexts, may guide the implementation of ERPs at other NHS hospitals.

1.5 Structure of the thesis

This thesis consists of eight further chapters, as illustrated in Figure 1.

Chapter two discusses my philosophical stance and introduces and justifies the realist methodology chosen for the study. I provide details of the study design and methods used to collect and analyse data. The research setting and the ERP under investigation are introduced. I also consider ethical issues, reflexivity, and my position as a researcher.

In **Chapters three and four,** I situate the current study in existing literature. I present realist reviews of the substantial elective surgical literature, where ERPs originated (Chapter three) and the underdeveloped acute medical literature (Chapter four), combining insights from both reviews to generate initial explanatory theories about how and why ERPs work.

Chapter five describes how the initial theories were further developed, through documentary evidence and realist interviews, which explored, clinical, management and administrative staff experiences of an implemented ERP.

Chapter six describes the process of prioritising these theories, to focus the subsequent testing of the theories at the hospital site. This included a card-sorting exercise to elicit practitioner perceptions about the importance of the various theories in generating programme outcomes.

Chapter seven presents the findings from ethnographic fieldwork undertaken at the hospital site, to test and refine the prioritised theories. I describe the two clinical settings, the methods chosen, and present the findings related to each of the prioritised theories.

Chapter eight contains a discussion of the key findings of the whole study in the context of existing literature. I consider current practice, and reflect on the conduct of my study, acknowledging strengths and limitations.

Finally, **Chapter nine** contains the overall conclusions, drawn from the preceding discussion section. The contribution to knowledge is discussed. The implications of my findings for researchers, practitioners, and policy makers are briefly examined. The chapter concludes by making suggestions for further research.

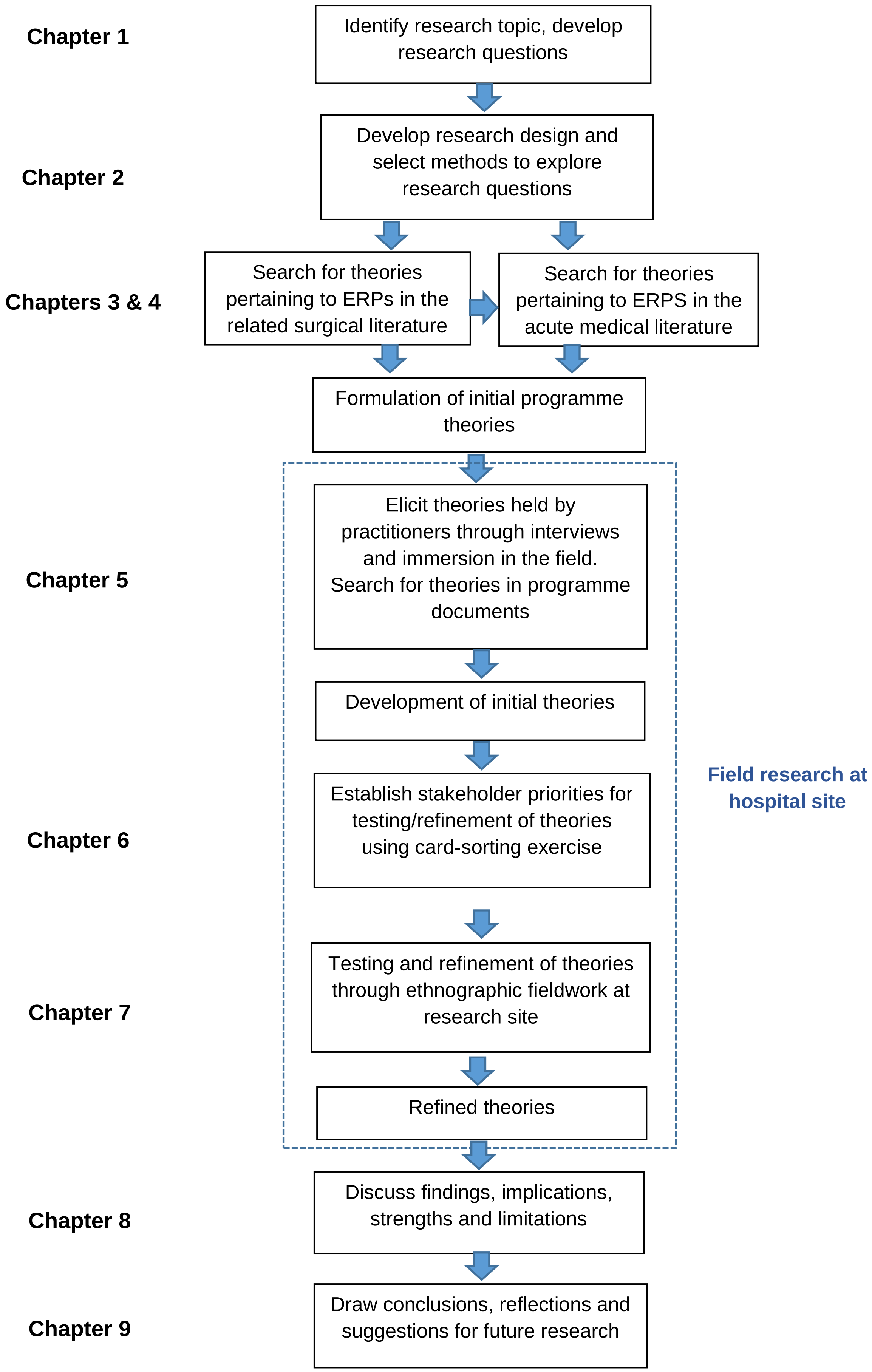


Figure 1: Overview of the research process

1.6 Terminology used in this thesis

In this thesis, groups of relevant individuals are defined: Patients, carers, and staff. I use the term ‘patient’ to refer to people who access and receive health and care services. I acknowledge arguments against the use of this word due to connotations of passivity, suffering and inequality (Neuberger & Tallis, 1999). However, alternative labels such as ‘service user’, ‘client’ and ‘consumer’ that may be applicable, are not widely accepted, and may be less preferable to healthcare recipients (Costa et al., 2019). Furthermore, ‘patient’ was the term used by staff at the study site to refer to the people for whom they cared.

Throughout the thesis, I have used the term ‘carer’ to describe partners, children, relatives, and friends who provided general emotional and limited physical support for patients and accompanied them to hospital. Principal carers are distinguished as individuals providing personal care for patients on the wards who may need to be present for feeding, documentation, or to comfort patients with cognitive impairment.

Employees of the hospital are referred to collectively as ‘staff’. I have used the term ‘practitioners’ when referring more specifically to staff who were directly involved in developing or delivering the ERP interventions.   Generic names such as, manager, administrator, nurse, therapist, and doctor were also used to distinguish between professional groups rather than individual job titles to avoid identification of individuals.

There is a lack of consistency in the use of terminology when referring to hospital settings that care for acute medical patients (Jones & Dyer, 2022). While ‘Acute Medical Unit’ (AMU) is the term recommended in national reports (RCP, 2007), these units were known locally as ‘Emergency Assessment Units’ (EAUs), and therefore, I use this term throughout the thesis. For the same reason the term ‘ambulatory care’ rather than ‘Same Day Emergency Care’ (SDEC) was used for the area where patients were managed in an ambulatory setting i.e., as outpatients. I have used the terms accident and emergency (A&E) and emergency department (ED) interchangeably in this thesis, as both were used by participants.

For the purposes of the thesis, I use the term ‘ward routines’ as shorthand for the typical daily activities carried out by staff on the wards, including mealtimes, handover meetings, ward rounds, board rounds and assisting with personal care. The term ‘interaction’ is used to describe the act of clinical treatment and talking between staff, patients, and their carers’.

De Weger et al. (2020) noted that in realist studies the terms interventions, strategies and programme are used and interpreted differently, which means there is a risk of the terms being conflated. Therefore, it is important to clearly articulate how they are conceptualised in this thesis to distinguish them from one another:

- Interventions. The distinct techniques and activities that comprise programmes.
- Programme. An organised collection of interventions or strategies designed to achieve a specified aim.
- Strategies. Plans of action to achieve an overall aim.

I use the term ERP to refer to generic enhanced recovery programmes in surgery and medicine. I use the term ERM programme to refer specifically to the ERP implemented at the case site.

The next chapter outlines the philosophical assumptions underpinning the study, explains the methodology adopted and the ethical considerations of the research.

Chapter 2: Methodology

This chapter describes my philosophical perspective in relation to the phenomenon under study, explains and justifies the methodology and describes the ethical considerations of this study. The aim is to show well thought out methodological choices and processes, so that knowledge claims are both clear and credible.

Section 2.1 is concerned with the philosophical perspective of the research. Alternative philosophical orientations of research are discussed, and realism is presented as most resonant with my ‘world view’. The implications of paradigm traditions and the various methodological approaches derived from them for health research are also discussed. Section 2.2 discusses possible approaches to evaluation research. Section 2.3 introduces Realist Science as the methodological framework and provides justification for its adoption. Key realist concepts are summarised and the implications of their application in this research are discussed. Section 2.4 gives an overview of the four-stage research design. The rationale for the use of a case study and ethnographic approach is given, and the methods of data collection and analysis are briefly described. Section 2.5 addresses the ethical considerations associated with the research. Section 2.6 focuses on reflexivity and my position as a researcher. Section 2.7 provides a summary of the chapter.

2.1 Philosophical stance

An understanding of the research philosophy that underpins a research project is important in that it contains core assumptions that will directly influence research design choices as well as the interpretation of findings (Easterby-Smith et al., 2021). There are many differing philosophical viewpoints about the nature of reality and knowledge. The term paradigm is used to describe a ‘world view’ or set of beliefs held by a researcher that guides their work (Guba & Lincoln, 1994). Alternative paradigms rely on different ontological and epistemological assumptions and offer different approaches to conducting research (Saunders et al., 2023). Ontology refers to a researcher’s assumption about what ‘ultimately’ exists and how ‘things that are’ relate to one another (Hofweber, 2017). Epistemology relates to the researcher’s assumptions about what constitutes knowledge and the limits and sources of knowledge (Steup 2016). The distinction between paradigms is very clear at a philosophical level (Burrell & Morgan, 1979). However, in practice, most researchers do not ascribe to all aspects of a paradigm in its purest form, but more of an approximation of these positions (Easterby-Smith et al., 2021). Moreover, since all paradigm assumptions are speculative, it is not possible to establish the 'ultimate truthfulness' of paradigms. It is only possible to argue the relative utility of a particular position in addressing different types of research questions (Guba & Lincoln, 1994).

2.1.1 Discussion of major philosophical perspectives in research

Realism is the underlying philosophy for this thesis, as it resonates with my 'world view'. It is therefore discussed in detail below. Realism can be thought of as occupying the paradigmatic middle ground between positivism and constructivism (Wong et al., 2013). Therefore, to provide a context for this position, the philosophical assumptions underlying the two alternative viewpoints are also briefly described.

Positivism

The positivist paradigm is based on an objective ontology i.e., the view that there is an objective 'real' world which is assumed to exist externally to the researcher. From a positivist perspective, knowledge of 'how things are, or how things work' can only be acquired through direct observation of what is available to the senses. Positivist studies seek to uncover and explain 'true' reality. Knowledge of the way things are is summarised as generalisations, known as scientific 'laws' (Bell et al., 2022). Epistemologically, the researcher and the object of the investigation are assumed to be independent entities and the researcher can study the object without affecting, or being affected by it (Guba & Lincoln, 1994). Positivism focuses on scientific empiricist methods and is typically associated with a deductive approach and quantitative research, which focuses on the empirical testing and verification of hypotheses (Easterby-Smith et al., 2021).

Constructivism

Constructivism is an opposing philosophical perspective to positivism. In contrast to the objective ontology of the positivist paradigm, constructivism assumes a reality that is socially constructed (Easterby-Smith et al., 2021). This position assumes multiple and sometimes conflicting social realties perceived by individuals, who interpret situations in different ways according to their own view of the world (Crotty, 1998). The researcher seeks to understand the subjective reality of individuals to be able to make sense of, and understand, their motives, actions and intentions in a way that is meaningful (Saunders et al., 2023). Constructivist methodology entails the understanding of phenomenon from an individual's perspective, investigating interaction among individuals as well as the historical and cultural contexts within which people exist (Cresswell, 2007). Constructivism is traditionally associated with inductive, theory-building research (Easterby-Smith et al., 2021). Epistemologically, knowledge is co-constructed with participants, accessed directly through discussion and interactions. The role of the researcher in studies is acknowledged and researchers take steps to 'position themselves' as interpretation is shaped by their own experiences and background.

Realism

Realism is not a single unified philosophy (Maxwell, 2012), but encompasses many different forms (Putnam, 1987). In social science there are two subsets of realism; Scientific Realism (Pawson, 1989), also known as Empirical Realism, Emergent Realism, Analytic Realism, and Middle-range Realism (Pawson, 2006), and Critical Realism (Archer et al., 2013; Sayer, 2000). While there are significant similarities between critical and scientific realism, there are also important differences between these positions. This has been a subject of much debate (Pawson, 2016; Porter, 2015, 2016). Both have significance for the evaluation approach adopted for this research.

Philosophic Realism is the ontological belief that there is a reality independent of the human mind (Burrell & Morgan, 1979; Sayer, 2000). That is, 'entities exist independently of being perceived or independently of our theories about them' (Phillips, 1987). Most contemporary realists, however, are epistemological constructivists; they believe that our understanding of this world is inevitably a construction from our own perspectives and standpoints (Westhorp, 2014). Therefore, knowledge is partial and there may be multiple viewpoints that capture real aspects of the world (Maxwell, 2012). Realism in ontology and constructivism in epistemology are considered compatible due to the possibility of testing alternative theories against evidence, to support or challenge them (Crotty, 1998).

Realist ontology proposes that reality is stratified into three layers: the empirical, actual, and real (Bhaskar, 2008). The empirical layer is a domain which can be experienced or observed and is often measurable. The actual layer includes phenomena or events that exist regardless of whether they are observed or not (Sayer, 2000). The real layer refers to the deeper level where unseen forces or causal mechanisms that generate events exist.

A central idea of realism, which has implications for the conduct of social research, is causation. Realism is based on a generative understanding of causation rather than a successionist view of causation (Bhaskar, 2008). A successionist view of causation, derived from David Hume’s analysis of causality (Hume, 2014), is based on observable regular relationships between ‘independent’ variables (that can be controlled or manipulated) and ‘dependent’ variables (the outcome of interest). In this view, causation is established if the relationship is confirmed across multiple cases. It is assumed that it is not possible to directly perceive causal relationships, therefore, we can have no knowledge of causality beyond the observed regularities in association of events (Maxwell, 2012). In contrast, the realist concept of causality assumes outcomes are generated by underlying processes or mechanisms which operate (or not) according to contexts in which they occur (Wong et al., 2017).

2.1.2 Paradigms and health research

Researchers in the field of health research have tended to embrace a specific paradigm, with the commonest division between the positivist and the constructivist positions (Broom & Willis, 2007). Ensuing methodological debate around the contrasting epistemological and ontological positions that characterise qualitative and quantitative methods, and the impossibility of translating one into another (Paradigm incommensurability), have been dubbed ‘the paradigm wars’ (Gage, 1989). Differences in paradigm assumptions have important implications for the practical conduct of studies as well as the interpretation of findings. Traditionally, health research has been dominated by positivistic ideas (Broom & Willis, 2007). Experimental and quasi-experimental approaches epitomised by the ‘gold standard’ randomised controlled trial (RCT), have prevailed, addressing questions about the effectiveness of health care. These studies focus on establishing objective scientific facts about disease and the body and are based on the biomedical model of illness. The patient is seen as ‘a physical/mechanistic entity that can be measured, controlled and ultimately manipulated’ (Broom & Willis, 2007). This approach is a valid and useful framework within which to answer certain research questions. However, the literature increasingly recognises that the associated experimental design research methods are ‘inadequate tools for studying complex, unstable, non-linear social change’ (Berwick, 2008). To engage with the complexity of health care interventions, researchers are increasingly incorporating social science methods into their studies (Pope & Mays, 1995), and an increasing diversity of research methods is now evident. Broom and Willis (2007) suggest that health researchers are increasingly pragmatic, ‘choosing the best means to answer a research question rather than being explicitly philosophically driven’. The complementary use of both quantitative and qualitative methods in mixed methods approaches is now common (O'Cathain et al., 2007; Tashakkori & Teddlie, 1998).

2.2 Evaluation approaches

A universal definition of evaluation is difficult to provide due to the diversity of the disciplines in which it is used (Gullickson et al 2019). Diverse definitions of evaluation include: ‘applied research’ (Pawson & Tilley, 1997); ‘determination of merit, worth and value’ (Shriven 1991); ‘sense making towards the goal of social betterment’ (Mark & Henry, 2006). How to conduct an evaluation is the subject of much debate (Patton, 2018). Many alternative approaches to evaluation are discussed in the literature and several typologies have been presented (House, 1978; Stufflebeam & Webster, 1980). In an overview of the history of evaluation research from a methodological perspective, Pawson and Tilley (1997) identify four key perspectives on evaluation, the experimental, pragmatic, naturalistic and pluralist, which are discussed briefly below.

Experimental evaluation, based on principles from writers such as Campbell and Stanley (2015), is a dominant methodological paradigm (Chen & Rossi, 1983). This approach is based on the logic of scientific experimentation and a ‘successionist’ theory of causation, drawing on a positivist perspective and techniques of the natural sciences. Experimental evaluations, such as the RCTs predominantly assess the impact and effectiveness of interventions, but do not consider interactions with the environment in which programmes are delivered. Therefore, they may be less appropriate for evaluating of complex healthcare programmes which are context dependent (Minary et al., 2019).

An opposite perspective is the constructionist approach, termed ‘fourth generation evaluation’ by Guba and Lincoln (1989). This approach has a social focus and is underpinned by an ontology that defines the world as being created through the meanings of those within it. The focus of the approach is on the internal dynamics of programmes and the views of stakeholders. It contends that programmes work through an exchange of meaning between the researcher and the programme participants. Scholars have criticised this approach arguing that programmes consist of ‘more than the sum of people’s beliefs, hopes and expectations’ and that failing to appreciate features of programmes that are independent of individuals reasoning, such as, power asymmetries and institutional features is ‘unrealistic’ (Pawson & Tilley, 1997).

Pragmatic evaluation has a focus on practical utility and advocates a more pluralist approach to evaluation (Cronbach & Shapiro, 1982). The best available research methods are utilised to solve problems and address decision maker’s objectives. Particular attention is given to understanding the processes of the programme that may have contributed to the outcome to make evaluation findings generalisable and transferrable (Crane et al., 2019). The pragmatic approach has attracted criticism for being’ fragmented lacking a developed philosophy’ (Pawson & Tilley, 1997).

Theory-based or theory-driven evaluation is a commonly used approach in the study of social interventions (Astbury & Leeuw, 2010; Chen & Rossi, 1983;

Pawson & Tilley, 1997; Weiss, 1997). There are many approaches within this school and no agreed classification system. Prominent approaches include Theories of Change (Fulbright-Anderson et al., 1998) and Realist Evaluation (Pawson & Tilley, 1997). There are important differences between these approaches but common to all approaches in this school is the idea that social programmes are 'hypotheses about social betterment' (Blamey & MacKenzie, 2007). The focus of the evaluation is on 'unpacking the black box', of a programme, so that the underlying theory or assumptions about how a programme produces its effects can be investigated (Astbury & Leeuw, 2010). The aim of the evaluation is to understand the theories underpinning programmes and test whether they are operating as expected and produce the desired outcomes.

2.3 Realist Methodology

In the previous chapter, I identified a need for greater understanding of how and why and under what circumstances ERPs produce their effects. On this basis realist evaluation was selected as an appropriate methodology, as the approach is designed to answer explanatory questions, and seeks to clarify how a programme leads to outcomes (Pawson & Tilley, 1997). ERPs are complex care pathways with multiple interventions delivered in a range of settings by various healthcare professionals. Programmes are implemented in complex healthcare systems. This complexity needs to be reflected in the choice of research evaluation approach.

Realist evaluation has been shown to be useful in dealing with complexity (Pawson & Tilley, 1997) and is increasing used in health service research (Marchal et al., 2012; Quintans et al., 2020). Furthermore, Westhorp (2014) states that realist evaluation is particularly suitable for evaluating new initiatives or programmes that seem to work, but by what means and for whom, is not yet known. Pawson (2013) argues that realist evaluation is particularly appropriate for evaluations of interventions such as health programmes with social contingency, that is, human agency and reasoning is involved in the success or failure of programmes.

2.3.1 Realist evaluation and realist review

Realist evaluation (Pawson & Tilley, 1997) and realist review (Pawson, 2006) are two specific forms of realist research, which focus on understanding social programmes and policies. Realist evaluation is an applied theory driven approach to evaluation focusing primarily on primary data, such as interviews, fieldwork observations, focus groups and documentary analysis. Realist review, also known as realist synthesis, is a theory-driven approach to literature review and synthesis of secondary evidence. Realist evaluations are often used in combination with realist reviews. In this study, realist review was used within the realist evaluation to develop programme theories, which were then tested and refined through primary data collection.

Realist evaluation developed by (Pawson & Tilley, 1997), is a particular type of theory-based evaluation grounded in the philosophy of critical realism and the social sciences (Archer et al 1998; (Archer, 1995; Sayer, 2000). Realist evaluation attempts to open the ‘black box’ of an intervention by uncovering how programs bring about change in distinct contexts (Astbury & Leeuw, 2010). Realist researchers understand programmes as ‘theories incarnate’ (Pawson & Tilley, 1997). The product of a realist evaluation is explanatory theory explaining how a programme works, for whom, in what circumstances, and why? (Wong et al., 2016). According to realist researchers, programmes alone do not generate outcomes, rather outcomes are brought about through individuals’ reasoning and responses to the resources, ideas, and practices (opportunities for change) that those programmes introduce. Whether these underlying processes or ‘mechanisms’ that bring about change operate or not, depends on enabling or inhibiting contexts in which they are delivered (Pawson & Tilley, 1997). Therefore, programmes are believed to work in different ways for different people in different situations (Wong et al., 2016). Realist evaluation is a logic of inquiry or general research strategy rather than a strict prescriptive procedure of how to conduct a study (Pawson, 2013; Pawson & Tilley, 1997). In realist evaluations plurality of methods is encouraged.

Realist review is a form of systematic literature review which focuses on explanatory theory (Pawson, 2006). Realist review focuses on drawing together and synthesising evidence regarding how and why an individual or class of complex social programmes change behaviour (Pawson, 2006). The aim of a realist review is to build theoretical explanations about how and why a programme is supposed to generate outcomes (the programme theory) (Pawson, 2002; Pawson, 2006; Pawson et al., 2005), conceptualised in realist terms as context-mechanism-outcome configurations (CMOC). A key difference between realist reviews and conventional systematic reviews, which focus on reporting programme effectiveness, is the ability to uncover, not just what works, but what works for whom and under what circumstances and why? (Pawson et al., 2005). Relevant evidence can be sought from a wide range of sources, including academic and grey literature, and programmes that may work in similar ways.

2.3.2 Key concepts in realist methodology

Four connected concepts are used in realist evaluation for explaining and understanding programmes: ‘context’, ‘mechanism’, ‘outcome’ and ‘context-mechanism-outcome’ configurations (Pawson, 2006; Pawson et al., 2005).

Mechanism

As noted earlier, realism offers a distinct understanding of the nature of causation. For realists, causation is not understood on a model of linear successions of events, instead things that we experience or can observe are caused by deeper usually non-observable processes. The underlying causal process is known as a ‘mechanism’. Mechanism refers to the ways in which any single intervention, or set of them, bring about change. Mechanisms can be defined in many ways (Astbury & Leeuw, 2010). From a realist perspective, mechanisms describe the ‘underlying entities, processes or structures which operate in particular contexts to generate outcomes of interest’ (Astbury & Leeuw, 2010). Within Bhaskar’s (2008) conception of a stratified reality (i.e., empirical, actual, and real), mechanisms are in the ‘real’ layer, so they are often hidden. Mechanisms are latent, that is, in a state of ‘non-manifested existence’, until they are activated. ‘Activation is the move from non-manifested existence to manifested existence, or from the real to the actual and empirical’ (Jagosh, 2020). Pawson (2006) describes mechanisms as the ‘engines of explanation’ and the ‘pivot’ around which realist evaluation revolves. Identifying mechanisms enables theorising to surpass describing whether a programme works or not, to understanding why, for whom, and under what circumstances this might be so (Pawson, 2006; Pawson & Tilley, 1997). Programmes may have multiple interventions, each with their own mechanisms, which may interact with one another (Lacouture et al., 2015).

Pawson and Tilley (1997) argue that social programmes work by changing the decisions of the recipients. Therefore, mechanisms refer to the cognitive or emotional processes in the minds of participants when they engage with a programme. They define mechanisms as consisting of the resources offered by the programme and the participant's reasoning in response to those resources. Mechanisms are often conflated with a programme's interventions. However, although these concepts are connected, they are not the same and operate at different levels of abstraction. Mechanisms refer to how interventions bring about change, through the reasoning and responses of individuals, whereas interventions are seen as deliberate, planned activity of programme developers, which provide opportunities that individuals can choose to take, to bring about change (Lacouture, 2015).

A central idea to a realist understanding of mechanisms is that they are sensitive to context. A programme that achieves 'success' in one setting may 'fail' (or only partially succeed) in another setting because the mechanisms needed for success are activated to different degrees in different contexts. Pawson and Tilley (1997) identify two different types of mechanism; first, problem mechanisms that are already present and established, which sustain the problem and are therefore the focus of a programme. Second, change (blocking or solution) mechanisms that are activated by the programme, that are capable of overturning, countering, or transforming problem mechanisms. Westhorp (2018) argues that mechanisms operate at every level of all systems and offers several other conceptualisations of mechanisms at other levels of systems, such as forces, interactions and feedback or feedforward processes.

Another key feature of mechanisms is that they generate outcomes, which may manifest over different timescales (i.e., instantaneously or over many years) (Westhorp, 2018). In their seminal work, Pawson and Tilley (1997) suggested that mechanisms are 'triggered' or 'fire' in specific circumstances to create outcomes. More recently, Dalkin et al. (2015) have argued that the operation of mechanisms should be thought of as a continuum of activation like a ‘dimmer switch’. This better represents the varying degrees of recipients reasoning and in turn a graduation of outcomes.

The Pawson and Tilley (1997) conceptualisation of a mechanism was useful in my research, because ERPs involve human reasoning and aim to change the decision-making of the recipients. Acute hospital admission affects individual patients, but also their carers’, hospital staff, and the wider healthcare system. Furthermore, recovery is a multidimensional concept, incorporating physiological, psychological, and socio-economic dimensions (Allvin et al., 2007). Therefore, the thesis explores mechanisms at different levels, the material (e.g. the interaction of physical or pharmacological treatments on biological systems); the individual and relational level (e.g. the individual or collective reasoning or reactions of individuals to the available resources or opportunities offered by the programme that lead to behaviour change); organisational level (systems, policies, practices and norms); institutional level (i.e. wider social environment, political system and economic factors).

Context

Realist research emphasises the importance of context in understanding how underlying causal mechanisms produce outcomes (Wong et al., 2016). Context is seen an integral part of programmes rather than unwelcome noise or a confounding variable to be controlled for (Davidoff, 2009). Context describes features of the situation into which programmes are introduced, which influence the operation of programme mechanisms (Pawson & Tilley 2004). The success or failure of programme mechanisms of change is contingent on the contextual conditions that exist (Pawson & Tilley, 1997). Context is a difficult concept to define and operationalise, often simplified to the setting into which programmes are introduced or conflated with the programme mechanism (Greenhalgh & Manzano, 2022). Numerous definitions of context can be found in the literature. Wong et al. (2013) state that context refers to the characteristics of individuals such as age, beliefs and personal history, social relationships, social rules, norms, and availability of resources that affect how programmes work. In a recent review of the conceptualisation and application of context in realist research, Greenhalgh and Manzano (2022) identified two central ‘narratives’ in the way context was conceptualised. Context can be seen as static, tangible, observable features (e.g., place, people, things) that facilitate or block mechanisms at one moment in time. Alternatively, contexts can be viewed as ‘relational and dynamic features’ that shape mechanisms over time at different levels of systems. They argue that the second conceptualisation is more in keeping with realist research, because contexts and mechanisms are interconnected, and therefore contexts should be thought of as intrinsically involved in causal process and not as a separate entity.

Contexts operate at all levels of systems, interacting and influencing each other (Greenhalgh et al., 2017). Pawson (2013) describes context as ‘an endless source of complexity’ and classifies it into four contextual layers (individuals, interpersonal relationships, institutional settings, and infrastructure) which are complicated, intertwined and in motion. Contexts are also time-sensitive, that is there is an evolving and dynamic interplay between contexts and programmes over time (Greenhalgh et al., 2017).

Outcome patterns

Outcomes in realist research are the intended or unintended changes resulting from a programme, produced by causal mechanisms in a certain context (Westhorp, 2014). Programmes can produce multiple outcomes, which may be positive or negative, vary in importance for different stakeholders, and can be short, medium, or long-term. Outcomes can be defined as proximal, intermediate, or final in relation to the progression of change. Examples of ERP outcomes include improved physical function, reduced readmissions, shorter LOS, and improved patient experience.

Realist evaluations seek to explain patterns in the outcomes of programmes known as ‘demi-regularities (Pawson, 2006), which are semi-predictable patterns which can be attributed to differences in the contextual factors between settings (Jagosh et al., 2012).

Context-mechanism-outcome configuration (CMOC)

Context-mechanism-outcome configuration (CMOC) is the heuristic used in realist research to generate causal explanations. A CMOC consists of a hypothesised mechanism (M) by which an intervention produces different patterns of outcomes (O) under different contexts (C) (Pawson, 2006; Pawson et al., 2005). A CMO configuration may relate to the whole programme, or to a specific part only. One CMO may be embedded within another, or configured in a series (ripple effect), in which an outcome of one CMO can become the context in a subsequent CMO (Jagosh et al., 2015).

Realist theories are typically represented in the format proposed by Pawson and Tilley (1997): Context + Mechanism = Outcome (C+M=O). However, there is debate about the conceptualisation of these constructs. Dalkin et al. (2015) have suggested a development of the formula, which disaggregates a mechanism's resources and reasoning, whereby resources offered by the intervention (M/resource) are introduced into a context (C), which together change participants' reasoning. This alters the behaviour of participants (M/reasoning), which leads to outcomes (O):

$$\text{M (Resources)} + \text{C} \rightarrow \text{M (Reasoning)} = \text{O}.$$

They suggest this can help researchers consider both concepts (resources and reasoning) and to distinguish between context and mechanism, which has been shown to be challenging (Jagosh et al., 2013; Marchal et al., 2012).

Other authors have incorporated additional explanatory factors into the original CMO configuration. For example, SCMO (strategy, context, mechanism outcome), CIMO (context, intervention, mechanism, outcome), ICAMO (intervention, context, actor, mechanism, outcome) (De Weger et al., 2020).

Because I wanted to develop an in depth understanding of the individual and interpersonal mechanisms in ERPs, I chose the Dalkin et al. (2015) formula as an appropriate configuration type to look at how resources introduced through ERP interventions into a pre-existing context altered recipients reasoning and reactions, leading to outcomes.

Types of theory

Realist evaluation assumes programmes are underpinned by theories about what might cause change (Pawson & Tilley, 1997; Wong et al., 2016). Theories rather than programmes, are the unit of analysis (Pawson & Tilley, 1997). However, there are different ideas of theory, which exist at different levels of abstraction (Wong et al., 2013).

The term ‘Grand theory’ introduced by Charles Wright Mills, refers to abstract and general explanations of society which may hold true universally over different social cultures and time periods, such as Marxism and Functionalism.

‘Middle range’ theory (Merton, 1968) is theory that involves abstraction, but has a closer relation to data than grand theory. It is specific enough that testable propositions can be derived from it, but general enough to be applied to a family of programmes (Wong et al., 2013). The outcomes of realist evaluation are typically framed as middle range theory. ‘Substantive theories’, which are existing theories that operate in different disciplines, such as Allbert Bandura’s ‘social learning theory’ may also be drawn on in a realist evaluation to develop an initial theory, or identify mechanisms and features of contexts (Wong et al., 2013).

In realist evaluation ‘programme theories’ explain how and why a programme is intended to work (or does not work) in practice and are expressed as context-mechanism-outcome configurations (CMOC). The term ‘initial rough theory’ (IRT) is used to refer to the initial thoughts and ideas about how and why a programme is supposed to work, which guide a realist review or evaluation (Wong et al., 2013). A ‘refined theory’ is the product of a realist evaluation. Aspects of the IRT are refined throughout the research process, which may mean clarifying aspects of the contexts into which a programme is introduced, or the population groups for which the programme works, or does not work, or a more sophisticated understanding of how particular mechanisms operate over what timeframe (Wong et al., 2013). A ‘rival theory’ shows how the same programme resources can lead to different mechanism responses and outcomes (Jagosh et al., 2022). Contrastive theories explain how a programme’s resources are anticipated to work differently in comparison with long-standing practices (Jagosh et al., 2022).

2.4 Research design and methods

A research design can be thought of as a plan organising research activity in ways that are most likely to achieve the research aim (Easterby-Smith et al., 2021). There are many choices that need to be made when developing a research design, many of which are allied closely to different philosophical positions. An awareness of this can ensure that different elements of the research design are consistent with one another (Easterby-Smith et al., 2021).

This study comprised a sequential application of the realist approach, that is, realist reviews of the existing published literature, followed by the generation of primary data, using an exploratory case study. Ethnography was used as the methodological approach to the fieldwork.

The study followed the evaluation research stages outlined by (Pawson & Tilley, 1997) and adhered to the RAMES II reporting standards for realist evaluations (Wong et al., 2016). The presentation of the reviews follows the RAMESES publication standards (Wong et al., 2013).

In realistic evaluation appropriate research methods are determined according to the subject of the research and the questions to be answered (Pawson & Tilley, 1997). To address the research questions in this study, a multi-method approach to data collection was taken, to capture the complexity of the case study and allow different perspectives to be obtained about the ERP being studied. The methods are briefly described below, but for the convenience of the reader, they are explained in greater detail in the relevant chapters later in the thesis.

2.4.1 Case study approach and setting

My research was focused on evaluating a specific healthcare quality improvement programme implemented in a new setting. Therefore, I felt it was necessary to immerse myself in a hospital setting to understand, develop, test and refine programme theories. Yin (2014) argues that, using case studies is appropriate when investigating a contemporary phenomenon within its real-life context ‘especially when the boundaries between phenomenon and context are not clearly defined’ (Yin, 2014).

Case studies are a common approach to research within realist research (Riege, 2003). Using a case study design to address the research questions was appropriate because they are particularly suited to unpacking the complexities of health service systems, which are characterised by continual and rapid change (Keen & Packwood, 1995). A case-study is also considered useful for generating insights into less mature topics, to clarify the key constructs and develop new frameworks (Meredith, 1998). Moreover, the case study allows researchers to develop propositions that can be used as a platform for future research (Eisenhardt & Graebner, 2007).

I used a single embedded case study design. Selection of the case site was both purposeful and pragmatic (Patton, 1990). At the time of the study, from amongst several NHS hospital trusts actively using ERPs in medicine, I identified two programmes which were sufficiently well established to study. I had intended to involve both organisations, however, at one trust, despite repeated attempts, it was not possible to arrange a meeting with the senior management to gain access. Consequently, the study was conducted at one case site. The selected NHS foundation trust is an integrated health and care organisation (ICO), providing hospital care, outpatient services, social care, and community health services. An ERP in medicine known as 'The ERM' was launched at the acute district hospital in 2013, for patients admitted with acute medical illness. Patton (1990) suggests that 'information richness' is an important factor in choosing a case site. I chose this programme because it was well established and had been at the vanguard in innovating and developing medical ERPs in practice. Therefore, it held potential for learning of central significance to the research questions. This hospital was also geographically close to my home. Yin (2014) emphasises that in single-case design it is essential to maximise the access needed to collect the case study evidence.

Two embedded cases were included, an emergency assessment unit (EAU), and a general medical ward. The selection of these wards was in part purposive, based on the likelihood of addressing the research questions, and ability to generate relevant data for theory development (Emmel, 2013). However, I was directed to the ward areas because the ERP at the case site happened to be implemented across the acute and general medical wards.

Details of the selected emergency assessment unit (EAU) and general medical ward are given in Chapter 7.

2.4.2 The ethnographic approach

Ethnography has its origins in British social anthropology, American cultural anthropology and in the Chicago School of Sociology. Historically, ethnography has been characterised by extensive periods of time spent 'in the field' with social groups studying cultural meanings and behaviour (Macdonald, 2001). Contemporary ethnography has developed as a methodology and is now used in a wide range of disciplines. The definition of the term ethnography has been subject to controversy and there is no consensus on a definition (Hammersley, 2018; Savage, 2000). There is, however, general agreement about some core aspects of ethnographic practice such as, involving direct and sustained contact with people within everyday settings over a sustained period, using various methods and data sources, and emphasising the importance of context in understanding events and meanings (O'Reilly, 2009). Hammersley and Atkinson (1983) state:

> The ethnographic researcher participates, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, asking questions; in fact, collecting whatever data are available to throw light on the issues with which he or she is concerned (Hammersley and Atkinson, 1983, p.2).

Ethnographic research seeks an in-depth understanding of the motivations, thinking and ideas of people that inform the actions of individuals and groups within social settings (O'Reilly, 2009). Ethnographical analysis typically results in descriptive accounts and narrative life histories, where theory remains implicit. However, ethnography can also be used to develop and test theory (Hammersley & Atkinson, 1983), tending towards inductive reasoning involving the development of theories from the data (O'Reilly, 2009). Deductive processes can also be used, whereby prior theoretically derived arguments are tested with ethnographic data (Wilson & Chaddha, 2009).

Ethnography has been widely applied to healthcare research and several authors have called for its greater use (Goodson & Vassar, 2011; Savage, 2000). Savage (2000) emphasises the value of ethnography in facilitating understanding of illness behaviours and capturing patient perspectives. Goodson and Vassar (2011) suggest that the use of ethnography affords decision makers a better understanding of the patient and the healthcare delivery team. Other authors have used ethnographic approaches to understand contexts in healthcare quality improvement initiatives (Leslie et al., 2014) and to study complex dynamics underlying implementation processes (Bunce et al., 2014).

The way in which ethnography is applied is dependent, in part, upon the philosophical stance of the researcher (Hammersley & Atkinson, 1983). There is no consensus among ethnographers about the diverse theoretical and epistemological positions that underpin ethnographies (Savage 2000). Martin Hammersley's concept of subtle realism (Hammersley, 1992), for example, is a philosophical position which argues that phenomena are independent, but that knowledge of them is always constructed by the researcher and is thus one of many possible valid accounts of the phenomenon studied. This position is compatible with combining realist and ethnographic methodologies and is congruent with my realist viewpoint. That is, there is a mind independent reality and that through ethnography a plausible and credible representation of what was happening could be constructed, whilst recognising that there can be multiple explanations of the same phenomenon.

Ethnography is particularly appropriate within the realist science approach, as it shares a theory-driven approach to understanding how contextual factors shape action. Furthermore, an absence of existing academic knowledge pertaining to a phenomenon is a common rationale provided for ethnographic studies (Hammersley & Atkinson, 1983). I considered adopting an ethnographic approach well suited to exploring an ERP in its naturally occurring context for several reasons. Programmes are dependent on complex social factors and the approach allows in-depth exploration of the context surrounding interventions and the experiences and perspectives of participants. There is currently a lack of information regarding the operation of ERPs in medical settings, and an ethnographic approach allows a thorough exploration of the entire intervention process.

2.4.3 Overview of the research design

The study was conducted in four stages, summarised in Figure 2. Although presented sequentially, considerable iterative work occurred between and within each stage:

1. Initial theories were generated from realist synthesis of relevant published literature, in elective surgery and medicine.
2. The initial theories were then further developed through interviews with ‘expert’ practitioners, document review, and preliminary immersion in the case-study setting.
3. A card-sorting exercise with a range of practitioners was used to prioritise a sub-set of theories.
4. Prioritised theories were tested and refined further through ethnographic observations and interviews in two hospital wards; an acute medical unit and specialist medical ward (elderly care).

Stage one: Eliciting initial realist programme theories (Chapters 3 and 4)

Guidance on undertaking realist evaluation suggests that the first step is to develop an initial rough theory (IRT), or set of programme theories (Wong et al., 2016). Initial theory in a realist evaluation can be developed in numerous ways such as, interviewing key stakeholders, reviewing a small selection of relevant literature or programme documentation, or a combination of these approaches (Wong et al., 2013). To begin the realist evaluation, I carried out reviews of the existing literature on the topic of enhanced recovery. Realist evaluation takes a cumulative approach to knowledge generation, by refining previous learning and building on what is already known (Pawson & Tilley, 1997). Programme theories from one study can be taken forward to other relevant research as programmes are replicated rather than ‘re-inventing the wheel’ (Pawson & Tilley, 1997). Therefore, I first focused on identifying theories from programmes reported in surgery, where ERPs were pioneered. The focus of the surgical review was on planned surgery as ERPs are established and widely used in elective surgical procedures in many surgical subspecialities. At the time of the review, the role of ERPs in emergency surgery was unclear (Gonenc et al., 2014), with limited studies available indicating that this was a new area of investigation (Paduraru et al., 2017). Reviewing this body of literature was useful in tracking the history and evolution of similar programmes and gathering initial insights as to how ERPs work. I then undertook a second review of the less developed medical literature. The process of the reviews was guided by Pawson's framework (Pawson (2006) framework and RAMESES publishing standards for realist reviews (Wong et al., 2013).

Stage two: Developing theories (Chapter 5)

In the theory development stage, the initial theories formulated from the reviews were presented to practitioners in realist interviews, undertaken at the case site. They were asked to develop, revise, and add to the theories based on their direct experience of the ERP in medicine. This information was augmented with data collected through preliminary discussions and observations of programme meetings at the hospital over a 24-month period (from October 2013 to November 2015). The realist approach regards stakeholders as key sources for eliciting programme theory and providing data on how programmes work (Pawson & Tilley, 1997). It is assumed that different practitioners have differing perspectives and understandings about how programmes are supposed to work (Wong et al., 2016). I therefore sought input from a wide range of practitioners, such as clinicians, staff responsible for the development, administration, and management of the programme, who knew the ERP well. The aim was to build knowledge of how the ERP was actually used in practice and to confirm, refute or refine initial theories about the programme elicited from literature review.

Throughout the duration of the research, I collected text documents, such as minutes of meetings, newsletters, leaflets, administrative and policy documentation, press releases, project reports. Photographs, charts, posters, and other visual materials were also gathered (Appendix 13). These documents assisted in the development of theories and furthered my understanding of the broader organisational context (Prasad, 2005). During stage four specifically, I also collected biographical data, including demographic (age, gender, and employment), social data, and data pertaining to hospitalisation and comorbidity from patient notes and care plans.

Stage three: Prioritisation of theories (Chapter 6)

From a realist perspective, it is not possible to test all potential theories relating to complex interventions (Pawson, 2013). Therefore, it was necessary to focus attention on testing a subset of the initial theories. The initial theories were presented to a range of expert practitioners to capture their perspectives on which theories were the most important in generating programme outcomes. A card-sorting exercise, using a simple ranking technique was used to drive the prioritisation process and to reduce the data to a pragmatic amount to study. The selected theories were used to guide the specific choice of data collected in stage four. The card-sort also generated additional data in the form of comments from a think-aloud method, to aid theory refinement.

Stage four: testing and refinement of theories (Chapter 7)

In stage four of the research, data was gathered in the field, to test the extent to which the theories prioritised in phase three, occurred. Ethnographic methods of observation and interviews were used to collect data in real-time in an emergency admission unit (EAU) and a medical ward setting. The aim was to gather first-hand information about ERP processes and participant behaviour in its naturally occurring context. Observations included staff, patients, and their carers', family members or friends when present. Multiple face-to-face informal conversational interviews were also undertaken with staff, patients, and their carers during the observation period. This provided in-depth and rich qualitative data about participants reasoning and reaction to programme resources, and in particular, their perceptions, feelings, opinions, and values. Ethnographic methods have been used in previous realist evaluations as part of the process of theory testing and refinement (Greenhalgh et al., 2009; Rycroft-Malone et al., 2010). Combing both approaches allowed the testing and refinement of the developed theories as well as the development of new theory.

In the initial study plan, I had intended to collect hospital data relating to the ERP (e.g., LOS, readmission rates). This data was intended to triangulate (corroborate or challenge) the data from the interviews. However, due to COVID 19, this was not possible.

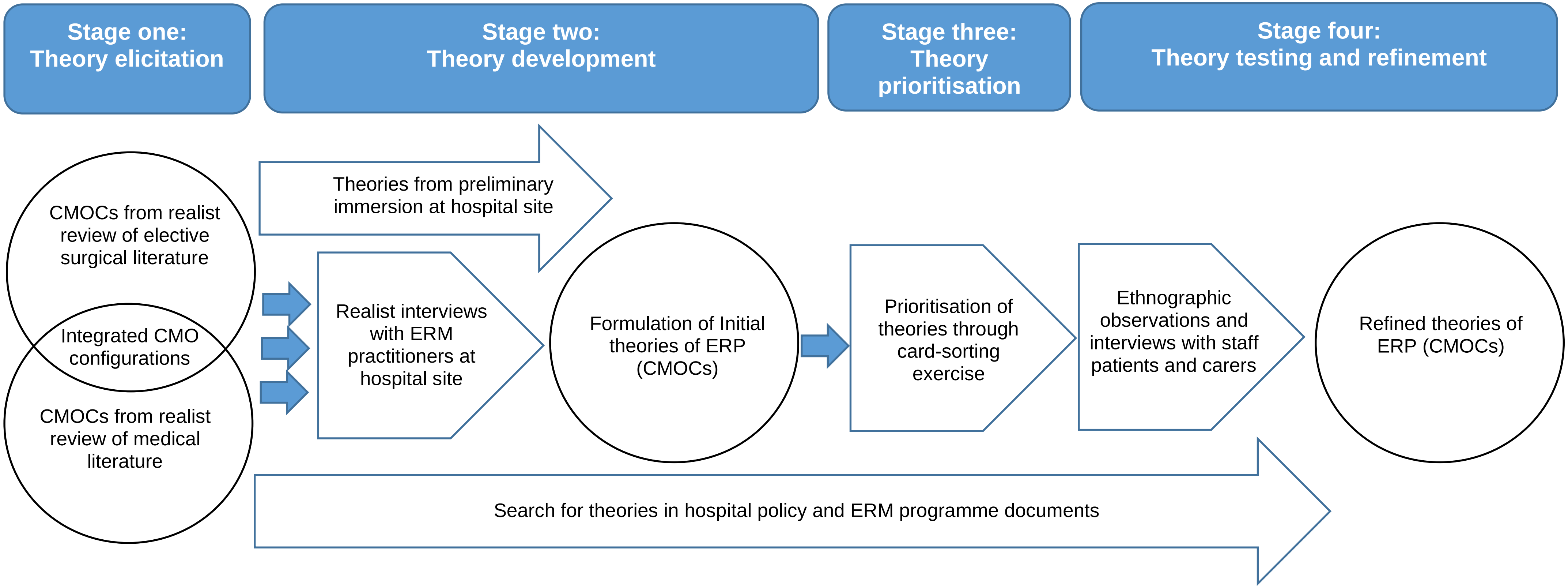


Figure 2: The four-stage research design

2.4.4 Data analysis

In realist research, data analysis involves examining and interpreting evidence to uncover causal mechanisms and associated contextual factors that explain how and why interventions work (or do not work) in specific situations. The focus of the analysis is on identifying CMOCs that explain the relationship between programme interventions and outcomes in different contexts.

As previously discussed, within a stratified reality (Bhaskar, 2008), causal mechanisms may not be in the empirical layer and are therefore hidden. This means some mechanisms must be theorised. Analysis is an interpretive process, whereby the researcher may incorporate their ideas and hunches that are 'not necessarily linked to the researcher's immediate view of the evidence' (Jagosh et al., 2014). In realist analysis four approaches to inference-making are used: induction, abduction, deduction and retroduction (Sayer, 2000). Inductive reasoning is a 'bottom-up' approach involving creating theory from evidence. Deductive thinking complements inductive thinking and is applied to test theory with the specific data. Abduction is the creative thinking required to imagine the existence of mechanisms to formulate the 'best explanation'. It involves an iterative process of examining evidence and developing hunches or ideas about the causal factors linked to that evidence (Jagosh et al., 2013). Abduction is closely allied to retroduction and they have been described as 'two sides of a coin' (Jagosh, 2020). Retroduction is a mode of inference that unearths hidden causal forces (activated mechanisms) that lie behind identified patterns, moving back and forth between inductive and deductive logic to theorise programmes and formulate CMOCs (Greenhalgh et al., 2017).

As typical of realist methodology, data analysis and collection occurred alongside one another in an iterative process. The theories were revisited and revised in the light of findings throughout the research process. In this study, I used a combination of manual and computer assisted methods (NVivo14 software) during the process of synthesis to organise and manage the data. To conceptualise the CMOCs, I used several tools at different stages of the research process. Early on, simple diagrams were formulated to represent the CMOCs from the surgical literature review. I found this a useful way of recording ideas and organising my thinking about ERPs. These diagrams were also used in later discussions with practitioners to help communicate the initial theories and focus the realist interviews (Chapter 5). As the theories became richer and more intricate, I used tables in the format outline by Pawson and Tilley (1997) in their seminal work. I also chose to present theories as a narrative for the ease of the reader.

The methods of analysis for the realist synthesis and evaluation took the same overall approach. It was possible to combine the data from these different sources as the same logic of analysis was used for both. For the convenience of the reader, further detail is given in the relevant sections of the subsequent chapters.

2.5 Ethical considerations

Ethical approval to conduct the study was obtained from the University of Exeter Research Ethics Committee (Appendix 1) and the NHS Research Ethics Committee, in SW England in September 2015 (Appendix 2). Research and Development approval was subsequently granted at the NHS trust locality where the research took place (Appendix 3). During the ethics approval process, feedback provided by the academics, healthcare professionals and service users involved, resulted in some amendments to the wording in my information leaflets, invitations, and consent forms.

The main ethical issues identified in this research were ensuring confidentiality of participant information, possible harm to patients and informed consent. The following section outlines the steps taken to address each of these aspects.

2.5.1 Informed consent

A fundamental aspect of research involving human subjects is seeking freely given informed consent. I delegated the process for obtaining consent from patients to registered and experienced nurses, prepared to take on the responsibility, and competent to take informed consent in line with the Nursing and Midwifery Council (NMC) Code of Professional Conduct and organisational guidelines (NMC, 2015).

All individuals interested in participating in the research were provided with a written information sheet, in advance, explaining the purpose of the study and what the research involved, in understandable terms (Appendices 10, 24 and 27). The voluntary nature of participation and their right to withdraw at any point was highlighted. Sufficient time was allowed for consideration of the benefits, risks, inconvenience, or obligations associated with the research that might have been expected to influence their willingness to participate, prior to any involvement. My contact details were shared in case of further questions.

Individuals who decided to take part, were asked to voluntarily sign a Consent Form (Appendices 11, 26 and 29), in which they agreed to participate in the study and confirmed that they have been properly informed about the study. After signing the consent form, subjects were able to withdraw from the study at any stage without giving any reason. Any information collected prior to withdrawal would not be used in the study unless permission was given otherwise.

2.5.2 Protection from harm

An important aspect of the research was minimising the risk of any harm or distress arising for participants. This was particularly important for medical patients who are often acutely unwell and vulnerable. The following precautions were taken:

A senior member of the patient’s existing clinical care team identified potential participants using the patient’s medical records to check whether they met the inclusion criteria.

If at any time participants became distressed or upset, the interview or observation would cease immediately, and appropriate support would be sought through an agreed process. Patients would be offered immediate support (if consenting) from a member of their health care team. Staff would be encouraged to contact an appropriate supervisor, mentor, or manager.

If at any time during data collection, participants highlighted issues which gave cause for concerns regarding patient safety, I would break confidentiality (as indicated in the study information sheet) and bring this to the attention of the appropriate authority.

2.5.3 Privacy and confidentiality

A key aspect of the ethical conduct of the research was protecting participants' rights to privacy and observing the confidentiality of participants' identities and data. Collected data, including any personal information, was kept confidential and stored in accordance with the data protection act 2018. Transcripts from interviews and stakeholder consultations were anonymised, and participants' identifiable information was kept separately and securely. Interview details were not fed back to the organisation directly. Participants were not readily identifiable in study reports.

The researcher gained informed consent from patients to look at their medical notes for information that was relevant to the study. These notes were only viewed whilst on the ward and any relevant information was transferred into electronic notes on an encrypted University of Exeter laptop whilst on the ward.

Each participant was allocated a unique code and all interview transcripts and field notes from observations, including those written by hand in paper form, carried this code and no personal identifying information.

All digital recordings of interviews made on a portable recorder were transcribed within 24 hours and deleted from the device. Electronic data were password protected and saved on the University of Exeter server. Paperwork such as consent forms and handwritten field notes were stored securely in a locked cabinet in a lockable office.

2.6 Positioning and reflexivity

My decision to undertake this research was guided principally by my intellectual curiosity and a desire to learn new things. The specific topic of the PhD was predetermined rather than developed by me. However, I was drawn to the subject area, by my professional background as a physiotherapist and a senior manager in the NHS. My prior experience of delivering initiatives within services, sparked my interest in evaluation and guided my choice. This PhD began at a time in my professional life when I was responsible for developing and implementing a multi-professional programme to support newly qualified clinicians transitioning into the NHS workplace, during their first year of practice. Part of this work was evaluating the impact of this programme. Because my professional training was based on conventional scientific thinking, I focused my evaluation on the effectiveness of the programme. However, this seemed to overlook the rich experiences recounted by participants on the programme. Furthermore, my professional experience has illustrated the complexity of an ever-changing health care system and wider policy context. I also believe that clinical problems are rarely straightforward, and outcomes arise from the unpredictable actions and beliefs of individuals involved, shaped by their own unique social circumstances. A dawning awareness of this lens prompted a curiosity to pursue other ways of investigating problems. When seeking an approach to evaluate the ERP intervention, I found the work of Pawson and Tilley (1997) and realist methodology appeared to fit well with my personal world view.

Reflexivity generally refers to the researcher's awareness and examination of their own effect on the research process (Finlay, 1998). Given my professional background and because the research addressed clinical practice over an extended period, there was a heightened need to be reflexive. There are differing views about the rationale and practice of reflexivity. Finlay (2002) offers a typology of different approaches, including: (1) introspection, (2) intersubjective reflection, (3) mutual collaboration, (4) social critique, and (5) discursive deconstruction. I chose to engage in intersubjective reflection, with the aim of actively reflecting on 'myself-in-relation-to-others'. Mohler and Rudman (2022) suggest that intersubjective reflection can 'enable researchers to consider how their insider knowledge based on individual experiences and personal meanings can impinge on the research'. My experience of working as a clinician and senior manager in NHS hospitals brought an insider perspective to the research. This was beneficial in several ways. The ward settings felt familiar and comfortable, and I entered the fieldwork knowing how to behave according to the rules and norms of the hospital. The skills and knowledge derived from my own practice as a physiotherapist made understanding the clinical language straight forward, so it was easy to pick up and follow clinical discussions and interpret medical notes, affording insight and yielding richer data. I had not worked with or did not personally know any of the staff that participated in my study, however, as a current NHS employee there was a high degree of relatedness between me and the staff in terms of professional identity. I chose to introduce myself to staff as a researcher and a physiotherapist, to allow conversation to flow freely between fellow clinicians rather than speaking more formally and guarded with a ‘clinical professional persona’ (Rubin & Rubin, 1995). I felt this helped me to connect, engage in friendly exchanges and build trusting relationships which may have increased cooperation and participation. A degree of commonality existed between my professional values and those of the staff in relation to the patient-centred theories that were prioritised (See Chapter 6). It was therefore important to acknowledge this and reflect and challenge my own assumptions and preconceived expectations and interpretations of situations. I attempted to achieve this by writing reflective field notes during the research process.

This closeness had other challenging aspects. Madden (2017) suggests that in familiar situations it can be difficult at times to maintain an ethnographic perspective. Lawlor (2003) describes the transformation from a ‘clinical gaze’ to an ‘ethnographic gaze’ or lens as complex, involving ‘looking at the world in a new and different way’. There were occasions during the fieldwork when I felt conflict between my role as researcher and my identity as a clinician. For example, initially I found it difficult during observations not to engage in clinical problem solving, or to intervene at a practical level in the care of patients. Yanos and Ziedonis (2006) describe this tension with the research role as clinical ingrained orientation to patients’ needs. An example taken from my reflective field notes is given below:

> I noticed [patient name] across the bay get out of bed to fetch her reading glasses from the bedside table on the other side of the cubicle. Watching her unsteady progress as she made her way around the bed in stocking feet, grabbing at the furniture, I was aware that I felt conflicted. I found myself taking on responsibility for her care, wanting to intervene and suggest that she put on her slippers and used the walking frame she had been issued. What was my role? (Field notes, EAU).

Recognising that people respond differently depending on how a researcher presents themselves (Richards & Emslie, 2000), I reflected on whether to disclose my status as a physiotherapist to patients and their carers from the onset. As the realist approach requires understanding of reasoning and I was interested in aspects of care delivery, I chose to introduce myself to patients and carers as a researcher in the first instance and wear casual clothing with a nametag with the wording ‘researcher’ hoping to dissociate myself with any sense of being a professional with authority and influence (Ballinger and Payne, 2000).

2.7 Chapter summary

In this chapter, I have identified realism as the philosophy underpinning this thesis. This philosophical perspective assumes that there is a reality independent from human understanding and that knowledge of that reality is gained through the differing perspectives of individuals. Key approaches to evaluation were outlined from a methodological perspective, and realist evaluation (Pawson & Tilley, 1997) introduced as a suitable methodological framework for exploring ERPs. As ERPs are socially complex programmes delivered in complex healthcare services, I argued the suitability of this theory-based approach, which aligned to my realist world view and would allow multiple data sources to be used to gain the breadth and depth of understanding required to answer the research questions. The implication of the methodology on the research design was discussed. I argued that using a case study and ethnographic approach was an appropriate research strategy, as the complexity and contextual requirements of the research questions can be accommodated. The case study was introduced and described to provided context for the following chapters. I provided details of the four-stage research design employed in this study, briefly described the multiple methods of data collection chosen and the data analysis process. Additional details of methods are given in relevant chapters which follow. Ethical approval obtained to conduct the research was detailed along with actions taken to address anticipated ethical issues, including protection from harm, informed consent, privacy, and confidentiality. The chapter concluded with a discussion of research reflexivity and my position as a researcher.

In chapters 3 and 4, I present the first stage of the evaluation; realist reviews of relevant ERP literature in elective surgery and medicine.

Chapter 3: A realist review of ERPs in surgery

The previous chapter described my philosophical perspective and identified realist science as the methodological approach of this research. In this chapter, I present the first stage of the evaluation, a realist review of the existing enhanced recovery literature in surgery, where ERPs originated. Section 3.1 describes the aim and rational for the realist review. The stage specific research questions follow in Section 3.2. Section 3.3 describes the review methods, including search strategy and synthesis process. Section 3.4 presents the search results and describes the concept and characteristics of surgical ERPs. In section 3.5 the theories formulated from the synthesis of the literature are presented. Section 3.6 discusses the findings and considers the potential transferability of the identified surgical theories to medicine. Section 3.7 concludes this chapter with a summary.

3.1 Aim and rationale

Realist evaluation takes a cumulative approach to knowledge generation by refining previous learning and building on what is already known (Pawson & Tilley, 1997). Authors argue that abstracted sets of ideas from similar families of programmes can be formative in the transfer of programmes to novel settings. (Pawson, 2013; Pawson & Tilley, 1997). Medical ERPs are based on similar programmes in the field of elective surgery. As they are relatively new, the literature is currently underdeveloped. Contrastingly, a more substantial and established body of evidence exists for surgical ERPs. Therefore, it seemed pertinent to begin searching for causal explanations in the surgical literature, with the aim of tracking down ideas that could inform theory building in medicine. It was assumed that it may be reasonable to extrapolate from studies of ERPs in surgery because potentially similar underlying causal mechanisms of action may be in operation in medicine, yielding helpful transferable lessons. Figure 3 illustrates the focus and interaction of the literature reviews.

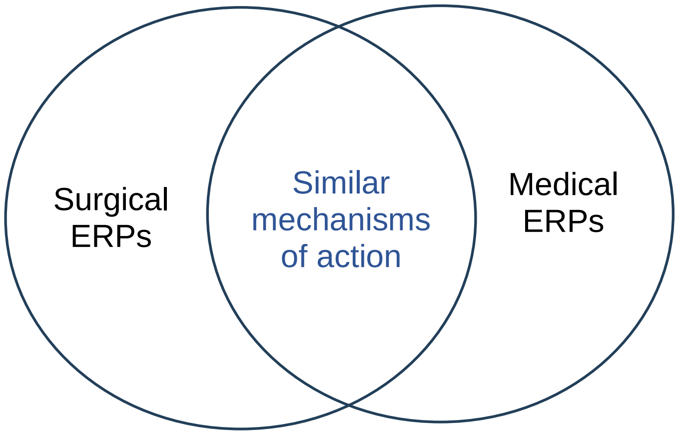


Figure 3: The focus and interaction of the literature reviews

The purpose of the review was to seek transferable insights, from the enhanced recovery literature in elective surgery, to inform the concept of enhanced recovery in medicine. This review focused on the identification of ideas about how and why and in what circumstances surgical ERPs are expected to impact recovery. Realist review was chosen since it was part of the overarching methodology of this research (Chapter 2). It was also appropriate for several additional reasons. The explanatory focus of realist review aligned with my research questions, better than other types of reviews which focus on programme effectiveness or critiquing the literature. Realist review can accommodate the complexity of programmes implemented in different settings and under different conditions (Pawson et al., 2005). Therefore, it was well suited for reviewing ERPs, which are complex social programmes, that involve human actions, and are likely to be affected by contextual factors (MRC, 2008).

3.2 Review questions

The specific questions for this review were:

1. What are the characteristics of ERPs in surgery?
2. Through what mechanisms and associated context do ERPs lead to outcomes in surgery?

3.3 Review methods

The use of a wide range of sources is encouraged in realist review to gain explanatory breadth and depth (Pawson, 2006). To build an understanding of surgical ERPs, broad searching of the topic area was undertaken in academic and grey literature. This was useful in tracking the history of ERPs, from their beginnings in elective colorectal surgery, and the subsequent adaptation of programmes to other specialities. Information was gathered on the concept, key interventions, and principles of ERPs (review question 1) and the main ideas about how and why programmes are thought to work (review questions 2 and 3).

However, because realist reviews generate many avenues to explore and explain, they typically need to be ‘contained’ by progressive focusing of the review, both in terms of the breadth and depth of detail (Wong et al., 2013). As the review progressed, it became clear that many of the material mechanisms (e.g., the interaction of physical or pharmacological treatments and biological systems) were specific to surgery and therefore unlikely to be relevant to medicine. For example, hormonal and immunological responses to tissue trauma caused by surgical incisions. Therefore, the depth of detail in relation to these mechanisms was limited, and I focused on studies that provided insight into the less explored social and psychological mechanisms of surgical programmes, which were more likely to transfer to medicine.

3.3.1 Search strategy

The steps of a realist review are overlapping and non-linear (Pawson, Greenhalgh, Harvey 2005). Although presented sequentially below, the processes were undertaken concurrently or revisited as the review progressed.

Evidence was gathered using formal academic database searches to identify studies of ERPs in surgery, across a broad range of specialisms. Four electronic databases (Medline (OVID), EMBASE, The Cochrane Library, CINAHL) were searched for English language papers from 1997 (the year in which Kehlet’s seminal paper was published), to February 2016. As the aim was to track-down evidence that could inform theory, and in keeping with realist principles, no document or type of study design restrictions were applied. Search terms included ‘fast track’ OR ‘enhanced recovery’ OR ‘accelerated care’ OR ‘rapid recovery’ in combination with ‘surgery’ OR ‘surgical’ OR ‘perioperative care’. Grey literature searches were also conducted. Searches were run using Google. Selected websites of relevant professional organisations, including Royal College of Surgeons, ERAS society, and NHS Improvement were also searched for relevant content. Hand searching was performed for two key journals 'British Journal of Anaesthesia' and 'British Journal of Surgery', from January 2013 to March 2016. These journals were selected because they were the most relevant to my research topic. I looked for journals that regularly published articles on surgical ERPs and covered a range of relevant perspectives (surgeons and anaesthesiologists) and were accessible through the hospital library. I noted the journals that frequently appeared in my search results and chose higher impact factor journals as the most likely intellectual outlet of pertinent and influential work. Further details of the search strategy are available in Appendix 4.

As the initial theories were created, this led to further focused searching of specific topic areas to find relevant studies to develop and refine aspects of theory emerging from the data. Snowballing (pursuing references of references by hand), and forward and backward citation tracking of key articles was useful to find documents to refine the theories as they were included.

3.3.2 Selection and appraisal of documents

Realist review focuses on developing explanatory theory. In a realist review specific explanations or ‘evidential fragments’ (Pawson, 2014), are the unit of analysis rather than whole studies. Explanations, of programme success and failure can potentially be found in a wide variety of documents (Pawson & Manzano-Santaella, 2012). Good quality ‘nuggets’ of information may be found in poorly designed and conducted research (Pawson, 2006). Therefore, each explanation was assessed on its own value rather than that of the whole study in which it originated, and no literature was excluded based on methodology. Unlike other reviews which have strict inclusion and exclusion criteria, and quality assessment tools, in a realist review, data is included based on relevance and rigor. Relevance is the ability of the data to contribute to theory building and testing. Rigour refers to whether the method used to generate that specific piece of data is credible and trustworthy (Wong et al., 2013).

The level of analysis chosen in a realist review depends on the review's focus. In a full realist literature review, published evidence is used to test and refine identified theories, whereas the purpose of my reviews was to generate initial theories that would be refined and then tested in later stages of the research. Therefore, in this study, selection of documents was based on relevance to the review questions, i.e., theory building rather than on rigour. Although I have indicated where my interpretations were well supported or less well supported by evidence in Tables 2 to 6.

3.3.3 Data extraction and synthesis

Documents were scrutinised for details of ERP interventions, and explanations on how and why programme outcomes (both successful and un-successful) were achieved in specific contexts. Relevant sections of text were found in many different types of documents, including primary studies, reports, reviews, commentaries, editorials. Explanations were extracted, numbered, and entered into an MS word table, with a record of the original source and page number. Appendix 5 contains the explanations extracted from the source documents. The extracted data was then categorised according to key themes or 'tentative theories' according to the similarity of mechanism, using a thematic analysis approach (Boyatzis, 1998). The data within each theme/theory was then coded as a context, mechanism, or outcome, using the Dalkin et al. (2015) conceptualisation of CMOCs. Whereby, resources offered by the intervention (M/resource) are introduced into a context (C), which together change participants' reasoning. This alters the behaviour of participants (M/reasoning), which leads to outcomes (O).

$$\text{M (Resource)} + \text{C} \rightarrow \text{M (reasoning)} = \text{O}$$

Explanations were also classified as a 'mechanism' (M) if they described the interaction of physical or pharmacological treatments on biological systems or the individual (biological mechanism).

Where possible related CMOCs were then grouped again into a more abstracted explanation. I avoided fragmenting the data by coding CMOCs whenever they were discernible in the explanations. Where it was not possible to complete all elements (C, M and O) from the source, I used an interpretive

process of abductive thinking to populate the remaining categories or left a blank space in the table. Data was included that was complementary and contradictory, so that different positions were represented in the findings.
I undertook the synthesis, but the developing theories were regularly shared and discussed with my supervisors for debate and feedback. Once all the data had been extracted and coded, a manual mapping exercise was undertaken to identify links/relationships between the theories.

3.4 Findings

The following sections present the findings from the review. First, the search results are detailed. Next, the characteristics of surgical ERPs are discussed. Finally, the programme theories elicited from the surgical literature are presented and the interconnections between them are discussed.

3.4.1 Search results

The searches retrieved a total of 4692 sources. After removing duplicates, 3874 remained. As I was interested in ERPs in adult surgery, titles and abstracts were initially screened to exclude studies which were: (1) unrelated to surgery, (2) focused on paediatric patients, and (3) did not describe ERP interventions. This reduced the number of sources to 138 potentially relevant sources. The full text of these sources was read in full. To reduce the pool of studies to a manageable size for the synthesis, I then purposely selected 112 studies that contained the richest theory about potential mechanisms, associated context, and outcomes in sufficient detail, that could inform the development of proposed theories. Explanations were found in a range of study types and types of documents, including primary studies, reports, reviews, commentaries, and editorials.

Figure 4 presents a flow diagram illustrating the selection process. Although the steps are presented as sequential, they were iterative and overlapping.

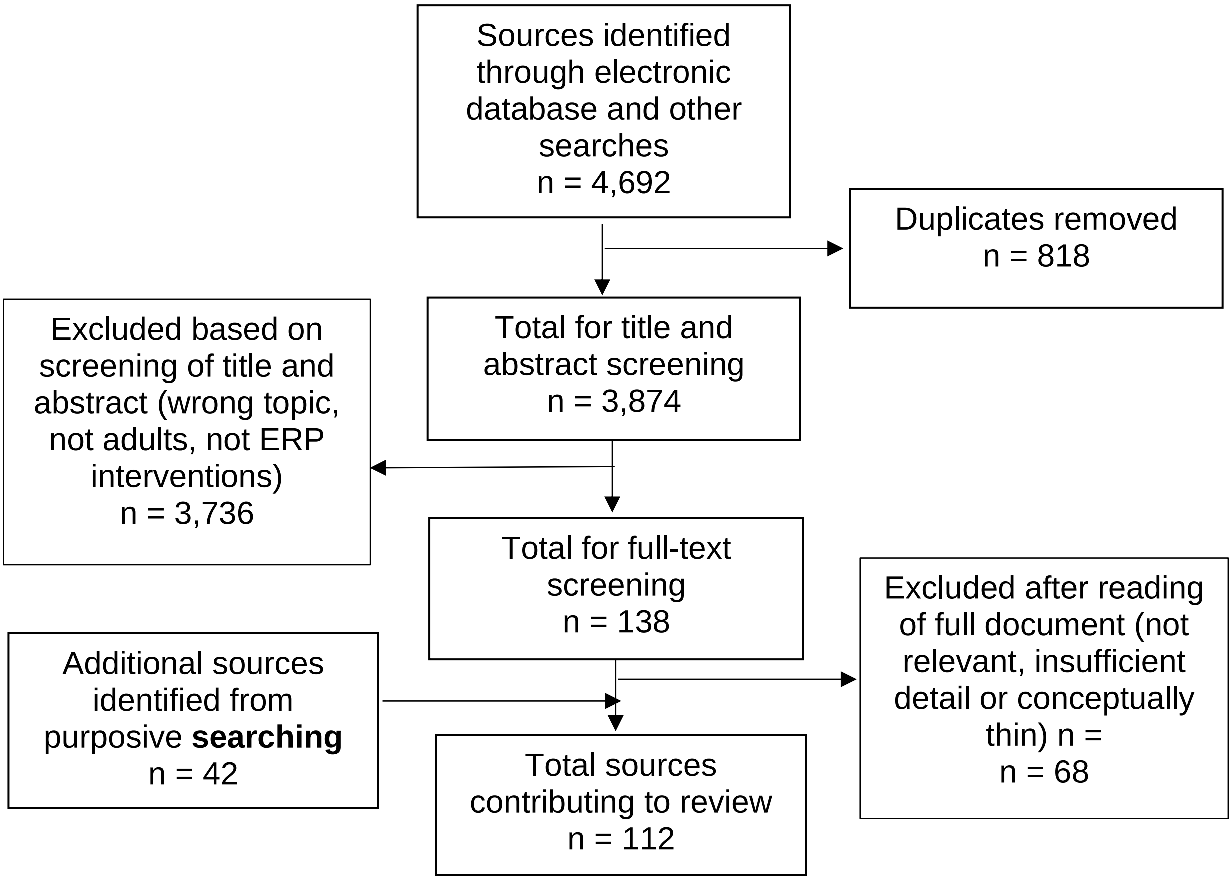


Figure 4: PRISMA diagram of surgical literature search and selection process

3.4.2 Characteristics of surgical ERPs

Conventional care of patients undergoing major surgery involves prolonged fasting, bed rest and lengthy convalescence (Dean et al., 2019). Singular interventions are delivered to treat specific symptoms and complications as they arise (Kehlet, 1997). The development of ERPs in the 1990s has fundamentally changed perioperative care. The ERP approach is multidisciplinary, integrated, and multimodal. Consensus guidelines were first published in 2005 for standardisation (Fearon et al., 2005).

Kehlet (2011) states:

> A combination of unimodal evidence-based care interventions to enhance recovery will subsequently decrease the need for hospitalisation, convalescence, and morbidity (Kehlet, 2011).

There is no universally recognised definition of enhanced recovery after surgery. The terms ‘fast-track’, ‘ERAS’, ‘enhanced recovery after surgery’ and ‘accelerated care programmes’ are used interchangeable in the literature (Kehlet, 1997) describes an ERP as a ‘multimodal recovery intervention’. Khan et al. (2009) refer to ‘a set of simple evidenced based perioperative measures, which have been collated into well-defined pathways with the aim of accelerating recovery after surgery’.

The aim of ERPs is to bring about improvements in care quality, patient experience, and cost effectiveness, through the aggregation of marginal gains (NHS Improvement, 2012). That is, the principle of ‘multiple, seemingly miniscule, improvements throughout any given process, collectively achieving a far superior output’ (Durrand et al., 2014). Surgical ERPs typically comprise up to twenty recognised care components (Fearon et al., 2005; Gustafsson et al., 2013; Lassen et al., 2009), as defined in an evidence-based consensus care protocol proposed by the ERAS collaboration (Fearon et al., 2005; Lassen et al., 2009). These components form a ‘care pathway’, implemented across all phases of the perioperative period (preoperative, intraoperative, and postoperative). The various interventions can be broadly grouped according to the timing at which they occur in the perioperative period, as shown in Table 1.

A much-debated question is how many interventions need to be included in the pathway (Ljungqvist et al., 2021). Some authors and are critical of including multiple interventions as overly complex, arguing that only five to seven are needed (Kehlet, 2015). Others argue that the more elements in use, the better the outcomes (Gustafsson et al., 2011). There is considerable local variation in the number and combination of enhanced recovery interventions implemented in practice (Ahmed et al., 2012; Paton et al., 2014; Spanjersberg Willem et al., 2011). For example, a survey by Oxford university Hospitals Trust in 2011, demonstrated huge national variation in current UK practice in breast reconstruction surgery, with respect to preferred anaesthetic technique, approach to thermoregulation, haemodynamic monitoring, fluid therapy, transfusion practice and analgesic strategy. In their review, Nicholson et al. (2014) found ‘no consistent evidence’ that the number of components included in ERPs affect outcomes. They concluded that ‘studies with four to seven elements seemed to work as well as those with eleven or more’.

Table 1: Surgical ERP interventions (adapted from Gustafsson et al., 2013)

Time frame	**Component**
Before admission	Education and information Shared decision making Assessment and optimisation of patient health Discharge planning
Admission	Day of surgery admission Minimising fasting period Fluid optimisation Carbohydrate loading Omission of routine mechanical bowl preparation Avoidance of premedication Pharmacological prophylaxis
Operation	Short acting anaesthetics Avoidance of drains and lines Minimally invasive techniques Prevention of hypothermia High oxygen concentrations Goal directed fluids
Postoperative phase	Early removal of drains, lines, and catheters Multimodal analgesia Early mobilisation (on day of surgery) Early oral intake Nutritional supplements Prophylaxis against nausea and vomiting
After discharge	Telephone follow-up

The value of the separate components of these programmes is not known (Spanjersberg Willem et al., 2011). Some studies have attempted to determine the relative importance of the various components of ERPs (Hoffmann & Kettelhack, 2012). This approach has been criticised for an oversimplification of a complex intervention**.** As mentioned previously, ERPs are a composite of marginal gains, that is ‘the whole is likely greater than the sum of the parts’

(MacFie, 2016). Other authors have speculated on the nature of the relationship between the components, concluding that interrelation between components are complex and components work together synergistically to improve recovery (Lyon et al., 2014).

Local adaptations and refinements of ERPs by clinicians and organisations are reported. Some authors suggest that rigid adherence to protocols is necessary to achieve benefits (Gustafsson et al., 2011). Others argue for a more flexible and individualised approach, reflective of the broad range of people and procedures to which ERPs are now being applied (Lyon et al., 2012). Commenting on identified variation in what constitutes ERPs across specialities, Paton et al. (2014) suggest using ERPs as a framework which may be adapted to suit local circumstances.

A fundamental premise of ERPs is that programmes should be based on evidence. As standard surgical practice and available evidence is subject to continual change, ERPs are constantly evolving (Ljungqvist et al., 2021; Slim et al., 2014; Slim & Kehlet, 2012; Spanjersberg et al., 2011). Some ERP interventions are likely to change over time or become incorporated into standard care (Nicholson et al., 2014; Paton et al., 2014).

An important principle underlying programmes is that all patients are considered eligible for ERPs (NHS Improvement, 2012). However, authors note that not all patients may receive parity of access to what may be considered optimal treatment and management. Review authors highlight that studies focus predominantly on healthier, younger, fitter, more mobile patients (Spanjersberg et al., 2011). Frailer patients, those with psychiatric and serious physical ill health, or those undergoing complicated surgery, are often excluded (Lyon et al., 2014; Nicholson et al., 2014). More recently, some data regarding the safety of ERPs for these vulnerable groups is beginning to emerge (Ljungqvist, 2018). Studies of ERPs for older patients for example, indicate that this sub-group may also benefit (Bagnall et al., 2014; Scharfenberg et al., 2007) and indeed may ‘have the most to gain’ from ERPs (Starks et al., 2014). The need for further research for this group is also recognised (Ljungqvist, 2018).

Despite the widely reported benefits associated with the approach, adoption into practice has been described as slow and variable (Kehlet et al., 2006; Lassen et al., 2009). This is particularly evident during the postoperative phase of care (Ahmed et al., 2010; Maessen et al., 2007). A variety of difficulties in implementing these programmes are reported (Hui et al., 2011; Wind et al., 2006). These difficulties transcend, with reported barriers at multiple levels within the healthcare system, including resistance to change from patients and staff, lack of financial resources, and workforce issues (Lyon et al., 2014; Paton et al., 2014; Pearsall et al., 2015; Rusby et al., 2005). Gotlib Conn (2015) argues that successful implementation is ‘achieved by a complex series of cognitive and social processes.’

3.4.3 What is enhanced?

The concept of enhanced recovery after surgery has attracted considerable research attention. Most of the research in this field has taken place in Europe and most studies are in the discipline of elective colorectal surgery. Benefits have been reported in the literature for patients, healthcare providers and society (NHS Improvement, 2012; Slim & Vignaud, 2015). Principally improvements in care quality, clinical outcomes, patient experience, efficiency and cost. A summary of the benefits of ERPs after surgery reported in the literature is provided below.

A significant volume of evidence suggests that ERPs offer benefits over conventional planned surgical care (Spanjersberg et al., 2011; Varadhan et al., 2010; Vlug et al., 2011). There are, however, recognised limitations in the design and methodological quality of studies (Nicholson et al., 2014; Spanjersberg et al., 2011). Evaluations to date have focused predominantly on estimating programme safety and effectiveness (Spanjersberg et al., 2011), suggesting that ERPs lead to fewer overall complications and early discharge, without compromise to readmissions and mortality (Gouvas et al., 2009; Lv et al., 2010; Spanjersberg et al., 2011; Walter et al., 2009; Wind et al., 2006). A more recent systematic review and meta-analysis by Nicholson et al. (2014) has shown similar effects across a range of surgical specialties.

‘Enhancements’ in recovery, however, have been predominately represented in terms of clinical and audit outcomes that occur in hospital (Neville et al., 2014). Advantageous effects on discrete short-term biological and physiological variables, such as organ function, metabolic markers and postoperative complications have been reported. For example, in a meta-analysis, Varadhan et al. (2010) showed overall minor complications rates were reduced by almost 50% in patients undergoing elective colorectal surgery. Inconsistencies in the reporting and classification of complications have been highlighted, however. Reductions in the incidence of major complications and mortality have not been demonstrated (Nicholson et al., 2014; Spanjersberg et al., 2011).

Other dominant outcome measures include economic parameters such as LOS and readmissions rates. Readmission rates show no difference between ERPs and standard care (Nicholson et al., 2014; Spanjersberg et al., 2011). LOS is a frequently used measure and studies suggest a substantially shortened LOS in comparison with conventional care (Lv et al., 2012). Kehlet and Mogensen (1999) for example, reported an average LOS of two days following colonic resection in contrast to average LOS of ten days with traditional care (Schoetz et al., 1997). Substantial variation in LOS between studies, however, has been demonstrated and remains unexplained (Nicholson et al., 2014). Moreover, a lack of relationship between the number of days patients spend in hospital and health outcomes is widely acknowledged (Clarke, 2001). The appropriateness of LOS as a surrogate measure for recovery has been questioned. Many patients within ERPs are not discharged on the day they have ‘clinically recovered’ (Maessen et al., 2008). LOS is affected by other factors, such as policy, discharge destination, logistics, individual behaviours and social circumstances and support (Maessen et al., 2007). Recovery may also continue in another setting for weeks and months after hospital discharge (Allvin et al., 2008; Lawrence et al., 2004).

Surgical ERPs that achieve a reduction in LOS are also associated with decreased cost, through reduction in postoperative bed days (Paton et al., 2014). Few economic analyses, however, have been made and there is currently no accepted model to measure costs associated with ERPs. Review authors have been critical of data reporting, which is considered ‘inconsistent’ and the quality of evidence ‘limited’ (Lee, Li, et al., 2014; Lemanu et al., 2014).

Furthermore, a well-recognised economic effect of reduced LOS is a potential 'cost shift' between health sectors (Clarke, 2001). In a review of economic evaluations in planned abdominal surgery, Stowers et al. (2015) conclude that 'ERPs appear to be cost effective in the short term'. However, they also emphasise that reporting is focused on direct in-hospital costs (resource utilisation from primary stay and readmissions), and few studies attempt to account for potential cost-transfer from the hospital to community health services (follow-up treatment and services, equipment), or wider in-direct societal costs (convalescence before return to work and quality of life).

This approach to evaluation has attracted criticism for being narrow and 'surgocentric', largely neglecting the patient perspective, psychosocial and socioeconomic health (Blazeby, 2014; Norlyk & Harder, 2009). There is a noted paucity of studies approaching ERPs from the perspective of the patient and their families and carers' (Bernard & Foss, 2014; Paton et al., 2014). Calls have been made for the further use of patients' insights to 'ensure a holistic approach to care is adopted, enhancing the psychological, social and physical wellbeing of patients' (Bernard & Foss, 2014). Improving the patient experience of care is an important priority for the UK NHS (Department of Health, 2016a, 2016b). Alongside patient safety and clinical effectiveness, 'people's experience of their care is seen as an integral part of overall quality' (Department of Health, 2016b). Patient experiences of ERPs have been described as 'mixed' (Bernard & Foss, 2014). Some authors have argued that the patients' perspective of ERPs should be captured, using patient reported outcome measures (PROMs) (Ljungqvist & Rasmussen, 2014; Neville et al., 2014) . The term PROMs refers to 'measures of health reported by the patient and not by an observer' (Bilimoria et al., 2014). Reporting outcomes from the patients' perspective is however, uncommon (Ljungqvist & Rasmussen, 2014). PROMs that are reported relate most frequently to patient symptoms (pain, fatigue, nausea and vomiting) occurring postoperatively (Neville et al., 2014). These appear similar to those associated with conventional care (King et al., 2006). Other outcomes, however, have also been shown to be important to patients, such as, specialist support after discharge and burden on carers (Blazeby et al., 2010). In addition, few studies include measures that reflect higher level outcomes such as Quality of Life and functional status (Neville et al., 2014). Although a systematic review by Khan et al., (2010) demonstrated no adverse effects of ERPs after surgery on postoperative health-related quality of life (HRQOL). Individual studies have reported a small positive affect on postoperative fatigue (Jakobsen et al., 2006; Zargar-Shoshtari et al., 2009).

There is also recognition of limited knowledge regarding the process of recovery after discharge from hospital. Protocols are described as ‘vague’ regarding follow-up care in the community (Bernard & Foss, 2014). Few studies report outcomes beyond 30 days after surgery (Zagar-Shoshtari et al., 2009).

In addition to clinically driven aspects, authors have noted psychological and social dimensions of these programmes, describing surgical ERPs as a holistic form of care (Phillips & Horgan, 2014). There is recognition of the need to complement studies of efficiency with studies which will help understanding of why and how enhancements in recovery occur (Gotlib Conn, 2015).

3.5 Theories synthesised from the surgical literature

The review resulted in twenty-one CMOCs within five overarching programme theories. In the subsequent sections the proposed theories and the CMOCs pertaining to them are presented in the text below and diagrammatically. The diagrams were configured based on the Dalkin et al. (2015) formula: M (resources) + C → M (Reasoning) = O. The blue box represents the mechanism of change. This is split into two to separate the intervention resources from the reasoning and response of recipients. Ideas on the contexts which influenced their operation are shown in the green box, and the grey box represents the resulting outcomes.

The proposed theories are presented at multiple levels, with a focus on social and psychological mechanisms that are less frequently discussed in existing reviews, and those considered potentially transferable to the acute medical context. Accompanying tables indicate where there was evidence to support the theories in the literature. This data is provided in Appendix 5. Elements of the CMOCs that were not apparent in the literature, that I have theorised, are presented in italics for transparency.

3.5.1 Attenuation of the surgical stress response

This theory relates to a key physiological mechanism underlying surgical ERPs, i.e., minimising the body's stress response to surgery. The body reacts to surgical trauma with complex and widespread hormonal, metabolic, inflammatory, and immunological changes (Desborough, 2000). First identified by Cuthbertson (1930), this 'stress response' is considered to have evolved as a protective mechanism. In the modern surgical setting, however, its benefits have been questioned (Kehlet, 1997). It has been suggested that interventions to prevent or reduce detrimental changes may be beneficial in aiding recovery (Ljungqvist, Soop, et al., 2007; Wilmore, 2002). The insights from thirty-three relevant studies were synthesised and organised into five CMOCs: 'inhibiting neuroendocrine responses'; 'optimising pain control'; 'moderating inflammatory and immunological reactions'; 'normothermia'; 'maintaining intraoperative fluid balance'. The CMOCs are discussed below and presented diagrammatically in Figures 5 to 9. A summary of evidence supporting my interpretations is provided in Table 2.

Table 2: Evidence supporting interpretations – attenuation of surgical stress.

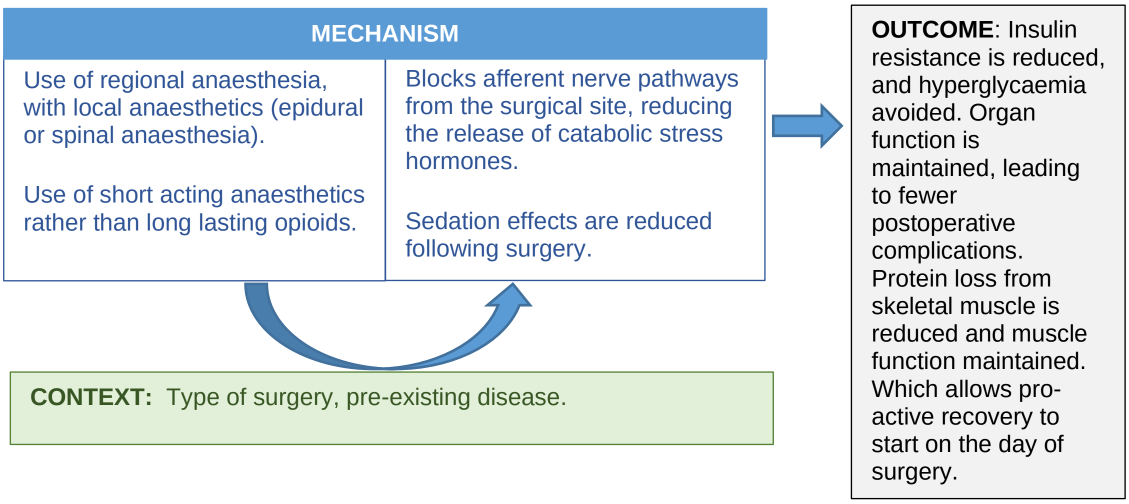
Proposed theory	CMOCs	Exp no	Source
Attenuation of the surgical stress response	Inhibiting neuroendocrine responses	31	Cuthbertson (1930)
		33	Desborough (2000)
		40	Fearon et al., (2005)
		79-80,83	Kehlet (1997)
		91	Kehlet & Dahl (2003)
		99	Kehlet & Wilmore (2002)
		110,112	Ljungqvist, Soop et al., (2007)
		116	Ljungqvist, Hausel et al, (2007)
		160	Rodgers et al., (2000)
		179-180	Starks (2014)
		187-190	Traynor & Hall (1981)
		197	Wilmore & Kehlet (2001)
		200-201	Wilmore (2002)
		204	Yuill et al., (2005)

	Optimising pain control	28	Carr & Goudas (1999)
		40,41	Fearon & Luff (2003)
		99	Kehlet (1997)
		104-107	Kehlet & Dahl (2003)
		201	Starks (2014)
		177	Scott et al., (2013)
	Moderating inflammatory and immunological reactions	27	Carr & Goudas (1999)
		87	Kehlet (1997)
		99	Kehlet & Wilmore (2002)
		128	Marik & Flemmer (2012)
		167	Sherren & Hall (1997)
		181	Stevenson et al., (1990)
		198	Wilmore & Kehlet (2001)
		203	Yim et al., (2000)
	Normothermia	2,3	Abreu (2011)
		19	Bernard (2013)
		34-35	Edis (2015)
		37	El-Gamal et al., (2000)
		62	Gustafsson et al., (2013)
		84-85	Kehlet (1997)
		105	Kurz et al., (1996)
		140	NICE (2008)
		159	Read et al., (2018)
		165	Sessler (2001)
		198	Wilmore & Kehlet (2001)
	Maintaining fluid balance during surgery	59	Gustafsson et al., 2013
		129	Miller et al., (2014)
		131	Mythen et al., (2012)
		191	Varadan et al., (2010)

Inhibiting neuroendocrine response

Surgical trauma evokes hormonal changes which result in the mobilisation of substrates and muscle protein loss. Increased secretion of catabolic hormones (catecholamines, cortisol) facilitates glucose production, resulting in increases in blood glucose concentration. A relative lack of insulin secretion and a reduction in insulin sensitivity (peripheral insulin resistance) leads to reduced glucose clearance and the development of hyperglycaemia (high blood sugar) (Traynor & Hall, 1981). In addition, glycogenolysis (breakdown of glycogen stored in the liver into glucose) is increased. If prolonged, hyperglycaemia may result in postoperative complications such as poor wound healing and wound infection, leading to increased LOS (Desborough, 2000). Increased cortisol concentrations also stimulate protein catabolism (Ljungqvist, Soop et al., 2007) Predominately brought about by increased gluconeogenesis (synthesis of glucose from non-carbohydrate sources such as protein or fat) breaking down skeletal muscle protein, resulting in a subsequent reduction in lean body mass (Yuill et al., 2005).

Activation of the stress response occurs through afferent nerve signals from the wound site. The use of regional aesthesia in ERPs, with neuro axial blockade techniques (local anaesthesia placed in or around the spine) may reduce the release of key stress hormones (epinephrine and cortisol) which are known to cause insulin resistance (Kehlet, 1997; Kehlet & Wilmore, 2002). This reduces insulin resistance and improves organ function, leading to reduced complications such as venous thromboembolism (VTE), blood loss, myocardial infarction (MI) renal failure, pneumonia, and delirium (Rodgers et al., 2000; Starks et al., 2014). The block can also be maintained postoperatively for pain treatment (Kehlet & Dahl, 2003). Fearon et al., (2005) argue for the use of anaesthesia with short acting effects (rather than opioids with long-lasting effect), which allow pro-active recovery to start on the day of surgery. The choice of anaesthetic technique depends on the type of surgery and pre-existing disease (Kehlet & Wilmore, 2002).



MECHANISM

Use of regional anaesthesia, with local anaesthetics (epidural or spinal anaesthesia).

Use of short acting anaesthetics rather than long lasting opioids.

Blocks afferent nerve pathways from the surgical site, reducing the release of catabolic stress hormones.

Sedation effects are reduced following surgery.

CONTEXT: Type of surgery, pre-existing disease.

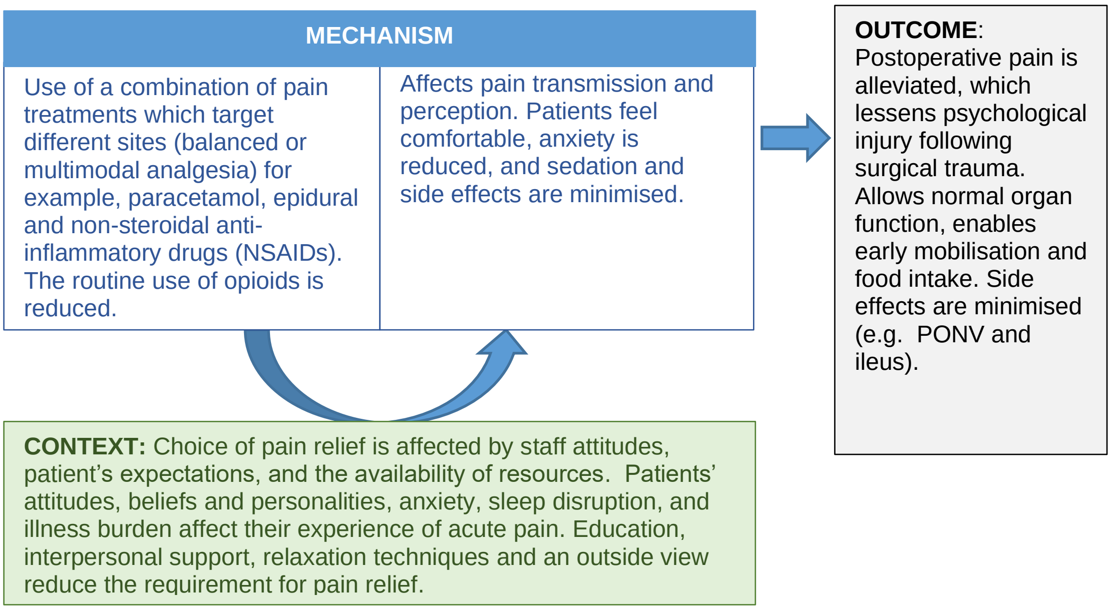
OUTCOME: Insulin resistance is reduced, and hyperglycaemia avoided. Organ function is maintained, leading to fewer postoperative complications. Protein loss from skeletal muscle is reduced and muscle function maintained. Which allows pro-active recovery to start on the day of surgery.

Figure 5: Inhibiting neuroendocrine response CMOC

Optimising pain control

The alleviation of postoperative pain is essential for recovery (Kehlet & Mogensen, 1999), allowing normal organ function, enabling mobilisation and food intake, reducing anxiety, and providing patient comfort (Kehlet & Dahl, 2003). However, if conventional preoperative medication and opioid anaesthesia are used, patients can often be left sedated for several hours after surgery and therefore ‘unable to sit up and take fluids or food’ (Fearon & Luff, 2003). This can also increase the incidence of postoperative complications such as nausea and vomiting (PONV) and ileus (obstruction of the intestine) (Fearon & Luff, 2003; Scott et al., 2013).

Restricting opioid use and using a combination of different analgesic treatments at different sites (balanced or multimodal analgesia), such as paracetamol, epidural opioids, and non-steroidal anti-inflammatory drugs (NSAIDs), improves pain relief and reduces side effects by affecting multiple mechanisms by which pain arises from nerve stimulation (Kehlet & Dahl, 2003). Good pain control lessens psychological injury (similar to post-traumatic shock) after an operation (Carr & Goudas, 1999), reduces cardiopulmonary (heart and lung) complications, organ dysfunctions, and allows early mobilisation (Kehlet, 2011b; Starks et al., 2014). Scott et al. (2013) report that the choice of pain relief may be affected by staff attitudes, patients’ expectations, and the availability of resources, such as patient-controlled analgesia pumps (PCA) and provision of an Acute Pain Service. Carr and Goudas (1999) suggest that psychological resilience and preparedness make it easier to control pain. Interventions such as education, interpersonal support, discussion of postoperative treatments, and a window with an outside view, may reduce the requirement for postoperative pain relief. Patients' attitudes, beliefs, and personalities also affect the experience of pain, as well as anxiety, sleep disruption, and illness burden.



MECHANISM

Use of a combination of pain treatments which target different sites (balanced or multimodal analgesia) for example, paracetamol, epidural and non-steroidal anti-inflammatory drugs (NSAIDs). The routine use of opioids is reduced.

Affects pain transmission and perception. Patients feel comfortable, anxiety is reduced, and sedation and side effects are minimised.

OUTCOME: Postoperative pain is alleviated, which lessens psychological injury following surgical trauma. Allows normal organ function, enables early mobilisation and food intake. Side effects are minimised (e.g. PONV and ileus).

CONTEXT: Choice of pain relief is affected by staff attitudes, patient's expectations, and the availability of resources. Patients' attitudes, beliefs and personalities, anxiety, sleep disruption, and illness burden affect their experience of acute pain. Education, interpersonal support, relaxation techniques and an outside view reduce the requirement for pain relief.

Figure 6: Optimising pain control CMOC

Moderating Inflammatory and immunological reactions

Surgical tissue injury also elicits a local inflammatory response (Carr & Goudas, 1999; Sheeran & Hall, 1997) in direct relation to the degree of tissue trauma (Kehlet, 1997). Although beneficial for limiting injury, defence against infection and facilitating repair, an exaggerated response is associated with poor perioperative outcome and increased morbidity. Surgical trauma also suppresses the cellular immune system (Stevenson et al., 1990), leading to increased risk of infection (Marik & Flemmer, 2012). Reducing the degree of tissue trauma by using minimally invasive access techniques, such as laparoscopic surgery within an ERP, reduces the inflammatory response (Kehlet & Wilmore, 2002) and reduces immunosuppression provoked by tissue damage (Kehlet, 1997). This results in improved lung function, reduced pain, PONV and morbidity, and shortens LOS (Kehlet & Wilmore, 2002). However, the mechanisms underlying these effects are not fully understood (Stevenson et al., 1990). Reducing the incision length also promotes normothermia (maintenance of normal body temperature), by reducing exposure of internal structures to the environment (Kehlet, 1997). Yim et al. (2000) have shown that utilising video-assisted techniques in chest surgery reduces the inflammatory reaction to trauma. Preoperative medications are also known effect immune system depression (Stevenson et al., 1990).

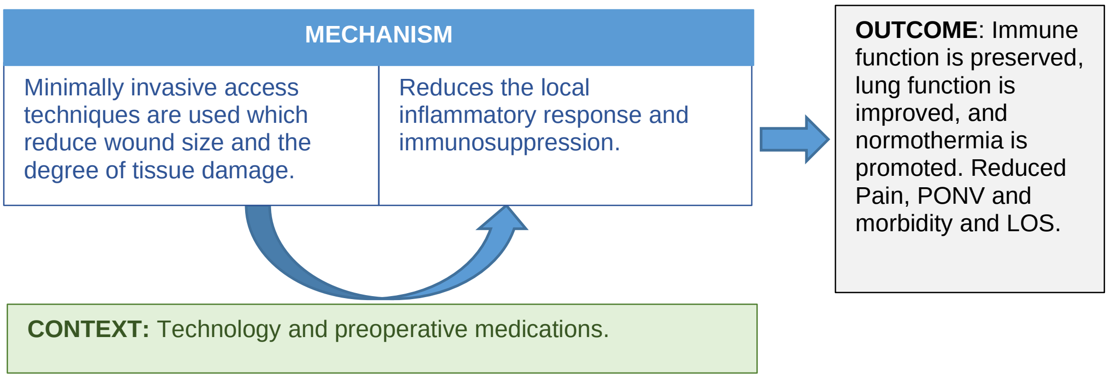
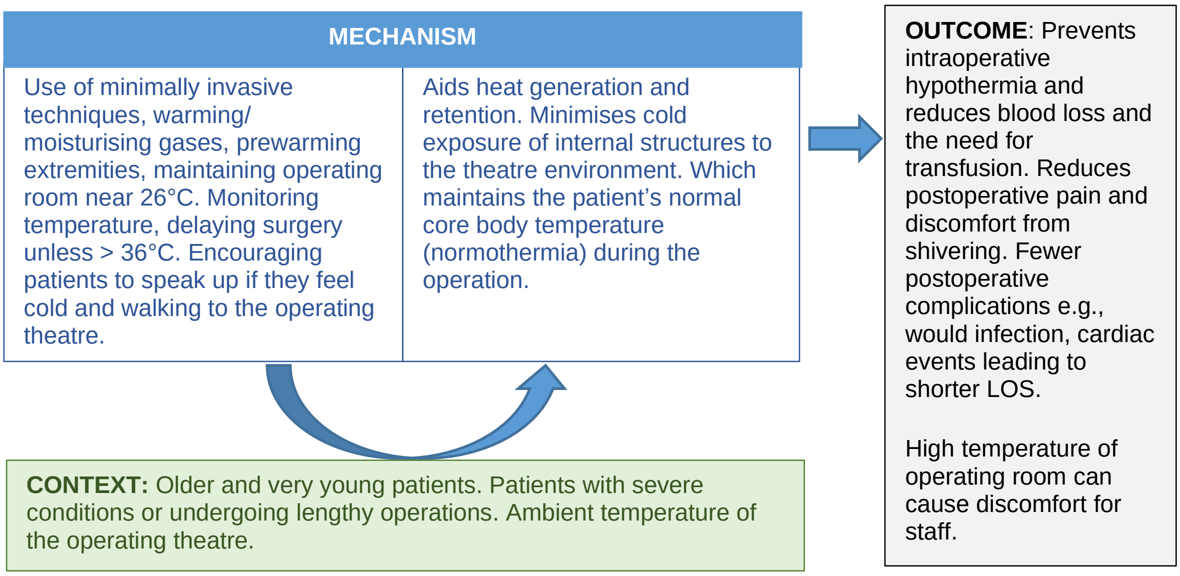


Figure 7: Moderating inflammatory and immunological reactions CMOC

Normothermia

Mild patient hypothermia (core body temperature less than 36°C) often occurs unintentionally during surgery because of cold exposure and anaesthesia impaired thermoregulation (Sessler, 2001). In other words, anaesthetic prevents the brain from regulating body temperature effectively and usual behavioural responses to the cold, such as shivering and constriction of peripheral blood vessels (Abreu, 2011). Read et al. (2018) note a lack of attention paid to hypothermia prior to surgery, with little insulation provided and operating theatre temperature set to accommodate staff, who are clothed and physically active. Hypothermia is associated with adverse complications, such as increased incidence of cardiac complications, wound infection, and intraoperative blood loss due to impaired coagulation (Kurz et al., 1996; Sessler, 2001). Patients at particular risk of hypothermia include, older or very young patients, those undergoing abdominal surgery, or other surgery of two hours or more (Wilmore and Kehlet, 2001), and patients with serious conditions (NICE, 2008).

Maintenance of normal body temperature (normothermia) and preventing hypothermia is a key element of ERPs (Edis et al., 2015). Maintenance of core body temperature has been shown to reduce intraoperative blood loss and the need for transfusion (Kurz et al., 1996), decrease the incidence of cardiac events and wound infections, shorten hospital LOS (Kurz et al., 1996) and reduce discomfort from shivering (Wilmore & Kehlet, 2001). Normothermia can be promoted through: minimising wound size; by reducing exposure of internal structures to the environment (Bernard, 2013); warming surgical fluids (intravenous fluids, blood transfusions, wound irrigation); warming and moisturising insufflation gases used to ventilate and oxygenate patients; forced air warming systems intraoperatively (which blow warm air across the surface of the skin); preoperative 'prewarming' of the extremities (Abreu, 2011). Recent National Institute for Health and Clinical excellence guidelines (NICE, 2008) also recommend behavioural changes, such as regular temperature monitoring, encouraging patients to speak up if they feel cold, walking patients to the operating theatre so that body heat is generated; delaying anaesthetising the patient until body temperature is above 36 degrees Celsius. Operating theatres are typically cold (Wilmore & Kehlet, 2001), therefore, El-Gamal et al. (2000) have also suggested maintaining an ambient temperature near 26 degrees Celsius, although it is recognised that this may cause discomfort to staff.



MECHANISM

Use of minimally invasive techniques, warming/ moisturising gases, prewarming extremities, maintaining operating room near 26°C. Monitoring temperature, delaying surgery unless > 36°C. Encouraging patients to speak up if they feel cold and walking to the operating theatre.

Aids heat generation and retention. Minimises cold exposure of internal structures to the theatre environment. Which maintains the patient's normal core body temperature (normothermia) during the operation.

CONTEXT: Older and very young patients. Patients with severe conditions or undergoing lengthy operations. Ambient temperature of the operating theatre.

OUTCOME: Prevents intraoperative hypothermia and reduces blood loss and the need for transfusion. Reduces postoperative pain and discomfort from shivering. Fewer postoperative complications e.g., would infection, cardiac events leading to shorter LOS.

High temperature of operating room can cause discomfort for staff.

Figure 8: Normothermia CMOC

Maintaining fluid balance during surgery

The aim of Intraoperative fluid therapy is to maintain adequate circulatory volume, to allow organ perfusion and oxygen delivery to the tissues. Traditional approaches to intraoperative fluid management, which administer more fluid than is needed, have been associated with harm (Miller et al., 2015). Too much fluid volume in the body causes fluid accumulation in the tissues, delays recovery of gastrointestinal function, increases complications and extends hospital stay (Varadhan et al., 2010).

ERPs promote zero-balance fluid therapy with the aim of maintaining normal volume of blood or fluids in the body (Mythen et al., 2012). Although, if surgery is major or prolonged, rapid infusion of fluids over a short period of time, known as volume therapy, may be required to replace blood loss (Miller et al., 2014). Utilising continuous cardiac output monitoring to individualise fluid therapy, known as Goal-directed fluid therapy, (Miller et al., 2015) may reduce complications and hasten the return of bowel function (Gustafsson et al., 2013; Miller et al., 2015).

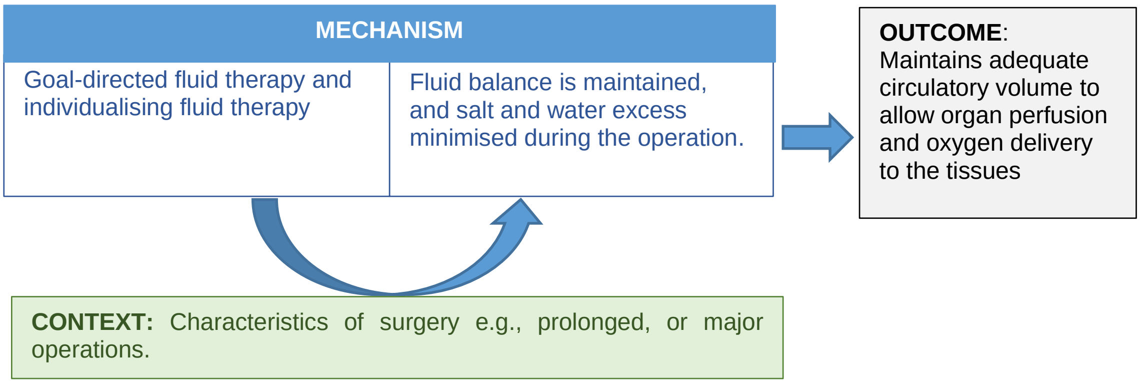


Figure 9: Maintaining intraoperative fluid balance CMOC

3.5.2 Metabolic optimisation

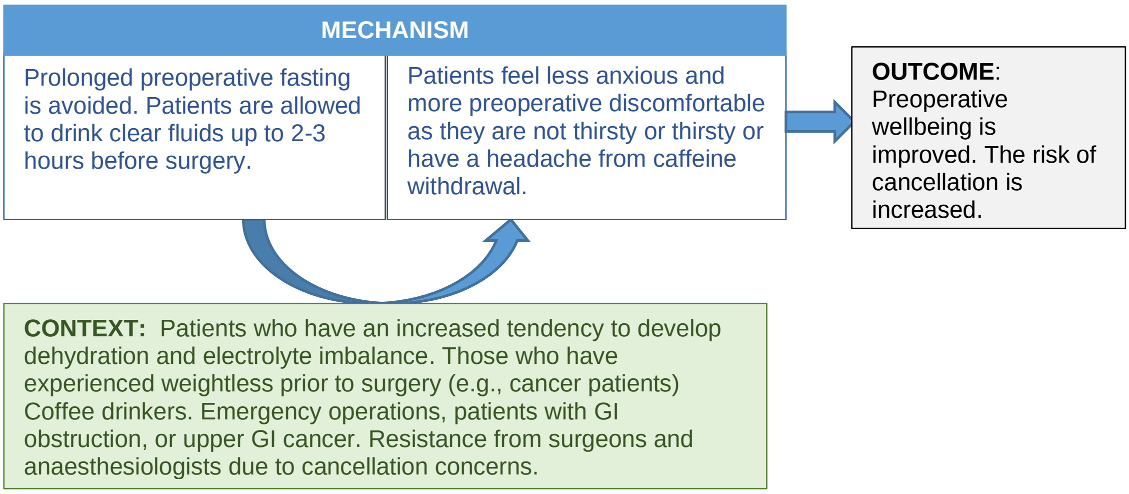
This theory was derived from nineteen studies which describe metabolic optimisation. Two CMOCs were synthesised; ‘avoiding prolonged preoperative fasting’ and ‘carbohydrate loading’. The CMOCs are discussed below and presented diagrammatically in Figures 10 and 11. A summary of evidence supporting my interpretations is provided in Table 3.

Table 3: Evidence supporting interpretations in surgery – metabolic optimisation

Proposed theory	**CMOCs**	**Exp no**	**Source**
Metabolic optimisation	Avoiding prolonged fasting before surgery	54	Gustafsson et al., (2013)
		74	Jin & Chung (2001)
		108	Lemanu (2012)
		109	Ljungqvist & Soreide (2003)
		115	Ljungqvist, Hausel et al., (2007)
		111	Ljungqvist, Soop et al., (2007)
		127	Maltby (2006)
		155	Pearsall et al., (2015)
		169	Simini (1999)
		172	Slim (2013)
		173	Smith (2011)
		174	Starks et al., (2014)
	CHO loading	18	Awad et al., (2013)
		68	Hausel et al., (2001)
		97	Kehlet & Wilmore (2001)
		102	Ljungqvist & Soreide (2003)
		118	Ljungqvist (2001)
		141	Noblett et al., (2006)
		172	Slim (2013)
		192	Veziant & Slim (2014)
		204	Yuill et al., (2004)

Avoiding prolonged fasting before surgery CMOC

Traditional practice of overnight fasting for patients undergoing surgery, to ensure an empty stomach and thereby minimise the risk of breathing fluids ore food into the lungs (Maltby, 2006), has been shown to be unnecessary and detrimental to postoperative recovery (Lemanu et al., 2014; Gustafsson et al., 2013), causing discomfort to patients and placing additional metabolic stress on the body (Ljungqvist & Soreide, 2003). Preoperative wellbeing can be improved by following newer recommendations, whereby most patients are allowed to drink clear fluids (some clear juices, coffee, and tea) up to two to three hours before surgery and solids up to six hours before (Smith et al., 2011). Intake of fluids avoids preoperative discomfort from thirst and mouth dryness (Ljungqvist, Soop, et al., 2007; Slim, 2013), headaches in (habitual) coffee drinkers (Simini, 1999), and may reduce anxiety (Ljungqvist & Soreide, 2003). Good levels of hydration and energy prior to surgery are particularly important for individuals who may have already experienced weight loss due to diseases such as cancer (Ljungqvist, Hausel, et al., 2007) and for some older patients because of an increased tendency to develop dehydration and electrolyte imbalance (Starks et al., 2014) and poor nutritional status and impaired kidney function are common (Jin & Chung, 2001). Strict fasting, however, is still recommended for patients undergoing emergency operations and those with gastrointestinal (GI) tract obstruction (blockage that prevents food or liquid passing through the intestines), or upper GI (mouth, throat and intestines) cancer (Ljungqvist & Soreide, 2003). Pearsall et al. (2015), note that surgeons may be resistant to prescribing shorter preoperative fasting, due to concerns that cases might be cancelled if a patient is moved forward on the operative schedule. Also, that some anaesthesiologists may feel that a shorter preoperative fast might cause cases to be cancelled because patients may not understand and therefore not comply with new recommendations.



MECHANISM

Prolonged preoperative fasting is avoided. Patients are allowed to drink clear fluids up to 2-3 hours before surgery.

Patients feel less anxious and more preoperative discomfortable as they are not thirsty or thirsty or have a headache from caffeine withdrawal.

OUTCOME: Preoperative wellbeing is improved. The risk of cancellation is increased.

CONTEXT: Patients who have an increased tendency to develop dehydration and electrolyte imbalance. Those who have experienced weightless prior to surgery (e.g., cancer patients) Coffee drinkers. Emergency operations, patients with GI obstruction, or upper GI cancer. Resistance from surgeons and anaesthesiologists due to cancellation concerns.

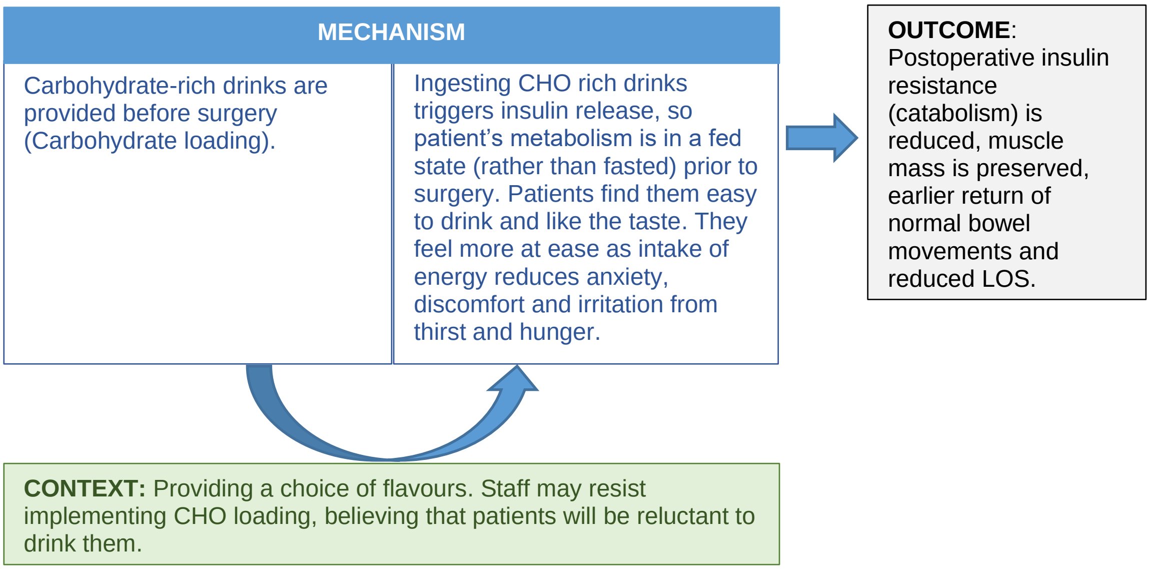
Figure 10: Avoiding prolonged fasting before surgery CMOC

Carbohydrate loading

Ingesting carbohydrate drinks before surgery (CHO loading) triggers a release of insulin (comparable to the amounts found after a normal breakfast), which changes the patients’ metabolic state from a fasted into a fed state (Ljungqvist

& Soreide, 2003). This has been shown to reduce insulin resistance (Awad et al., 2013; Kehlet & Wilmore, 2002; Ljungqvist et al., 2001), preserve muscle mass (Yuill et al., 2005), reduce discomfort and irritation from thirst, hunger and anxiety (Hausel et al., 2001), shorten hospital LOS, and return gut function earlier (Noblett et al., 2006; Slim, 2013).

Practitioner attitudes are important in the implementation of CHO loading. In their study investigating the willingness of patients to drink carbohydrate solutions, (Veziant & Slim, 2014) noted a reluctance to implement CHO loading because of a belief that patients will not accept or tolerate drinking CHO beverages. However, their results demonstrate good acceptance of carbohydrate drinks by patients, who judged them easy to drink and pleasant tasting (especially where a variety of flavours are available).



MECHANISM

Carbohydrate-rich drinks are provided before surgery (Carbohydrate loading).

Ingesting CHO rich drinks triggers insulin release, so patient's metabolism is in a fed state (rather than fasted) prior to surgery. Patients find them easy to drink and like the taste. They feel more at ease as intake of energy reduces anxiety, discomfort and irritation from thirst and hunger.

OUTCOME: Postoperative insulin resistance (catabolism) is reduced, muscle mass is preserved, earlier return of normal bowel movements and reduced LOS.

CONTEXT: Providing a choice of flavours. Staff may resist implementing CHO loading, believing that patients will be reluctant to drink them.

Figure 11: Carbohydrate loading CMOC

3.5.3 Preparation

The preparation of patients for surgery and their hospital experience is a prominent theme in ERPs. This theory was derived from forty-nine studies which describe six CMOCs: 'correcting modifiable pre-existing health conditions'; 'pre-surgical assessment and testing'; 'altering poor lifestyle behaviours'; 'avoiding routine mechanical bowel preparation'; 'prophylaxis'; 'psychological preparation'. The CMOCs are presented diagrammatically in Figures 12 to 17. A summary of evidence supporting my interpretations is provided in Table 4.

Table 4: Evidence supporting interpretations in surgery - preparation

Proposed theory	**CMOCs**	**Exp no**	**Source**
Preparation	Correcting modifiable pre-existing health conditions	50 74 88 135 175-176	Grocott et al., (2017) Jin & Chung (2001) Kehlet (1997) NHS improvement (2012) Starks (2015)
	Pre-surgical assessment and testing	81 137	Kehlet (1997) NHS improvement (2012)
	Altering poor lifestyle behaviours	26 25 32 47 52-53 77 96 120 130 150 186 185 222	Carli et al., (2010) Carley & Zavorski (2005) Davies & Wilson, 2004 Gillis et al., (2014) Gustafsson et al., (2013) Kaka et al., 2017 Kehlet & Wilmore (2002) Lyon et al., (2014a) Moller et al., (2002) Oppedal et al., (2012) Tønnesen & Kehlet (1999) Tønnesen et al., (2009) Warner (2009)
	Avoiding routine bowel preparation	38 51 58 76 113 149	Fearon et al., (2005) Guenaga et al., (2011) Gustafsson et al., (2013) Jung et al., (2007) Lundqvist, Hausel et al., (2007) Nygren et al., (2013)
	Prophylaxis	11 12 23 56-57 89 96	Andersen & spencer (2003) Apfel et al., (2012) Bratzlet & Houck (2004) Gustafsson et al., (2013) Kehlet (2011) Kehlet & Wilmore (2008)

		196	Whatcha & white (1992)
	Psychological preparation	1	Aasa et al., (2013)
		13	Archer et al., (2014)
		33	Devine (1992)
		36	Egbert et al., (1964)
		40	Fearon et al., (2005)
		45-46	Galli (2015)
		55	Gustafsson et al (2013)
		67	Harries (2013)
		104	Kiyohara (2004)
		102	Kiecolt Glaser et al., (1998)
		104	Kruzik (2009)
		117	Ljungqvist, Hausel et al., (2007)
		125	Lyon et al., (2014)
		157	Phillips & Horgan, 2014
		168	Short et al (2015)
		177	Starks (2015)
		182	Taylor & Burch (2011)
		193	Volicer et al., (1977)
		194	Walter et al., (2008)

Correcting modifiable pre-existing health conditions

There is a growing number of patients presenting for surgery with multiple comorbidities, such as poorly controlled diabetes mellitus, anaemia, chronic obstructive lung disease, and hypertension. These patients account for over half of all postoperative deaths (Fowler et al., 2023). Administration of drug treatment in advance of surgery to correct modifiable pathophysiology and optimise organ function can improved patients' physiology and fitness for surgery (Kehlet, 1997). Patients then manage the physiological stress (caused by the trauma of the operation) in a more optimal way (Grocott et al., 2017), and the risk of cancellation on the day of surgery is reduced (Starks et al., 2014). This is thought to be of particular importance for older patients with co-existing diseases, where functional capacity is already reduced and the risk of adverse outcomes, including mortality, is high (Jin & Chung, 2001; Starks et al., 2014). For example, if anaemia is detected in advance of admission, treatment with prophylactic iron raises haemoglobin making the need for a blood transfusion, which is associated with increased risk of infection and duration of hospital stay, less likely (NHS Improvement, 2012; Starks et al., 2014).

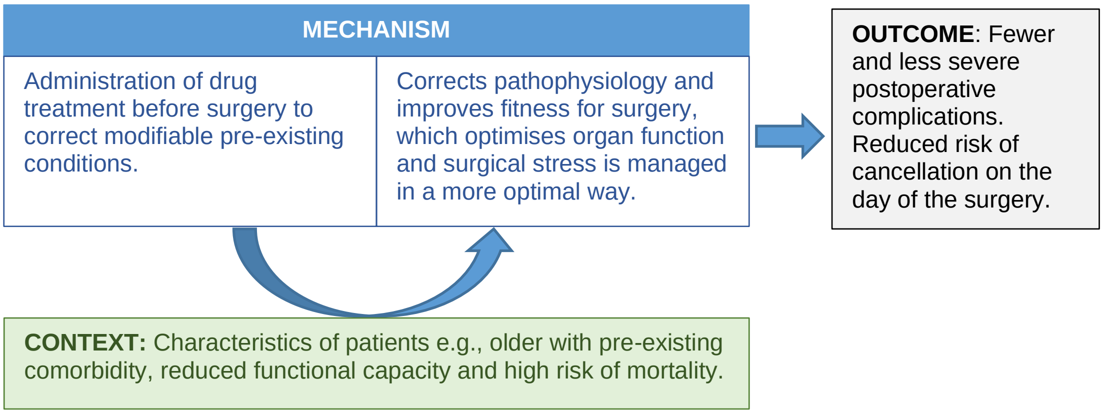
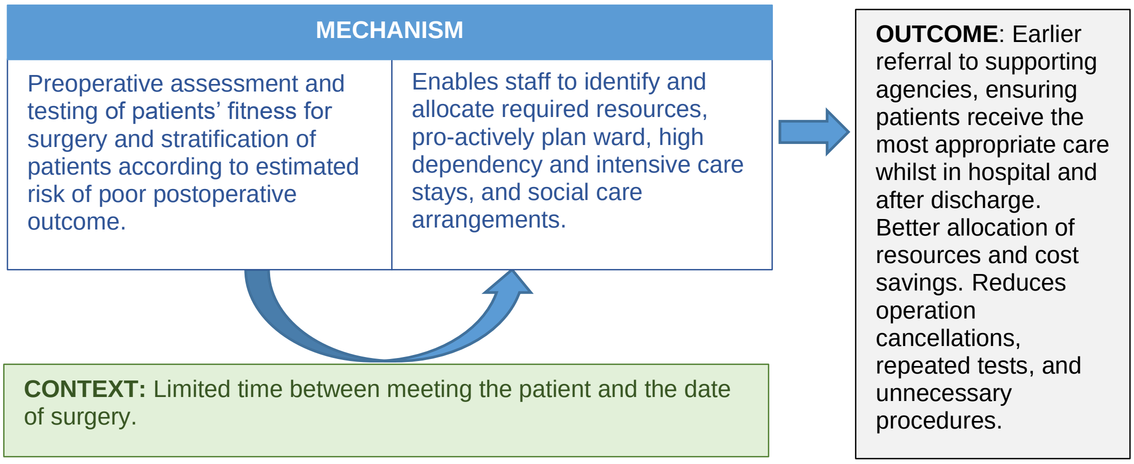


Figure 12: Correcting modifiable pre-existing health conditions CMOC

Pre-surgical assessment and testing

The assessment of patients ‘fitness for surgery’ helps to reduce operation cancellations, repeated tests and unnecessary procedures (NHS Improvement, 2012). Pre-surgical assessment tools, such as cardiopulmonary exercise testing allow the stratification of patients according to estimated risk of mortality or morbidity following surgery (Kehlet, 1997; NHS Improvement, 2012). This enables staff to identify potentially required resources and pro-actively plan ward, high dependency, and intensive care stays. In addition, knowing the potential outcome in advance of surgery may help family members and caregivers to prepare better for the patient’s postoperative care (NHS Improvement, 2012). Preoperative assessment typically occurs in the weeks leading up to the operation. Grocott et al. (2017) identified the time available between meeting the patient and the date of surgery as a limiting factor to this mechanism.



MECHANISM

Preoperative assessment and testing of patients’ fitness for surgery and stratification of patients according to estimated risk of poor postoperative outcome.

Enables staff to identify and allocate required resources, pro-actively plan ward, high dependency and intensive care stays, and social care arrangements.

CONTEXT: Limited time between meeting the patient and the date of surgery.

OUTCOME: Earlier referral to supporting agencies, ensuring patients receive the most appropriate care whilst in hospital and after discharge. Better allocation of resources and cost savings. Reduces operation cancellations, repeated tests, and unnecessary procedures.

Figure 13: Pre-surgical assessment and testing CMOC

Altering poor lifestyle behaviours

Certain groups of patients have an increased risk of poor postoperative outcome and complications due to poor lifestyle behaviours, such as alcohol misuse, smoking and poor fitness levels. Alcohol misusers, for example, are more likely to experience increased morbidity, longer hospital stay and need future surgery (Kehlet & Wilmore, 2002; Tonnesen & Kehlet, 1999). Postoperative complications related to smoking include, slow wound and tissue healing, wound infection, heart, and lung complications (Moller et al., 2002; Tonnesen & Kehlet, 1999). Aerobic fitness is the capacity of the heart and lungs to take in, deliver and use oxygen. Patients with low preoperative aerobic fitness may be unable to meet the increased oxygen requirements of surgery, leading to increased risk of postoperative complications and prolonged LOS (Davies & Wilson, 2004).

The preoperative period is considered a salient opportunity or ‘teachable moment’ to modify health behaviours which contribute to recovery (Warner, 2009). Increased awareness of potential deleterious outcomes through preoperative counselling may increase the patient’s perception of personal risk and motivate them to abstain from poor health behaviours, or adopt risk-reducing health behaviours, such as exercise, prior to the operation.

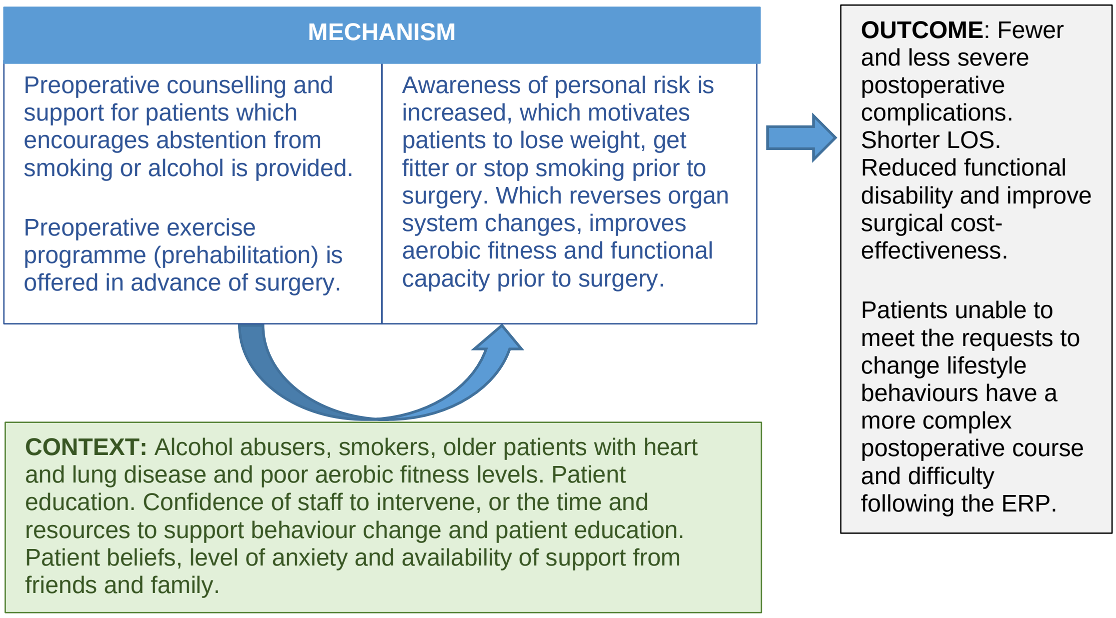
Short term withdrawal from alcohol in advance of surgery has been shown to reduce the incidence of postoperative complications, such as wound infection

(Kaka et al., 2017), prolonged bleeding, and cardiopulmonary complications (Oppedal et al., 2012). Proposed mechanisms include the reversal of immune suppression, improved cardiac dysfunction, a reduced response to surgical stress (Tonnesen, 2003), better immune function and tissue healing (Kaka et al., 2017). Withdrawal from alcohol can be facilitated by empowering patients through education (Kaka et al., 2017).

Similarly, smoking-induced damage and multiple changes to organ systems (peripheral hypoxia, impaired immune function, lung changes, collagen production) have been found to be reversible to some extent through abstinence (Tønnesen et al., 2009). Although the exact length of abstinence necessary is to date undetermined. Warner (2009) describes how clinicians may lack confidence in their ability to effectively intervene, or think patients are too stressed to deal with their smoking or will be offended if they discuss it. They may think that nicotine replacement therapy will hinder healing or may find it difficult to provide the necessary extended counselling and follow-up.

Aerobic fitness levels can be improved prior to surgery through preoperative exercise programmes known as pre-habilitation (Gustafsson et al., 2013). Interventions carried out in the waiting period before surgery have been shown to result in reduced functional disability (i.e., the ability to perform and cope with activities of daily living) and fewer postoperative complications (Carli et al., 2010; Gillis et al., 2014). Carli and Zavorsky (2005) have shown this to be particularly relevant for older patients who have low fitness levels, reduced muscular strength and sarcopenia (loss of proprioception and skeletal muscle mass). However, Carli et al. (2010) found that more strenuous exercise programmes may be intimidating for some people. A lack of support from friends and family, low belief in the benefits of fitness may also lead to poor adherence to intense pre-habilitation programmes. Experiencing anxiety may also affect people’s ability to engage in pre-habilitation.

If a patient is unable to meet requests to change lifestyle behaviours such as losing weight, getting fitter, or stopping smoking prior to surgery, then the postoperative course may be more complex as a result, making the enhanced recovery pathway more difficult to follow (Lyon et al., 2014).



MECHANISM

Preoperative counselling and support for patients which encourages abstention from smoking or alcohol is provided.

Preoperative exercise programme (prehabilitation) is offered in advance of surgery.

Awareness of personal risk is increased, which motivates patients to lose weight, get fitter or stop smoking prior to surgery. Which reverses organ system changes, improves aerobic fitness and functional capacity prior to surgery.

OUTCOME: Fewer and less severe postoperative complications. Shorter LOS. Reduced functional disability and improve surgical cost-effectiveness.

Patients unable to meet the requests to change lifestyle behaviours have a more complex postoperative course and difficulty following the ERP.

CONTEXT: Alcohol abusers, smokers, older patients with heart and lung disease and poor aerobic fitness levels. Patient education. Confidence of staff to intervene, or the time and resources to support behaviour change and patient education. Patient beliefs, level of anxiety and availability of support from friends and family.

Figure 14: Altering poor lifestyle behaviours CMOC

Avoiding bowel preparation

Until recently, routine mechanical bowel preparation (MBP), that is oral medication to cleanse the colon, was thought to be important in preventing infection and separation of the surgical join in colorectal surgery. However, a recent Cochrane review has shown no evidence of the value to patients (Güenaga et al., 2011). ERAS guidelines suggest that MBP is associated with dehydration, particularly in older adults (Nygren & Gustafsson, 2011), and postoperative complications and should therefore be omitted (Gustafsson et al., 2013). Avoiding the use of routine MBP avoids unnecessary preoperative distress to patients; workload for hospital staff and relatives because of early admission; fasting dehydration and postoperative interference with food intake, which is particularly important for patients with cancer who have already experienced weight loss because of cancer; prolonged return of normal bowel movements (Jung et al., 2007; Ljungqvist, Hausel, et al., 2007).

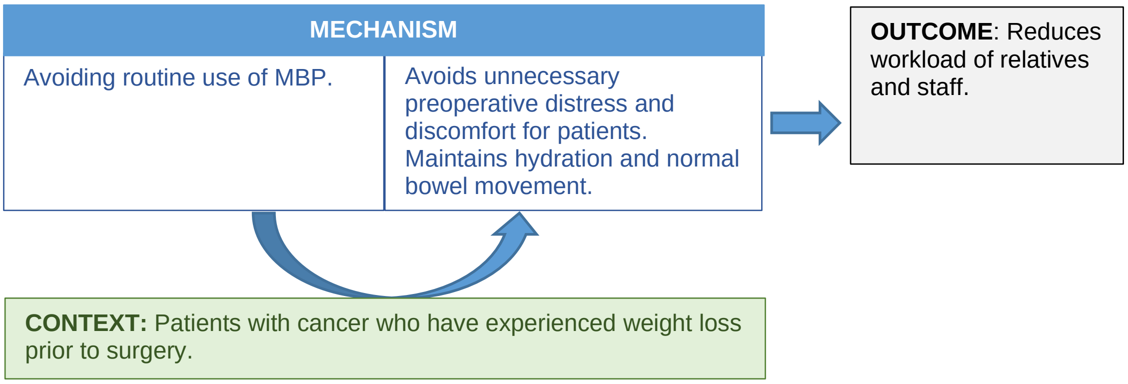


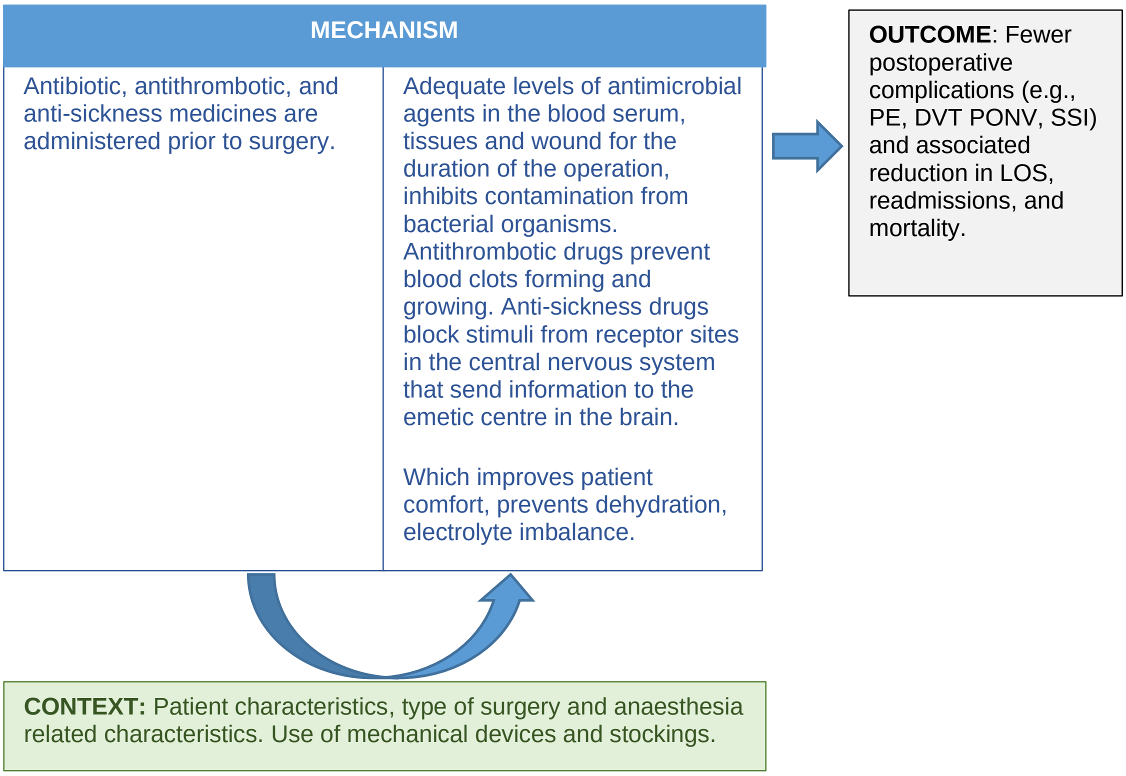
Figure 15: Avoiding bowl preparation CMOC

Prophylaxis

Postoperative venous thromboembolism (VTE) is a serious but preventable complication among surgical patients (Anderson & Spencer, 2003; Kehlet & Wilmore, 2008). VTE consists of two related conditions: pulmonary embolism (PE) and deep vein thrombosis (DVT). Initiation of antithrombotic prophylactic drugs (that reduce the formation of blood clots), mechanical compression devices, and the use of stockings prior to the operation, reduces the incidence of deep vein-thrombosis (DVT) and pulmonary embolism (PE) for patients at high risk (Anderson & Spencer, 2003; Gustafsson et al., 2013).

Postoperative nausea and/or vomiting (PONV) and ileus (prolonged absence of bowel function) are common complications of surgery which cause delayed recovery (Kehlet, 2011a). PONV may result in decreased patient comfort, and if persistent dehydration, delaying discharge with increasing costs (Apfel et al., 2012; Watcha & White, 1992). Administration of prophylactic antiemetic (anti-sickness) medications may block stimuli from receptor sites in the central nervous system that send information to the emetic centre in the brain (Watcha & White, 1992). Apfel et al. (2012) found that PONV is mainly triggered by use of volatile (inhaled or vaporised) anaesthetics, prolonged duration of anaesthesia, nitrous oxide, and postoperative opioids, when administered to susceptible patients i.e., young, female, non-smokers, and those with a history PONV or motion sickness.

Administration of antimicrobial prophylaxis ensures that adequate drug levels are present in the blood serum, tissues and wound for the duration of the operation, which inhibits bacterial contamination and prevents postoperative infection of the wound, and associated increases in LOS, readmission or mortality (Bratzler & Houck, 2004).



MECHANISM

Antibiotic, antithrombotic, and anti-sickness medicines are administered prior to surgery.

Adequate levels of antimicrobial agents in the blood serum, tissues and wound for the duration of the operation, inhibits contamination from bacterial organisms. Antithrombotic drugs prevent blood clots forming and growing. Anti-sickness drugs block stimuli from receptor sites in the central nervous system that send information to the emetic centre in the brain.

Which improves patient comfort, prevents dehydration, electrolyte imbalance.

OUTCOME: Fewer postoperative complications (e.g., PE, DVT PONV, SSI) and associated reduction in LOS, readmissions, and mortality.

CONTEXT: Patient characteristics, type of surgery and anaesthesia related characteristics. Use of mechanical devices and stockings.

Figure 16: Prophylaxis CMOC

Psychological preparation

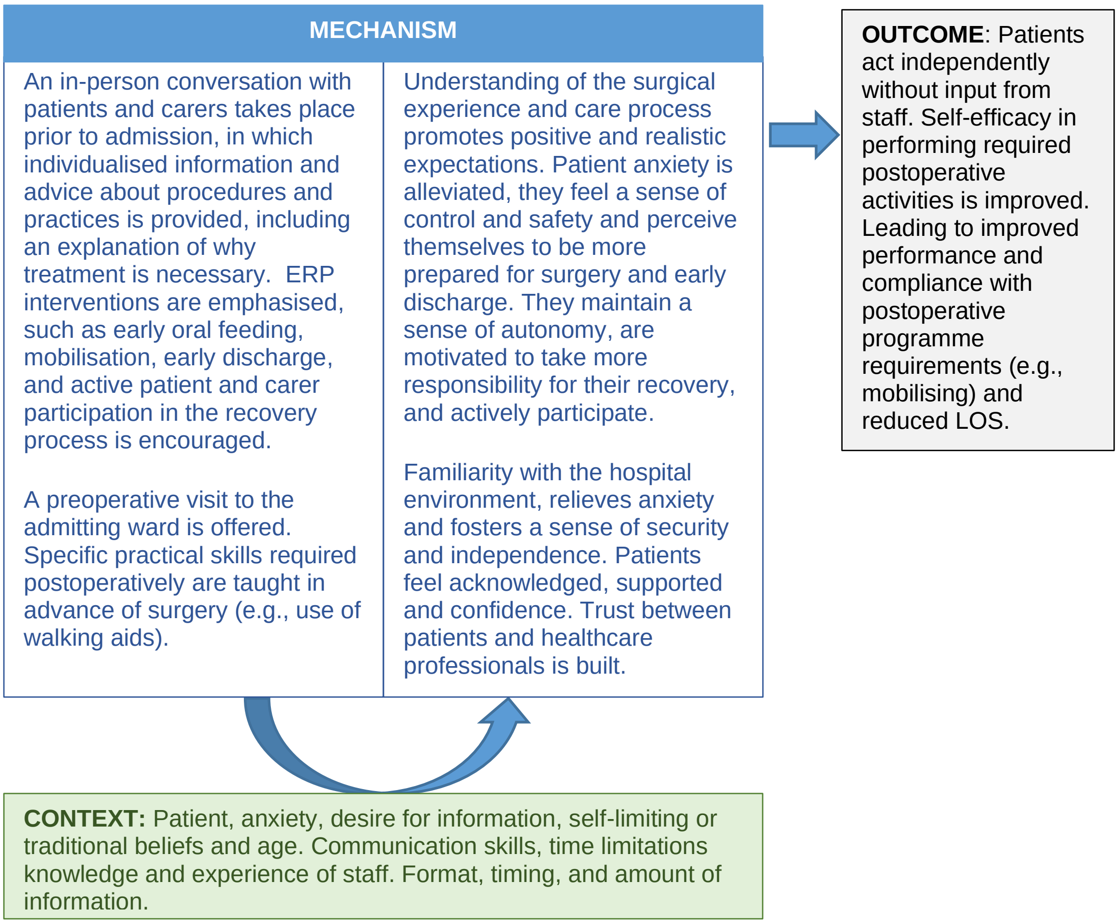
It is well established that preparing patients psychologically for surgery and their hospital experience is beneficial (Devine, 1992; Kiecolt-Glaser et al., 1998). Significant benefits have been demonstrated, including lower preoperative anxiety (Kiyohara et al., 2004), reduced postoperative pain and use of pain control (Egbert et al., 1964) fewer postoperative complications, such as wound healing (Kiecolt-Glaser et al., 1998), and reduced LOS (Devine, 1992; Gustafsson et al., 2013). Authors have reported that psychological preparation in advance of surgery is a key aspect of ERPs (Fearon et al., 2005; Gustafsson et al., 2013) and several different types of interventions are commonly employed in advance of surgery. For example, provision of information, development of patients’ skills, and familiarisation with the healthcare environment.

Hospitalisation for surgery is associated with elevated levels of patient anxiety (Kiecolt-Glaser et al., 1998; Volicer et al., 1977). Primary studies of ERPs have suggested that fear and stress may be alleviated by providing patients with preoperative information. This is because knowledge regarding their surgery is developed and expectations managed, which gives rise to an increase in the perceived sense of control and safety (Aasa et al., 2013; Galli et al., 2015; Short et al., 2016; Starks et al., 2014). Being informed maintains a sense of autonomy which in turn increases patient's motivation to take personal responsibility for their recovery and actively participate in the programme (Archer et al., 2014; Taylor & Burch, 2011), facilitating early discharge (Gustafsson et al., 2013). This is particularly pertinent if patients hold self-limiting beliefs or are attuned to traditional practices (Ljungqvist, Hausel et al, 2007). Walter et al., (2009) noted differences in patients' desire for information, with some patients considering the information provided excessive to their needs. Other studies in colorectal and gynaecological surgical ERPs have reported that some patients (mainly older adults) may feel overloaded with written information (Aasa et al., 2013; Short et al., 2016). The quality of preoperative education may be contingent on the healthcare professional's communication skills, knowledge and experience (Egbert et al, 1963) as well as staff knowing the right form and amount of information to provide (Kiyohara et al., 2004). To be effective, preoperative information should be available in different formats (written, verbally, video, website programmes) as patients have different learning styles (Kruzik, 2009). The timing of interventions is also considered to be important. For example, it has been suggested that communication on a separate occasion following diagnosis both alleviates difficulties for healthcare professional and increases absorption of information by patients. This recognises the disabling effect of acute emotion when the need for surgery is first announced (Ljungqvist, Hausel et al, 2007). Information provided to the patients' carer also provides potential benefits, such as facilitating postoperative care planning and removing the communication burden from patients.

Teaching specific skills that may be required after their operation, such as exercises and using walking aids, can improve a patient's self-efficacy and provide significant postoperative benefits such as, assisting rehabilitation improved mobility and compliance with postoperative programme requirements (Archer et al., 2014; Phillips & Horgan, 2014).

Similarly, patient anxiety may be relieved through a preadmission visit to the admitting ward, which promotes familiarity with the ward environment (Aasa et al., 2013). This is reported to be particularly relevant when patients are older (Harries et al., 2013). Preoperative dialogue during these visits also helps patients to feel acknowledged and supported and builds confidence and trust between patients and healthcare professionals (Aasa et al., 2013).

Patients' negative interpretations of these interventions have also been highlighted by several authors. This includes a general resistance to taking responsibility over aspects of their care (Aasa et al., 2013) and a lack of compliance to the advice provided (Lyon et al., 2014).



MECHANISM

An in-person conversation with patients and carers takes place prior to admission, in which individualised information and advice about procedures and practices is provided, including an explanation of why treatment is necessary. ERP interventions are emphasised, such as early oral feeding, mobilisation, early discharge, and active patient and carer participation in the recovery process is encouraged.

A preoperative visit to the admitting ward is offered. Specific practical skills required postoperatively are taught in advance of surgery (e.g., use of walking aids).

Understanding of the surgical experience and care process promotes positive and realistic expectations. Patient anxiety is alleviated, they feel a sense of control and safety and perceive themselves to be more prepared for surgery and early discharge. They maintain a sense of autonomy, are motivated to take more responsibility for their recovery, and actively participate.

Familiarity with the hospital environment, relieves anxiety and fosters a sense of security and independence. Patients feel acknowledged, supported and confidence. Trust between patients and healthcare professionals is built.

OUTCOME: Patients act independently without input from staff. Self-efficacy in performing required postoperative activities is improved. Leading to improved performance and compliance with postoperative programme requirements (e.g., mobilising) and reduced LOS.

CONTEXT: Patient, anxiety, desire for information, self-limiting or traditional beliefs and age. Communication skills, time limitations knowledge and experience of staff. Format, timing, and amount of information.

Figure 17: Psychological preparation CMOC

3.5.4 Organisation of care

This theory was derived from thirty-two sources. Five CMOCs were generated relating to ‘structure and standardisation’, ‘individualising care’, ‘interprofessional collaboration’, ‘timeliness’ and ‘acceptance of new practices’. The CMOCs are presented diagrammatically in Figures 18 to 21. A summary of evidence supporting my interpretations is provided in Table 5.

Table 5: Evidence supporting interpretations in surgery – organisation of care

Proposed theory	CMOCs	Exp no	Source
Organisation of care	Structure and Standardisation	16 17 73 119 136 134 142 158 184	Archer et al., (2014) Arroyo et al., (2012) Jeff & Taylor (2014) Ljungqvist (2014) NHS Improvement (2012) NHS Improving Quality (2013) Norlyk & Harder (2009) Polle et al., (2007) Taylor & Burcher (2011)
	Individualising care	71 107 122 146 161	Jeff & Taylor (2014) Lawton & Parker (1999) Lyon et al., (2014) Norlyk & Harder (2009) Rycroft Malone et al., (2009)
	Interprofessional collaboration	4 114 119 139 151 153 170 171	Ahmed et al., (2012) Ljungqvist, Hausel et al., (2007) Ljungqvist (2014) NHS Improvement (2012) Pape et al., (2013) Pearsall et al., (2015) Sjetne et al., (2009) Slim (2013)
	Timeliness	14 21 22	Archer et al., (2014) Blazeby et al., (2010) Bouras (2014)

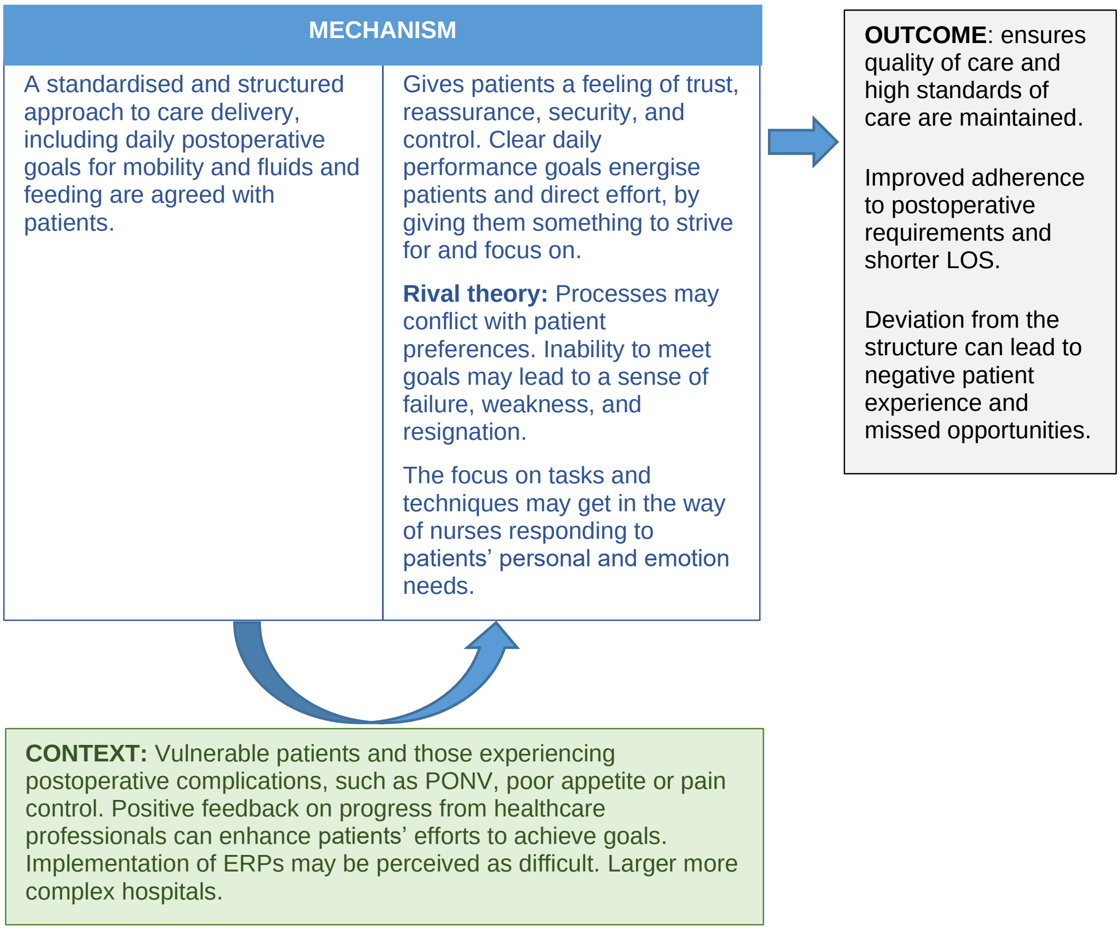
		66	Harries et al., (2013)
		69	Hunt et al., (2009)
		74	Jin & Chung (2001)
		101	Keller et al., (2014)
		123	Lyon et al., (2014)
		126	Maessen et al., (2007)
		132	National Audit Office (2000)
		138	NHS Improvement (2012)
		145	Norlyk & Harder (2009)
		148	Norlyk & Martinsen (2013)
		154	Pearsall et al., (2015)
		157	Philips & Horgan (2014)
		178	Starks et al., (2014)
	Adopting new practices	4-9	Ahmed et al., (2012)
		48-49	Gotlib Conn et al., (2015)
		70, 72	Jeff & Taylor (2014)
		121-25	Lyon et al., (2014)
		133	Nadler et al., (2014)
		156	Pearsall et al., (2015)
		158	Polle et al., (2007)
		162	Schwarzbach et al., (2011)
		170	Sjetne et al., (2009)

Structure and standardisation

In contrast to conventional recovery practices which follow the progress of the patient, ERPs promote standardised and structured delivery of care (Polle et al., 2007). ERPs have been described as an organised structured sequence of care, called a ‘care pathway’ or ‘care protocol’ (Ljungqvist, 2014). These terms are often used interchangeably in the literature to encompass approaches that facilitate standardisation of care (Rycroft-Malone et al., 2009). Clinical care of patients undergoing surgery has been shown to differ widely between hospitals. The standardised approach of ERPs is considered of value in helping to minimise this heterogeneity, improving outcomes and the quality of care (NHS Improving Quality, 2013). Norlyk and Harder (2009) demonstrated that structured ERPs can give vulnerable patients a feeling of trust, security, and control. Similarly, Taylor and Burch (2011) have shown that clear processes after discharge for obtaining support can be reassuring for patients.

Setting clear daily performance goals is an important part of ERPs, which can encourage and motivate patients and build confidence (NHS Improvement, 2012). However, some patients may be unable to achieve set goals within the expected time frame, due to nausea, poor appetite, or poor pain control (Jeff & Taylor, 2014). The inability to meet standards may lead to a sense of failure, weakness, and resignation (Norlyk & Harder, 2009). Furthermore, the focus on protocols, tasks and techniques may hinder staff from responding appropriately to patients' personal and emotional needs. If practices deviate from the expected structures, for example, a promised follow-up call after discharge does not take place, this can lead to a negative patient experience and loss of an opportunity to discuss difficulties or ask questions. This may ultimately place a burden on primary healthcare services such as GPs and district nurses (Archer et al., 2014). Standardised processes may also conflict with patient preferences. For example, in a study of colorectal surgery, Taylor and Burch (2011) found that nearly all patients decided that phoning the hospital for advice was more appropriate than asking their GP, as recommended by the hospital team.

There is recognition in the literature that successful implementation of standardised care approaches is influenced by individual, professional and organisational factors. The degree of implementation of programmes may also be affected by the size and complexity of the setting. Arroyo et al. (2012) have shown that change was slower and more difficult in a larger hospital because the organisational structures were more ridged, and the number of professionals involved was greater. Postoperative care routines were most difficult to influence as they involved more disciplines.



MECHANISM

A standardised and structured approach to care delivery, including daily postoperative goals for mobility and fluids and feeding are agreed with patients.

Gives patients a feeling of trust, reassurance, security, and control. Clear daily performance goals energise patients and direct effort, by giving them something to strive for and focus on.

Rival theory: Processes may conflict with patient preferences. Inability to meet goals may lead to a sense of failure, weakness, and resignation.

The focus on tasks and techniques may get in the way of nurses responding to patients' personal and emotion needs.

OUTCOME: ensures quality of care and high standards of care are maintained.

Improved adherence to postoperative requirements and shorter LOS.

Deviation from the structure can lead to negative patient experience and missed opportunities.

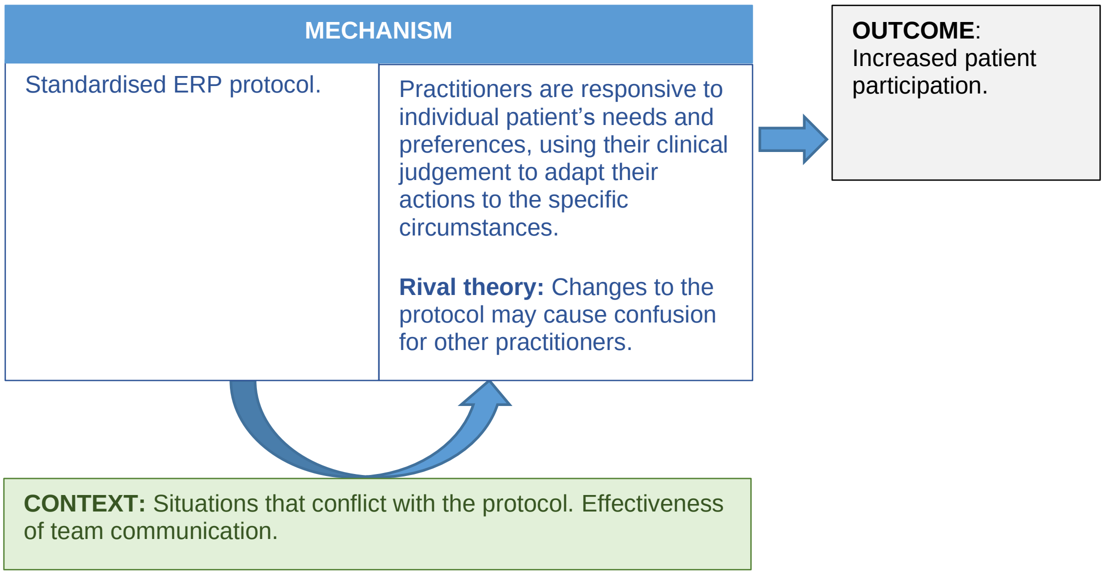
CONTEXT: Vulnerable patients and those experiencing postoperative complications, such as PONV, poor appetite or pain control. Positive feedback on progress from healthcare professionals can enhance patients' efforts to achieve goals. Implementation of ERPs may be perceived as difficult. Larger more complex hospitals.

Figure 18: Structure and standardisation CMOC

Individualising care

As discussed above, the standardised ERP approach to care delivery was strongly supported in the literature. Paradoxically, however, there was also recognition that uniformity of approach may not be appropriate in all cases. To provide optimal care the ERP protocol may need to be tailored to an individual patient's needs, values and wants (Jeff & Taylor, 2014; Lyon et al., 2014). Lyon et al., (2014) have noted that such modification of the protocol can cause confusion for the staff if communication within the team is ineffective. According to Norlyk and Harder (2009) a lack of professional insight, focus and sensitivity of the ERP and hospital routines on the individual lifeworld of patients, can undermine patient participation and programme efficiency. Authors have explained that when situations are encountered that conflict with the protocol, clinicians adapt actions to the specific circumstances, integrating patient preferences into treatment choices. For example, if patients experience severe nausea, nurses use their clinical autonomy and step off the protocol, reintroducing it when the patient's condition dictates.

This aligns with findings from the wider literature. In a realist evaluation of nursing decision making, Rycroft-Malone et al. (2009) showed that as the clinical context is complex and unpredictable, protocols may be used flexibly. Lawton and Parker (1999) argue that successful implementation of protocols in the NHS is dependent on achieving the correct balance between standardising practice and allowing professionals to use their own clinical judgement where necessary.



MECHANISM

Standardised ERP protocol.

Practitioners are responsive to individual patient's needs and preferences, using their clinical judgement to adapt their actions to the specific circumstances.

Rival theory: Changes to the protocol may cause confusion for other practitioners.

OUTCOME: Increased patient participation.

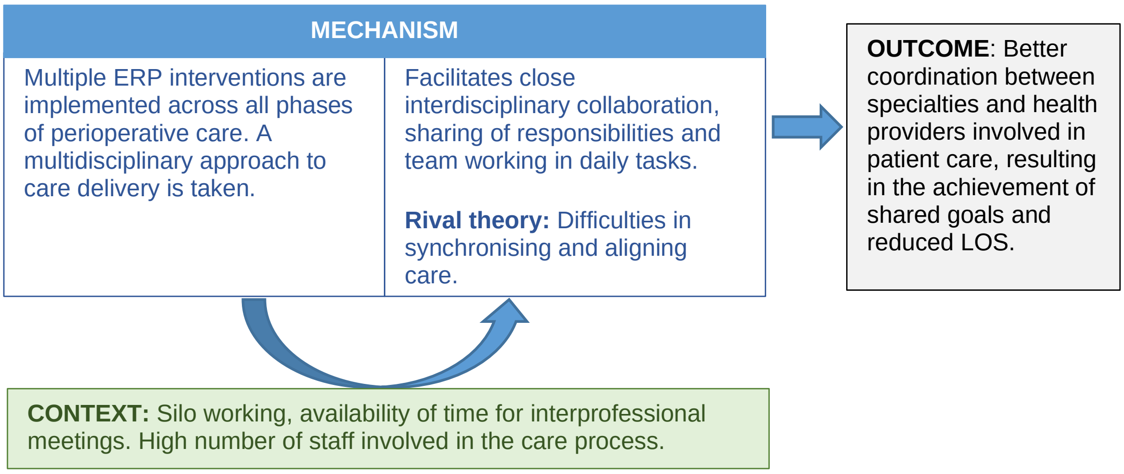
CONTEXT: Situations that conflict with the protocol. Effectiveness of team communication.

Figure 19: Individualising care CMOC

Interprofessional collaboration

Surgical ERPs are complex and involve multiple healthcare disciplines, across various hospital departments and providers of care (NHS Improvement, 2012). Collaboration between those involved throughout the patient's recovery journey is considered a critical factor for successful implementation and sustainability of ERPs (Ljungqvist, 2014; Ljungqvist, Hausel, et al., 2007; NHS Improvement, 2012; Pape et al., 2013; Pearsall et al., 2015; Sjetne et al., 2009). Ljungqvist (2014) has described teamwork as the 'cornerstone' of the implementation process. He suggests that regular meetings are important in dealing with problems, planning, and preparing for changes to old routines, and for peer support. Finding time for working with the ERP team can be difficult and therefore prioritising these meetings is the key to successful implementation. In a study of an orthopaedic ERP, Pape et al. (2013) demonstrated reductions in LOS for patients undergoing a hip replacement because of time allocated for a daily interprofessional meeting during the postoperative period. These meetings were designed to promote collaboration between professions and facilitate teamwork in daily tasks. Slim (2013) points out that collaboration may overcome existing professional hierarchies resulting in shared responsibility and achievement of shared goals.

However, if staff lack awareness of the entirety of the patient journey, or operate in traditional professional silos (Ljungqvist, 2014), it may be difficult to synchronise and align aspects of care (Ljungqvist, Hausel et al., 2007). In their review of ERPs in colorectal surgery, Ahmed et al. (2012) noted that compliance with programme interventions may decline postoperatively because various specialities are involved and implementation during this phase requires close alignment between them, which may be difficult to achieve.



MECHANISM

Multiple ERP interventions are implemented across all phases of perioperative care. A multidisciplinary approach to care delivery is taken.

Facilitates close interdisciplinary collaboration, sharing of responsibilities and team working in daily tasks.

Rival theory: Difficulties in synchronising and aligning care.

OUTCOME: Better coordination between specialties and health providers involved in patient care, resulting in the achievement of shared goals and reduced LOS.

CONTEXT: Silo working, availability of time for interprofessional meetings. High number of staff involved in the care process.

Figure 20: Interprofessional collaboration CMOC

Timeliness

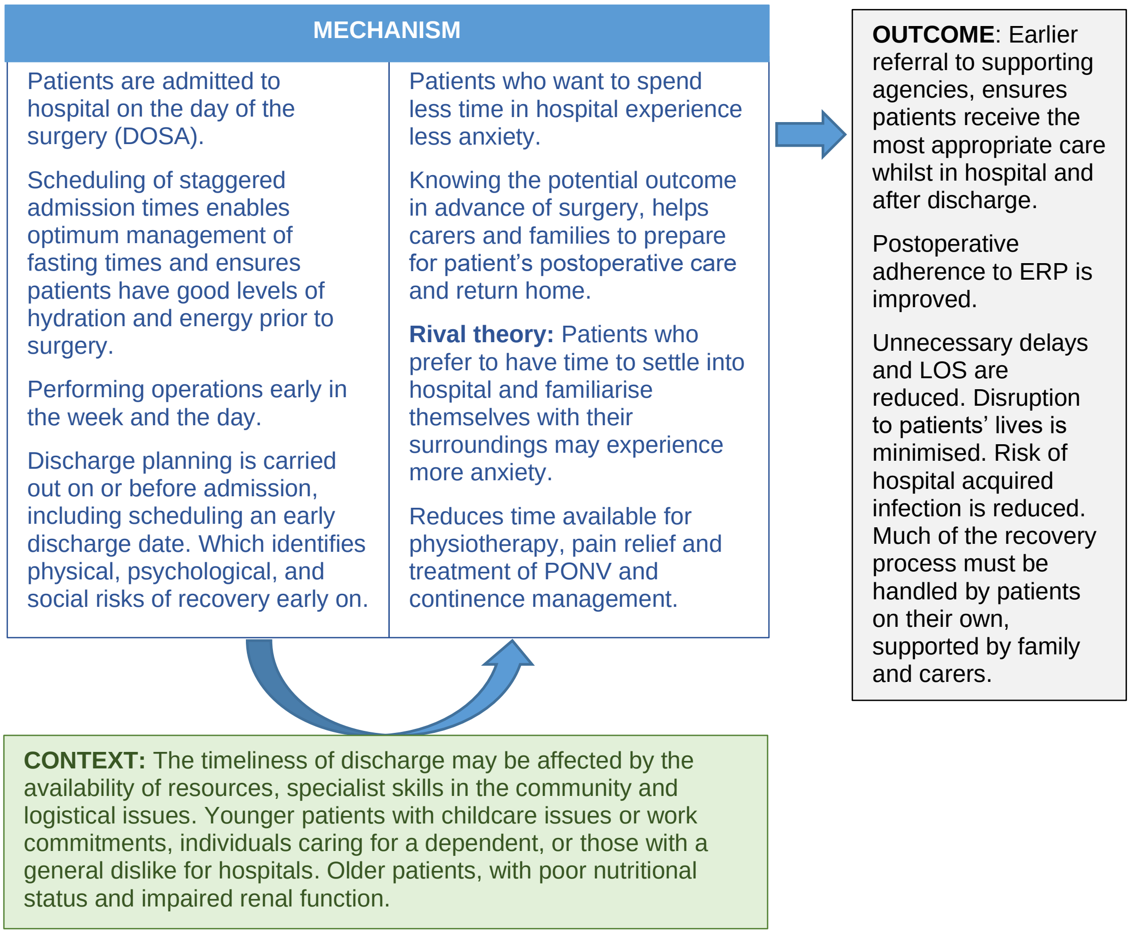
Timeliness was reported to be an important dimension in ERPs and numerous studies described clear benefits. Day of surgery admission (DOSA) and early discharge are an integral part of ERPs. Admitting patients to hospital on the day of the scheduled surgical procedure (DOSA) is associated with advantages such as, reduced LOS, cost efficiency and reduced cancellations. Harries et al.

(2013) found that younger patients with childcare issues, those with work commitments, individuals caring for a dependent, or those with a general dislike for hospitals wanted to spend less time in hospital. Therefore, they preferred to be admitted on the day of their scheduled elective surgery. Contrastingly, older patients preferred to be admitted on the day before surgery and experienced less anxiety when they had time to settle into hospital and familiarise themselves with their surroundings. Starks et al. (2014) found the use of DOSA with staggered admission times enabled optimum management of patient fasting times, therefore ensuring that patients had good levels of hydration and energy before surgery. This was particularly important in older patients because poor nutritional status and impaired renal function were common (Jin & Chung, 2001). Maessen et al. (2007) suggest that performing operations early in the day and early in the week, may improve postoperative adherence to ERPs. Lyon et al. (2014) have shown that when operations take place on a Friday, delays in commencing essential skills training, due to a lack of weekend staffing, may hinder early discharge.

Proactive discharge planning carried out on, or before admission, helps guide patient expectations (Phillips & Horgan, 2014). Physical, psychological, and social risks of recovery can be identified early on, leading to earlier referral to supporting agencies (NHS Improvement, 2012). Ensuring that good care continues in the community after discharge, is especially important for frail older patients who may require additional support (Lyon et al., 2014). Patients with comorbidities and longer operation times are at high risk of delayed discharge. Initiating discharge planning promptly, can ensure that resources and postoperative support are better allocated (Keller et al., 2014). Early discharge benefits organisations by minimising the number of days that a hospital bed is required (Phillips & Horgan, 2014), and reduces associated hospital costs (National Audit Office, 2000). It may also bring benefits at a personal and a relational level by limiting time away from family, removing the need for hospital visits, minimising disruption to family routines and lowers the risk of hospital-acquired infection (Blazeby et al., 2010). Many patients are pleased to be discharged quickly (National Audit Office, 2000). Blazeby et al. (2010) found that those who have an uncomplicated recovery were pleased with early discharge because they perceived that better recovery could be achieved in their own home, where they could relax in a familiar environment, rest without interruption and were free to undertake activities at will. According to Norlyk and Harder (2009), scheduling an early discharge date can motivate patients to take an active part in the programme. However, it can also cause worry. In their study, patients who were not discharged on schedule felt they were getting more from staff and the hospital than they were entitled to. If patients experienced complications, felt unwell, or did not feel fully recovered, then home can be a less attractive option (Archer et al., 2014). For these patients, early discharge may cause concern regarding managing pain, mobility (Hunt et al., 2009) and accessing care or information when needed (Blazeby et al., 2010).

Some patients may feel that discharge is too soon and that they are being rushed out of hospital which places an unnecessary burden on their carers' (Blazeby et al., 2010; Hunt et al., 2009). Norlyk and Martinsen (2013) note that early discharge, means, that much of the recovery process must be handled by patients on their own, supported by family members and carers. Returning home from hospital at an early stage of recovery may also necessitate a different level of support from carers, changing pre-existing roles and responsibilities (Archer et al., 2014). Families may also feel that patients are entitled to convalesce in hospital and that shorter LOS constitutes substandard care (Bouras, 2014).

Discharge is a complex process involving many health and social care professions working across different organisations. The timeliness of discharge may be affected by the availability of resources or specialist skills in the community and logistical issues (Lyon et al., 2014). In addition, surgeons may resist setting a discharge date with patients as they feel that it might discourage patients if they do not achieve their goal (Pearsall et al., 2015). Shorter LOS reduces the time available to staff for management of aspects recovery that are likely to be important to patients, such as pain relief, treatment of PONV, management of continence, rehabilitation and physiotherapy (Hunt et al., 2009).



MECHANISM

Patients are admitted to hospital on the day of the surgery (DOSA).

Scheduling of staggered admission times enables optimum management of fasting times and ensures patients have good levels of hydration and energy prior to surgery.

Performing operations early in the week and the day.

Discharge planning is carried out on or before admission, including scheduling an early discharge date. Which identifies physical, psychological, and social risks of recovery early on.

Patients who want to spend less time in hospital experience less anxiety.

Knowing the potential outcome in advance of surgery, helps carers and families to prepare for patient's postoperative care and return home.

Rival theory: Patients who prefer to have time to settle into hospital and familiarise themselves with their surroundings may experience more anxiety.

Reduces time available for physiotherapy, pain relief and treatment of PONV and continence management.

OUTCOME: Earlier referral to supporting agencies, ensures patients receive the most appropriate care whilst in hospital and after discharge.

Postoperative adherence to ERP is improved.

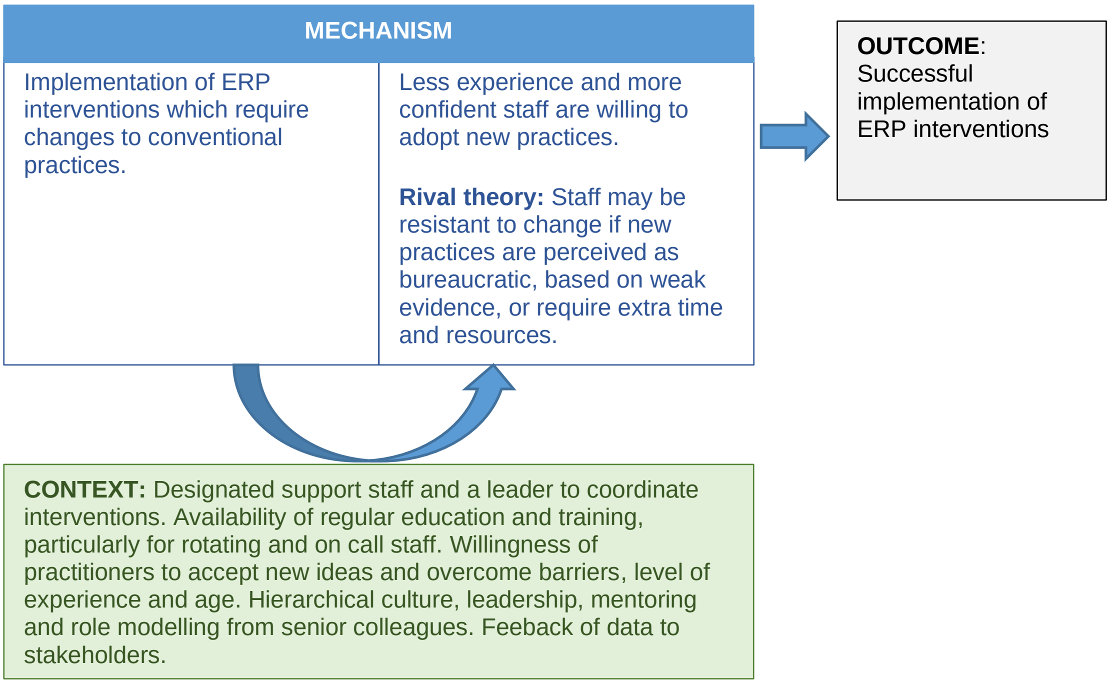
Unnecessary delays and LOS are reduced. Disruption to patients' lives is minimised. Risk of hospital acquired infection is reduced. Much of the recovery process must be handled by patients on their own, supported by family and carers.

CONTEXT: The timeliness of discharge may be affected by the availability of resources, specialist skills in the community and logistical issues. Younger patients with childcare issues or work commitments, individuals caring for a dependent, or those with a general dislike for hospitals. Older patients, with poor nutritional status and impaired renal function.

Figure 21: Timeliness CMOC

Adopting new practices

Implementation of ERPs requires changes in traditional long-standing professional practice and policy (Ahmed et al., 2012; Polle et al., 2007). Ahmed et al. (2012) argue that the success of ERP pathways is dependent on the willingness of the MDT members to accept new ideas and overcome any barriers. There may be marked differences in the willingness of healthcare professionals to adopt new practices (Gotlib Conn, 2015). Changing traditional practice behaviours may be difficult for those who are older or have more experience because they feel comfortable with familiar processes and may be reluctant to learn new skills (Gotlib Conn, 2015; Lyon et al., 2014; Sjetne et al., 2009). Newer staff may adjust more quickly (Jeff & Taylor, 2014). Sjetne et al. (2009) suggest that staff may be hesitant to change traditional practices if new practices are perceived as bureaucratic and therefore detract from professional autonomy. Similarly, if practitioners perceive interventions are based on weak evidence, are time consuming (Schwarzbach et al., 2011), or of little value to patients (Pearsall et al., 2015), then conventional ways of working will be retained, adherence with ERP interventions declines (Ahmed et al., 2012) and implementation is slow (Sjetne et al., 2009). Adoption of ERPs may be strongly influenced by surgeon preferences and practices. Nadler et al. (2014) have shown that where hierarchies are strong, junior doctors may pursue a more conservative, slower approach until they can seek approval to change postoperative interventions from senior colleagues. Mentoring approaches to surgical training can perpetuate conventional practice (Ahmed et al., 2012), or facilitate change through role modelling (Nadler et al., 2014). A leader responsible for coordinating interventions (Ahmed et al., 2012) and support from designated staff can facilitate change (Jeff & Taylor, 2014). Staff education and training can support transition of practices and ensure compliance with ERP interventions (Lyon et al., 2014; Polle et al., 2007), particularly in the postoperative phase of care. This is because many disciplines are involved, junior clinicians rotate frequently and on-call staff (who provide out of hours care) may not be familiar with ERP procedures (Ahmed et al., 2012). Interventions that align with existing hospital policies and evidence-base guidelines are more easily implementable (Pearsall et al., 2015). Feedback of impact data can help overcome scepticism and resistance (Gotlib Conn, 2015).



Implementation of ERP interventions which require changes to conventional practices.

Less experience and more confident staff are willing to adopt new practices.

Rival theory: Staff may be resistant to change if new practices are perceived as bureaucratic, based on weak evidence, or require extra time and resources.

OUTCOME: Successful implementation of ERP interventions

CONTEXT: Designated support staff and a leader to coordinate interventions. Availability of regular education and training, particularly for rotating and on call staff. Willingness of practitioners to accept new ideas and overcome barriers, level of experience and age. Hierarchical culture, leadership, mentoring and role modelling from senior colleagues. Feeback of data to stakeholders.

Figure 22: Adopting new practices CMOC

3.5.5 Active participation

ERPs place a greater emphasis on patient involvement in care than is generally associated with traditional surgical care models. Patients are encouraged to have an active role and take responsibility for their own recovery, in partnership with healthcare professionals. This theory is derived from twenty-two sources. Three CMOCs were developed ‘sharing responsibility for recovery’, ‘getting up and active’ and ‘avoiding lines, tubes and drains’. The CMOCs are discussed below and presented diagrammatically in Figures 23 to 25. A summary of evidence supporting my interpretations is provided in Table 6.

Table 6: Summary of evidence supporting interpretations – active participation

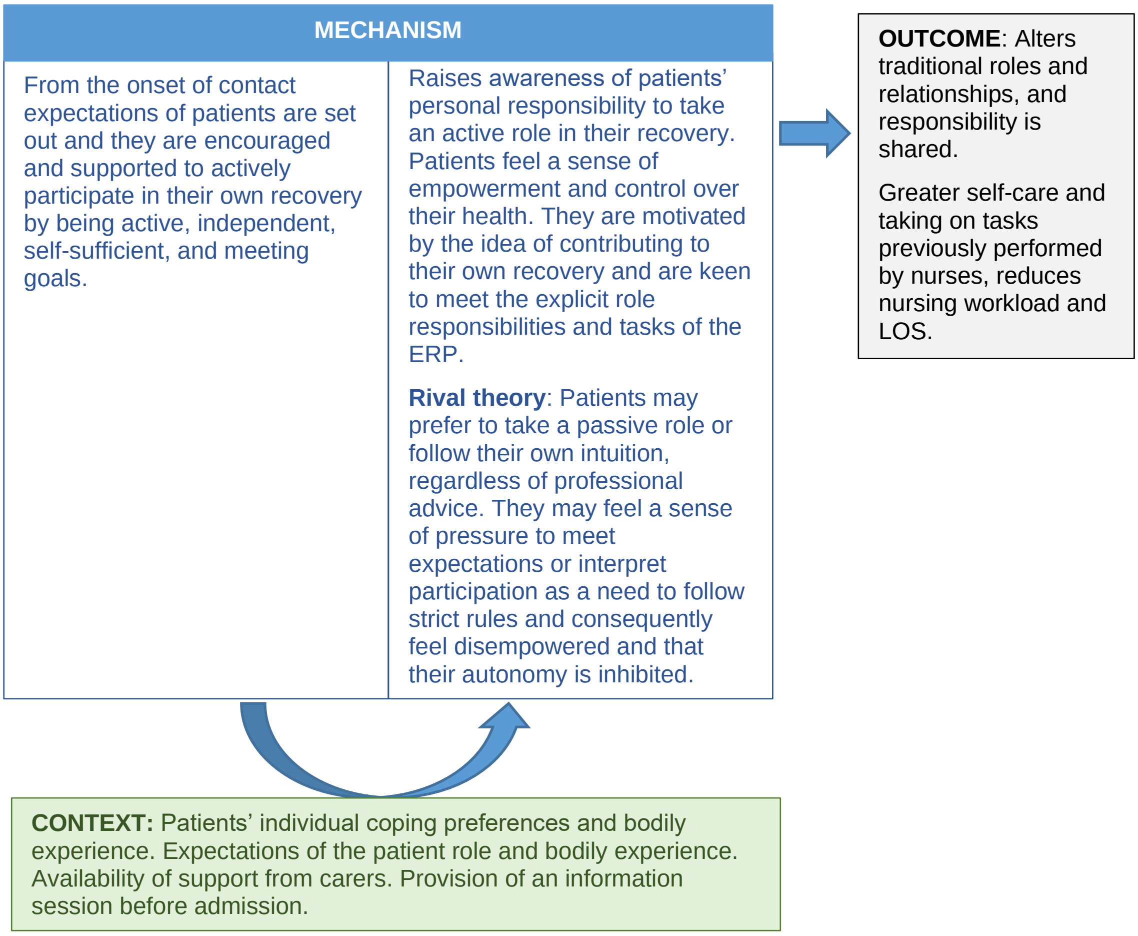
Proposed theory	CMOCs	Exp no	Source
Active participation	Sharing responsibility for recovery	1	Aasa et al (2013)
		20	Berthelsen et al., (2014)
		29	Coulter & Collins (2011)
		28	Coulter (1999)
		75	Jørgensen & Fridlund (2016)
		124-25	Lyon et al., (2014)
		139	NHS Improvement (2012)
		142-44	Norlyk & Harder (2009)
		166	Shay & Lafata (2015)
		170	Sjetne et al., (2009)
	Getting up and active	13,15	Archer et al., (2014)
		24	Brieger (1983)
		30	Creditor (1993)
		64	Gustafsson et al., (2013)
		65	Harper & Lyles, 1988
		143	Norlyk & Harder, 2009
		183	Taylor & Burch (2011)
		199	Wilmore & Kehlet (2001)
	Avoiding lines, tubes, and drains	44	Fearon & Luff (2003)
		61	Gustafsson et al., (2013)
		100	Kehlet & Wilmore (2002)
		106	Lassen et al., (2009)
		163	Scott et al., (2013)
		205	Zonca (2008)

Sharing responsibility for recovery

A paternalistic model of healthcare delivery prevails in the UK, characterised by professional dominance and care providers taking responsibility for care (Coulter, 1999). This approach has been criticised for disempowering patients and encouraging passivity. Contrastingly, the ERP model of care promotes a high degree of personal responsibility for patients to actively participate in their own recovery. For example, patients are encouraged to engage in preoperative education and fasting, mobilising, and take an active role in decision making about their treatment and care (NHS Improvement, 2012). In their study of an ERP in colonic surgery, Norlyk and Harder (2009) found that most patients were keen to meet the explicit role responsibilities and tasks of ERPs and were motivated by the idea of contributing to their own recovery. Other authors suggest that setting out expectations of patients from the onset of contact gives them a sense of control, which is often lost when undergoing surgery. Sjetne et al. (2009) found that if patients took on tasks previously performed by nurses, then care time per stay was reduced. There are, however, recognised differences in the individual coping preferences of patients (Jørgensen & Fridlund, 2016). Some patients may see taking on responsibility for their health, at a time when they are feeling ill, as an additional burden and prefer to take a passive role. Others may prefer to follow their own intuition regardless of professional advice (Norlyk & Harder, 2009). The focus of ERPs on being active, independent, and self-sufficient may be counterintuitive to patients who hold traditional ideas regarding the patient role (Lyon et al., 2014), or where cultural norms emphasise rest and recuperation. Other patients who have high expectations of themselves, in conjunction with the expectations of the healthcare professionals, may feel pressured (Norlyk & Harder, 2009). Patients may also overexert themselves physically and mentally in a desire to live up to the rehabilitation schedule (Jorgensen & Fridlund, 2016). In a study of colorectal surgery, Aasa et al., (2013) found that patients took responsibility for their own recovery by adhering to instructions or setting their own targets. Provision of an information session strengthened their determination be become active in their own recovery.

However, taking on responsibility for recovery may not necessarily translate into active participation. For example, if patients experience unpleasant reactions such as PONV, fatigue, or pain this may create a dilemma between doing as recommended and personal instincts about what could also contribute to health and wellbeing. Norlyk and Harder (2009) point out that personal courage and will are required to suppress discomfort and comply with instructions. Berthelsen et al., (2014) suggest that where the demands of the programme exceed the capabilities of the patient, then the supportive role of carers is particularly important. Relatives may provide emotional and compassionate support and take on practical responsibilities during and after admission. For example, attending meetings, remembering information, assisting with getting drinks and bathroom visits, making sure patients are getting their medications, and motivating them.

Getting up and active



MECHANISM

From the onset of contact expectations of patients are set out and they are encouraged and supported to actively participate in their own recovery by being active, independent, self-sufficient, and meeting goals.

Raises awareness of patients' personal responsibility to take an active role in their recovery. Patients feel a sense of empowerment and control over their health. They are motivated by the idea of contributing to their own recovery and are keen to meet the explicit role responsibilities and tasks of the ERP.

Rival theory: Patients may prefer to take a passive role or follow their own intuition, regardless of professional advice. They may feel a sense of pressure to meet expectations or interpret participation as a need to follow strict rules and consequently feel disempowered and that their autonomy is inhibited.

OUTCOME: Alters traditional roles and relationships, and responsibility is shared.

Greater self-care and taking on tasks previously performed by nurses, reduces nursing workload and LOS.

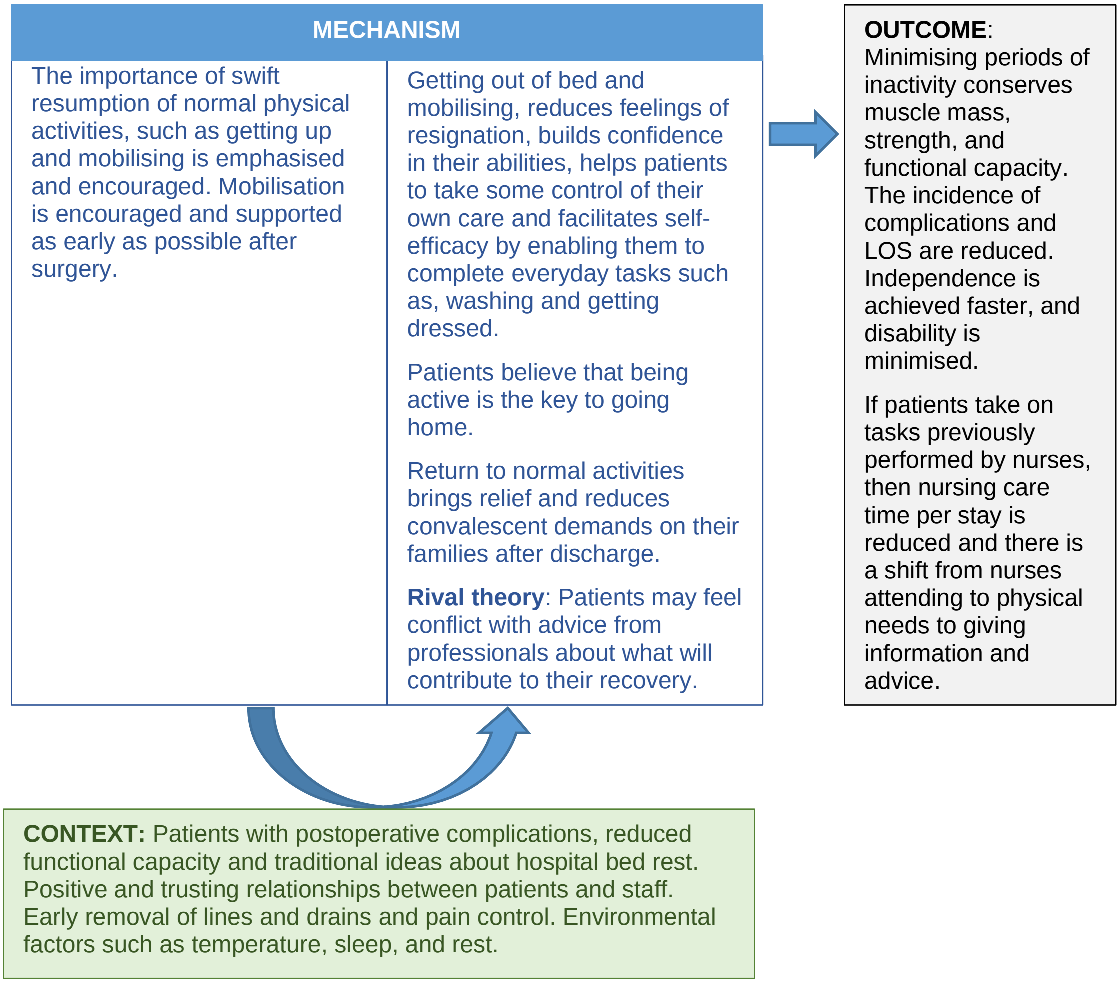
CONTEXT: Patients' individual coping preferences and bodily experience. Expectations of the patient role and bodily experience. Availability of support from carers. Provision of an information session before admission.

Figure 23: Sharing responsibility CMOC

The detrimental effects of bedrest on the cardiovascular system and musculoskeletal function are well known (Harper & Lyles, 1988). However, entrenched ideas have meant that traditional practice, emphasising bed rest, has been slow to change (Brieger, 1983). Prolonged periods of inactivity are prevalent in hospitalised individuals. The decrease in physiological reserve seen in older people makes them particularly susceptible (Harper & Lyles, 1988) and deterioration in physical function is commonly observed (Creditor, 1993).

ERPs promote getting out of bed and walking around as soon as possible after surgery (Gustafsson et al., 2013), preferably within the first 24 hours. Minimising periods of inactivity is considered effective in conserving muscle mass, strength, and function, thereby attenuating deterioration in physical functional capacity, and reducing the incidence of complications, such as VTE, pneumonia and urinary tract infections. In a study of ERPs of gynaecological cancer patients, Archer et al. (2014) found that getting up and out of bed enabled patients to complete other tasks such as washing and dressing. Resuming ‘normal activities’ helped build confidence in their abilities and enabled them to take some control of their own care. However, for some patients the emphasis on being active rather than resting and recuperating contradicted their expectations about traditional postoperative behaviour and seemed counterintuitive. Therefore, patient education was important in increasing awareness of the benefits of activity and setting expectations. In a study of an ERP in colonic surgery, Norlyk and Harder (2009) found that professional advice and expectations regarding initiating physical activity may conflict with the patient’s bodily experience and intuition about what will contribute to their health and wellbeing. Patients who experienced unfamiliar and unpleasant symptoms such as pain, nausea, and fatigue, felt unable to actively follow recommended activity. Both studies suggested that a positive and trusting relationship between clinicians and patients can help patients to overcome feelings of resignation and inactivity and promote self-efficacy (Archer et al., 2014; Norlyk & Harder, 2009). Specifically, the presence of a physiotherapist encouraging mobility gave permission and built confidence that no harm would result (Archer et al., 2014).

Daily support from the MDT members can help to improve patients' confidence in the rehabilitation process and help them to achieve independence more quickly (Taylor & Burch, 2011). Early removal of urinary catheters, intravenous (IV) lines, and adequate pain control, facilitates early mobilisation (Gustafsson et al., 2013). According to Wilmore & Kehlet, (2001) environmental factors, such as noise, high room temperature, frequent observations, and therapeutic procedures can have a detrimental effect on sleep patterns in surgical patients causing fatigue. A good night's sleep, rest and relaxation ensures patients have enough energy to begin rehabilitation and cope with meeting the tasks of the programme.



MECHANISM

The importance of swift resumption of normal physical activities, such as getting up and mobilising is emphasised and encouraged. Mobilisation is encouraged and supported as early as possible after surgery.

Getting out of bed and mobilising, reduces feelings of resignation, builds confidence in their abilities, helps patients to take some control of their own care and facilitates self-efficacy by enabling them to complete everyday tasks such as, washing and getting dressed.

Patients believe that being active is the key to going home.

Return to normal activities brings relief and reduces convalescent demands on their families after discharge.

Rival theory: Patients may feel conflict with advice from professionals about what will contribute to their recovery.

OUTCOME: Minimising periods of inactivity conserves muscle mass, strength, and functional capacity. The incidence of complications and LOS are reduced. Independence is achieved faster, and disability is minimised.

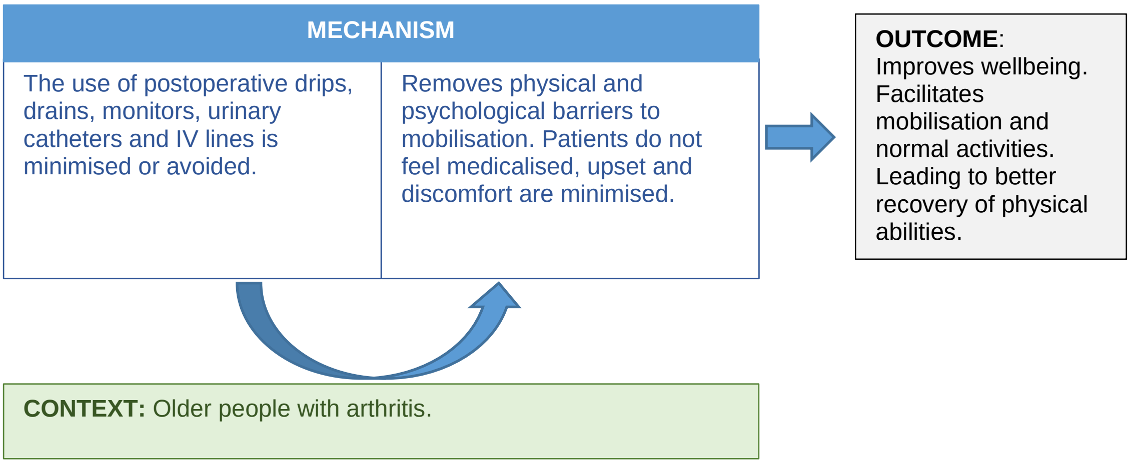
If patients take on tasks previously performed by nurses, then nursing care time per stay is reduced and there is a shift from nurses attending to physical needs to giving information and advice.

CONTEXT: Patients with postoperative complications, reduced functional capacity and traditional ideas about hospital bed rest. Positive and trusting relationships between patients and staff. Early removal of lines and drains and pain control. Environmental factors such as temperature, sleep, and rest.

Figure 24: Getting up and active CMOC

Minimising drips, tubes, and drains

The traditional routine postoperative use of drips, drains, monitors and catheters may represent a physical and psychological barrier to mobilisation (Fearon & Luff, 2003; Lassen et al., 2009; Zonca et al., 2008), and has been associated with reduce recovery and postoperative complications (Gustafsson et al., 2013). Avoiding or restricting their use can increase the opportunities for patients to undertake physical activities (Kehlet & Wilmore, 2002). Scott et al. (2013) have described how the use of traditional drip stands may be intimidating for elderly arthritic patients attempting to get up following joint surgery. The heaviness and difficulty in steering the stand may result in patients choosing to stay in bed.



The use of postoperative drips, drains, monitors, urinary catheters and IV lines is minimised or avoided.

Removes physical and psychological barriers to mobilisation. Patients do not feel medicalised, upset and discomfort are minimised.

OUTCOME: Improves wellbeing. Facilitates mobilisation and normal activities. Leading to better recovery of physical abilities.

CONTEXT: Older people with arthritis.

Figure 25: Avoiding drips, tubes, and drains CMOC

3.6 Discussion

This review revealed an extensive body of evidence about surgical ERPs, and included findings from RCTs, evaluations, reviews, and policy documents. ERPs are multidisciplinary and comprise multiple interrelated interventions and are characteristic of complex systems. ERAS Society guidelines (Fearon et al., 2005; Gustafsson et al., 2013) emphasise a standardised and structured approach to care. However, evidence from empirical studies describe significant variation in the design of individual programmes. The literature also acknowledges significant challenges in the implementation of these programmes (Ahmed et al., 2012; Pearsall et al., 2015). Therefore, alternative approaches to research may be of value to develop this field.

In contrast to most other studies that have reviewed surgical ERPs, this study has taken a realist approach. Drawing on a wide range of literature, this has enabled the capture of ideas about how, why, and in what circumstances surgical ERPs are expected to lead to change. A set of five initial programme theories were developed from the substantial surgical literature: ‘attenuating the surgical stress response’; ‘metabolic optimisation’; ‘preparation’; ‘organisation of care’; ‘active participation’; Twenty-one CMOCs were developed within the five theories.

Mechanisms can be conceptualised at different levels within systems (Westhorp, 2018). This synthesis identified mechanisms operating at the level of the material (i.e., the action of physical or pharmacological treatments on biological systems), the social (i.e., individual, or interpersonal level of human reasoning and organisational systems, policies), and economic (i.e., resources and cost). The concept of a mechanism in biology can be conceived in different ways (Nicholson, 2012). In this study, I refer to biological mechanisms as causal mechanisms rather than machine mechanisms or mechanismic philosophy i.e., a philosophical argument about the nature of biology. These mechanisms were often found to operate conjointly along the implementation chain of the programme. Implicit in surgical ERPs is the use of a biomedical model of recovery. This is a well-accepted conceptualisation of recovery which focuses on the disease, functional impact, and management of symptoms. However, the medical model used in surgery is limited in fully accounting for the psychological and socio-economic dimensions of recovery, and the complexity of social systems into which these programmes are introduced. The wider literature advocates a multidimensional model of recovery, incorporating physical, psychological, and socio-economic dimensions (Allvin et al., 2007). This may explain why underlying physiological mechanisms were more easily identifiable, and account for the relative lack of data in relation to psychological and social causal mechanisms.

The review had several limitations. The range of relevant literature was vast and diverse in type, so searching and analysis were restricted to a selected sample of identified sources. However, I believe that I captured key papers and adequate data to theorise. Often information was limited regarding all parts of a CMO, so some ideas were inferred by me. Interventions and outcomes were typically well defined, but it was often unclear how and why interventions achieved their intended outcomes. Realist review allows wider searching to theorise where there is a limited explanation. Therefore, seeking further related studies outside of this field could support theorising and provide a better understanding of why and how these programmes work. It was possible to identify contextual factors that influenced mechanisms and link explanations. However, a paucity of information regarding some parts on the CMOCs meant that some explanations were limited. Mechanisms related to multiple groups, and it was possible to include the perspectives of both patients and their carers' as well as the perspective of staff (which prevails in the literature). There are few published studies that give detailed descriptions of the process of synthesis, but the guidelines and publication standards for conducting realist reviews were helpful. A large amount of detailed data was synthesised from different sources which contributed in varying amounts to the theories. The data enabled building programme theories from a wide perspective, including contradictory ideas of different mechanisms at play. Although the data was not accessed for rigour, this review was a preliminary stage in the evaluation and other methods would be used to develop theory and this would be tested later in the research.

The purpose of review was to derive relevant theories from similar types of programmes in surgery, to inform theory development in medicine. The potential transferability of the theories elicited is discussed in the next section.

3.6.1 How might this theory relate to medicine?

Realist evaluation, as explained previously, is based on the idea of recyclable conceptual platforms (Pawson, 2013). It is argued that abstracted sets of ideas from similar families of programmes can be formative in the transfer of programmes to novel settings because potentially similar underlying causal mechanisms of action may be in operation (Pawson, 2013; Pawson & Tilley, 1997). Programmes are also embedded in complex social systems. Differences in the contextual circumstances in which interventions occur are an integral part of programmes and may influence their operation (Davidoff, 2009; Pawson, 2013).

Therefore, it follows that similar mechanisms may be important in achieving the intended outcomes of ERPs in both surgery and medicine. However, there may also be separate or contingent ideas because of differences in the context between the specialities. Mapping the similarities and differences aided visualisation of the connections between the settings (see Table 7). These ideas were organised according to the four levels of context (individual, interpersonal, institutional, and infrastructural) as operationalised by Pawson (2006). There were some obvious points of commonality, such as the healthcare system, financial and demographic pressures, hospital setting and the examination and treatment of patients. However, there were also significant differences, such as the characteristics and clinical needs of the patient population served, elective and emergency pathways, and the way in which services are delivered. The twenty-one CMOCs identified from the surgical literature were potentially applicable to the specialty of acute medicine. This was inferred, based on two specific criteria: (1) alignment of treatment techniques and care practices to those used in medicine, and (2) alignment with care style and access to care.

Table 7: Key similarities and differences between surgery and medicine

Characteristics		**Elective surgery**	**Medicine**
Individual	Patient group/clinical needs.	Patients with specific condition/diagnosis.	Heterogeneous patient group encompassing a variety of conditions (often chronic). Acutely unwell and physiologically unstable. Signs and symptoms may not fall into a neat diagnosis and needs may not be obvious. Predominantly older people.
	Recovery trajectory.	Expected recovery trajectory, although variability recognised. Aim is to restore former physical capacity or cure disease. Discharged with better function.	Recovery trajectory variable. Aim is to preserve current compromised capacity/management of illness (chronic diseases). May decline and leave with disability.
Interpersonal	Patient contact.	One off treatment episode with short, focused contact. Infrequent follow-up and limited long-term involvement in patients' lives.	Continuity of care. Long-term and close relationships with patients, monitoring and adjusting treatment to develop optimal solutions. Patients are often known to the team, particularly those with long-term conditions.
	Interface of care.	Specialist contribution from supportive disciplines such as pathology, emergency medicine, anaesthesiologist, radiographers, pathology.	Close links with A&E, critical care, and primary care. Most vulnerable patients require input from several different services, where an acute episode is part of a long-term problem. MDT practice firmly established.
Institutional	Access to care.	Elective admission with patient referrals from primary care physicians.	Emergency admissions from GP, A&E and EAU.
	Style of medicine and care focus.	Specialist contribution for a narrowly defined area of practice. Care orientated on procedural aspects of medicine. Timeline orientated routines. Medical focus, solving the current clinical problem. Numerous technical procedures performed.	Generalist speciality. Care orientated on long-term. Immediate interventions and urgent problems. Care is broad encompassing the patients' social wellbeing. Greater emphasis on patients' holistic needs. Flexible routines.
	Workforce.	Hierarchical and established. Surgical specialties require longer training.	Emerging role of acute physician. Loosely defined and evolving.

	Approach to service delivery.	Established speciality since 1937.	New fast-growing speciality in internal medicine. Care is delivered by either acute care physician or other specialists e.g., geriatric medicine.
	Institutional setting.	Hospital-based service.	Hospital-based service.
Infra-structural	Service demand.	Growing surgical waiting lists.	Increasing emergency admissions.
	Demographics/ expectations.	Increasing prevalence of older patients with chronic long-term illness with increasing surgical needs.	Increasing prevalence of older patients with chronic long-term illness with increasing medical needs.
	NHS policy	Ambulatory surgery.	Ambulatory medical units. 7-day service provision.
	Financial constraints.	Budgetary restrictions.	Budgetary restrictions.

3.6.2 Transferability of surgical theories

Based on the similarities and differences between the surgical and medical contexts, eight surgical CMOCs were excluded from further analysis. Four CMOCs were excluded based on criteria (1). ‘Inhibiting endocrine responses’ and ‘moderating inflammatory and immunological reactions’ were focused on the use of specific surgical and anaesthetic treatment techniques which aimed to modify underlying physiological reactions to the trauma of surgical incisions. CMOC ‘maintaining (intraoperative) fluid balance’ related explicitly to the act of surgery and explained how techniques could be used to maintain fluid balance throughout the period of the operation. Similarly, CMOCs ‘avoiding prolonged fasting and ‘avoiding routine mechanical bowel preparation’ are discipline specific practices allied to surgery and therefore inapplicable to care in the specialty of medicine.

Two further CMOCs were excluded based on criteria (2). Surgical patients are admitted to hospital on a planned (elective) basis. Contrastingly acute medical patients are admitted on an urgent and unpredictable basis. Elimination of the pre-admission timeframe therefore makes ‘pre-surgical assessment and testing, ‘correcting modifiable pre-existing health conditions’ and ‘prophylaxis’ unachievable in this setting.

The remaining thirteen surgical CMOCs could reasonably be expected to have applicability to medicine and were thus potentially formative to the development of programmes. This subset was therefore taken forward for further exploration (See Table 8).

Table 8: Potential applicability of surgical CMOCs to medicine

CMOCs taken forward for further exploration	**CMOCs excluded from further analysis**
Optimising pain control	Inhibiting neuroendocrine responses
Normothermia	Moderating inflammatory and immunological reactions
CHO Loading	Maintaining fluid balance during surgery
Altering poor lifestyle behaviours	Avoiding prolonged fasting before surgery
Psychological preparation	Correcting modifiable pre-existing health conditions
Structure and standardisation	Pre-surgical assessment and testing
Individualising care	Avoiding routine mechanical bowel preparation
Interprofessional collaboration	Prophylaxis
Timeliness	
Acceptance of new practices	
Sharing responsibility for recovery	
Getting up and active	
Avoiding lines, tubes, and drains	

3.7 Chapter summary

This chapter presented a realist review of the surgical literature exploring how, why, and under what circumstances ERPs produce outcomes in surgery. The characteristics of programmes and key interventions were identified, and the benefits of ERP surgery reported in the literature were discussed. A disparity in research attention given to economic and physiological measures of recovery was noted. A substantial body of evidence was found to support theory development. Twenty-one CMOCs were synthesised within five overarching theories. Synthesis of evidence identified interrelated biological, psychological, and social mechanisms of action underpinning programmes, and associated contextual factors. Evidence supporting the operation of mechanisms at a physiological level was prevalent. Substantially less evidence was found to support psychological and social mechanisms. This may reflect an implicit medical model of recovery.

Consideration of the potential transferability of the surgical theories to similar types of programmes in medicine resulted in a subset of these ideas appearing to be applicable to the speciality of acute medicine. Thirteen CMOCs were considered relevant and were taken forward for further exploration.

The next Chapter details a search for causal explanations undertaken in the less substantial and developing body of literature of ERPs in medicine.

Chapter 4: Realist review of ERPs in medicine

This chapter presents a realist review of the literature undertaken to explore what is already known about enhanced recovery in medicine. Section 4.1 describes the rationale and aim of the review. Section 4.2 states the review questions. Section 4.3 describes the methods used, including the search strategy and the methods of synthesis. Section 4.4 presents the search results and sets out the findings from the review. The key characteristics of medical ERPs are discussed, and the theories formulated from the synthesis of the literature are set out. Section 4.6 discusses the review findings and how the two data sets (CMOCs) derived from the surgical and medical literature reviews were integrated. Section 4.7 concludes this chapter with a summary.

4.1 Aim and rationale

Chapter one set out the rationale for the research: ERPs are emerging in medicine in UK NHS healthcare providers. It is thought that they hold potential to benefit medical patients (NHS Improvement, 2012). However, as they are a relatively new initiative, the evidence-base is consequently underdeveloped. To address this situation, my research began with a realist review of the substantial and established literature in surgery, where ERPs originated (Chapter 2). Insights were gained about how and why ERPs work, which might be transferable to a medical setting.

This review of the medical literature was intended to be an initial scoping of the field, aiming to map what is known and build initial tentative theories about ERPs in medicine. Realist review was appropriate as it was congruent with the realist methodology of the research and the exploratory research questions (see Chapter 3, section 3.2). It is also considered particularly appropriate for evaluating new initiatives, enabling a wide range of literature and study types to be used to develop an understanding of programmes (Westhorp, 2014).

4.2 Review questions

The questions that the review explored where:

1. What are the characteristics of ERPs in medicine?
2. Through what mechanisms and associated contexts do ERPs lead to outcomes in medicine?

4.3 Methods

A full description of the realist theory-led approach taken to the literature reviews is given in Chapter 2. As ERPs in medicine are a relatively new initiative, a deliberately broad search strategy was designed to locate and retrieve information from a wide range of published and unpublished sources. Information was gathered on the key interventions that comprise medical ERPs (review question 1) and the main ideas about how and why programmes are thought to work (review questions 2 and 3).

4.3.1 Search strategy

Electronic academic databases (Medline (OVID), EMBASE, The Cochrane Library, CINAHL) were searched using key words (‘enhanced recovery’ OR ‘fast track’ OR ‘accelerated recovery’ OR ‘rapid recovery’) in combination with (AND ‘acute care’ OR ‘medical inpatients’ OR ‘medical emergencies’).
Scopus, ProQuest, and a grey literature database (OpenGrey) were also searched to access a diverse range of content, such as theses, news articles, and conference proceedings. Google was also used to look for reports, working papers, and other non-peer reviewed sources. As ERPs are directly relevant to clinical practice, professional databases from relevant disciplines (TRIP, OTseeker, PEDro, HMIC) were also searched for clinical guidelines, policy documents, patient information leaflets, and educational materials. Further searching was undertaken of U.K. professional organisations and government websites, including The Society for Acute Medicine (SAM), The Royal College of Physicians (RCP), NHS improvement, and National Institute for Health and Clinical Excellence (NICE). Personal knowledge and expert recommendations from existing professional contacts were also sought. As this literature was

limited, searching and retrieval stopped when no further documents were identified. Further details of the search strategy are available in Appendix 6.

4.3.2 Selection and appraisal of documents

Sources were included that (1) referred to ERPs in a medical setting (either IM or AIM), (2) provided details of programmes and processes and/or identified potential mechanisms, associated contextual factors (facilitating or inhibiting) relating to programme success or failure, (3) were written in English, (4) were produced between 1997 (chosen to coincide with inception of ERPs in surgery) and 2018. As discussed in Chapter 3, documents can be included in realist reviews if they are relevant to building theory, regardless of type or methodology. Documents were assessed for relevance, but the rigor of documents was not considered as part of this review, as the theories would be refined and then tested in later stages of the research.

4.3.3 Data extraction and synthesis

All potentially relevant sources, which included both text documents and video recordings, were read or listened to in full, and were then scrutinised for information on interventions and relevant ideas about how and why ERPs were expected to lead to change. Data was also extracted pertaining to the type and character of the programmes, associated contextual factors, and any impacts or effects of programmes. Identified passages of text from documents and transcribed audio material from video recordings, were given a unique identification number and were entered into an MS word table, in preparation for CMO configuring (Appendix 7). Each explanation was referenced in terms of the source it came from and the relevant page number, where applicable, or the timepoint at which explanatory dialogue occurred within a video recording. Next, these explanations were expressed as CMOs, using the realist heuristic where possible. This entailed an iterative process of determining what parts of the explanation fitted each category (context, mechanism, and outcome). As ERPs are implemented according to defined interventions, which were well described in the literature, the theories were re-organised under these headings. However, because the medical literature was so limited, it was often difficult to clearly trace the CMOCs and complete all categories (C, M and O). Frequently, the evidence only gave partial insight into the CMOC. Where this occurred, I left a blank space in the table, or used abductive thinking and interpretation to populate the remaining categories (indicated using italics in the text). Missing elements were inferred by, (1) drawing on my own background knowledge of secondary care in the NHS, (2) referring to other sources by undertaking other relevant searching, (3) referring to the studies cited by sources. It was often tenable to place a statement in one or more of the context, mechanism, or outcome categories. As the intention at this stage was to ensure that all ideas were captured rather than being overly exacting about categorisation, I made a judgement as to the most appropriate position. I carried out the data extraction and synthesis process in iterative and overlapping steps. This process was facilitated throughout by regular discussion with my supervisors.

4.4 Findings

This section presents the review findings. First the search results are set out. Second, the characteristics of ERP interventions in medicine are described. Finally, a theory is offered for each ERP intervention as well as an overall summary of evidence supporting my interpretations (Table 5).

4.4.1 Search results

A small number of relevant sources were generated through searches of academic databases and grey literature. After removing duplicates twenty-four sources remained. Titles and abstracts were then screened to exclude sources which were unrelated to medicine or did not describe ERP interventions. This reduced the number of sources to twenty. All the remaining sources were read or listened to in full, and then examined for explanations of how and why programmes were supposed to work. Of these sources, five were excluded for containing little conceptual explanation. Figure 26 shows the search results.

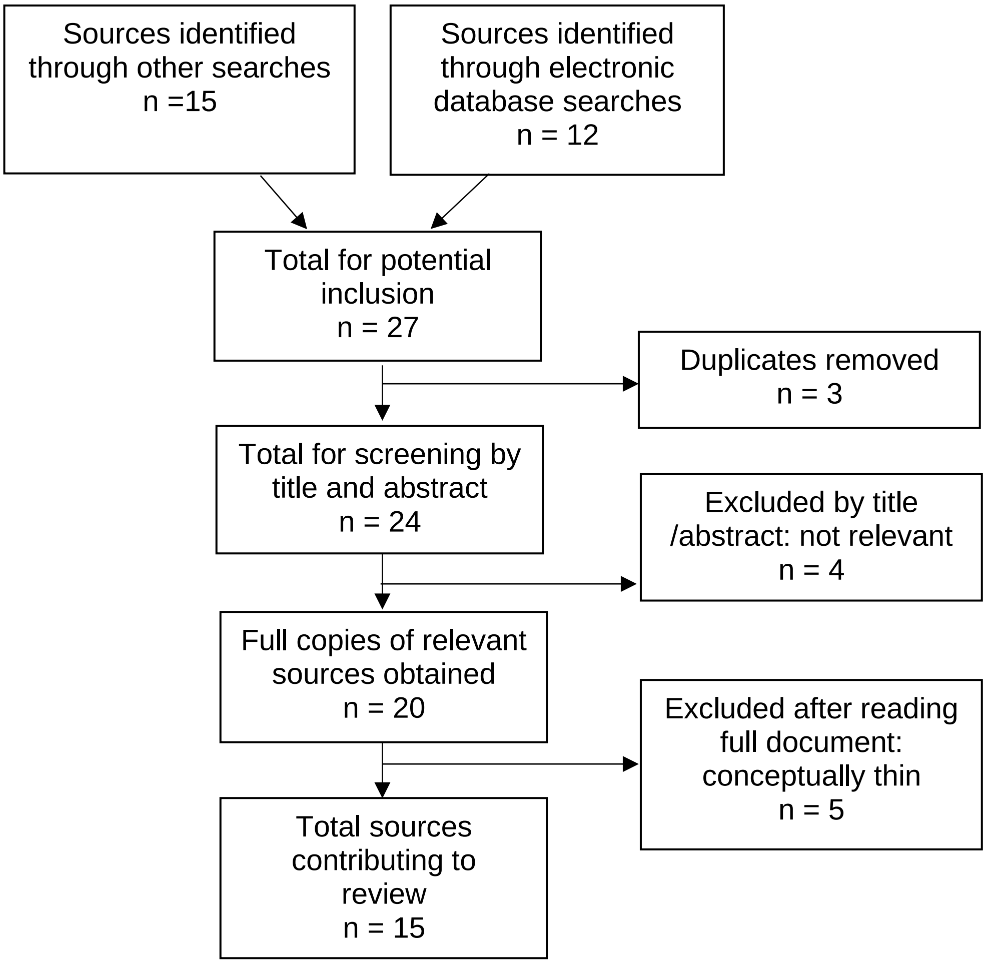


Figure 26: PRISMA flow diagram of medical literature search and selection

The included sources dated from 2012 to 2018 and consisted of reports, presentations, web pages, videos, and high-level policy documents. Most were directly related to programmes operating within U.K. NHS hospital trusts. A summary of the fifteen sources that contributed to the review is provided below in Table 9.

Table 9: Summary of sources included in the medical review

Authors	**Title**	**Publication type**
Benjamin (2013)	Enhanced recovery in medicine: Shaping the Future.	Presentation slides from shaping the future of Enhanced Recovery Care Pathway Seven Days a Week Workshop 2013.
Healthwatch Devon (2013)	Film launches for pioneering approach that	Website news article.

	aids quicker recovery for patients.	
Healthwatch Devon (2014)	Appeal for sponsorship to help patients' road to recovery.	Website news article.
Kehlet (2013)	Enhanced recovery future developments and transferability into acute medicine?	NHS Enhanced Recovery Partnership, Enhanced recovery summit 2012 presentation slides.
Kuper (2013)	Whittington Health Enhanced Recovery Health System Future Directions.	Healthcare conference presentation slides.
NHS Improvement (2012)	Fulfilling the potential: A better journey for patients and a better deal for the NHS.	NHS Enhanced Recovery Partnership report.
NHS Improving Quality (Nov 2013)	Enhanced recovery care pathway. A better journey for patients seven days a week and a better deal for the NHS.	NHS progress review (2012/13) and level of ambition (2014/15).
North Devon Healthcare NHS Trust (2018)	Enhanced recovery in medicine	NHS trust patient leaflet.
RCP (2013)	Future Hospital: Caring for medical patients.	A report from the Future Hospital Commission to the Royal College of Physicians.
Restrick (2017)	How do we enhance recovery together? Meeting the needs of people on medical wards… using 'enhance recovery'.	Royal College of Psychiatrists presentation slides.
South Devon NHS Foundation Healthcare Trust (2012)	Enhanced Recovery in Medicine: Getting you better; so, you can go home safely and at the right time.	NHS trust video
South Devon NHS Foundation Healthcare Trust (2014)	Enhanced Recovery in Medicine: What matters?	NHS trust website video.

Torbay and South Devon NHS Foundation Trust (2013)	Enhanced Recovery in Medicine.	NHS trust website page and video.
Torbay and South Devon NHS Foundation Trust (2015)	Evaluation of Enhanced Recovery in Medicine Carers' and Patients' Experience.	NHS trust report.
Whittington Health NHS Trust (2014)	Our Enhanced Recovery programme: Getting better sooner.	NHS trust website page.

4.4.2 Characteristics of ERPs in medicine.

Medical ERPs are a way of organising and delivering care intended to improve patient recovery after hospitalisation for acute medical illness. Having emerged relatively recently in policy and practice, evidence of medical ERPs in the literature was limited. There is currently no definitive definition of medical ERPs in the literature. To date, no academic studies have been published. Within the grey literature however, descriptions of implemented ERPs in NHS Trusts in England were found (Northern Devon Healthcare NHS Trust, 2018; South Devon NHS Foundation Healthcare Trust, 2012; Whittington Health NHS Trust, 2014). These programmes tended to be described in terms of a general strategy and various well-defined interventions implemented across all stages of the inpatient care process (from patient admission through to discharge). Although most programmes were in an early phase of development, some common characteristics were discernible:

- Programmes comprised multiple interventions, implemented across all stages of the inpatient care process (from patient admission through to discharge). A summary of ERP interventions identified in the literature is presented in Table 10.
- Interventions are delivered to patients during inpatient care in emergency admission units (EAUs) and specialist medical wards.
- Programmes are multidisciplinary, requiring various professionals to implement interventions, including allied healthcare professionals (AHPs), nursing staff, medical staff, pharmacists, and other non-clinical staff.

- Programmes address not only the physical care of patients but also their psychological and social needs.

The programmes identified aimed to improve patient recovery after acute medical illness. Implementation of programmes was associated with various advantageous outcomes. Benefits were anticipated for the institutions involved, healthcare infrastructure, the individual recipients of services and their carers’. Reported outcomes included both in-hospital outcomes as well as outcomes occurring after discharge, reflecting the long-term nature of recovery from acute illness.

Table 10: Summary of medical ERP interventions

ERP Intervention
Medicines management
Information resources (leaflets, posters, videos) for patients and carers
Untethering from drips and drains and monitors (drip-free mornings)
Getting dressed every morning into day clothes
Early patient mobilisation (within 24 hours of admission)
Hydration and nutritional support for patients (energy drinks and oral fluids)
Involving patients and carers in decision-making
Extended visiting hours for principal carers
Daily rehabilitation targets agreed with patients
Proactive and collaborative discharge planning
Multidisciplinary ‘board rounds’ which include the patient perspective
Principal carers are invited to attend ward rounds
Pain management
Help with smoking and drinking cessation

Physical, psychological, and economic outcomes were included, acknowledging the multidimensional nature of recovery after illness. At an organisational level reported outcomes included, improved ward culture, reduced readmission rates, shorter LOS, and associated cost savings (Benjamin, 2013; Kehlet, 2013; NHS Improvement, 2012; RCP, 2013). At a systems level, reduced levels of disability and dependency for individuals leaving hospital were anticipated, with consequential benefits for primary and social care service provision (NHS

Improvement, 2012). Sources identified positive outcomes for individuals, including improved patient wellbeing, fewer complications during hospitalisation and after discharge (e.g., pressure ulcers, muscle weakness), improved functional ability and independence after hospitalisation, and improved patient and carer experience (Healthwatch Devon, 2013; NHS Improvement, 2012; Northern Devon Healthcare NHS Trust, 2018). However, outcomes were generally poorly defined and unquantified. Empirical evidence of the impact of medical ERPs on patients, staff, and organisational outcomes was not found.

4.4.3 Theories synthesised from the medical literature

Despite the limitations of the available data, it was possible to synthesise twelve initial programme theories. These are presented below as CMOCs. Table 11 indicates where there was evidence to support the theories in the literature. The full evidence supporting the interpretations is provided in Appendix 7. For transparency, elements of the CMOCs that were not apparent in the literature, that I have theorised, are presented in italics.

Table 11: Summary of evidence supporting interpretations (medicine)

Initial theory	Explanation no.	Source
1. Discussing medicines	31 35	Torbay and South Devon NHS Foundation Trust (2013) Healthwatch Devon (2013)
2. Open access for principal carers	5 58 72,73	Benjamin (2013) Torbay and South Devon NHS Foundation Trust (2015) South Devon NHS Foundation Healthcare Trust (2014)
3. Swift resumption of normal activities	10,12 15-6 20,22 27,29 35 67,70-72 79,84	Kehlet (2013) NHS Improvement (2012) RCP (2013) Torbay and South Devon NHS Foundation Trust (2013) Healthwatch Devon (2013) South Devon NHS Foundation Healthcare Trust (2014) Healthwatch Devon (2014)

	86	Northern Devon Healthcare NHS Trust (2018)
4. Proactive discharge planning	35 13 18,20 24,30 68,73-4	Healthwatch Devon (2013) Kuper (2013) RCP (2013) Torbay and South Devon NHS Foundation Trust (2013) South Devon NHS Foundation Healthcare Trust (2014)
5. Getting dressed into day clothes	4 35 75-77,80-82 42-3 70 24 87	Benjamin (2013) Healthwatch Devon (2013) Healthwatch Devon (2014) South Devon NHS Foundation Healthcare Trust (2012) South Devon NHS Foundation Healthcare Trust (2014) Torbay and South Devon NHS Foundation Trust (2013) Northern Devon Healthcare NHS Trust (2018)
6. Communication and Information for patients and their carers	1,2 39 16 47,56,58 69	Benjamin (2013) Healthwatch Devon (2013) NHS Improvement (2012) Torbay and South Devon NHS Foundation Trust (2015) South Devon NHS Foundation Healthcare Trust (2014)
7. Principal carers are invited to the ward round	36 24,28 48,49,53-57 71,72 88	Healthwatch Devon (2013) Torbay and South Devon NHS Foundation Trust (2013) Toray and South Devon NHS Foundation Trust (2015) South Devon NHS Foundation Healthcare Trust (2014) Northern Devon Healthcare NHS Trust (2018)
8. Involving patients and carers in SDM and the care process	2,5,7,9 17 21	Benjamin (2013) NHS Improvement (2012) RCP (2013)

	23-6, 32 36,38-9 40-1 46,48,50-2,59- 63,65,67,69-70,73-4 78,85 89	Torbay and South Devon NHS Foundation Trust (2013) Healthwatch Devon (2013) South Devon NHS Foundation Healthcare Trust (2012) Torbay and South Devon NHS Foundation Trust (2015) South Devon NHS Foundation Healthcare Trust (2014) Healthwatch Devon (2014) Northern Devon Healthcare NHS Trust (2018)
9. Structuring care and daily target setting	40,42-3	South Devon NHS Foundation Healthcare Trust (2012)
	64,66-7	South Devon NHS Foundation Healthcare Trust (2014)
10. Energy drinks and drink station	35	Healthwatch Devon (2013)
	83	Healthwatch Devon (2014)
	10	Kehlet (2013)
	16	NHS Improvement (2012)
	21	RCP (2013)
	24,26	Torbay and South Devon NHS Foundation Trust (2013)
11. Untethering	3	Benjamin (2013)
	10-12	Kehlet (2013)
	21	RCP (2013)
	26	Torbay and South Devon NHS Foundation Trust (2013)
	42	South Devon NHS Foundation Healthcare Trust (2012)

Discussing medicines before discharge

Several sources reported that pharmacists provided individualised information for patients regarding prescribed medicines prior to discharge (Healthwatch Devon, 2013; South Devon NHS Foundation Healthcare Trust, 2012; Torbay and South Devon NHS Foundation Trust, 2013, 2015). In one video, a pharmacist described emphasising to patients the importance of taking their medicines as prescribed and giving explanations about the purpose and course of treatment (Torbay and South Devon NHS Foundation Trust, 2013). Another source suggested that this ensured patients would get the optimal benefit from their medications (Healthwatch Devon, 2013). The reported outcomes associated with this intervention were the prevention of problems following discharge and reduced readmissions (Torbay and South Devon NHS Foundation Trust, 2013). As no sources detailed contextual factors, I theorised that this intervention would be particularly important for people with complicated medication regimens and those taking multiple medicines concurrently (polypharmacy). Polypharmacy is a recognised and growing problem, which increases with age (DHSC, 2021). Rates of medicine non-adherence are high (Hargis & Castel, 2018). Patients who have received clear treatment recommendations and advice, however, are more likely to adhere to their treatment (Náfrádi et al., 2016). Furthermore, providing individualised information regarding medicines to patients has been shown to promote autonomy (Chan et al., 2020). Therefore, I based the theorised mechanism (response) on these ideas, to link the reported intervention with the outcomes. The initial theory developed is detailed below.

Context: *Patients with complicated medication regimens and those using multiple concurrent medications.*

Mechanism-resource: Provides an opportunity for patients to discuss prescribed medications with a pharmacist before leaving hospital. The importance of taking medications is emphasised and their purpose, duration, *and possible side effects* are explained.

Mechanism-reasoning/response: *Builds knowledge and understanding of drugs, which empowers patients,* and *increases the likelihood that they are taken as recommended.*

Outcomes: Patients gain optimal benefit from them, leading to fewer problems after discharge and reduced readmissions.

Open access to the ward for principal carers

Changes to conventional visiting times were reported as part of programmes in three of the sources. One trust reported removing access restrictions to the wards for principal carers (South Devon NHS Foundation Healthcare Trust, 2014). Benjamin (2013) suggested that carers may experience problems with conventional visiting times. Another source included a quote from a nurse which linked a reduction in the fear and stress associated with an emergency admission to this intervention.

> *I have certainly noticed having principal carers come onto the ward first thing in the morning especially in the emergency environment where I work, just alleviates so much stress, because it's a frightening experience. They quite often don't know what's going on medically. So, to have someone that's close to them to be able come in and be with them, makes a really, really big difference*. (Torbay and South Devon NHS Foundation Trust, 2014).

Outcomes reported included shortened length of stay and a better hospital experience for patients and carers (Torbay and South Devon NHS Foundation Trust, 2014). Another source included quotes from carers that identified several inhibiting contexts, such as staff lacking awareness about this intervention, and people being unaware of their status as a carer and therefore their entitlement to access the wards at any time (Torbay and South Devon NHS Foundation Trust, 2015).

Context: The experience of emergency admission and uncertainty of an acute medical condition can be frightening for patients. Conventional hospital visiting hours may be inconvenient for working carers who want to be involved, or those who live at a distance.

Mechanism-resource: Allowing principal carers access to the ward at any time throughout the day, provides more opportunities for staff and carers to interact and communicate. Carers can see at first-hand how well patients are progressing with activities they normally do at home. Patients have someone familiar with them who can assist them with tasks.

Mechanism-reasoning/response: Helps alleviate carers' feelings of anxiety, gives them a sense of control, and builds confidence in their ability to cope after discharge. Patients feel less stressed and confident that they are going to get better and leave hospital quickly. Helps staff to identify and resolve any problems that might delay discharge early on.

Outcomes: Patients and their carers have a better hospital experience and LOS is shortened.

Rival theory: Staff may be unaware of the changes to practice around visiting times. Carers may not attend as they may be aware of their eligibility to access the wards at any time.

Swift resumption of normal activities

This theory was developed from eight sources. Long hospital stays can lead to fragility and disability for patients after they leave hospital (Kehlet, 2013; RCP, 2013). Two sources discussed early mobilisation as a programme intervention (Healthwatch Devon, 2014; Northern Devon Healthcare NHS Trust, 2018; Torbay and South Devon NHS Foundation Trust, 2013). Other sources discussed reorganising and refocusing nursing tasks to prioritise getting up, mobilising and promoting self-care and independence (RCP, 2013; South Devon NHS Foundation Healthcare Trust, 2014). These changes were linked to beneficial outcomes, including reduced incidence of pressure ulcers (Torbay and South Devon NHS Foundation Trust, 2014), preserving muscle strength, maintaining usual everyday routines and independence (Torbay and South Devon NHS Foundation Trust, 2013). In turn, less dependency following hospitalisation was thought to benefit the wider health and care system (NHS Improvement, 2012).

A therapist quoted in one source:

> *…patients can lose muscle mass and get quite weak from not doing much in hospital, so we try to promote patients getting up and looking after themselves rather than us doing things to them, rather we do things to help them.* (South Devon NHS Foundation Healthcare Trust, 2014).

For patients, positive emotions such as enthusiasm and enjoyment were associated with this activity (South Devon NHS Foundation Healthcare Trust, 2014). A sense of confidence and safety regarding discharge were also reported. Acute illness can bring about a reduction in functional capacity, particularly in older people (NHS Improvement, 2012). This group, especially individuals with expectations of resting in bed while in hospital, were identified as at risk from inactivity (Torbay and South Devon NHS Foundation Trust, 2013). I theorised an additional related contextual feature, based on my own clinical experience, that hospital care is bed focused and that the traditional nursing role focuses on caring for people as passive recipients of care.

Context: *Hospital inpatient care is bed-focussed and traditionally nurses see patients as passive and dependent recipients of care, doing things to and for them*. Older people are at risk of becoming weak from not doing much in hospital and loosing functional abilities.

Mechanism-resource: Patients are encouraged and assisted to get out of bed, dress and walk around (within 24 hours of admission). Nursing tasks are carried out in a different order and focus on encouraging independence and helping patients to look after themselves.

Mechanism- reasoning/response: Patients may enjoy getting up first thing in the morning. They feel a sense of control, there is more structure, and that they are more in charge of their care. They participate more in their own care, maintaining their usual everyday routines whilst in hospital, which helps them to feel confident and safer going home. Nurses experience positive interactions and increased engagement from patients. Everyone is enthused, interactions are positive, and the ward atmosphere is better.

Outcome: Resulting in faster recovery, preservation of muscle strength and fewer pressure ulcers. When medically fit and ready to go home, patients are physically fit as well. Patients maintain their independence whilst in hospital and the ability to perform activities of daily living, leaving hospital less debilitated. Some may avoid the ‘tipping point’ into temporary or permanent dependency. Primary and social care services have fewer dependent patients to provide services for.

Rival theory: Nurses may initially perceive the ERP increases their workload.

Proactive discharge planning

This theory was derived from five sources which described a change in practice regarding discharge planning. Patients were involved in discharge planning (Healthwatch Devon, 2013) and their carers' were contacted at the beginning of the hospital stay to discuss and set an expected date for discharge (RCP, 2013). Initiating discharge planning on admission allowed staff time to liaise with family members and external support agencies, and to work with other stakeholders towards shared goals (South Devon NHS Foundation Healthcare Trust, 2014). This was linked to reduced patient anxiety, avoidance of unnecessary delays, smoother and safer discharge, reduced LOS and associated bed day savings, stronger relationships with onward care providers, and good continuity of care on return to the community (RCP, 2013; Torbay and South Devon NHS Foundation Trust, 2013). Being proactive supported preparation and collaborative problem solving (RCP, 2013). One source which included a quote from a discharge coordinator stated:

> *It has definitely made a difference to the length of stay, as well, because you are identifying problems that could be slowing down the discharge rate. So, interacting with family and carers would help to overcome any problems at an early stage.* (Torbay and South Devon NHS Foundation Trust, 2013).

It also allowed time to engage with and involve care homes, while patients were recovering, which resulted in better relationships being established. (South Devon NHS Foundation Healthcare Trust, 2014). Kuper (2013) highlights that successful implementation depended on close integration with primary care and community services.

Patients may be anxious about being discharged and worry about practical issues, such as arranging transport home and obtaining house keys.

Context: Early discharge may be affected by the level of integration with social care, primary care, and community services. Patients may be anxious about the practicalities of leaving hospital and going home on discharge day.

Mechanism-resource: As soon as possible after admission, relatives/carers are contacted and the patient's return home or transition to a supportive setting outside the hospital is discussed and planned, including scheduling a discharge date. As much background information as possible is gathered about the patient's base-line function and is fed back to the MDT.

Mechanism-reasoning/response: Any problems that could delay discharge are identified and overcome early on during the patient's stay. Practical issues such as transport and keys can be sorted before the discharge day. The patient's on-going care needs (clinical, social, and psychological) are identified early on, and care plans can be agreed, including management of complications and deterioration from an acute condition, while the patient is getting better. Staff have a goal to work towards. Everyone knows what's going on, what the plan is, and how problems will be overcome, which saves time being wasted. Staff have time to speak to care home managers about coming in to assess patients to see if they can take them back, and if not, start looking at other plans. Patient's anxiety about being discharged is alleviated, as they know which day they are going to leave hospital and can plan how they will get there early on during their stay.

Outcome: Everything is in place for going home, resulting in a simplified and smoother discharge process on the day. LOS is shortened with associated cost savings from reduced bed occupancy. Patients and their carers have a better hospital experience. Better relationships are established with care homes and there is good continuity of care on return to the community (as a care package is already set up).

Getting dressed into day clothes

A tendency for older patients to remain in bed in nightclothes all day during their hospitalisation was described (Restrick, 2017; South Devon NHS Foundation Healthcare Trust, 2014). In several of the sources, the importance of patients getting dressed every morning into day clothes was emphasised (Benjamin, 2013; Healthwatch Devon, 2013; Northern Devon Healthcare NHS Trust, 2018; South Devon NHS Foundation Healthcare Trust, 2012). Feelings of dignity were considered important when caring for older people and wearing hospital gowns was described as undignified by several nurses. Nurses explained how wearing their own clothing rather than hospital gowns, made moving around easier for patients. The provision of single-use tracksuits for patients admitted urgently or in the evening, or those living alone, or without relatives near-by (Healthwatch Devon, 2014; South Devon NHS Foundation Healthcare Trust, 2012) was also described. Positive outcomes were highlighted, including increased mobility, independence, and improved patient experience (Healthwatch Devon, 2013) because activity could be engaged in with increased comfort, dignity, and privacy (Benjamin, 2013; Healthwatch Devon, 2014).

Context: Patients admitted as medical emergencies often arrive at hospital without their own day clothes (e.g., evening admissions) and it can be difficult to get them brought in (e.g., those who live alone or do not have loved ones nearby). Older patients often come into hospital and stay in bed.

Mechanism-resource: Patients are encouraged to get dressed every morning into their own day clothes. Relatives/carers are asked to bring these in for the patient, but when this isn't possible, single use tracksuits (sponsored by local people and businesses) are provided by the hospital.

Mechanism-reasoning/response: Tracksuits are popular with and valued by patients, who feel more dignified and comfortable whilst in hospital. Wearing day clothes rather than pyjamas or flappy hospital gowns encourages and enables patients to move around and engage in normal everyday activities with dignity and privacy.

Outcome: Patients have a better hospital experience. Their mobility is increased, and they regain their independence sooner.

Communication and sharing information

An increase in interactions and improved communication with patients and their carers was an important idea described by staff in several sources (Torbay and South Devon NHS Foundation Trust, 2013). Devoting time to communicating directly with patients and their carers could impact positively on staff morale. A consultant commented.

> *What I've noticed is that the team actually communicates much better, and not only does the team communicate better, but*

> *there is also more communication with the patients as well. This increased communication and understanding of what we all do and the patient understanding of what's expected of them has made a huge difference … my feeling is that there is a different attitude and different values. The fact that we are talking to patients more and helping them understand, talking to their carers' and involving them as part of the team, makes it feel like a better place and that we are providing better care.* (Trust, 2014).

Another source highlighted that the pressures of emergency assessment limited communication time (Torbay and South Devon NHS Foundation Trust, 2015).

Providing information and practical advice (through posters, leaflets, videos and conversation) about the expected process of recovery was an important part of the ERPs described (Benjamin, 2013; Healthwatch Devon, 2013; NHS Improvement, 2012). Keeping patients and their carers informed about their treatment and care developed knowledge about what was expected of them, and a better understanding of the different roles of the staff (Healthwatch Devon, 2014). However, it was also suggested that promotional materials might not be noticed or read. Effective communication skills, such as using everyday language, were highlighted as an important contextual factor influencing the success of this intervention (Torbay and South Devon NHS Foundation Trust, 2015).

Context: Emergency admission can be a frightening experience. Patients and their relatives/carers can be unsure of what is happening and desire information about the rationale for treatment and care processes. Effective communication skills of staff. Pressures of emergency assessment limit time available for communication.

Mechanism-resource: Devoting time to communicating directly with patients and their carers' and providing information and practical advice about the expected process of recovery, managing the acute episode, and actions that could prevent a repeat admission.

Mechanism-reasoning/response: Patients have a better understanding of what is expected of them, the care process, and the different roles of the staff.

Carers find it helpful and are clear about who to communicate with. Staff feel they are providing better care, and the ward atmosphere is better.

Outcome: As a result, morale is improved. Patients recover more rapidly, go home earlier, and are more satisfied with the care they receive.

Rival-theory: Patients and carers may not notice the posters or read other promotional material.

Principal carers are invited to attend the ward round

This theory was derived from five sources which describe how carers were invited to attend the ward round, to support patients and discuss the care plans (Healthwatch Devon, 2013; Northern Devon Healthcare NHS Trust, 2018; South Devon NHS Foundation Healthcare Trust, 2014; Torbay and South Devon NHS Foundation Trust, 2013, 2015). Staff found that having carers present was valuable as they were able to gain information about the patients from them. This was particularly valuable for patients with learning disability or dementia (Torbay and South Devon NHS Foundation Trust, 2013). Carers desire to be present at the ward round varied. One source suggested that they wanted to speak to the doctor face to face because it was helpful to know what was planned and it allowed them to influence decision making. A carer stated.

> *After talking with the consultant, he changed my wife's care, the way she was being fed.* (Torbay and South Devon NHS Foundation Trust, 2015).

Others described wanting to 'get at the truth' and gather information which patients were unable to relay because they were medicated (Torbay and South Devon NHS Foundation Trust, 2015). Carers who had not been invited because of poor communication, reported that they would have liked to have attended and felt angry about not receiving any information. Contrastingly, other carers did not want to attend because: they were too busy; felt that they would not understand what was being said; preferred to 'leave it to the healthcare professionals'; felt that the patient did not need or want them there. Carers of patients who had been admitted on multiple occasions felt that they already knew enough about the situation and only wanted to attend if it was ‘something serious.’

Context: Carers of patients with dementia, cognitive impairment, or their ability to communicate is affected by medication.

Mechanism-resource: The patient’s principal carer is invited to attend the doctor’s morning ward round. This provides an opportunity for them to discuss the patient’s management plan with the consultant, and for staff to gain relevant information about the patient from their carer.

Mechanism-reasoning/response: Patients have someone to support them during the consultation. Carers want to attend to get accurate information (especially when the patient’s ability to gather information is affected by medication). They prefer to speak to the doctor ‘face to face’ and find it helpful to know what is happening and what is planned. Consultants feel that the interaction is more valuable because additional relevant information about the patient can be gained from the carer (especially if the patient has a cognitive impairment).

Outcome: The length of consultation is unchanged. Carers are more engaged with and influence decision making about the patients care. A personalised care plan can be agreed (that includes what the patient and their carer want) and taken forwards.

Rival theory: Poor staff communication skills may mean that carers who would like to have attended do not received an invitation, resulting in anger. Some carers may feel that the patient does not need them to attend the ward round. When a patient has had multiple admissions, the carer may feel that they already know enough about the situation, or only want to attend if it is ‘something serious.’ Other carers may be too busy, feel that they would not understand what was being said, or prefer to leave it to staff.

Involving patients and carers in SDM and the care process

One of the defining features of the ERPs identified was a focus on encouraging and supporting patients and their carers to get involved in the care process. Ten sources discussed this idea (Benjamin, 2013; NHS Improvement, 2012; RCP, 2013; Torbay and South Devon NHS Foundation Trust, 2013, 2015; South Devon NHS Foundation Healthcare Trust, 2012, 2014; Healthwatch Devon, 2013, 2014; Northern Devon NHS Healthcare Trust, 2018). This mechanism was hypothesised to operate when patients and carers were provided with opportunities to contribute to problem solving and make decisions about the patient's care, with help and advice from staff (Torbay and South Devon NHS Foundation Trust, 2013). A partnership between staff, patients, and carers enabled patients to choose what was best for them throughout the course of their treatment (South Devon NHS Foundation Healthcare Trust, 2012; Torbay and South Devon NHS Foundation Trust, 2013). Carers felt treated as equal partners and were more involved in decision making. They provided valuation information about a patient's home situation and physical condition, which could be integrated into the care plans (Healthwatch Devon 2013). As a result, care was more individualised, recovery was faster, the hospital journey smoother (South Devon NHS Foundation Healthcare Trust, 2014; Torbay and South Devon NHS Foundation Trust, 2013; Benjamin 2013), and patient experience of being in hospital was improved (Torbay and South Devon NHS Foundation Trust, 2013). Gaps in care provision could be identified and carers offered support on a continuing basis after discharge (Torbay and South Devon NHS Foundation Trust, 2013). A change in the values and attitudes of staff was described, towards a more patient-centred approach (Healthwatch Devon, 2013; Torbay and South Devon NHS Foundation Trust, 2015).

One nurse commented.

> *I think that the engagement we get and the interactions we have with them* [carers] *is so important. In fact, it's so key, as they are the people who know them* [patients] *best, better than we can from a personal and social side. So, if we add that into the medical care we are going to get much smoother, more facilitated, more appropriate and individualised care, to speed up the patient's journey.* (South Devon NHS Foundation Healthcare Trust, 2014)

It was suggested that carers of patients with communication difficulties, such as those with dementia or a learning disability, were more likely to be engaged by staff because being an advocate was necessary, and they were typically more accepting of their role as carers (Torbay and South Devon NHS Foundation Trust, 2015).

Several important contextual factors were identified. Involvement was enabled in a healthcare organisation where there was recognition of the importance of carers' expertise and their role in patient recovery and support was available for them (Healthwatch Devon, 2013). In one organisation for example, volunteers were employed to assist with the engagement of carers (South Devon NHS Foundation Healthcare Trust, 2014). Carers desire for involvement varied and could be both an enabling an inhibiting context. One source reported that carers of patients with a temporary confusion would like to be more involved, while carers of patients with mental health issues felt that they were involved more than they would like to be. Communication time could be limited by the pressures of emergency assessment, and this was an inhibiting context.

Context: An organisation where there is recognition that carers are important to patient recovery and support is available for them. Willingness of carers to be involved. Pressures of emergency assessment and treatment limit communication time.

Mechanism-resource: Patients and their carers' are encouraged and supported to get involved in SDM and the care process.

Mechanism-reasoning/response: Being involved in the care process makes patients feel happy and safe. Carers want to be involved in decisions about the person they are caring for and are grateful for the opportunity to express their wishes. They feel empowered and treated as equal partners.

Outcome: There is a change in attitudes and values of staff and a more patient-centred approach is embraced. Better decisions are made, and care is more appropriate and individualised. There is greater adherence to planned treatment. The patient's hospital journey is less problematic, and LOS is reduced. Gaps in care provision can be identified and support provided for carers on a continuing basis after the patient has been discharged, if needed.

Rival theory: Carers may feel unwelcome, ignored, or that they are intruding. Their views may not be requested or respected. They may be offered limited information or support in their caring role.

Structuring care and collaborative goal setting

This theory was about the organisation of care within ERPs. Sources described a structured approach to care delivery with interventions implemented as a ‘bundle’ to get people well and out of hospital quickly. Two sources described how staff involved patients in establishing personal daily goals to aim for and supported them to achieve them. For example, getting up, dressed into day clothes, mobilising, eating, and drinking (South Devon NHS Foundation Healthcare Trust, 2014). Setting daily goals was hypothesised to speed up recovery (South Devon NHS Foundation Healthcare Trust, 2012). One source included comments from a nurse about how this might cause change by promoting teamwork.

> *I think it engages all of the staff on the ward. Having that structure about getting people up early makes everyone have a focus. It gives the whole team a focus, everyone is working for one purpose. (South Devon NHS Foundation Healthcare Trust, 2014).*

Patients understood what was expected of them and took responsibility for enhancing their recovery by doing simple things to enhance their recovery from the start of their hospital journey (Benjamin, 2013; RCP, 2013; Torbay and South Devon NHS Foundation Trust, 2013).

I found no descriptions of contextual factors, therefore I theorised that patient characteristics, such as the severity of their condition and stability of the recovery trajectory, might influence goal setting. Also, a patient’s care typically involves multiple staff across various hospital departments, therefore I theorised that engagement of staff might affect implementation of the approach.

Context: *Engagement of staff. Patient characteristics and recovery trajectory.*

Mechanism-resource: A structured approach is taken to care delivery. Patients and carers are involved in helping to set individual daily goals for the patient to aim for and are supported to achieve them (including getting up, dressed into day clothes, mobilising, eating and drinking).

Mechanism-reasoning/response: Engages all the staff on the ward gives everyone a shared focus and they work together with a common purpose. Patients take an active role, doing simple things to enhance their recovery, such as paying attention to their nutrition, hydration, and mobility from the start of their inpatient journey, and organising their journey home.

Outcome: Patients recover more rapidly and leave hospital sooner, *resulting in fewer bed days and cost savings.*

Energy drinks and drink station

This theory was elicited from five sources. A strategy of offering high value nutrition (energy drinks) from the moment of admission and better fluid management, through creating a drink station on the ward, were described in several sources (Benjamin, 2013; NHS Improvement, 2012; RCP, 2013). This was thought to reduce iatrogenic complications (Benjamin, 2013) by boosting calories and ensuring adequate hydration (Torbay and South Devon NHS Foundation Trust, 2013). In turn, it was suggested that this could mean that using an IV drip may be avoided (Healthwatch Devon, 2014; Torbay and South Devon NHS Foundation Trust, 2013). Kehlet (2013) stated that older patients hospitalised with an acute medical illness are at risk of being discharged with an ADL disability they did not have before becoming acutely ill. I expanded on this context by drawing on the wider literature which recognises that nutritional deficiencies are common in people of all ages admitted to hospital. Malnutrition can affect bodily functions and predispose to disease, which adversely affect clinical outcomes and delay recovery from illness (Elia, 2015).

Context: *Nutritional deficiencies are common in hospitalised people of all ages and can delay recovery from illness.* Older people hospitalised with an acute medical illness, are at risk of being discharged with an ADL disability they did not have before becoming acutely ill.

Mechanism-resource: From admission, patients are encouraged to drink an energy drink daily and plenty of fluids from the ward's (freely available) soft drink station.

Mechanism-reasoning/response: Patients pay attention to their nutrition and hydration, *drinking the fluids and energy drinks offered and use the drink station*. They stay hydrated and their calorie intake is boosted.

Outcome: Which means that they may not need an intravenous (IV) drip. Iatrogenic complications and LOS are reduced.

Untethering

In three sources, a proactive approach was described to reviewing nil-by-mouth instructions, ceasing intravenous therapy (once alternative routes were appropriate) and avoiding techniques that enforce bed rest, such as catheters, 24-hour intravenous fluids (Benjamin, 2013; RCP, 2013; South Devon NHS Foundation Healthcare Trust, 2012). One source described how not being tied to equipment made it easier for patients to get up, dressed, and move around (Torbay and South Devon NHS Foundation Trust, 2013). Another described how sleep is better 'if the drip machine isn't beeping all night' (South Devon NHS Foundation Healthcare Trust, 2012). As in theory 11, the risk of complications for older people (Kehlet, 2012) was proposed as the context.

Context: Older people at risk of developing iatrogenic complications and being discharged with an ADL disability they did not have before becoming acutely ill.

Mechanism-resource: Considering whether an IV drip is really needed, being proactive taking down IV drips when oral fluids are appropriate, and avoiding techniques that enforce bed rest (such as catheters, 24-hour IV fluids). Patients are taken off monitors as soon as possible, aiming for a drip free morning.

Mechanism-reasoning/response: Not being tied to a drip or monitor makes it easier for patients to get up dressed and move around. They sleep better without drip machines beeping through the night.

Outcome: *As a result, their physical and functional status is maintained*, *they recover more rapidly, which facilitates earlier departure from hospital.*

4.5 Discussion

This chapter detailed an initial realist scope of the literature, exploring how and why ERPs may have an impact on recovery in medicine. ERPs are an emerging model of care delivery in medicine. This review revealed a small body of grey literature provided by local NHS trusts, professional bodies, and national NHS institutions. Various examples of ERPs were found which were used in the analysis. From the limited number of sources, I was able to develop twelve initial programme theories. The review demonstrated that programmes are complex, comprised of multiple interacting interventions, implemented across the entire hospital journey by multiple stakeholders. Older patients make up an increasing proportion of acute medical hospital admissions (Atkin et al., 2022). This group appeared to benefit most from ERPs in medicine due to mitigation of the risk of complications from inactivity, nutritional deficiencies, and polypharmacy. The data suggests that patients benefit from programmes primarily due to the customisation and focus on individual complex health and care needs rather than solely because of age. While many older patients in hospital have complex health and care needs, not all of them do, and not all people who have complex health and care needs are older people (Nicolaus et al., 2022). Therefore, the use of ‘older people’ in the CMOCs is shorthand for older people with complex health and care needs.

As discussed previously, in surgical studies recovery is operationalised in terms of physical variables. I also identified pertinent social and economic factors in surgical ERPs, although these were limited. Contrastingly, ERPs in medicine appear to be based on a broad biological, psychological, and social model of recovery. Examples of ERM interventions were found which were clinical, psychological, and social.

There were several challenges conducting the review. As ERPs in medicine are relatively new, unsurprisingly the existing literature is immature and limited. No formal evaluations of ERMs have yet been published. There is a lack of empirical research. Descriptions of individual programmes varied in their scope and degree of specificity, but it is important to note that one programme dominated the literature. Articulated theories were based on the personal and organisational experiences of local programmes. Some interventions were well defined, but the evidence base supporting them was not discussed. Few sources went into much explanatory detail about the links between programme interventions and outputs. Various positive effects on recovery were suggested from the implementation of ERPs. One of the main outcomes highlighted was faster recovery, but detail was lacking regarding how this might be achieved. The quality of care during hospitalisation was also anticipated to improve, but this was poorly defined and unquantified. It was often unclear how and why interventions achieved the intended outcomes. Assumptions that outcomes would be obtained were often stated in general terms. Many of the sources reviewed contained accounts of the contexts that might influence the achievement of outcomes, but they were often broad and difficult to interpret. As a result, the proposed theory was limited and the need for further exploration was indicated.

4.5.1 Integration of surgical and medical CMOCs

As discussed previously, realist research holds that abstracted sets of ideas from similar families of programmes can be formative in the transfer of programmes to novel settings (Pawson, 2013; Pawson & Tilley, 1997) This section discusses how the thirteen CMOCs brought forward from the surgical review (Chapter 3) might be important for medical patients.

The CMOs from the two data sets were compared for similarities and differences to see if any overlapped. Integration occurred based on the following criteria: (1) interventions shared common mechanisms, (2) there was a shared underlying principle that applied in part or completely across the two settings, (3) there was alignment of interventions. As a result of the integration process six of the medical CMOCs were refined, to reflect the knowledge gained from the surgical review. Five of the medical theories remained unchanged (see Figure 26). Three surgical CMOCs ‘normothermia’, ‘Altering poor lifestyle behaviours’, and ‘optimising pain control’ did not meet the criteria and were excluded.

Unchanged theories

Two surgical CMOCs ‘Individualising care’ and ‘sharing responsibility’ remained unchanged. The importance of relational aspects of care in the acute setting is well recognised (Bridges et al., 2010). Hospital care can lead to feelings of identity loss (Coyle & Williams, 2001). Healthcare professionals’ understanding of a patient’s contextual circumstances and personal needs can help to alleviate this (Bridges et al., 2010). Maintaining connections with family and social networks also helps patients to feel supported and connected, especially where patients have dementia, delirium and /or communication difficulties. Therefore, it seemed reasonable to retain both CMOCs (unchanged) for further development. See figure 26.

The integrated theories and those that remained unchanged formed the initial rough theories at the end of stage one of the study and were taken forward for validation in interviews with practitioners. The integrated theories are discussed and set out below. The refinements have been written in bold text. As the unchanged CMOCs from the reviews have appeared earlier in the thesis, they are not presented again.

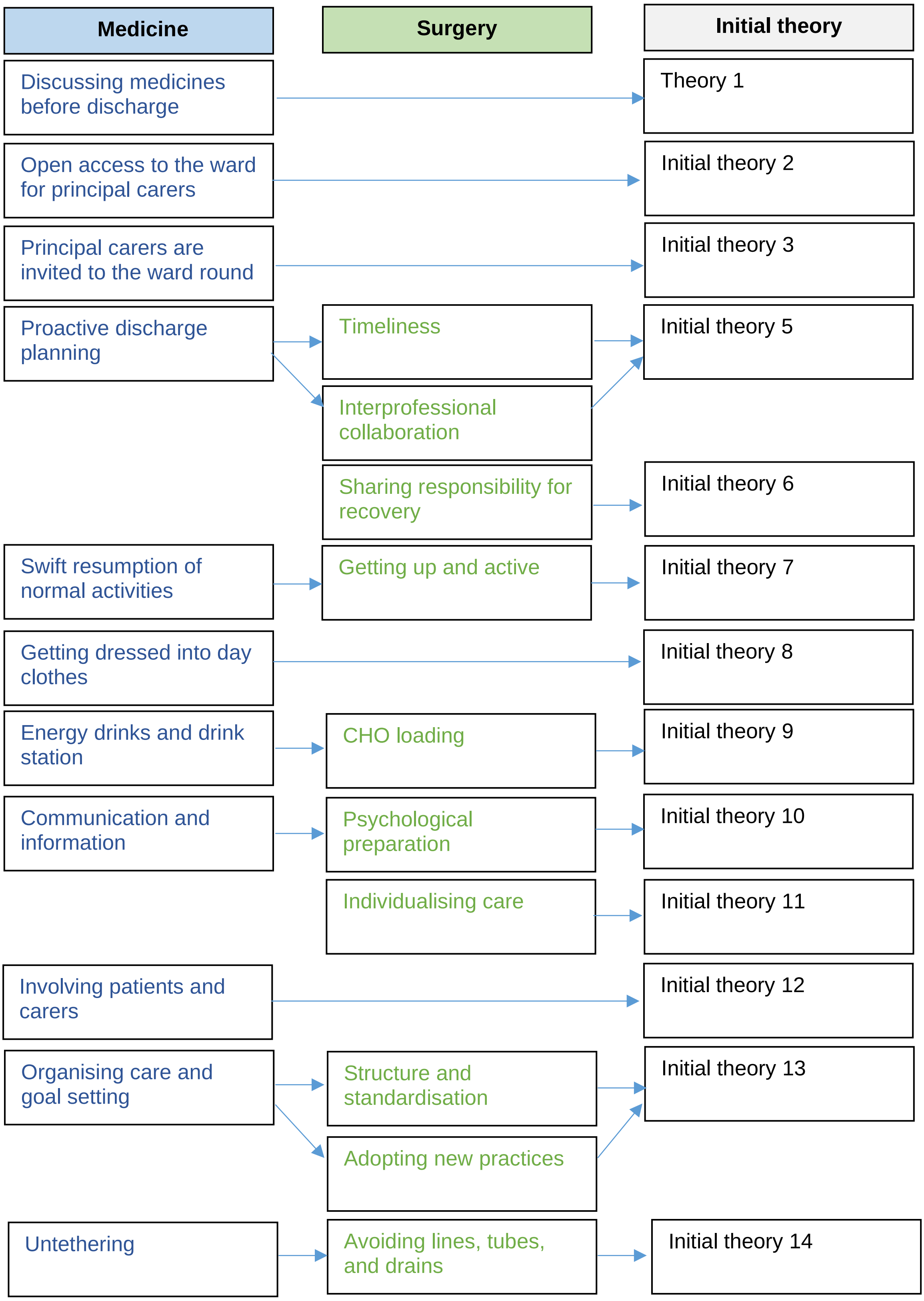


Figure 27: Results of integration process

Integration of ‘swift resumption of normal activities’ and ‘getting up and active’

Both theories promoted physical activity and minimising periods of inactivity whilst in hospital. Acute illness can trigger a reduction in functional capacity like that following surgery. Functional decline during hospitalisation for acute diseases is frequent among frail elderly patients (Brown et al., 2009; Creditor, 1993). Preventing dependence induced during care (iatrogenic disability), is critical (Lafont et al., 2011). CMOC ‘getting up and active’ offered additional insight regarding all parts of this theory.

Context: *Hospital inpatient care is bed-focussed and traditionally nurses see patients as passive and dependent recipients of care, doing things to and for them*. Older people are at risk of becoming weak and losing functional abilities from prolonged periods of inactivity. **Expectation about hospital bed rest. Positive and trusting relationships between patients and staff. Sleep, rest and removal of lines and monitors.**

Mechanism-resource: Patients are encouraged and assisted to get out of bed, dress and walk around (within 24 hours of admission). Nursing tasks are carried out in a different order and focus on encouraging independence and helping patients to look after themselves.

Mechanism- reasoning/response: Patients enjoy getting up first thing in the morning. This **reduces feelings of resignation, facilitates self-efficacy by enabling them to complete everyday tasks such as, washing and getting dressed**. This return to normal activities gives patients a sense of control and builds confidence in their abilities. Maintaining usual everyday routines whilst in hospital helps them to feel confident and safer going home. Nurses experience positive interactions and increased engagement from patients. Everyone is enthused, interactions are positive, and the ward atmosphere is better. **Swift resumption of normal activities brings relief and reduces convalescent demands on their families after discharge.**

Outcome: Minimising periods of inactivity, preserves muscle strength and functional capacity. Recovery is faster, complications and LOS are reduced. Patients maintain their independence whilst in hospital and the ability to perform activities of daily living, leaving hospital less debilitated. Primary and social care services have fewer dependent patients to provide services for. **If patients take on tasks previously performed by nurses, then nursing care time per stay is reduced and there is a shift from nurses attending to physical needs to information and advice.**

Rival theory: Nurses may perceive ERM as extra work. Patients' ideas about what will contribute to their recovery may conflict with the advice and expectations of staff regarding physical activity. **Patients experiencing pain, and fatigue may feel weak and incompetent regarding actively doing as recommended.**

Integration of 'untethering' and 'avoiding lines, tubes, and drains'

These two theories involved similar interventions, although avoiding catheters was not included in the medical theory. Additional detail about the mechanism of action was included in the surgical CMOC, which was considered transferable to medicine.

Context: Older patients are at risk of developing iatrogenic complications and being discharged with an ADL disability they did not have before becoming acutely ill.

Mechanism-resource: Considering whether an IV drip is really needed, being proactive taking down IV drips when oral fluids are appropriate, and avoiding techniques that enforce bed rest (such as catheters, 24-hour IV fluids). Patients are taken off monitors as soon as possible, aiming for a drip free morning.

Mechanism-reasoning/response: Not being tied to a drip or monitor **removes physical and psychological barriers to mobilisation and** makes it easier for patients to get up dressed and move around. **Patients do not feel medicalised, upset and discomfort are minimised**. They sleep better without drip machines beeping through the night.

Outcome: Improves wellbeing and *physical and functional status is maintained. Faster recovery and shorter LOS.*

Integration of ‘organising care and daily goal setting’, ‘structure and standardisation’ and ‘adopting new practices.’

The two theories, introducing a structured approach to care delivery and organising care, shared a similar mechanism. However, there are fundamental differences in the style and access to care between the two settings. Surgical wards are adapted to a specific patient group. In contrast medical teams care for a heterogeneous group of patients, with various diagnostic and treatment pathways (Pannick et al., 2016). Medical patients present with a diverse range of conditions. Patients may arrive without a diagnosis and treatment can be concluded without a definitive diagnosis ever being established (Pannick et al., 2016). The starting time of care in elective care pathways can be planned. In acute care this is not possible, and the duration of care varies (Schrijvers et al., 2012). Therefore, the structured approach in medicine is more flexible and ideas about strict adherence to the standardised approach in surgery were not integrated. CMOC ‘adopting new practices’ was also integrated as it shared a similar principle.

Context: Engagement of individual members of staff. Patient characteristics and recovery trajectory. **Leadership and positive feedback on progress from staff can enhance patients’ efforts to achieve goals.**

Mechanism-resource: A structured approach is taken to care delivery**, which requires changes to conventional practices.** Patients and carers are involved in helping to set individual daily goals for the patient to aim for, and are supported to achieve them (including getting up dressed into day clothes, mobilising, eating, and drinking).

Mechanism-reasoning/response: Engages all the staff on the ward, gives everyone a shared focus and they work together with a common purpose. Patients feel **energised, have something to strive for and focus on** and take an active role.

Outcome: Successful programme implementation, faster recovery, shorter LOS, and associated cost savings*.*

Rival theory: A focus on tasks and techniques may get in the way of nurses responding to patients’ personal and emotion needs. Processes

may conflict with patient preferences. Implementation of ERP may be perceived as difficult by staff.

Integration of CHO loading and energy drinks and drink station

Nutritional deficiencies are common in medical patients of all ages and acute medical illness can predispose patients to dehydration. Demographic changes in the UK mean that older people account for an increasing proportion of acute medical hospital admissions (Atkin et al., 2022). This group are at heightened risk due to multiple factors including, age-related physiological changes, chronic conditions, underlying illness, adverse effects of medications, and mobility issues (Beck et al., 2021; Volkert et al., 2019). Offering carbohydrate rich (CHO) drinks was an intervention in both surgical and medical ERPs, therefore, integration occurred. This surgical CMOC offered additional detail about the hypothesised mechanism and rival theory about practitioners' attitudes towards administering CHO drinks. The existing medical CMOC was refined to reflect these ideas.

Context: *Nutritional deficiencies are common in hospitalised people of all ages and can delay recovery from illness. Acute medical illness can predispose patients to dehydration.* Older patients hospitalised with an acute medical illness are at risk of being discharged with an ADL disability they did not have before becoming acutely ill.

Mechanism-resource: From admission, energy drinks are provided daily, and patients are encouraged to drink plenty of fluids. A drink station is provided on the ward for ambulant patients to use at any time.

Mechanism-reasoning/response: Patients pay attention to their nutrition and hydration, *drinking the fluids and energy drinks offered, and use the drink station*. **Patients find them energy drinks easy to drink and like the taste.** They stay hydrated and their calorie intake is boosted.

Outcome: Which means they may not need an intravenous (IV) drip, and Iatrogenic complications and LOS are reduced.

Rival theory: Staff may resist implementing CHO loading, believing that patients will be reluctant to drink them.

Integration of 'proactive discharge planning', 'timeliness' and 'interprofessional collaboration'

Timeliness of care is considered to contribute to patient wellbeing and outcomes for acute medical patients. For example, recommendations have been published to promote standards regarding the time to first consultant intervention, and 12-hour/7-day consultant working (RCP, 2012). Inefficient planning and delayed discharge may result in capacity issues, necessitating admission of patients to other wards (boarding), which may not be fit for their care requirements (Royal College of Physicians of Edinburgh, 2013). Part of the surgical CMOC 'timeliness' was concerned with proactive discharge planning. This mechanism was considered similar enough to that expressed in the medical theory 'proactive discharge' to integrate without making changes. Ideas were added to the context and outcome, and a rival theory was added.

Acute medical patients have needs which necessitate close collaboration and cross disciplinary working. Acute medicine is closely linked with critical care services, emergency medicine and primary care teams (RCP, 2007). Transitions of care are frequent. Embedded collaborative practices, such as multidisciplinary team working, external collaboration with GP's providers, social care providers and care homes, are established strengths. Better integration of services is a key policy objective in acute care (RCP, 2013). The interprofessional collaboration CMOC was also integrated because it shared a similar mechanism of close collaboration and working towards shared goals.

Context: Early discharge may be affected by the level of integration with social care, primary care and community services, **the availability of resources or specialist skills in the community and logistical issues**. **Many healthcare professionals involved in the care process.** Patients may be anxious about the practicalities of leaving hospital and going home on discharge day.

Mechanism-resource: As soon as possible after admission, relatives/carers are contacted and the patient's return home or transition to a supportive setting outside the hospital is discussed and planned, including scheduling a discharge date. As much background information as possible is gathered about the patient's base-line function and is fed back to the MDT.

Mechanism-reasoning/response: Any problems that could delay discharge are identified and overcome early on during the patient's stay. Practical issues such as transport and keys can be sorted before the discharge day. The patient's on-going care needs (clinical, social, and psychological) are identified early on, and care plans can be agreed, including management of complications and deterioration from an acute condition. While the patient is getting better, staff work together towards a shared goal. Everyone knows what is happening/planned and how problems will be overcome, which saves time being wasted. Staff have time to speak to care home managers about coming in to assess the patient to see if they can take them back, and if not, start looking at other plans. Patients' anxiety about being discharged is alleviated because they know when they are going to leave hospital and can plan how they will get there early on during their stay. Patients don't enjoy being in the hospital environment and are pleased to be discharged quickly.

Outcome: Everything is in place for going home, resulting in a simplified and smoother discharge process on the day. **Unnecessary delays are reduced,** LOS is shortened with associated cost savings. Patients and their carers have a better hospital experience. Better relationships are established with care homes and there is good continuity of care on return to the community (as a care package is already set up). **Time away from family and disruption to patients' lives is minimised. Risk of hospital acquired infection is reduced.**

Rival theory: Much of the recovery process must be handled by patients on their own, supported by family and carers. Shorter LOS reduces time available to for managing other important aspects of recovery such as rehabilitation.

Integration of ‘communication and sharing information’ and ‘psychological preparation’

In contrast to the planned admissions of elective surgical patients, acute medical patients are admitted on an urgent and unpredictable basis. Elimination of the pre-admission timeframe makes physical or physiological preparation for the hospital experience unachievable in the acute medical setting. Nonetheless, medical patients can still benefit from gaining an understanding of what is happening and what is planned (Bridges et al., 2010). Although, getting timely information to patients may be challenging when treatment needs to commence urgently. The mechanisms and contexts of these two theories were similar, however explanations in the surgical CMOC relating to pre-hospital visits and skills training were not and were therefore exclude.

Context: Emergency admission can be a frightening experience. Patients and their relatives/carers may be unsure of what is happening and desire information about the rationale for treatment and care process. Effective communication skills of staff. Pressures of emergency assessment limit time available for communication. **Format, amount, and timing of information provided.**

Mechanism-resource: Time is devoted to communicating directly with patients and carers and providing information and practical advice about the expected process of recovery, managing the acute episode, and actions that could prevent a repeat admission. **ERP interventions are emphasised, such as mobilisation, early discharge, and active patient and carer participation in the recovery process.**

Mechanism-reasoning/response: Patients have a better understanding of what is expected of them, the care process and the different roles of the staff, which promotes positive and realistic expectations. **Patient anxiety is alleviated, a sense of control, safety and autonomy is increased, which motivates them to take personal responsibility for their recovery and actively participate in the programme.** Carers find it helpful for **planning care after discharge** and are clear about whom to communicate with. Staff feel they are providing better care, and the ward atmosphere is better.

Outcome: **Removes the communication burden from patients**, improves morale. Patients recover more rapidly, go home earlier and are more satisfied with the care they receive.

Rival-theory: Patients and carers don't notice the posters or read other promotional material.

4.6 Chapter summary

This chapter reviewed the extant enhanced recovery literature in medicine. The review aimed to elicit ideas about how ERPs work for patients admitted to hospital with acute medical illness. Searches identified a small and emerging body of grey literature for inclusion in the review. Common interventions were identifiable, but the development of CMOCs was difficult due to a lack of explanatory data. Despite the limitations of the available data, using a realist lens, it was possible to elicit twelve initial theories. This review was small and preliminary due to the insufficiencies of prior research, therefore the theories presented are tentative. The fragmented explanations indicate that there is a clear need for further investigation to develop a greater understanding of ERPs in medicine. Exploration of the relationships between the two data sets from the reviews suggested that some programme theory was transferable from surgery to medicine.

This chapter concluded stage one of the research with initial programme theories for ERPs in medicine (in the form of CMO configurations). In the chapter that follows, the initial theories developed were taken forward to realist interviews with programme practitioners at the study site, for further exploration and refinement.

Chapter 5: Exploring initial programme theories with practitioners

This chapter describes how theoretical knowledge synthesised from the literature reviews (Chapters 3 and 4), was presented to a range of practitioners at the case site, through realist interviews. The aim was to draw on their direct experience of an ERP implemented in medical practice, to refine and add to the set of initial theories previously developed. In section 5.1. the aim and rationale are described. Section 5.2 sets out the stage specific research questions. Section 5.3 describes and justifies the methods of data collection. The selection of interviewees, interview procedures and method of data analysis are detailed. Section 5.4 presents the findings. Section 5.5 discusses the findings. A summary of the chapter is given in section 5.6.

5.1 Aim and rationale

The realist approach regards stakeholders as key sources for eliciting programme theory and providing data on how a programme works (Pawson & Tilley, 1997). In realist research, it is assumed that different practitioners have potentially competing perspectives and understandings about how, for whom and in what circumstances programmes work (Wong et al., 2016). It is also assumed that no single participant knows about all aspects of the programme (Pawson & Tilley, 1997). Therefore, to further develop and refine the evolving theories synthesised from the literature, input was sought from different groups of practitioners involved in delivering and developing the ERP at the case site. Interviews were conducted and used as a means of capturing practitioners' perceptions of processes, mechanisms, and associated contextual factors that enabled or inhibited the working of the ERP in practice. The aim was to see whether there was evidence of the initial theories elicited from the literature reviews when I discussed them with practitioners.

5.2 Methods

I used semi-structured realist interviews (Pawson & Tilley, 1997), as they supported theorising and could account for the complexity of the ERP and the hospital setting in which it operated. Emmel (2012) argues that it is important that researchers arrive at interviews 'knowledgeable of what happens in the natural setting'. Therefore, in advance of the interviews, I undertook preliminary discussions, meeting observations, and reviewed trust documents. This understanding of the programme facilitated conversation during the subsequent interviews. Insights gained supplemented the data from the realist interviews.

5.2.1 Preliminary discussions and meeting observations

To inform background knowledge, I attended weekly multidisciplinary ERM project group meetings, known as 'ERM Huddles'. Twelve meetings were attended in total over the period October 2013 to November 2014. During these meetings updates were presented from participating wards, process data was shared, and operational difficulties were discussed. I was also privy to conversations regarding two funding applications and attended the official programme launch of the programme in October 2013. I made preliminary visits to the EAUs and medical wards to experience key processes, such as ward rounds and board rounds, observed interactions between staff and patients, and talked informally with staff about the programme. This time was useful in growing my understanding of the whole ERP process, identifying problems faced in delivering the programme, and building relationships with the staff.

5.2.2 Documentary data

Additional insights were derived through reading various relevant documents gathered at the hospital. Documents examined included organisational policy and reports, press releases, and funding proposals. A List of the documents collected and used in the theory development can be found in Appendix 14. The additional Information from reading and reviewing these documents provided valuable contextual information about the history of the ERM programme prior to the study, programme aspirations and intentions, and the wider social, political, and cultural context.

5.2.3 Realist interviews

Interviews are widely used in evaluation research (Manzano-Santaella, 2016) and multiple approaches are described in the literature. Pawson and Tilley (1997) provide a unique approach to conducting interviews within realist evaluations. A key difference from other qualitative approaches to interviewing being the theorising purpose of the interview (Manzano-Santaella, 2016). In realist interviews the subject matter of the interview is the researcher's programme theory. The researcher teaches the interviewee about the theories they want to explore and then invites them to comment on them using their experience of the programme. In this way a unique relationship between the researcher and interviewee is created, described as a 'teacher learner cycle' (Pawson & Tilley, 1997). Figure 28 illustrates the basic structure of a realist interview.

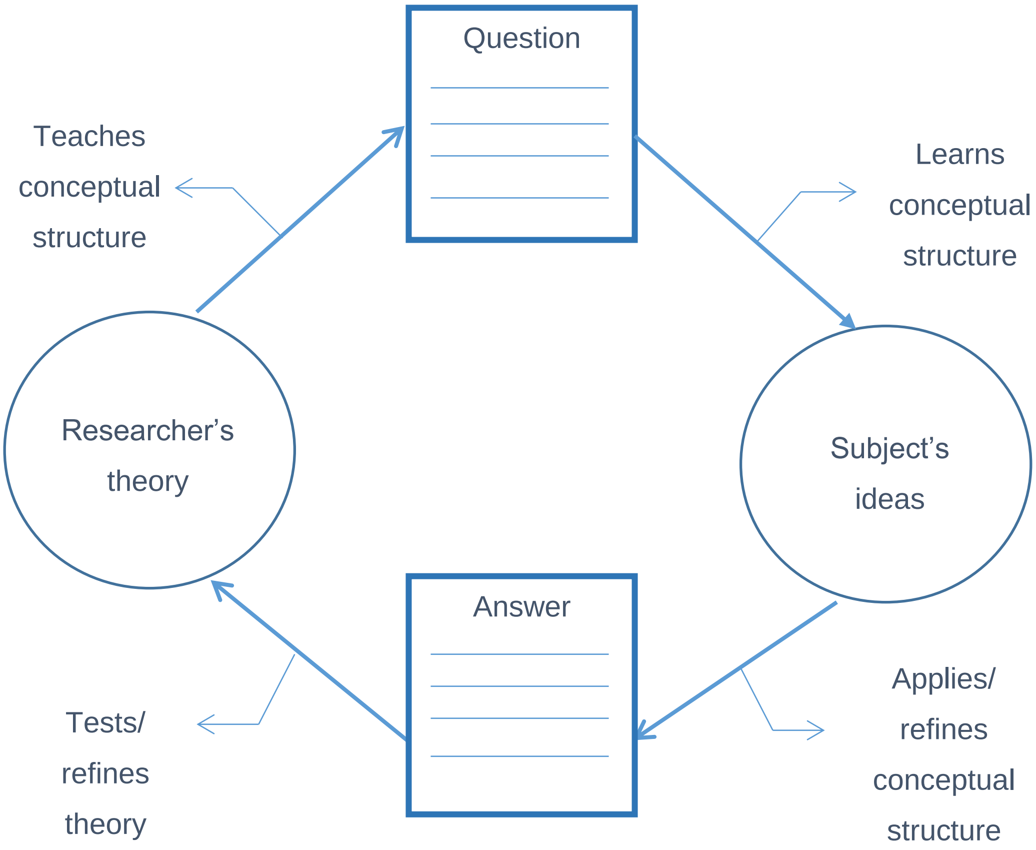


Figure 28: Realist interview structure. Adapted from Pawson and Tilley (1997, p165)

Selection of interviewees

Individual pre-arranged interviews were conducted at the hospital with members of staff involved in developing and delivering the ERP. Given that acute care is multi-professional, I considered it important to capture different points of view from a diverse range of hospital staff, including managers, administrators, and clinicians. Interviewees were purposefully selected because of their experience of the ERP and potential to be able to address the programme theories. A snowballing sampling technique was also used, whereby interviewees advised who might be interviewed next (Emmel, 2013). The number of interviews conducted was determined by the availability of staff and when the theories had been sufficiently explored. Invitations to participate in the interviews and information about the study were sent by letter or email in advance (see Appendix 9 and 10). Nine interviews were conducted lasting between 45 minutes and one hour. Interviews were audio-recorded, transcribed verbatim and then deleted. Written consent was obtained from interviewees and approval sought for digital recording of conversations (Appendix 10). An example of the debrief letter sent to interviewees following interviews is provided in Appendix 13. Details of the interviews undertaken is provided in Table 12.

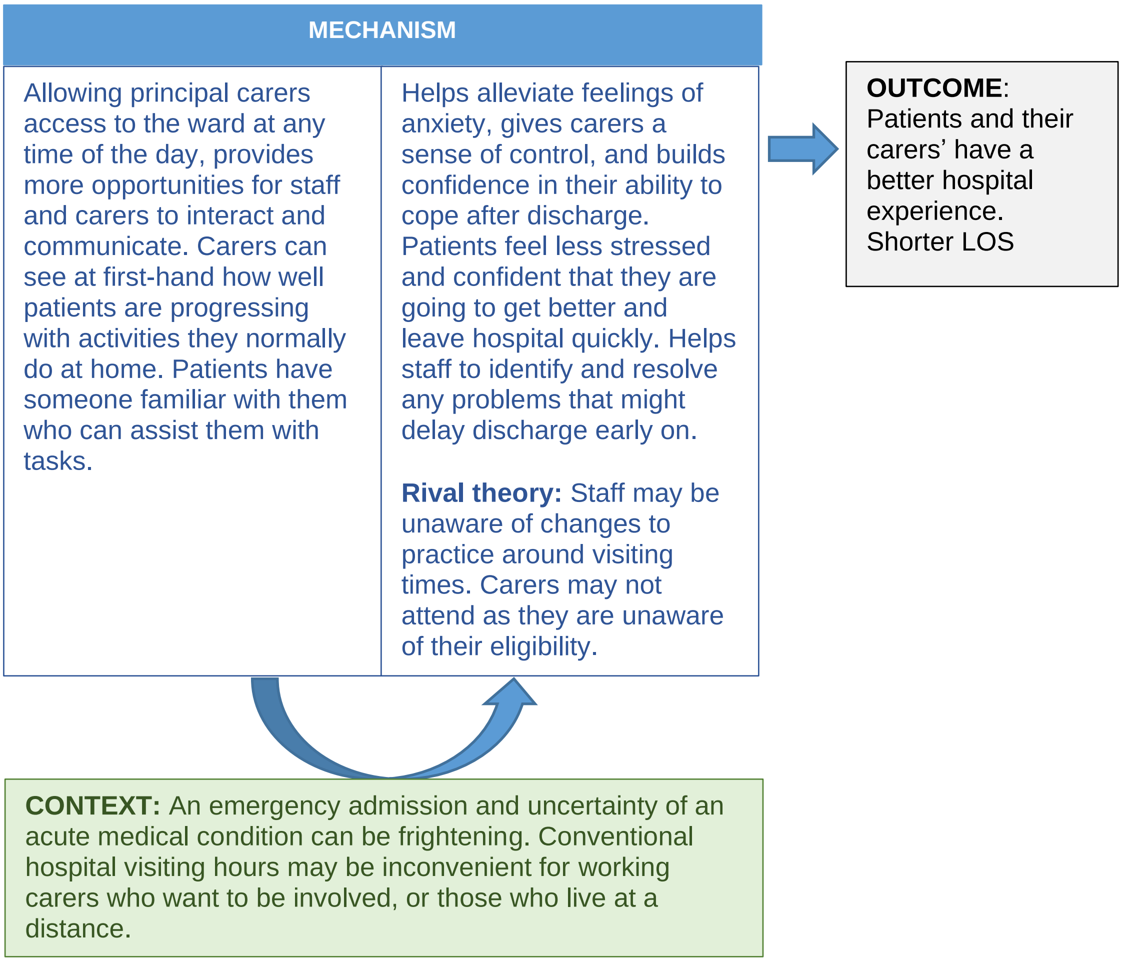
Table 12: Details of interviewees

Professional background	**Duration (mins)**
Support Worker	55
Director	73
Project Manager	54
Medical consultant	65
Matron (medical ward)	34
Ward Sister (EAU)	56
Discharge Coordinator	47
Ward Manager (EAU)	58
Therapist	64

Procedures

Interviews followed methodological guidance on how to conduct realist interviews (Manzano-Santaella, 2016; Pawson, 1996). I developed an interview guide, which comprised interview questions and visual aids (Appendix 11). Open-ended questions were used so that interviewees could contribute their thoughts and I could clarify understanding and gather further information using follow-up questions (Silverman, 2006). To help interviewees make sense of the theories and draw out their thinking, I used simple conceptual diagrams to present the theories during the interviews. This helped to direct attention on the aspects of the theories that I was interested in. Interviewees were asked to comment on the diagrams and whether they thought they were accurate. An example of the diagram constructed for initial theory 2, ‘open access for principal carers’, is given in Figure 29. The remaining diagrams utilised are provided in Appendix 14.

Theory 2: Open access for principal carers



MECHANISM

Allowing principal carers access to the ward at any time of the day, provides more opportunities for staff and carers to interact and communicate. Carers can see at first-hand how well patients are progressing with activities they normally do at home. Patients have someone familiar with them who can assist them with tasks.

Helps alleviate feelings of anxiety, gives carers a sense of control, and builds confidence in their ability to cope after discharge. Patients feel less stressed and confident that they are going to get better and leave hospital quickly. Helps staff to identify and resolve any problems that might delay discharge early on.

Rival theory: Staff may be unaware of changes to practice around visiting times. Carers may not attend as they are unaware of their eligibility.

OUTCOME: Patients and their carers’ have a better hospital experience. Shorter LOS

CONTEXT: An emergency admission and uncertainty of an acute medical condition can be frightening. Conventional hospital visiting hours may be inconvenient for working carers who want to be involved, or those who live at a distance.

Figure 29: Example of a conceptual diagram used in realist interviews

Due to the large number and fine detail of the theories, time constraints and a potential for information overload, it was not possible to discuss all the theories with every interviewee. I therefore selected those I judged to be most relevant, based on their answers to my opening questions about their role and experience. For example, one interviewee’s job role entailed supporting carers and did not entail any clinical aspects of care. Thus, time was spent on theories which focussed on social and psychological aspects of care and theories focussing on physiological aspects of patient care were omitted.

The interview was piloted with one clinician and minor alterations were made based on feedback. The data from the pilot interview was included in the final data. As the interviews were carried out and I learnt more about the ERP, my questions iteratively evolved and became less standardised.

5.2.4 Data analysis

NVivo 12 (QRS International Pty, Ltd, 2016) was used to manage the data and develop the synthesis. Computer assisted qualitative data analysis software (CAQDAS) has been valuable to researchers in organising data and adding transparency in realist methods (Dalkin et al., 2015). The decision to use a software package to manage and organise the interview data was based on the need for sifting the large volume of data generated and anticipation that coding the interview transcriptions electronically on screen would be quicker in comparison with the manual method used for the literature review. I created a high-level conceptual coding tree in NVivo to represent the initial theories developed from the existing literature. A parent node was created for each of the initial theories. The coding scheme was non-hierarchical with all theories sitting at the same level. As suggested by (Ezzy, 2013), I transcribed the first few interviews before conducting the remaining interviews to enable reflection on any issues and learning from the experience. Transcripts were read and re-read for familiarisation and then imported into the NVivo software. The interview data was broken down into individual contexts, mechanisms, and outcome configurations, which were then coded against an appropriate parent node. In this way, data from each of the interviews was used to confirm, refute, refine, and add to the existing theories in a deductive way (Pawson, 2006). Where data did not ‘fit’ with an existing theory a new node was created. Where data contradicted an initial theory, this theory was noted as rival theory at each node. Through this process, the initial theories were revised and refined. I chose this strategy to avoid duplicating data under multiple nodes and to avoid fragmentation of the data. I used a linked analytical memo created at each node to make notes throughout about the evolution of my ideas, to show my thought processes and to keep track of changes to the initial theories themselves. Figure 30 illustrates the data refinement process.

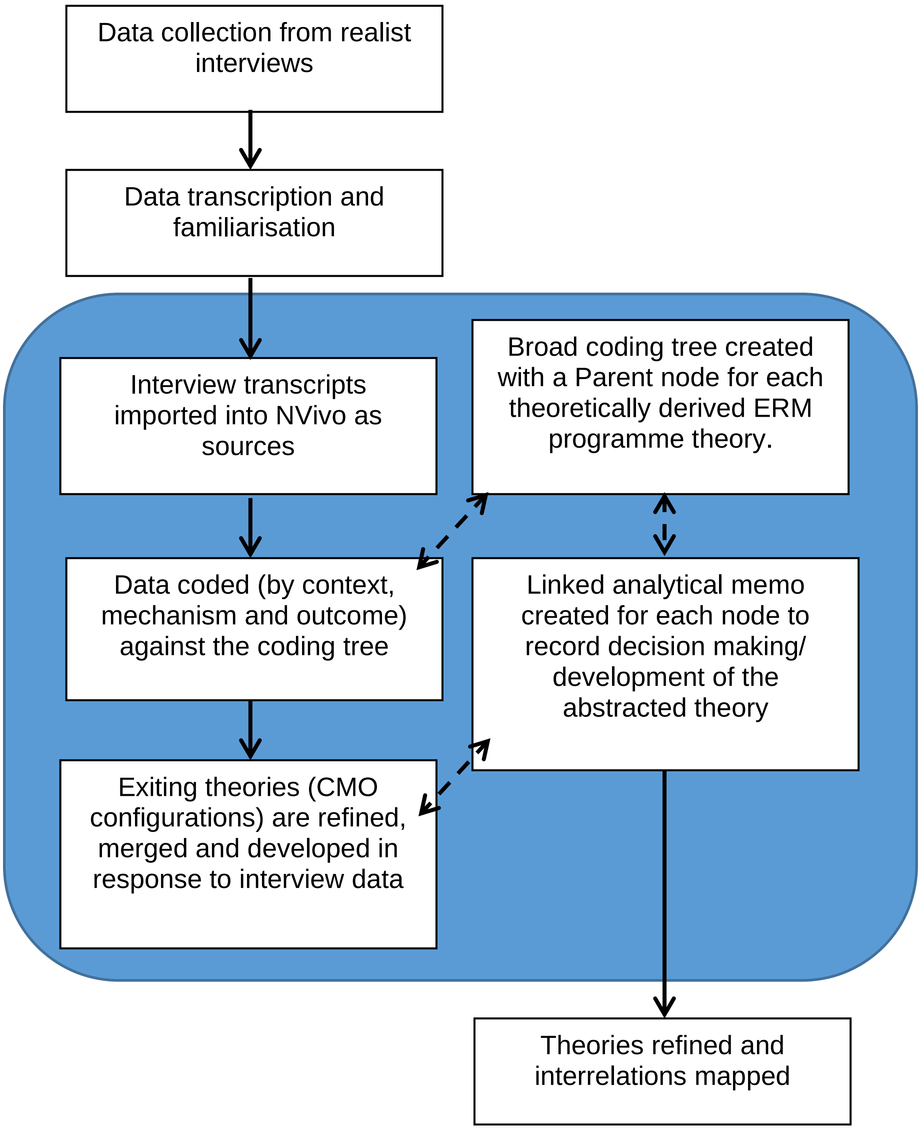


Figure 30: Overview of data refinement process using NVivo

The use of documents alongside the interview data allowed comparisons to be made between practitioners' interpretations and those recorded in relevant documents, and to challenge or confirm aspects of the theories.

5.3 Findings

To provide some context for the findings from the interviews, this section first describes the ERP implemented at the research site, based on findings from preliminary discussions, meeting observations, and document review.

5.3.1 Operation of the ERP at the research site

At the time of the study, the ERP at the research site was well-established. In October 2013, an official launch took place. The ERP approach was developed by practitioners in the EAUs in collaboration with the Quality Improvement Team and patient representatives and was later approved (rather than mandated) by the executive board at the hospital. Once established in the EAUs, the programme was rolled out on four medical wards, including a cardiology, respiratory, general medicine, and an elderly care ward. The ERP approach was aimed at all patients admitted to EAU directly or from A&E. The aim of the programme was to achieve improvements in the quality of care delivered to acutely ill inpatients at the hospital, admitted as a medical emergency. The project objectives were:

- To improve patient and carer experience.
- To use learning from ERPs in surgery initiative and apply this to medical patients.
- To ensure patients' needs are central to the improvements.
- To make bed day savings.

The programme was based on an existing surgical ERP that was already successfully operating within the hospital. Staff drew on key ideas, adapting and applying them to the acute medical setting. During the development phase of the project a 'current state mapping process' was carried out, which involved a physical walk-through of the hospital wards involved in the pathway (from admission to discharge). Stakeholder engagement sessions with staff and patients identified strengths and weakness of the current pathway, improvement opportunities, and informed a project action plan. The day-to-day work of the project was driven and managed through weekly multi-professional team meetings known as 'ERM Huddles' led by an Acute Physician. These meetings were used to monitor processes, review progress, and were an opportunity for participating wards to provide updates, share experiences and promote learning. These meetings also provided peer support for the project team, who provided dedicated support for colleagues through staff awareness training and education events at team level.

Performance measures were collected daily to monitor implementation progress including:

- percentage of patients on a drip-free morning.
- percentage of patients who are out of bed and dressed in day clothes at 11.30am.
- percentage of patients taking an energy drink.
- percentage patients offered the opportunity for their carer to attend the ward round.
- number of carers taking part in the ward round.

The basic ERM programme was common across all wards and comprised various interventions targeting specific work areas. These included all the interventions identified in the medical literature review, as detailed in Table 11, apart from pain management and help with smoking and alcohol cessation. Additional resources could be enlisted from within the organisation to support with smoking or alcohol cessation, but this was not a recognised programme intervention. Consequently, further exploration of the two surgical CMOCs ‘altering poor lifestyle behaviours’ and ‘optimising pain control’ was not possible.

5.3.2 Refinements to initial theories

This section presents the refinements to the initial theories, based on the interview findings. Each theory is discussed in turn and a refined version is presented. Quotations from the interview transcripts (written in italics) are included to support my interpretations. The professional backgrounds of interviewees are not provided with the quotations to protect confidentiality. With a small number of interviewees, disclosing professional backgrounds could inadvertently identify individuals, compromising confidentiality. The refinements made to the theories that arose from the interviews are written in bold text. Where no evidence was found relating to parts of the theories, no data was removed, due to the limited participant numbers.

Theory 1: Discussing medicines before leaving hospital

The data from the interviews supported a single refinement to this theory. One interviewee suggested that an unexpected outcome of the implementation of the ERM programme was that it had raised the priority of preventing medication errors within the organisation (RI-01).

Context: Patients given medicines to take home with them may not take them as intended *(especially those with complicated regimens and those using multiple concurrent medications).*

Mechanism resource: Patients can discuss prescribed medications with a pharmacist before leaving hospital.

Mechanism reasoning/response: Leads to a better understanding of their purpose, duration, *and possible side effects, which in turn increases the likelihood that drugs are taken as recommended* and they gain optimal benefit from them.

Outcome: As a result, patients have fewer problems after discharge and reduced readmissions. **The priority of preventing medication errors is raised within the organisation.**

Theory 2: Open access for principal carers

The data from the interviews supported refinements to all parts of this theory. Interviewees highlighted variability in carers' desire to attend the hospital. Some carers did not want to leave their loved one, while others did not want to stay (RI-9). Another interviewee stated that carers may be nervous about facilitating recovery after discharge. It was also noted that despite the ward being busy with lots of noise and activity, patients may feel isolated in an unfamiliar environment, therefore having someone with them meant that they did not feel alone (RI-06). There was some disagreement between interviewees about the extent of ward access that should be offered.

It was felt that having carers around relieved patient's anxiety, boosted their confidence, and put them in a more positive frame of mind because they felt more supported (RI-6), which affected morale. It was perceived that carers felt more welcome and valued and therefore they were more likely to get involved in care processes and decision making. For example, contributing to therapy assessments by clarifying whether function is better or worse than normal (RI-5). Carers provide emotional support and took on practical responsibilities, such as assisting with bathroom visits, making sure patients are taking their medications, motivating the patient, and remembering information (RI-8). Several interviewees highlighted that allowing open access to carers all day was of benefit because it allowed a three-way conversation to take place between the carer, staff, and the patient (RI-1). Because carers are not the person in the direct line of care, this conversation was perceived by staff to be more honest (RI-5). Patients with cognitive disorders were thought to benefit especially.

> *Extending access is fantastic for patients who are confused or have dementia. They can feel anxious being out of their own environment. Lots of patients have to be 'specialled' where a ward nurses, or an extra nurse, is employed specifically to come and sit with them. It's much better if a relative is willing to come and do it (RI-9).*

Evidence from the interviews also refined the outcomes. Extending ward access for carers was reported to be beneficial to staff in terms of gaining information (RI-9) and saving time. Having relatives on the ward was thought to be timesaving for therapists rather than having to phone relatives, who may not be in. Particularly if patients are confused (RI-9). One interviewee explained that '*actively encouraging carers to visit enables staff to tap into carers as a resource and helps do things staff can't do.'* (RI-8). Carers assisted patients with washing and toileting and attended mealtimes. This was viewed positively by staff because it helped patients to maintain their normal routines, especially older and dementia patients. It supported staff to manage tasks when they were under time pressure (RI-8). Several interviewees reported that having carers on the ward for longer assisted communication and information exchange because it increased the opportunities for dialogue with the consultants. One stated that, *'…unless a formal meeting is arranged it is difficult to pin-point a time when consultants and carers can meet'* (RI-6). Another stated.

> *Extending access to the principal carer when patient is medically stable is of huge benefit to therapists and to discharge coordinators, who are often trying to get hold of them by phone. They are there, they know the patient best and can give us information if the patient can't. They can see the patient, walk with the therapist, they can contribute to the assessment as they know how the patient normally is and whether it is better or worse than normal levels. Carers benefit from reassurance and having information given to them immediately, and to see first-hand how their relative is (RI-09).*

Extending ward access for carers was reported to minimise separation from loved ones (RI-5).

The interview data also supported the addition of many new rival theories. Several interviewees suggested that carers may not take up open visiting because hospitalisation (providing that the emergency is under control) is respite from their caring duties and they can hand over responsibility (RI-8; RI9).

> *Having a loved one come in may be the first break that a carer gets, they may never have had any respite. A carer may love the patient very much, but they are exhausted and knowing that they are safe in hospital can feel amazing and gives them an opportunity to attend to their own needs (RI-5).*

One interviewee suggested that open access could be difficult to implement because having many people coming in and out of the ward makes nurses feel that they were losing control (RI-4). Other interviewees reported that there was resistance from some nurses due to ingrained embedded habits and a sense of not knowing who people were and where they were (RI-9). It was thought that staff were not always consistent with the open access message on all wards (RI-6). Some EAU ward clerks reverted to telling carers wanting to access wards during extended hours that 'It's not visiting time' (RI-7). Interviewees suggested that although aiming to provide the best care for patients some staff may not appreciate the situation from the patient's perspective unless challenged to think how they would feel personally (RI-6). Similarly, some doctors may not be able to envisage how the situation feels from the carers point of view because of a mechanistic approach to care (RI-4).

Most interviewees thought that there should be no restrictions to access for carers during an emergency situation (RI-9). However, a few interviewees felt that certain restrictions were necessary at times (RI-6). For example, in the early mornings when patients were being helped to get washed, dressed, and use the commode, there were concerns about patient privacy and dignity, especially if someone was visiting in the next bay because of the thin curtains between each bed. It was thought to be particularly inappropriate if the visitors are of the opposite sex to the patient (RI-9). Having carers present was thought to be detrimental if their routines and care practices were not considered helpful (e.g., if food choices, the way they assist with feeding or move the person are not best practice). Although this was also thought to present a potential opportunity for staff to educate carers (RI-5). There was also resistance from staff when high numbers of visitors wanted to attend, due to the limited space at the bedside and doctors typically visiting patients with their 'juniors', (RI-7; RI-9). Another explanation given for resistance to extending visiting hours by interviewees was that doctors were anxious that their ward rounds would take longer if carers were present asking questions. Doctors on the medical ward were thought to be under the most time pressure because their ward rounds were large and typically comprised older patients who required a great deal of medical management (RI-9). One interviewee spoke about the importance of the way this offer was extended to carers, noting that due to the perceived authority of nurses, carers could feel guilty if they did not come in or help (RI-5). Another interviewee suggested that open access was not successful because many of the patients were older with younger working carers who were unable to come in during daytime hours (RI-9). Some carers who lived at a distance were unable to get to the hospital in the morning as they were relying on public transport. Furthermore, the two o'clock visiting time was thought to be convenient for a many people (RI-7).

Context: Uncertainty of an acute medical condition and frightening **and isolating** experience of emergency admission. **Carers may be nervous about facilitating recovery at home after discharge. Convenience of hospital visiting hours for working carers or those living at a distance or relying of public transport. Carers willingness to be involved.**

Mechanism-resource: **When patients are medically stable,** allowing principal carers access to the ward at any time throughout the day **increases**

opportunities for staff and carers to interact and communicate. A three-way conversation can take place between the carer, staff, and the patient about routines and preferences. Provides carers with direct and timely information and an opportunity to assist with care and to see at first-hand how well patients are progressing with activities they normally do at home. Patients have someone familiar with them who can assist with tasks.

Mechanism-reasoning/response: Patients **feel comfortable and supported** which relieves stress and isolation and **helps develop a positive mind set.** Confidence is boosted that they will get better and leave hospital quickly. **Especially patients with cognitive impairment or those who would otherwise be 'specialled'.** Helps alleviate carers' feelings of anxiety, gives them a sense of control, and builds confidence in their ability to cope after discharge. **They feel welcome and valued and are therefore more likely to contribute to the care process and decision making. Staff feel it is ethically right for carers to be present. Conversations are perceived to be more realistic**, which helps staff to identify and resolve any problems that might delay discharge early on.

Outcome: **Separation from loved ones is minimised and familiar routines are maintained. Morale is high,** patients and their carers have a better hospital experience and LOS is shorter. **Timesaving for staff as they are often trying to contact carers by phone (especially if a patient is confused). Help from carers is an additional resource for staff.**

Rival theory: Staff may be unaware of changes to conventional visiting times or find it difficult to identify carers. **Inconsistent messages about visiting times may be given out because of ingrained habits, or a sense of losing control or disruption to ward routines. Staff may feel that restricted access is necessary at times to maintain privacy and dignity, and due to limited space at the bedside. Staff (especially doctors) may not consider things from the patients' perspective. Consultants may be anxious that their morning ward rounds will take longer. Carers may feel obliged to visit or feel guilty if they do not because of the perceived**

authority of nurses. Others may not be aware of their eligibility or **see hospitalisation as a respite from caring duties.**

Theory 3: Principal carers are invited to the ward round

There was recognition in the interviews that an emergency admission to hospital could be stressful for carers. They may be unsure about what is happening and feel a lack of control over the medical circumstances (RI-1). One interviewee noted that hospital policy limited the amount of information that could be given over the telephone. Relatives also had difficulty getting through or speaking to the right person, which left carers feeling anxious (RI-6). Another stated that because of the medical focus of consultants and high patient numbers, practical social issues, such as toileting and returning to work, were typically not addressed (RI-1).

Attending the ward round ensured that carers acquired information about the patient's condition and recovery plan directly from doctors. Important practical and social issues could be raised and explored (RI-3). Being present when the doctors did their ward round could relieved anxiety and reassured carers, especially if patients were older, confused or cognitively impaired, or unable to give or relay information because of medications (RI-1). Another interviewee felt that the interactions are more valuable to consultants because they gain a truer picture of the patient's background circumstances, and a better sense of the patient as a person can be gained. Additional information and previously unknown medical issues may also be flagged up, without the consultation taking any longer (RI-4). This was thought to be especially important if patients have a cognitive impairment. Having someone they know and trust with them at the consultation, who can act as an advocate, gives patients confidence, makes them feel more comfortable, and more independent (RI-6)**.** Another interviewee stated that*, 'acutely ill patients who have carers to support and advocate for them often get a better service, a better outcome, and a better experience than those without'* (RI-4). Another described a change in culture as an outcome, stating that existing professional hierarchies are overcome and there are more equal adult-to-adult relationships between staff, patients, and their carers' (IR-6).

The interview data suggested that few carers attend the ward round (RI-3). Several reasons for this were proposed. For example, being in a conversation with a doctor can feel uncomfortable or intimidating for some carers because they do not understand what is being said because of the 'jargon' used (RI-8). Carers may not want to go to the ward rounds because *'they are exhausted and want to take advantage of the respite break while the patient is in hospital'* (R4). The timing of ward rounds may be a problem for carers who work or rely on public buses (RI-1).

One interviewee described situations where there was disagreement among family members regarding who was the patient's principal carer (IR-1). When multiple family members want to attend the ward round, nurses needed to negotiate access. Another highlighted that the patient's view can be completely different from the carers and there is a risk that the carer can take over and the patient's preferences are not listened to (RI-6).

Context: **Hospital policy limits the amount of information that can be given over the telephone and carers may have difficulty getting through to the ward or speaking to the right person. Typically, little information about the process or rationale of in-patient care is provided to carers. Medical focus of doctors and workload pressures.**

Mechanism-resource: The patient's principal carer is invited to attend the doctor's morning ward round visit. This provides an opportunity for carers to **speak directly with the doctor, ask questions, hear about the patient's condition,** discuss the management plan, and **raise important practical and social issues.**

Mechanism-reasoning/response: Patients feel **less anxious, dependent, and more confident** having someone to support **and advocate for** them during the consultation. Carers prefer to speak to the doctor 'face to face' because they get accurate information. Knowing what is happening and planned **is reassuring and relieves anxiety**. Doctors feel that the interaction is more valuable **because they get a better sense of the patient as a person, a 'truer picture' of the patient's social circumstances** and gain additional information (especially if the patient has a cognitive impairment).

Outcome: **There is a change in organisational culture and relationships are more equal.** The consultation does not take any longer. Carers are more engaged and influence decisions made about patient care. Better and more personalised care plans can be agreed and taken forward that include patient and carer preferences. **Patients have a better hospital experience.**

Rival theory: Nurses may find identifying principal carers difficult. Doctors may be concerned about time pressures and feel that relatives being present and asking questions will hold them up. Because of poor communication carers may not receive an invitation. **Carers may not attend if they view the hospital stay as a respite from their caring role and an opportunity to attend to their own needs.** Because of poor communication they may not receive an invitation. **The timing of the ward rounds may be problematic for carers who work, live at a distance, or are reliant on public buses.** Carers may feel that patients do not need them there; they already know enough about the situation or the care process (particularly if the patient has had multiple admissions); they are too busy; they would rather ‘leave it to the professionals’ (unless it is something serious); speaking to doctors feels uncomfortable or intimidating because they do not understand the language used. **There is a risk that the carer takes over the consultation and the patient’s preferences are not heard.**

Theory 4: Free parking for principal carers

Several interviewees felt that parking at the hospital site was limited and expensive (RI-8) and a major cause of frustration for carers who came to the hospital frequently (RI-6). Another interviewee described how carers often arrived on the wards in a tense state and needed time to calm down (RI-6). A contextual feature highlighted was the organisations’ recognition that carers have an important role in supporting the recovery of patients. Many interviewees described how the hospital offered free hospital parking for registered carers, as a way of demonstrating that the organisation valued their presence and engagement (RI-4). This scheme was launched on Carers’ Rights Day in 2014 and the hospital was one of the first in England to do so. Providing free parking was described as a tangible incentive to visit the hospital (RI-1), which made carers feel valued and supported by the organisation (RI-6). Interviewees noted that stress was eliminated because carers no longer needed to clock watch whilst visiting (RI-6). Carers feel more supported and involved, especially in decision making, resulting in better decisions being made (RI-8). One interviewee pointed out that free parking promotes carer registration, which gives carers access to support from the hospital and an emergency card which highlights their role as carer, should they become incapacitated (RI-1). The free parking scheme was seen as particularly important for male carers who typically did not come forwards to identify themselves as carers (RI-1).

Two rival theories were reported. Some people claimed to be carers, when they were not, to benefit from free parking (RI-8). Carers may not be aware of the scheme (RI-6).

Context: Parking at the hospital site is limited and expensive and is a major frustration for carers visiting the hospital frequently. Willingness of people to identify themselves as carers (typically, men may be reluctant).

ERM intervention: Free parking at the hospital site is offered to principal carers registered with the hospital. Demonstrates recognition of the valuable role carers play in supporting the recovery of patients and reduces the financial burden of visiting the hospital.

Participants reasoning and response: Carers feel supported and valued and free parking acts as an incentive for carers to attend ward rounds. Eliminates stress and frustration for carers because they no longer arrive on the ward in a tense state or need to ‘clock watch’ whilst visiting.

Outcome: Carers are present more often and are more involved in decision making, resulting in better quality decisions being made. It also helps to identify carers and promotes ‘carer registration’, which gives carers access to support from the hospital, such as peers network and resources.

Rival theory: Carers maybe unaware of the free parking initiative. Some people claim to be carers when they are not, to benefit from free parking.

Theory 5: Proactive discharge planning

Interviewees described discharge as a complex process involving many health and social care professionals working across different organisations. Transition between hospital and care in the community involved complicated interactions between the staff and care homes. The hospital discharge system typically involves multiple handovers, but if staff operate in silos this affects integration (RI-3).

> *ERM may make a difference in terms of when a patient should go home, but when they actually leave hospital is affected by a myriad of other factors, such as social care and transportation (RI-3).*

Interviewees also pointed out that a great amount of concurrent change regarding discharge processes had occurred over the previous year at the hospital (RI-9). Another contextual factor highlighted by interviewees was the unpredictability of recovery trajectories for patients admitted with acute illness. This needed to be considered when initiating discharge discussions and could also hinder or facilitate early discharge.

> *If patients are ill on admission, this can't be done on admission. We wait until patients are in the right emotional and physical state. It is an unpredictable time course, shifting sands (RI-4).*
>
> *Discharge planning is done up front and an estimated discharge date is put on the board right from the beginning. Then everything can be organised and prepared for that day, like medications, how will they get home, are the family happy to come and pick up, has the home been informed, and are happy to receive the patient? So, practicalities don't delay discharge. Although, a spontaneous decision may be made that a patient is ready to go. It's always uncertain until you book the transport, as things can change, people can deteriorate, develop sickness, a UTI, or they don't progress as well, or there are safety concerns, especially for older patients, especially in medicine (RI-6).*

The quality of work provided by discharge coordinators was thought to differ between wards. Commitment to the ERM programme varied between individuals and according to their workload. One interviewee said, *‘the management of discharge coordinators and clarity of their role and responsibilities is sketchy’* (RI-3).

Conventional practice of waiting for carers to contact the hospital ward was described, which meant that problems often came to light at a late stage in the patient’s hospital stay. Discharge coordinators were often unable to see all patients on the ward, so prioritise those leaving hospital that day (RI-8). In the ERM programme, communication with carers regarding discharge planning was proactive and maintained throughout the patient’s hospital stay (RI-1).

Several interviewees spoke about patient and carers attitudes to discharge.

> *Hospitals are perceived by patients as unhealthy places and most patients do not want to be admitted unless it is really necessary* (RI-1).
>
> *‘When can they come home?’ is often the first question asked by relatives and carers because they like to know, they like times.* (RI-6).

An outcome of the programme implementation described by one interviewee concerned changes to staff work tasks.

> *ERM shifted the time demands and workload from the end to the beginning of the patient's hospital stay. Instead of supporting the discharge coordinator to discharge patients scheduled to leave that day, as soon as patients are admitted, staff take time to have a three-way conversation with patients and their carers to seek out information about them, identify base line function, social needs and practical issues facing them, and to plan discharge. Frontloading this information means that discharge planning is facilitated and occurs in tandem with treatment. Before the discharge day care homes and residential homes can be contacted. Therefore, as soon as the patient is medically fit, the discharge coordinator can kick in, and discharge on the day of leaving hospital is facilitated and simplified, and a care package is already set up (RI-3).*

Context: **Discharge is a complex process involving, complicated interactions, multiple handovers between** many health and social care professionals involved in the care process, working in silos **across different organisations. Internal discharge processes subject to organisational change.** Early discharge may be affected by the level of integration with social care, primary care and community services, the availability of resources, or specialist skills in the community, and logistical issues. Patients may be anxious about the practicalities of leaving hospital and going home on discharge day. **Typically, staff wait for carers to contact the ward, which means that problems often come to light at a late stage in the patient's hospital stay. Discharge coordinators are often unable to see all patients, so they prioritise those leaving hospital that day (rather than those leaving later). Organisational strategies and unpredictability of recovery trajectories. Skill and commitment of individual discharge coordinators.**

Mechanism-resource: As soon as possible after admission, carers are contacted and the patient's return home, or transition to a supportive setting outside the hospital, is discussed and planned, including scheduling a discharge date. Time is spent gathering as much background information as possible about the patient's needs, practical issues, and base-line function, which is fed back to the MDT. **This allows discharge planning to occur alongside treatment. Communication is maintained regarding discharge planning throughout the patient's hospital stay. If a patient is being moved from the EAU to a specialist ward, there is still a plan of action and an estimated transfer date.**

Mechanism-reasoning/response: Problems and practical issues that could delay discharge can be identified and overcome before the discharge day. The patient's on-going care needs (clinical, social, and psychological) are identified early on, and care plans can be agreed that are appropriated to their needs, **which can then lead to earlier referral to supporting agencies.** Everyone knows what is happening and planned and how problems will be overcome, which saves time being wasted. Staff work together towards a shared goal. While the patient is recovering, they have time to speak to care/residential homes about assessing whether they can take patients or start looking at other plans. **Patients are pleased to be discharged quickly.** They know which day they are going to leave hospital and can plan how they will get home, which alleviates anxiety. **Carers are pleased to be involved and appreciate having their relatives at home earlier, as this removes the need for hospital visits, which can be time-consuming, disruptive, expensive, and stressful.**

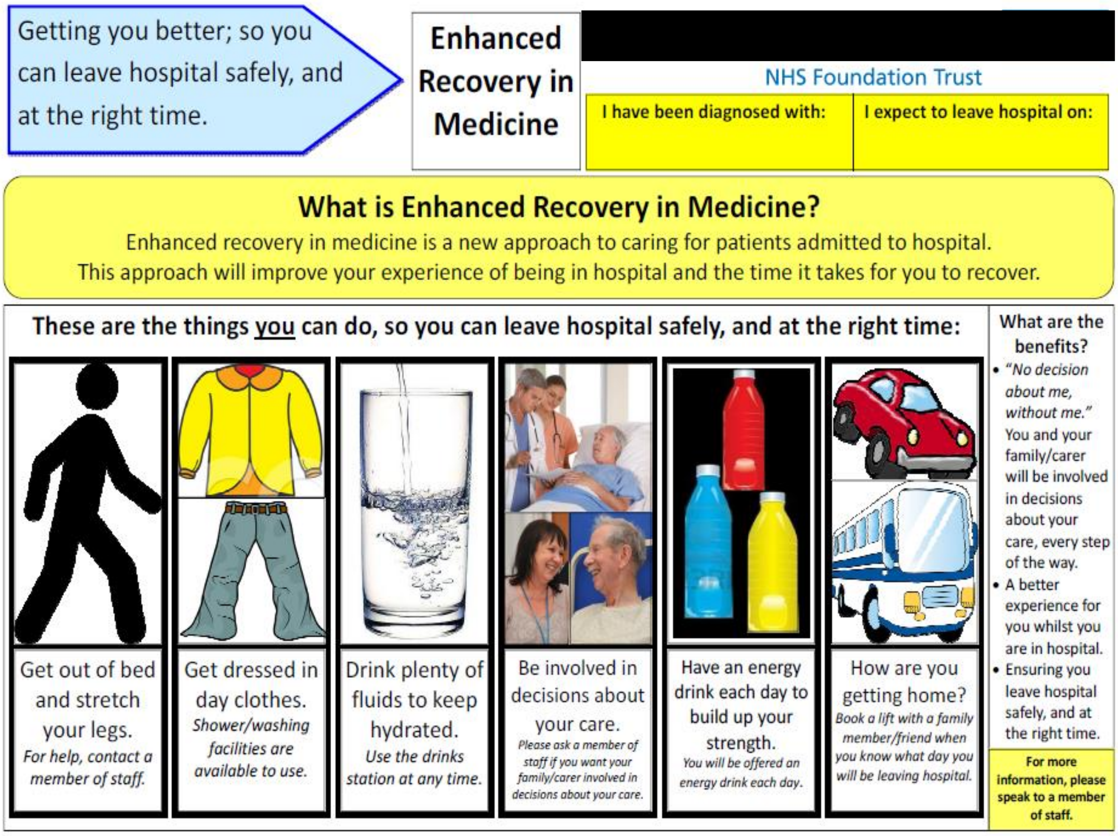
Outcome: Uncertainly is reduced and everything is in place for going home, which leads to a simplified discharge process with fewer problems on the day. Unnecessary delays are reduced, LOS is shortened with associated cost savings from reduced bed occupancy. Patients and their carers have a better hospital experience. Better relationships are established with care homes and there is good continuity of care on return to the community (as a care package is already set up). Time away from and disruption to family life is minimised. Risk of hospital acquired infection is reduced. **Staff workload is shifted from the end to the beginning of the patients stay.**

Rival theory: Shorter LOS reduces time available to for managing other important aspects of recovery, such as rehabilitation. Leaving hospital at an early stage of recovery means that much of the recovery process must be handled by patients and carers, which may necessitate different levels of support, change pre-existing roles and responsibilities, and place an unnecessary burden on carers. Families may believe that shorter LOS equates to substandard care. Doctors may resist setting a discharge date because they feel that it might discourage patients if they do not achieve it. Patients may feel disappointed and that they are overusing resources if they stay beyond their planned discharge date.

Theory 6: Patients take an active role in their recovery

This theory was derived from surgical CMOC sharing responsibility for recovery. Several refinements were made to this theory based on the interview data.

Interviewees described encouraging patients to take an active role in their own recovery by doing simple things to help themselves to get better whilst in hospital, such as, paying attention to nutrition, drinking plenty of fluids, getting up and dressed in day clothes, visiting the drinks trolley, and organising their journey home (RI-7). Figure 31 shows a patient information sheet given to patients.



Getting you better; so you can leave hospital safely, and at the right time.

Enhanced Recovery in Medicine

[redacted]
NHS Foundation Trust

I have been diagnosed with:	I expect to leave hospital on:

What is Enhanced Recovery in Medicine?

Enhanced recovery in medicine is a new approach to caring for patients admitted to hospital.
This approach will improve your experience of being in hospital and the time it takes for you to recover.

These are the things you can do, so you can leave hospital safely, and at the right time:

Get out of bed and stretch your legs. *For help, contact a member of staff.*

Get dressed in day clothes. *Shower/washing facilities are available to use.*

Drink plenty of fluids to keep hydrated. *Use the drinks station at any time.*

Be involved in decisions about your care. *Please ask a member of staff if you want your family/carer involved in decisions about your care.*

Have an energy drink each day to build up your strength. *You will be offered an energy drink each day.*

How are you getting home? *Book a lift with a family member/friend when you know what day you will be leaving hospital.*

What are the benefits?

- *"No decision about me, without me."* You and your family/carer will be involved in decisions about your care, every step of the way.
- A better experience for you whilst you are in hospital.
- Ensuring you leave hospital safely, and at the right time.

For more information, please speak to a member of staff.

Figure 31: ERM patient information sheet

Encouraging patients to take more responsibility for their care was thought to empower them, make them feel more confident in themselves, and develop a more positive attitude (R-8). Interviewees also noted the influence of patient's individual role preferences, behavioural norms, and expectations of what will be encountered during their hospital stay, on participation.

> *We often have patients that are staunchly independent, and they are always on board because, quite frankly, being in hospital is an inconvenience and they are determined to go home and that's that. They like ERM because they see it as a quicker way of getting home and like to be in the driving seat…The more passive patients are perfectly happy to go along with anything like getting washed and dressed, but equally happy if they don't do anything [laughs]. They're just perfectly happy, no expectations at all (RI-5).*

> *Everyone is different, aren't they, and some people need more encouragement than others. Some people do take on the sick role when they come in. Maybe because they genuinely feel that bad and most of the time it is, but some people, once they are put in a nightie and they are on that bed, and that applies just as much with young people, it's not just an elderly person that will take on that role. We have a lot of young people that come in and as soon as they are in, they are in that bed. Right leave me alone, I'm going to sleep, I'm in hospital [laughs]… It depends on what's been wrong with people, being realistic. I sat with a lady today who'd had pneumonia, normally independent. She said, 'why do I feel so weak? I'm normally independent. I want to get up and going again.' I said, because you've been really poorly, and it's great to have that positive attitude, but you have to be sensible and realistic in your recovery. Whilst we can encourage you, you are going to be tired, so you have to take things easy, small steps each day, but build on them (RI-5).*

Context: Patients' individual coping preferences, **condition, capability, behavioural norms,** expectations of the patient role and bodily experience of illness. Availability of support from carers.

Mechanism-resource: From admission or soon thereafter, expectations of patients to actively participate in their own recovery are set out, and they are encouraged and supported to do simple things to help themselves to recovery whilst in hospital (i.e., pay attention to nutrition, drink plenty of fluids, get up and dressed in day clothes, visit the drinks trolley, and organise their journey home).

Mechanism-reasoning/response: Raises awareness of patients' personal responsibility to take an active role in their recovery. They feel **positive, confident,** and a sense of control over their health. They are motivated and empowered by the idea of contributing to their own recovery and are keen to meet the explicit role responsibilities and tasks of the ERP **and get home quickly.**

Outcome: Alters traditional roles and relationships between staff and patients and responsibility for recovery is shared. Greater self-care and taking on tasks previously performed by nursing reduces nursing workload and LOS.

Rival theory: Patients may prefer to take a passive role or follow their own intuition, regardless of professional advice. Patients may feel a sense of pressure to meet expectations **or feel frustrated by their condition.** They may interpret participation as a need to follow strict rules and consequently feel disempowered and that their autonomy is inhibited.

Theory 7: Swift resumption of normal activities

Individual expectations of hospitalisation could be enabling or inhibitory to this mechanism.

> *Everyone that comes in will have different expectation of how their hospital stay will be. Young patients like ERM as they want to get out of hospital as quickly as possible (RI-2).*
>
> *Staff are encouraging, positive, nurturing, build on small progressive steps, and explain the reasoning for it. Some patients need more encouraging than others. Some people, both young and old adopt the sick role when they come in, put on their nighties, and get into bed. Others are frustrated by their condition and staff have to encourage them to take it easy and be sensible (RI-4).*

Interviewees described how they attempt to change traditional patient perceptions of hospital bed rest by emphasising and explaining why it is detrimental (RI-2). One interviewee stated.

> *Different generational groups of patients have different expectations. Younger patients are generally fitter and tend to do more, like get up and do things, have a shower, walk to the shops, have a cigarette. A lot of elderly patients are 'not today dear, can you come back tomorrow?'. Sometimes this is appropriate if they're shattered, they've had a horrible experience, not slept in days, but some elderly patients have an expectation that they come in to be patients, lie there flat on their back waiting for the doctor to tell them what to do. Most people want to help themselves; they don't want to be in hospital, they want to get up and they want to get out. For the small group of reluctant patients ERM tries to change people's mind set, encouraging them to maintain normal mobility, and be independent through education and bedside verbal encouragement about how quickly muscles get weak and the dangers of bed rest (RI-9).*

Age was frequently mentioned and was viewed as both an enabling and inhibitory context.

> *Elderly patients are more up for it, very engaged because they want to get home. They think because they're in hospital they are a burden, and they don't want to be a burden, they don't want to bother the nurses and doctors. They fear that they might get stuck in hospital, they're never going to get home and go downhill. When they are up and independent it demonstrates that they are able to go home. The younger people are less so. Younger patients take on the patient role very well and want someone to do things for them, wait on them. Some younger patients flatly refuse to get out of bed (RI-8).*

Interviewees spoke about taking into consideration what patients would normally do at home during the day (RI-7).

> *We try to take the clinical out of clinical, keeping normality around patients by trying to follow their personal routines that they have at home rather than fitting around nursing routines. For example, finding out when, how, and what did they have breakfast, what time did they get up? A stable, normal routine will result in reduced LOS leading to reduced risk of hospital acquired infection (RI-3).*

Wards with a proactive multidisciplinary approach and a strong therapy presence were thought to be better at motivating patients than others. This was because of a 'holistic' professional approach covering psychological, behavioural, and functional aspects. They were also described as the 'key link between the hospital and home' (R1), meaning that their role involved assessing the patient's ability to function independently and ensuring continuity of care between the hospital and home setting.

> *Therapists are very good at encouraging patients to mobilise. If the therapist gives the 'green light' this encourages the nursing staff. Experienced nurses are able to assess the risk of mobilising patients, are happy to get patients up and mobilise them, and have bought into the ideas of early mobilisation. But it wouldn't cross the minds of less experienced nurses to be encouraging this (RI-3).*
>
> *Patients tend to cooperate with OTs because their discharge assessment is the way out of hospital (RI-9).*

Several interviewees described the effects of social conformity as a contextual factor. Competition between nurses could facilitate getting up and dressed.

> *Seeing other people around getting up and about has an influence on others, gives them a nudge. Conversely, it is difficult to get up to and dressed when everyone around you is in bed (RI-4).*
>
> *If a nurse sees a colleague's patients up and dressed in the next bay, they will try to do the same. It stirs up competition. Competitive practice (RI-8).*

If patients are already up and dressed it was easier for physiotherapists, and they could do more with the patients to advance their rehabilitation (RI-8). Interviewees also commented that *'the ward feels different'* (RI-7), and *'there is a noticeable difference in the morale on the ward'* (RI-9).

One interviewee pointed out that nurses have more work up front to get patients out of bed, and less work later because patients are looking after themselves (RI-2).

> *Nurses may initially be resistant to getting patients out of bed by 11am, as it involves changes to traditional ways that they do things. But when they try it, nurses think it is so much better because when nurses get patients up, they start to help each other and themselves, instead of sitting passively in bed waiting to be served. This becomes their own physiotherapy because they have to get their own drinks and meals, instead of having to get a physiotherapist to get them up and walk them. Because patients are up and dressed, they feel better, less sick, and believe that they will recover, have a chance to survive and go back where they came from rather than end up in long-term dependent care (RI-2).*

Time pressures could be inhibitory to this mechanism. One interviewee stated.

> *Nurses on EAU are under massive time pressure. Sometimes it's easier to give a patient a commode next to the bed, pull the curtains round, there's your bell, than walk them to the toilet* (RI-9).

Patients may be reluctant or refuse to get out of bed as they don't feel like it, or do not perceive that it would aid their recovery. Interviewees felt that this was justifiable at times, for example, if a patient had a traumatic admission, or had not slept well or was feeling weak.

> *There is a fine line between patients feeling able to get up and not and will depend upon the reason for admission. Admission*

> *may not be the most appropriate as patients may need 24 hours on their medications to feel up to it (RI-7).*

One interviewee stated that because some older people's expectation is that they will have a rest and be looked after, they perceive that they are being bullied into getting up and sent home before they think they are ready (RI-2). Older patients were generally believed to benefit most (RI-9).

Context: Hospital inpatient care is bed-focussed and traditionally nurses see patients as passive and dependent recipients of care, doing things to and for them. Older people are at risk of becoming weak and loosing functional abilities from prolonged periods of inactivity. Expectations about hospital bed rest. Patient characteristics such as **age, normal level of activity and circumstances of admission and condition. Personal preferences and motivation for physical activity.** Positive and trusting relationships between patients and staff. Sleep quality, presence of lines and monitors. **Wards with a proactive multidisciplinary approach, a strong therapy presence and experienced staff. Competition between nurses and social conformity. Time pressures.**

Mechanism-resource: The importance of avoiding unnecessary bed rest is emphasised and patients are encouraged and assisted (if necessary) to mobilise (within 24 hours of admission). Nursing tasks are carried out in a different order, focus on encouraging independence, self-care and helping patients to follow their normal personal routines.

Mechanism- reasoning/response: Patients enjoy getting up and mobilising first thing in the morning. **This alter their perspective;** reduces feelings of resignation are reduced **and they feel physically and psychologically better in themselves, 'less sick'.** Facilitates self-efficacy and independence by enabling them to complete everyday tasks such as, washing and getting dressed**, walking to the toilet, get their own drinks and helping other patients.** Nurses experience positive interactions and increased engagement from patients. Everyone is enthused**, especially those who want to leave hospital as soon as possible. When patients are up and dressed, there is a noticeable difference in morale and** the ward atmosphere feels better **and rehabilitation is facilitated.** Maintaining usual everyday routines whilst in hospital helps them to feel confident and safer going home. Returning to normal activities gives patients a sense of control and builds confidence in their abilities and reduces convalescent demands on them after discharge.

Outcome: Minimising periods of inactivity, preserves muscle strength and functional capacity. Recovery is faster, complications and LOS are reduced. Patients maintain their independence whilst in hospital and the ability to perform activities of daily living, leaving hospital less debilitated. Primary and social care services have fewer dependent patients to provide services for. If patients take on tasks previously performed by nurses, then nursing care time per stay is reduced and there is a shift from nurses attending to physical needs to information and advice. **Older patients benefit most.**

Rival theory: **Nurses may be resistant to changing established ways of working** or perceive ERM as extra work. Patient's ideas about what will contribute to their recovery may conflict with the advice and expectations of staff. Patients experiencing pain, and fatigue may feel weak and incompetent regarding doing as recommended. **Patients with expectations of bed rest may feel pressured and that they are sent home too soon.**

Theory 8: Getting dressed into day clothes

Acquiring funding to support the provision of tracksuits was a problem faced by the project team. This was identified during observations of the 'Huddle' meetings. Sponsorships from local people and businesses, such as supermarkets and football teams were needed to sustain a regular supply. Organising this involved a great deal of work for the project team. One interviewee described the tracksuits as an expensive resource with inconsistent availability (RI-8). Contrastingly, another interviewee emphasised the financial benefit of this intervention for the organisation arguing that *'the cost of a single use tracksuit is considerably less than the cost of an extra night's hospital stay'* (RI-2).

Certain patients admitted as medical emergencies benefited from the free tracksuits, including homeless people whose clothes had to be destroyed, patients who had their clothes cut off, or patients that lived on their own (RI-9).

Waiting for friends or relatives to bring in day clothes could take significant time and delayed transfers (RI-8). One interviewee reflected that '*the tracksuits were most successful on the medical wards because the patients were medically stable, and it was pushed better*' (RI-7). Another argued that '*a variety of clothing would have been better as they looked like prisoners in the black tracksuits* (RI-9).

Hospital gowns are designed for enabling access to treat body parts rather than for modesty when out of bed. However, patients were often sent home on hospital transport wearing hospital gowns and blankets which could result in complaints.

> *We've had lots of issues with patients going home, I had one recently, actually that relative rang up, the daughter of a gentleman and said, just to let you know that dads been delivered home and by the way I saw his bottom as they took him across the garden. That was a complaint understandably (RI-9).*

Several other interviewees expressed concerns about patient dignity in relation to conventional hospital practices.

> *When you're a patient, you come in through the hospital doors, they strip you naked, they put this dreadful gown on, it's absolutely humiliating, and then they put you in a bed and then you lie there being a patient and you don't get out of it (RI-7).*
>
> *Patients' independence is taken away when they come into hospital. Normally mobile and independent people are put to bed. They stay there and don't move, and we do things for them until discharge, they become very insular, and they deteriorate very quicky (RI-8).*

A common expectation amongst patients was to equate hospital with bedrest and therefore they assumed they needed to put on pyjamas and get into bed. One interviewee commented that *'the ethos behind supplying tracksuits was to stop patients thinking that they have to stay in bed' (RI-2).*

Beneficial effects of getting dressed on mental patients' mental attitude were described, including '*feeling better because they feel normal'* (RI-5) and that it *'stops people feeling hospitalised and gives them an incentive to get going'* (RI-6). Seeing patients dressed was thought to boost staff morale and acted as an incentive to give patients support and more encouragement. Older patients were thought to benefit most from getting dressed and get home faster (RI-8).

> *What we did see as well was, I think when people come into hospital, especially the elderly, there's not much conversation. The youngsters will chat bed to bed, bay to bay, you've exchanged face book details, all of that, you know everybody, ins and out. Older people tend not to do that because they're lying flat in bed. When we got them up and dressed, we've taken away that bed barrier, we've given back their independence, and you would find it was a much more social gathering. They'd start off going individually to the drink station. They'd then go as a collective group to the drink station and sit in the day room and have drinks and have a biscuit (RI-8).*

Various contextual factors could affect the implementation of this intervention, such as differences in professional attitudes and experience.

> *Some nurses are resistant, holding on to 'old school' traditional nursing practices of getting patients undressed and into bed, it's a control thing. Patients are put to bed as they are tidy and won't ask questions or be a nuisance. Newly qualified nurses think putting patients to bed is weird (RI-3).*

The patient's medical condition could also be constraining. For example, one interviewee explained that cardiac patients with fluid overload have very swollen lower limbs and others may need to rest (RI-9). Encouraging patients to get up and dressed was met with varied responses from patients. *'Some patients engaged while others will say that they don't feel like getting dressed'* (RI-7).

A rival theory identified by interviewees was that Tracksuits were taken by staff from other wards for non ERM patients, particularly homeless patients and those that had soiled their clothing (RI-7; RI-8).

Context: Patients admitted as medical emergencies often arrive at hospital without their own day clothes (e.g., evening admissions) and it can be difficult to get them brought in (e.g., those who live alone or do not have friends or relatives nearby). Conventional hospital care is bed focused. Hospitalised patients may expect to rest when they are ill and stay in bed for prolonged periods until they are discharged. **The patient's medical condition may**

affect their ability to get dressed. Availability of sponsorship affects the supply of tracksuits.

Mechanism-resource: Patients are encouraged to get dressed every morning into their own day clothes. Carers are asked to bring these in, but when this is not possible, single use tracksuits are provided.

Mechanism-reasoning/response: Tracksuits are popular and valued by patients. They **feel better, more 'normal'** and comfortable wearing day clothes rather than pyjamas or flappy hospital gowns. **Changes expectations of having to stay in bed,** encourages and enables them to move around and engage in normal everyday activities with dignity and privacy from early on in their hospital stay. **Older patients have more social interactions. Seeing patients dressed boosts staff morale and is an incentive to give them more support and encouragement.**

Outcome: As a result, the patient's experience of being in hospital is improved. Mobility is increased, and patients regain their independence sooner. **Older patients benefit most and get home quicker. Patients' privacy and dignity is maintained. The risk of bodily exposure from wearing hospital gowns and is reduced.**

Rival theory: **Tracksuits are taken by staff from other wards for homeless patients and those that have soiled their clothing.** More experienced nurses may resist adopting new practices. **Tracksuits may be perceived as an expensive resource rather than a saving in comparison to extra days in hospital.**

Theory 9: Energy drinks round and drink station

Refinements were made to all parts of this theory. Interviewees described providing an extra drink round.

> *The high energy drinks, we do a round of those because our demographic has a lot of problems with malnutrition and dehydration, so obviously this is a really good way of stimulating the appetite. (RI-1).*

Energy drinks were thought to be easier to tolerate than hospital food when patients were feeling unwell (RI-4). Patients feel physically better when they are hydrated (RI-1), and the extra calories give them energy (RI-8), which means that they are more likely to be active.

> *It's been proven that it works in surgery and yes, because you don't get enough calories when you're ill, you don't eat. So yes, I think that's really important. As soon as they are a bit more energised, they will be a bit more inclined to get up and do something. Whereas, if you've not eaten, you are feeling weak, you are not going to get out of bed are you. (RI-7)*

Drinks were also available on a drinks trolley which encouraged patients to walk and increased activity (RI-2). A contextual factor highlighted was the unpleasant taste of the hospital water. If patients were not drinking the hospital water, then there could be a long wait between drink being offered.

> *We have the drink station as well, where people are encouraged to go and get themselves drinks, which they do. The idea is that patients can go and help themselves to drinks when they want them rather than have to wait for the half past ten and the half past three tea rounds, and if they were having an x-ray, they'll miss it. So, it's always available and also it encourages mobility. It's definitely used. Generally, those that can get up and walk around will…they are very low cost, I think they are a penny a drink or something ridiculous. (RI-9).*

Interviewees described mixed responses from patients to the energy drinks.

> *Not everyone has one and I think if you've ever had one of those drinks you would understand [laughs]. Some people like them, I tried an apple juice one and it tasted like molten plastic. I think the milk ones are better. They have cappuccino frappes. I should have tried one of those, but I was not wanting the 500 calories that they came with [laughs]. Some people love them (RI-9).*
>
> *We have an energy drink round with the calorie drinks every morning at 11 o'clock, where we go round and give every patient an energy drink, unless there are any contraindications. We would encourage them to drink that and explain why we were doing it. It gives you energy and replaces calories as you're not well. Most patients really liked them. There was the odd one that couldn't stand it, but most patients liked them (RI-8).*

> *We had some weird feedback from some people who didn't want to put weight on, that was young girls mainly, but the majority, the HCA would say, 'it's really good for you to try and drink this down'. They had to do a bit of a PR exercise; I think we're at about 60% take up of the drinks (IR-3).*

One interviewee spoke about staff resistance to implementing the additional drinks round.

> *I think there was a bit of resistance to start with from the nursing staff like, 'we haven't got time, we're busy, we work on the emergency wards, and we don't have time to go and do all of this'. But they had to make time, and I think some of them felt it was forced upon them (RI-9).*

Another interviewee questioned the clinical benefits of energy drinks.

> *I'm not convinced it's at all important. It's partly that they get up and get their energy drinks for themselves. The energy drinks themselves, whether people really do benefit I don't know. It's all very difficult considering a lot of our patients are, if you like, over nourished. So, do they really benefit from extra calories? I don't know. Personally, I'm very dubious about that, others are convinced that carbohydrate loading is of benefit in people who are acutely unwell (RI-4).*

Context: *Nutritional deficiencies are common in hospitalised people of all ages and can delay recovery from illness. Acute medical illness can predispose patients to dehydration.* Older patients hospitalised with an acute medical illness are at risk of being discharged with an ADL disability they did not have before becoming acutely ill. **Long waits between hot drinks being offered and unpleasant tasing hospital water.**

Mechanism-resource: From admission, energy drinks are provided daily **during an additional morning 'drink round'.** Patients are encouraged to drink plenty of fluids, **and staff explain why this is important.** A drink station is provided on the ward for ambulant patients to use at any time.

Mechanism-reasoning/response: Patients like the energy drinks, **which are easier to tolerate than hospital food when feeling unwell. They may also stimulate appetite. They feel physically better and more inclined to get out of bed and do things** because they are hydrated, and additional calories **give them energy. The drink station provides an incentive for patients to**

get up and walk regularly. Access to drinks whenever they want them, without having to ask staff for them, or wait for staff to bring them, supports patient autonomy.

Outcome: Patients may not need an intravenous (IV) drip, and Iatrogenic complications and LOS are reduced. **Physical activity is increased, patients recover more rapidly, which facilitates earlier departure from hospital and associated cost savings.**

Rival theory: Staff may be reluctant to offer energy drinks because they think patients will not drink them or **will leave them unfinished (as they are sweet, rich and taste unpleasant). Young girls may be reluctant to drink energy drinks as they are high in calories. Nurses may be reluctant to take on the additional drink rounds due to time pressures. Staff may be unsure about the clinical benefits of energy drinks.**

Theory 10: Communication and sharing information

Interviewees described how patients and carers were orientated to the ward through conversations, leaflets, posters, videos. Patients found the ERM information reassuring (RI-8). Giving older patients information was thought to empower them and discourage passivity (RI-6).

> *If a patient understands what is happening to them and that they have some control in the process, they will feel much more comfortable, less anxious, much happier about the care they are receiving, more in control of what is happening, and have a much better experience. If you get it right when patients come in, everything else falls into place (RI-4).*
>
> *Spending time with patients and being open with them, builds trust and makes them feel at ease, they then ask questions and raise problems… Carers are clear about who to communicate with and contact, and find it useful for planning care after discharge (RI-3).*

In this way, relationships between staff, patients and their families were built and strengthened, and a sense of power imbalance between staff and patients was avoided. However, several interviewees proposed rival theories and described inhibitory contextual factors in relation to this mechanism.

> *How patients are welcomed to the ward can be a bit hit and miss depending on whose around at the time. Sometimes relatives disappear as soon as the patient is settled, so you don't get the opportunity to speak to them. When more than one patient comes up at once it can be really crazy and things get missed (RI-6).*
>
> *Information leaflets were passed out, but they weren't really picked up, some were left behind, or lost on the floor. Patients admitted under emergency circumstances feel dreadful and don't want to read, unless they are bored, they may not have their glasses. The introduction of discharge packs at the same time meant that patients were overloaded with was too much written information (RI-9)*
>
> *Patients get 'poster blind' when there's a lot of things up around the ward (RI-5).*

An Interviewee also commented that staff were are not adequately trained to respond to changing information needs of patients (RI-4).

Interviewees suggested that information given verbally was more likely to be effective, particularly when given to patients at each contact with staff. The amount and frequency of information given was dependent on the individual. For example, it was a routine part of the therapists' role, but it was less likely to take place during interactions with consultants (RI-1). Because the severity of acute illness is variable, and the time course in uncertain, timing and coordinating conversations, and determining who was responsible for instigating and conducting them could be challenging for staff (RI-4).

Other interviewees suggested that some staff may not take the time to put out ERM leaflets. Pointing out that some patients considered the information provided excessive to their needs. They often received a large amount of information, especially when multiple organisational initiatives are happening at the same time, which could lead to feeling overloaded with written information (mainly older patients).

Context: Patient anxiety and need for information about treatment and care process. **Availability, knowledge, willingness,** and communication skills of staff. Serious and time-dependent medical assessment and treatment. Format, **method, frequency,** amount, and timing of information provision. **The patients' knowledge, beliefs, expectations, illness severity and time course. Lack of staff training.**

Mechanism-resource: As soon as possible after admission, time is spent talking and listening to patients and carers in a positive adult-to-adult way using everyday language. Information (written and verbal) and practical advice is provided about the expected process of recovery, treatment, diagnosis, and managing the acute episode. Simple things patients can do to help themselves to recover are emphasised, such as paying attention to nutrition and hydration, getting up and dressed, visiting the drink station, and participating in the decision making.

Mechanism-reasoning/response: Enables patients to ask questions, express their feelings and discuss important issues. They feel well-informed, have a better understanding of what is expected of them, staff roles, treatment, and the care process. Reduces uncertainty and anxiety. Promotes positive and realistic expectations, confidence, autonomy and a sense of control and safety. Motivates **and empowers** them to take personal responsibility for their recovery, and actively participate in the programme. Carers **appreciate being told** what is happening, are clear who to communicate with, and find the information helpful for planning care after discharge. Staff feel they are providing better care, and the ward atmosphere is better. **Written information can be referred to when needed.**

Outcome: **Trusting and equal relationships are built between staff, patients, and carers. Individual information needs are appropriately addressed.** Removes some of the communication burden from patients. **The hospital journey is smoother.** Patients recover more rapidly and go home sooner. **Improves morale, and the ward culture is more positive. Patients and their carers have a better hospital experience.**

Rival-theory: Patients and carers do not notice the posters and promotional material **or may feel too ill to read them. Some patients find the information provided excessive to their needs or feel overloaded with written information. Others may have difficulty understanding the given information or remembering everything that has been said.**

Theory 11: 'What matters to you?' SBAR-P

This theory was based on the CMOC individualising care elicited from the surgical literature. Substantial changes were made to all parts of this theory because of the interview data. Interviewees described daily multidisciplinary 'board rounds' which reviewed patient progress against their care and discharge plans. A structured communication tool, SBAR, was used as a framework for organising information and facilitating communication between staff. This model originated from the United States military, and has been adapted for use in healthcare (Haig et al., 2006). The tool comprises standardised prompt questions within four sections, Situation, Background, Assessment, Recommendations. Box 1 shows an example of the SBAR tool.

Box 1: SBAR communication tool (Adapted from NHS Institute for Innovation and Improvement, 2010)

S - situation
- Identify yourself the site/unit you are calling from
- Identify the patient by name and the reason for your report
- Describe your concern

B - background
- Give the patient's reason for admission
- Explain significant medical history
- Inform the consultant of the patient's background: admitting diagnosis, date of admission, prior procedures, current medications, allergies, pertinent laboratory results and other relevant diagnostic results

A - assessment
- Vital signs
- Contraction pattern
- Clinical impressions, concerns

R - recommendation
- Explain what you need - be specific about request and time frame
- Make suggestions
- Clarify expectations

Interviewees explained that as part of the ERP, the SBAR format was used with the addition of ‘P’ for the patient perspective (see Figure 32). This allowed staff to communicate and respond to patients’ preferences (RI-1; RI-3).

> *As a result of adding the P to SBAR, clinicians think about what the patient wants from the hospital admission, and what is important to them. If there is an important P, they will do everything they can to find out more about that, and actually address that problem. Almost every person has something that really matters to them (RI-4).*
>
> *The board round now is not just, age, diagnosis, and what the plan is. It includes the patient’s perspective of what they want and what’s important to them (RI-6).*

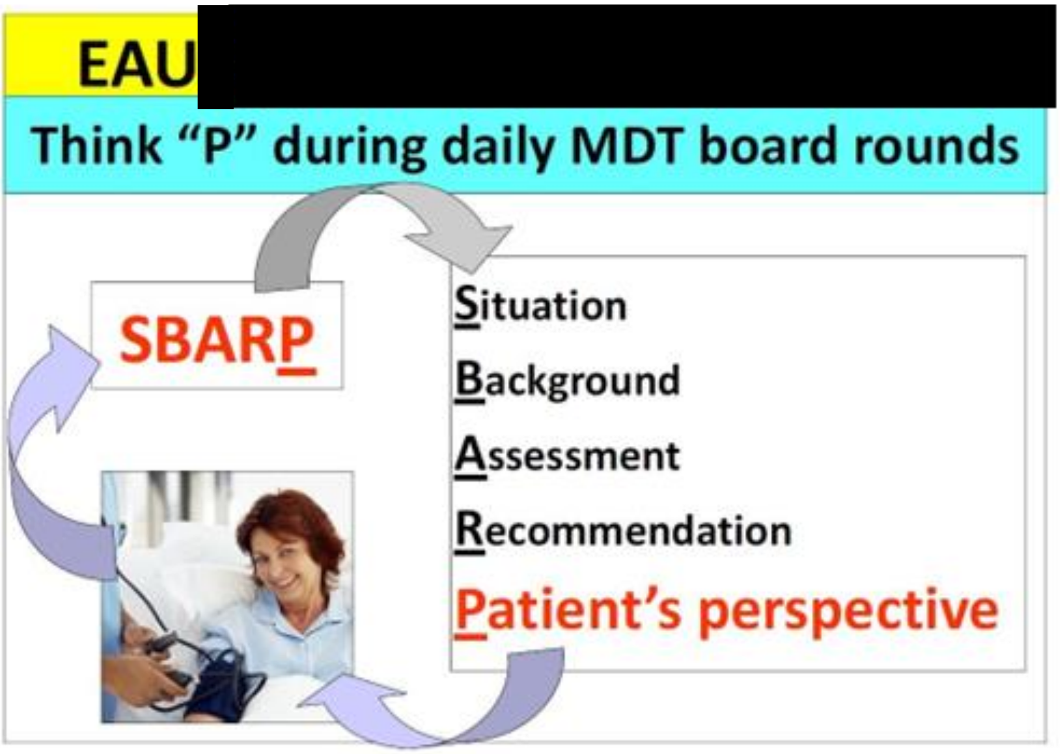


Figure 32: SBAR-P communication tool used at the hospital

Interviewees also described using a simple question ‘what matters to you?’ during a friendly adult-to-adult conversation, to encourage patients to raise concerns or personal preferences (RI-2; RI-4). This idea was drawn from the work of Barry and Edgman-Levitan (2012). Understanding what was important to patients was described as a different approach to usual practice, which typically focused on clinical needs (RI-2). Information gathered was distilled and recorded in the notes, to help bring the individual needs and priorities to the attention of other staff (RI-4).

> *It’s not just saying, this is what we’re going to do, but these are the options, what do you think, what would you like? It’s more of those questions rather than this is the plan, this is what we are doing. There is more of a discussion (RI-6).*

> *We might have a medical plan of, oh they need this, that, and the other, and they need surgery or whatever they need. But the patient might not want that at all. The patient might want to be left alone to go home in peace, to enjoy whatever’s left of their life or you know. So, it’s really about making sure those patient’s views are heard (RI-9).*

Interviewees described how understanding what matters to patients and taking their opinions and wishes into account revealed issues that were important to them. This included concerns about children or dogs left at home, and rescheduling tests to avoid clashing with important family occasions (RI-3). One interviewee described how a space was held for a young person with a poor test result to go home and take for a few hours out with his family (RI-5). Staff were then more aware of wider issues (RI-7).

> *All staff who are involved in the patient episode think more about what is important to the patient. They recognise that each individual patient has different ideas about the way they want to be treated rather than seeing the patient just as a case or a collection of symptoms, actually seeing them as a person rather than just an illness…The way the patient is looked after is individualised (RI-4).*

Interviewees described how finding out and addressing important issues influenced and shaped medical treatment.

> *…for example, doctors would have seen the patient in the morning and then said, ‘what are your concerns about this hospital admission, what do you want?’ Their concerns for example might be, ‘I look after my wife at home, she’s got early onset dementia, and I’ve now had a cardiac whatever, I’m not going to be able to manage’. That’s causing massive anxiety, and it’s affecting every aspect of that patient being in hospital. Things like that get brought up, they get highlighted, then we come in as a discharge team and can sort things out, we can help with all of those concerns that patients have, and hopefully make the journey smoother. So highlighting patients’ problems as they see it (RI-4).*

Interviewees described working as a team to come up with a care plan that considered the patient’s preferences, which was acceptable to them and could be agreed.

> *We work together to understand how we can engage patients and carers in that [the care plan] to make sure it’s really what they want, they understand it, and they are happy to work with us to achieve that…getting healthcare professionals to understand that the psych and social are equally as important as the bio and are absolutely necessary to address and understand for any biological treatment to be successful (RI-4).*

Interviewees emphasised the heterogeneity of patients, and therefore the importance of being flexible and tailoring care to individuals. Taking the patients opinions, wishes and views into account.

> *Looking at someone as an individual, not just their medical needs but their emotional issues and needs. Typically, these things didn’t get much airplay prior to ERM. Requests can generally be met within existing resources. The most appropriate care can then be a tailored to meet the patients’ wider circumstances (RI-6).*

> *As all acute medical patients are different, we have to individualise care for each patient, really addressing the problems that are important to them, and work with them to get a recovery plan for that individual with that particular condition. What matters most to a patient will also change over the course of their recovery, how healthcare professionals support them though their illness episode needs to reflect this. An off the shelf recovery plan that specifies what will happen on a sequential daily basis is not appropriate (RI-4).*

Attempting to address what matters to patients as well as their medical needs was thought to lead to more effective and better quality of care and have a positive impact on patient experience (RI-2).

> *If doctors are heading down a medical model of were going to do this and this, and the patient’s saying ‘I’m going home this afternoon. No, I’m not having that treatment, I’m not taking that tablet, I’m not staying in so that you can monitor me for another 24 hours, I’m going home.’ Then, as long as the patient has capacity, we would look to facilitate them going home, and that would change the medical management as well. So they would receive what was needed but in a different way (RI-5).*

Several interviewees described contextual factors which enabled this mechanism, including role-modelling of senior staff and congruent national policy initiatives.

> *Senior clinical team leaders demonstrate that they care about what matters to the patients. This has trickle-down effect on the whole team and creates an environment where what matters to the patient is thought about (RI-4).*
>
> *Including the patient perspective in board rounds and changing the SBAR handover sheet template to include a P, so in handovers, whether they are ERM or not, the P has at least got to be considered, and the national focus which has been more about patient experience, has got all staff talking and thinking about the patients' perspective. They're not just a widget that needs processing, they are a person (RI-3).*

Several inhibiting contexts were described. For example, rapid turnover of consultants and nursing bank staff, and junior doctors in rotational roles changing every three to four months (RI-9). Another interviewee commented that the patient's perspective was often overlooked or may be poorly communicated:

> *…often, we may not know about issues that are important to a patient or information isn't passed on when a patient is transferred between wards, which can often result in a bad outcome for patients, for example, insisting on going home when they're not well (RI-9).*

One interviewee suggested that some doctors (especially older doctors) do not fully engage with these interventions because they do not recognise the value of the patient's perspective (RI-2). Another interviewee stated that '*junior doctors who have lots of jobs to do may feel that they are already busy enough' (RI-5).*

Context: **Heterogeneity of patients, high patient through-put, staff turnover and rotational roles. Prioritisation of clinical aspects of care and siloed working. Congruence with national policy priorities and role modelling by senior staff.** Effectiveness of team communication.

Mechanism-resources: **From admission, staff communicate more with patients as equals in a positive way, and encourage them to raise**

concerns and personal preferences by asking 'what matters to you?' The SBAR model, with the addition of 'P' is used at the daily MDT 'board round' and on handover sheets, to communicate the patient's perspective. Provides an opportunity for patients to express their individual needs and priorities. Brings them to the attention of all staff.

Mechanism-reasoning/response: **Staff develop an understanding of the important issues in patient's lives and their wider social circumstances. They value the patient perspective** and are responsive to their individual needs and preferences. Care is tailored to address **psychological and** social issues as well their medical needs.

Outcome: **There is better coordination and improved, timelier communication between staff. Better quality care and improved discharge planning. The patient's hospital journey is less problematic, and they have a better hospital experience.**

Theory 12: Involving patients and carers in SDM and the care process

One interviewee felt that typical attitudes to carers were *'old fashioned and guarded'* (RI-5). Others stated.

> *Traditionally, healthcare professionals decide what is going to happen to the patient. Patients are not involved in that process, they are passive, let everything happen to them, and leave everything to the healthcare professionals. Patients have no real understanding of what is happening to them, why it's happening, what is going to happen next, and whether it's right for them (RI-4).*
>
> *Typically, the doctor stands at the end of the bed discussing the treatment plan without talking to the patient about it. (RI-9).*

Another interviewee commented that the ERM programme had changed staff attitudes towards carers*. 'There is an appreciation of the importance of carers being present, heightened awareness of involving them, making them welcome, and arranging access to doctors'* (RI-4). Another interviewee described how key stakeholders within the organisation, such as consultants, perceive value in and are supportive of the idea of getting carers involved in the care process, and utilised their professional relationships to influence their peers (RI-1).

Other interviewees spoke about the willingness of patients and carers to be involved, which was dependent on personal desire, type, and severity of the patient's condition, and could change over time.

> *Most carers want to be involved in decisions about the person they are caring for. If decisions are made without them, they feel ignored, undermined, anxious, unsure of what's going on, and what they should be doing when they take over from the healthcare professionals (R1-3).*
>
> *Desire for involvement is different for each patient and will change over time. The carer of a patient with dementia will be involved from the onset. Some patients won't be acutely unwell when they come in and may wish to be involved (RI-4).*
>
> *When someone comes in ill as an emergency they are given immediate medical treatment, typically there isn't much discussion about what happens. There isn't necessarily time immediately to have a conversation. It's identifying as they recover how we can engage them in that process (RI-1).*
>
> *Very little can happen straight away, but increasingly throughout their stay patients and their families are included…it is different for each person (RI-8).*

The EAU was described as a '*fairly chaotic environment with a high turnover of patients, multiple ward rounds, and patients with multiple complex needs'* (RI-4). The focus of attention is typically on the patient's medical condition rather than social issues and how carers are coping. However, hospital admission was also seen as a stressful time for carers, and admission was often the result of *'difficulties brewing to a crisis'* (RI-8). Another interviewee said:

> *The reason for a patient's admission may be the tip of the iceberg. Below the surface there may be an array of social and health issues (RI-1).*

When admission is the result of a carer having difficulties in coping, carers could benefit from extra support from the hospital's carers network and social services (RI-8). However, the patient and carers view of the situation could be conflicting.

> *I do have quite a few people where the patient is refusing services, ‘ah that’s alright, I’m fine, my daughter does it all or my son does it all’, but that doesn’t stop the carer having an assessment. So, I’ll go out and see the carer, assess what their needs are, how it’s impacting on them, what do they want to change in terms of how they’re coping. We then build up a strategy to offer them, breaks and other stuff of that nature (RI-1).*

Decision making was described as a more discursive and collaborative process, which was welcomed by patients.

> *People are grateful for the discussion, for their wishes being heard, and patients feel a sense of ownership in the care process (RI-5).*
>
> *If their family, the people that they know and trust and are looking after them are included, and act as an advocate, the patient feels more in control, reassured that healthcare professionals are acting in their interests, their healthcare needs are being addressed properly, and they are getting the right care. The carer feels more supported…a better experience for patient and carer (RI-4).*

Another interviewee suggested that the ERM programme had been helpful in raising the profile of carers within the organisation and had increased knowledge of carer support staff and services.

> *Publicity of ERM in the national magazines has raised the profile of carers, which has enabled issues, such as carer support, to be raised in local hospital forums, listened to by management, and carers to be involved in other hospital services (RI-1).*

Others noted contexts that could inhibit this mechanism.

> *Some consultants, especially older consultants, are unwilling to give up their ‘God-like’ status, and don’t like having their decisions challenged. Some ‘old school’ nurses resist giving up their paternalistic control over patients (RI-3).*
>
> *Patients are a bit bemused by the ideas of being a partner in decision making and care progression because they are used to being told what's going to happen and being made to do things (RI-2).*

Context: An organisation where there is recognition that carers are important to patient recovery and support is available for them. **Hospital admission is often the result of carers' difficulties in coping with the patients' needs, reaching crisis point.** Willingness of carers to be involved. Pressures of emergency assessment and treatment limit communication time.

Mechanism-resource: **Following immediate medical treatment,** patients and their carers' are encouraged and supported to get involved in SDM and the care process. **Provides an opportunity for them to suggest changes to planned care** and to choose what is best for them.

Mechanism-reasoning/response: Patients feel happy, safer **and a sense of ownership in the care process.** Carers want to be involved in decisions about the person they are caring for and are grateful for the opportunity to express their wishes. They feel empowered and treated as equal partners. **Their knowledge of carer support staff and services increases. Key stakeholders perceive value in and are supportive of the idea of getting carers involved and utilise their professional relationships to influence their peers. There is more discussion, and decision making is a collaborative process with all parties working together, sharing their preferences and expertise, contributing actively, and taking responsibility for reaching mutually agreed decisions.**

Outcome: There is a change in attitudes and values of staff and a more patient-centred approach is embraced. Better decisions are made, and care is more appropriate and individualised. There is greater adherence to planned treatment. The patient's hospital journey is less problematic, and LOS is reduced. Gaps in care provision can be identified and support provided for carers on a continuing basis after the patient has been discharged, if needed. Patients and carers have a better hospital experience. There are fewer complaints about communication issues. **Raises the profile of carers, which enables issues to be raised in wider hospital forums, and helps carers to influence and be involved in other hospital strategies and services.**

Rival theory: Carers may feel unwelcome, ignored, or that they are intruding. Their views may not be requested or respected. They may not be offered any information or support in their caring role. **Patients and carers may have conflicting views. Patients may feel confused, and consultants may not wish to lose their power and status.**

Theory 13: Organising care and goal setting

The interview data refined all parts of this theory. The ERM interventions provided a sense of order for staff and a checklist for action:

> *…because you know you have five people on the ERM pathway, you have to go and speak to them, you have your paperwork that you are going to fill in, you have stuff you can give, so that every day you know that that’s what you have to do (RI-7).*

However, the programme was described as a flexible ‘care bundle’ approach rather than a rigid care pathway.

> *There is no standardised care plan for ERM but rather, bundles of interventions that should happen daily like getting up, energy drinks and the drinks trolley. Nor is there a planned sequence to interventions. The aim is to get patients up and out of bed by a particular time, but there is flexibility for staff to work around established processes, such as the drugs round. Patients are reminded of the elements and encouraged to do them. Whether this is done is very dependent on the individual member of staff (RI-3).*

The quotation above also identifies the engagement of individual members of staff as a contextual factor that could impact programme success. This idea was echoed by another interviewee who suggested that.

> *A busy, low paid HCA with a nice bay of patients may not be motivated to get them out quickly, as their workload will be greater when there is a high turnover of patients (RI-1).*

The time course and severity of acute medical illnesses were also identified as important contextual factors. Recovery trajectories differ for each patient, some people will recovery completely, others will be left with some disability. Further episodes whilst in hospital were common.

> *Because, the time course, severity of conditions, and recovery trajectories differs, what needs to happen to a patient is different for each individual and cannot follow a standardised, time mandated care plan. Care must be individualised to address the patient's individual condition and what is important to them. However, the approach to getting and sharing information, helping patients to understand what they can do to help themselves recover, and the process by which patients are included in and agree to their care, can be standardised (RI-4).*

Interviewees highlighted that a flexible and individual approach to care was taken.

> *Staff have more input into and control over care. It isn't just about the time mandated ward routine, the same sort of things are done, but staff are encouraged and allowed to have chats with the patients and plan a new routine based on knowledge of the patient, but working within the time constraints of having certain things done by certain times. Care is improved because it is very flexible and personalised and takes into account the wishes of the patient. It may be acute medical wards are slightly chaotic at times anyway, due to the demographics of the patient population and the level of activity. Because of the flexibility of care, there is no set routine, nurses flit a bit more, and it may be a bit chaotic at times. There may be slightly heavier time demands on nurses, but being behind on tasks is O.K. if there is an acceptable rationale for it (RI-5).*

> *Goals set for ERM patients are more specific. You have a clearer plan, and timings are more realistic because there are often unforeseen circumstances, and the trajectory of an acute illness is often fluctuating. Goals are open, 'this is what we are aiming for' and are reviewed on a daily basis (RI-4).*

However, this meant that it was necessary for staff to use their professional judgment to determine when to initiate interventions for individual patients. This could be challenging because of unpredictable recovery trajectories. Interviewees described how staff used their knowledge of the patient and their professional judgement to adjust the plan and progress goals, throughout the patient's hospital stay.

> *Patients are accessed on an individual basis and clinicians go for it when it feels right and think on their feet to create the individualised structure of ERM for the patient as they go along (RI-7).*

It could also be difficult for staff to know what has been said by other staff, what their role is, and how they will collaborate (RI-4). Therefore, strong nursing leadership and staff education facilitated implementation (RI-7).

Differences in how the ERM programme was perceived by various professional groups was highlighted. For example, ERM practices resonated with the established practice of therapists and therefore little seemed to change for this group.

> *OTs don't see ERM as a fantastic new thing. That patients get up washed, dressed, mobile, and doing things for themselves speeds up recovery is not news. It's not that far from what they normally do, getting patients out safely, as quickly as possible with what they require in ongoing care. Goal setting only changed by documenting the patient's perspective (RI-09).*

Context: Engagement of individual members of staff **and their professional role.** Patient **condition, time course, and** recovery trajectory. Leadership and positive feedback on progress from staff can enhance patients' efforts to achieve goals.

Mechanism-resource: **From admission, bundles of interventions are implemented daily, which may require changes to conventional practice (e.g., welcome to ward, reminder that principal carers can come in at any time, drinks trolley, taking drips down, getting dressed into day clothes, mobilisation, daily energy drinks round and drink station). A standardised approach is taken to gathering and sharing information, explaining how patients can help themselves recover, and including patients and carers in decision making and care processes.** Staff work with patients and carers to create an individual daily routine (tailored to the patient's particular condition, needs, values, and wants) and set **personal realistic** daily goals to aim for. The patient is reminded of these goals daily and is encouraged and supported to achieve them.

Mechanism-reasoning/response: Engages all staff on the ward, gives everyone a shared focus and they work together with a common purpose. Patients feel energised, have something to strive for, and focus on and take an active role. **Nurses have more input into the care provided and more**

control over their routines. They work flexibly around established ward processes (e.g., the drugs round), but are not restrained by them. Knowledge of the patient and professional judgement are used to adjust the plan and progress goals throughout the patient's hospital stay.

Outcome: Successful programme implementation, faster recovery, shorter LOS, and associated cost savings*.* **Quality of care is improved, as it is flexible, personalised, and considers the patient's individual condition and preferences.**

Rival theory: The focus on tasks and techniques may get in the way of nurses responding to patients' personal and emotion needs. Processes may conflict with patient preferences. Implementing **and coordinating ERP interventions can be difficult. Staff may lack motivation to progress patients due to workload pressures. Nursing routines and the ward environment may feel disordered at times. Time demands on nurses may increase, but being behind on tasks is acceptable if there is a justifiable rationale.**

Theory 14: Untethering

The overuse of monitors, urinary catheters, and IV lines is detrimental to patient recovery as it enforces immobilisation (especially older patients, who often develop iatrogenic complications and are discharged with an ADL disability they did not have before becoming acutely ill).

> *It is routine practice, a patient comes in, is put on a drip because they are hydrated, and they need fluids and is left there (RI-8).*

Untethering was the shorthand used by staff to describe removing IV drips and monitors. Interviewees described how the continued presence of drips and oxygen therapy are assessed on an ongoing basis, and whether catheters and monitors are necessary is regularly reviewed. A daily 'drip free morning' was aimed for (RI-8). The experience of nurses and doctors was a noted factor which influenced this mechanism:

> *More experienced Band 6 nurses look for the opportunity for patients to have the freedom to come off and untether for a couple of hours. Newly qualified nurses are encouraged to question whether the patient needs the drip, but do not want the responsibility of making that decision alone, so seek permission (RI-6).*
>
> *Nurses would highlight potential drip free patients to doctors. Some junior doctors were not happy to make that decision as it was not normal practice and would refer upwards to a consultant (RI-8).*

Several interviewees talked about the psychological impact of untethering. Patients feel *'tied-down, medicalised, and that they should not do things'* (RI-4). The presence of a urinary catheter can be uncomfortable and upsetting for patients. Noise can disturb rest and sleep, leading to tiredness and difficulties coping (RI-8). Untethering from drips and drains was reported to allow patients to move around and function normally, resulting in reduced deterioration in function, particularly in older patients (RI-6).

> *Attachments make patients feel a lot of anxiety and they feel restricted, especially if they are in an environment where there's some noise, or other patients are causing a disturbance. Untethering gives patients the freedom to go and have a shower, or wash at the sink, have a walk around for a change of scenery (RI-6).*
>
> *Being tied to a drip makes patients nervous. A big flashing beeping machine can be quite daunting and can increase anxiety, which will affect function. Patients feel medicalised and that they must be ill. Patients like to be released from drips because its uncomfortable and they worry about it. Venflons are painful if they catch on blankets. Some patients who are not particularly motivated may use the presence of a drip as an excuse not to move (RI-8).*
>
> *If a patient isn't tethered, they can be active and mobile rather than sitting on a commode next to the bed. Because they are not tied to a drip, they can walk to the toilet, maintain their mobility, balance, and exercise tolerance. The more tied to a bed and left there, the more immobile the patient is going to become, and the longer their recovery is going to be (RI-8).*

Several interviewees pointed out that therapists routinely take drips with them when mobilising patients or ask nurses for them to be unclipped (RI-5; RI-3). One interviewee refuted the idea that patients feel restricted to the bed space, pointing out that patients are encouraged to move around with the drip stand if they feel well enough. Another interviewee stated that *‘a few people will push drip stands around, but they are heavy and can be difficult to steer if patients feel unwell or lack strength or stability. They may feel nervous about moving equipment because it might set off alarms or do them harm’* (RI-6).

Context: **Routine overuse of monitors and IV lines is detrimental to recovery as it enforces immobilisation.** Especially older patients at risk of developing iatrogenic complications and being discharged with an ADL disability they did not have before becoming acutely ill. **Role and experience of staff.**

Mechanism-resource: Staff are proactive in reviewing nil-by-mouth instructions, taking patients off monitors as soon as possible, and questioning the need for IV drips. They aim to untether patients for a few hours daily or a ‘drip free morning’. Techniques that enforce bed rest, such as catheters and 24-hour IV fluids, are avoided if possible.

Mechanism-reasoning/response: Untethering patients removes physical and psychological barriers to mobilisation, which makes it easier for them to get up, dress, and do normal everyday tasks. Upset and discomfort are minimised. Patients feel more comfortable and less medicalised. Creates a more peaceful environments improving patients’ sleep, which ensures they have enough energy to cope with rehabilitation tasks.

Outcome: Results in improved wellbeing and physical abilities are maintained **(especially older patients),** leading to faster recovery and shorter LOS.

Rival theory: **Less experienced nurses and doctors may feel uncomfortable making these decisions alone (as it isn’t established practice), so seek permission from more experienced colleagues.**

Therapists routinely mobilise patients with drips or ask nurses to unclip them. Patients are encouraged to move around with the drip stand if they feel well enough, but this requires strength and stability, and they may feel nervous about moving equipment because of setting off alarms or doing themselves harm.

5.4 Discussion

Through the interviews the perspectives and experiences of those directly involved in delivering the ERM programme at the hospital were captured. Based on the comments from the nine interviewees, revisions and inclusions were made to all theories. The ERP at the research site had 12 interventions. Many of these focused on engaging carers, by addressing accessibility challenges, such as expensive parking, restricted visiting hours, deficient information, and limited staff availability. In the stressful and unfamiliar environment of the hospital ward, open access for principal carers benefitted patients by providing physical, psychological, and emotional support. Carers obtained information, reassurance, and a sense of being valued. Staff benefited from more comprehensive and realistic information, practical help, and time savings. However, concerns were raised about patient privacy and dignity, logistical problems, and pressure on time constrained doctors. Power dynamics between staff and carers meant this offer had to be broached with care to avoid a sense of moral obligation. In a context of urgent medical issues and staff workload pressures, attending the doctors ward round helped anxious carers deal with uncertainty by gaining information, and provided an opportunity to resolve practical social issues. However, attendance at both the ward round and extended visiting hours was low due to logistical constraints and carers taking the opportunity for a respite break. The aim of the free parking scheme was to reduce carer stress, but there were implementation problems and misuse of the scheme by other hospital visitors.

Other interventions focused on engaging patients through encouraging participation and removing barriers to activity. Specific tasks were identified and clearly communicated with the aim of empowering patients, building confidence supporting autonomy. Swift resumption of activities was encouraged in an individualised and gradual manner. Individual attitudes towards this intervention were affected by a multitude factors, such as age, condition, and behavioural norms. Therapists were key to this intervention, which aligned with their normal practice and role responsibilities. This mechanism was inhibited by traditional expectations of prolonged bed rest and time constraints of staff. Increased patient activity influenced the behaviours of others and had a positive effect on morale and ward culture. Several interventions were aimed at removing barriers to mobilisation, such as untethering and getting dressed into day clothes. However, implementation problems were highlighted, including insufficient funding for tracksuit provision and misuse. Getting dressed was also important in ensuring patient dignity and respect. Energy drinks provided calories which boosted energy, but questions were raised regarding their effectiveness. The drink station incentivised mobility, and supported autonomy and social interaction.

The involvement of patients and carers in SDM care processes improved collaboration, resulting in better decision making and more tailored care. This mechanism was influenced by the patient characteristics and staff attitudes. Patients and carers could have different agendas and there was a risk of professional and caregiver dominance. Communicating and sharing information provided reassurance, coherence, and empowered patients. However, printed information was often left unread or disregarded, suggesting that the amount, type, and media may not be helpful. The ‘what matters to you?’ and SBAR-P approaches individualised care by responding to patients’ preferences, which was important given the heterogeneity of acute medical patients. Workforce issues and the demanding and urgent workload affected this mechanism.

Proactive discharge planning aimed to improve the efficiency of complex discharge processes, overcoming time delays associated with conventional practices. However, discharge processes were complex, involving multiple staff across different organisations, and were subject to organisational change. Discharge was contingent on unpredictable patient recovery trajectories and the workload and skills of discharge coordinators.

A variety of positive outcomes for patients and carers were expected, such as improved patient experience, morale, individualised care, and better relationships. A theme in the data was that older, confused or cognitively impaired patients benefited most. Cultural transformation, improved care quality, reduced LOS, and associated cost savings, were important outcomes identified at an organisational level. There were some unexpected programme outcomes, for example, the ERM raised the priority of preventing medicine errors and carer support staff became more influential.

Interestingly, the ERM programme was described as a care bundle rather than a ridged pathway. A daily checklist of interventions was implemented around ward routines and the individual needs of patients. Adaptations were made at the discretion of staff and in collaboration with patients. This flexibility supported professional autonomy but also made implementing the programme more challenging.

The interviews provided rich qualitative data, including suggestions for additional items that could be included in the theories and comments on the initial CMOCs themselves. Use of the initial programme theories was helpful because it gave structure to the interviews and facilitated discussion. Realist interviewing is iterative which meant that the findings from early interviews could be used to inform subsequent interviews. This enabled me to adapt the questions based on the emerging data, making the process more focused and responsive. A variety of staff in different roles were invited to take part in the interviews, however, only one doctor participated. As the views of professional groups may vary, it was therefore important to ensure that more doctors were included in latter stages of the study. The availability of interviewees was difficult in the busy hospital setting. One interview was terminated early as the interviewee had to respond to an emergency bleeper.

There was a risk of social desirability bias in the interviews, that is, a tendency to modify answers to align with what is perceived to be socially acceptable (Bell & Bryman, 2022). This can lead to overestimation of positive responses, diminish heterogeneity in responses, and affect the quality of data (Bergen & Labonte, 2019). To reduce the likelihood of bias, I ensured interviews were conducted in privacy, explained the purpose of the study, assured interviewees that there was no right or wrong answers to my questions, and used probing follow-up questions and prompts (Bergen, 2019). Interviewees generally appeared comfortable and gave candid answers. Both positive and negative opinions were expressed during the interviews, which implies that a range of views were captured. Triangulating data with other methods (documentary review and meeting observations) enhanced the reliability of the data and understanding of the programme. Using NVivo assisted with the management of the data and ensured that key insights and patterns were not missed.

5.5 Chapter summary

This chapter mapped findings from the realist interviews to the theories developed in the reviews and refined those theories where the interview evidence suggested. All theories were refined to some extent. One additional theory was developed. Preliminary informal discussions enabled a greater understanding of the intervention processes prior to the interviews. The theory was extended using additional insights derived from an analysis of key documents from the case site.

The ERP at the hospital, known as the ERM programme, was a bottom-up initiative developed and led by a multiprofessional team and approved by the trust board. The ERM was an established programme which had been in place for several years, implemented on both acute and general medical wards. There was widespread recognition and acceptance of the ERM programme within the organisation. Process measures assessing how well specific interventions were being implemented were in place, although broader measures of intended programme outcomes were undefined. The programme consisted of twelve interventions which included all those identified in medical review plus one other.

A key finding from the interviews was that the ERM programme appear to be most beneficial for older people with complex health and care needs, for example, those with cognitive impairment or confusion. Programme interventions focused on engaging carers and improving patient’s psychological well-being. Both expected and unexpected outcomes of the ERM programme were identified. Cultural change was a key mechanism. A notable difference between the ERM programme and surgical ERPs processes was the care bundle approach to delivery. The resources associated with several of the programme interventions (i.e., tracksuits and free parking) were misused by others outside of the intended recipient group.

The next chapter describes how these theories were prioritised to guide the subsequent ethnographic fieldwork stage of the research.

Chapter 6: Prioritising theories for testing

Once the analysis of the realist interviews was complete, fourteen refined theories were identified concerning how, why and in what contexts the ERM programme impacted recovery. In this chapter, I describe the prioritisation of these theories. The chapter is divided into seven sections. Section 6.1 justifies the rationale for the prioritising process. Section 6.2 describes the methods used, including details of a card-sorting exercise and think aloud, undertaken with ‘expert’ practitioners. Section 6.3 describes the methods of analysis. Section 6.4 presents the results of the card-sorting. Section 6.5 discusses how judgements and decisions were made about which theories to pursue for further investigation. The programme theories prioritised for testing and refinement through observational fieldwork at the hospital are presented. Section 6.6 provides a summary of the chapter.

6.1 Aim and rationale

Building programme theory for complex interventions using multiple data sources can generate an ‘overabundance of theories from which to choose’ (Pawson, 2013). Leading realist authors point out that it is not possible to address all potential programme theories, therefore, the scope of an evaluation must be clarified. Wong et al. (2016) state that data reduction is necessary to achieve an in-depth and granular explanation of the context in which mechanisms fire. Pawson (2003) refers to this as ‘concentrating your fire’ suggesting that research effort is focused on the linkages that are considered vital to the effectiveness of a programme.

In this study, the aim of the prioritisation process was to understand practitioner priorities in ERPs and to designate fewer theories as the principal focus of further data collection, thereby focusing the scope of the subsequent observational phase of the study.

The choice of programme theories was based on several considerations: (1) the extent to which theories were identified as important by local ERM programme ‘experts’; (2) the feasibility of testing the theories at the case organisation; (3) the researcher’s interpretation of the data; (4) relevance to under researched aspects in the topic areas.

6.2 Methods

A card-sorting exercise with practitioners was used to narrow the focus of the ethnographic stage of the research. The aim was to elicit ‘expert’ practitioner perceptions of the importance of the various theories in generating programme outcomes. A partial ranking procedure within a closed sort, and a think-aloud method were used to generate a priority list.

6.2.1 Card-sorting exercise

Card-sorting typically involves organising a set of items (cards, pictures, or physical objects) into different groups according to an identified sorting principle or criterion (Spencer & Warfel, 2004). Originating within the field of psychology (Eling et al., 2008), card-sorting has been widely applied as a method in the social sciences (Coxon, 1999). It has been used extensively in field research (Weller and Romney, 1988) and as a means of data collection in a variety of contemporary disciplines, such as information architecture (Righi et al., 2013) and for neuropsychological testing (Eling et al., 2008).

Card-sorting techniques are aligned with a constructivist world view and assume that people make sense of the world by categorising it and can do so with reasonable validity and reliability (Rugg & McGeorge, 2005). As a method, card-sorting is considered to ‘correspond closely to natural mental activities’ (Coxon, 1999) and to be effective in ‘eliciting individual, and often semi-tacit, understanding about objects in the world and their relationships to one another’ (Fincher & Tenenberg, 2005). It also offers several other advantages, being quick to conduct (Spencer and Warfel, 2004), simple to administer (Fincher & Tenenberg, 2005), and enjoyable for participants (Coxon, 1999).

There are various card-sorting data collection methods (Rugg and McGeorge, 2005). The most used are ‘open’ sorting and ‘closed’ sorting (Spencer and Warfel, 2004). In ‘open’ card-sorts, participants sort items into categories that make sense to them and label each category, whereas, in ‘closed’ sorts participants sort items into categories predetermined by the researcher. In this study, a closed card-sort was appropriate and practical because programme theories had been researched and developed with practitioners in advance and could be used to prioritise and rank items in a relatively short time.

Card-sorting can be undertaken individually or in groups. Group sorting typically provides richer data than individual sorts but can be more challenging to schedule (Spencer and Warfel, 2004). There is also a risk of ‘groupthink’ bias. Janis (2008) defines groupthink as ‘a mode of thinking that persons engage in when concurrence-seeking becomes so dominant in a cohesive ingroup that it tends to override realistic appraisal of alternative course of actions.’ For these reasons, each participant in my study completed the task in an individual session.

Card-sorting can be conducted either with physical cards or online. There are a number of card-sorting software tools available to conduct online card-sorts (Chaparro et al., 2008). No significant differences in results between physical and electronic card-sorts in terms of accuracy or test-retest reliability have been demonstrated (Bussolon et al., 2006). Although for first time users, electronic card-sorts have been shown to take longer than manual card-sorts (Harper et al., 2002). Furthermore, Greve (2014) suggests that especially complex sorting tasks are better done with paper-based card-sorting as participants can arrange cards and categories ‘in a way they think’. I considered using physical cards advantageous for these and several additional reasons, (1) it would allow staff to view and order the large number of theories more easily than if viewing them as a list, (2) it did not rely on hospital computers, which would have been difficult to access, (3) it did not require any technical expertise on the part of participants, which would have added to the burden of the request on busy staff, (4) running the card-sort in person allowed participants to think-aloud whilst they were performing the exercise (Righi et al., 2013). See section (6.3.3).

6.2.2 Rank ordering technique

As the objective of the card-sort was simply to establish priority amongst the theories without determining the degree of preference of one alternative over the other (ordinal-scaled measurement), a simple ranking technique was used.

In ranking procedures, the participant is asked to arrange items in terms of a specific characteristic of interest, giving each object a higher or lower ranking relative to the others (Weller & Romney, 1988). For example, the rank ‘1’ is assigned to the most preferred item, ‘2’ to the second most preferred and so on to the least preferred item. Applying rank order is a popular and straightforward way to make distinctions between items in research (Bouhis, 2017), and is a commonly used method in marketing research, health economics and health services research (Ali & Ronaldson, 2012). A particular strength of ranking procedures is it provides a means of measurement that matches how people naturally evaluate and is a process which most people are familiar with. Therefore, it can be undertaken with relative ease (Bourhis, 2017).

An alternative method for measuring preferences is a rating procedure in which participants indicate their level of agreement, satisfaction, or importance with the issue under consideration independently of one another, on a numeric or categorical scale. A Likert scale is a well-known example of a rating scale used in health services (Likert, 1932). However, criticisms of rating scales include susceptibility to ‘end-piling’ (i.e., giving high ratings to all items), and non-differentiation between the items (Alwin & Krosnick, 1985; Rankin & Grube, 1980). As previous fieldwork at the hospital had revealed a strong enthusiasm for the ERM programme, it was considered a possibility that participants would rate all theories as equally important or use only a few response categories at the upper end of the importance scale. Therefore, ranking was regarded as preferable.

A variety of ordering methods can be used to rank order items (Weller and Romney, 1988). For example, a ranking can be complete (i.e., all items are ranked), or incomplete (i.e., some items are not ranked). A disadvantage of complete ranking is that it is cognitively demanding for respondents (Fok et al., 2012). This burden has been shown to increase substantially as the number of items to be ranked increases, reducing the quality of data (Heyman & Sailors, 2016). A further potential problem with complete ranking is that participants may find it hard to distinguish between less-preferred alternatives, producing biased ranking at the bottom end (Fok et al., 2021). In this study, because of the number of cards and the complexity of the card contents, I considered a complete ranking of all fourteen ERM programme theories to be overly demanding and too time consuming for staff. Instead, a partial, staged ranking procedure was employed, whereby the fourteen cards were first sorted into two categories (of any size) according to whether they thought they were ‘more’ or ‘less’ important in generating the expected outcomes of the programme. Participants were then asked to rank order their top 3 within the ‘more important' category only. The measure of order chosen was 'importance', using a simple ordinal structure (where 1 was higher than 2, and 2 was higher than 3). Partial ranking requires less effort from the participants (Heyman and Sailors, 2016), and was thus considered less likely to overwhelm or frustrate the staff. With fewer alternatives to rank it was also assumed that they would be more likely to complete the card-sorting task (Fok et al., 2012).

A ranking, whether it is complete or partial, can be either with-ties or without-ties. Because of the complexity of the programme theories, I assumed that situations might arise where participants may find ranking difficult or may be unable to express a preference or regard theories as equivalent. Therefore, to address this problem, ties were permitted within the ranking. i.e., theories which had the same value were ranked equally.

6.2.3 Think aloud method

Think aloud is a method of cognitive interviewing in which participants are required to speak aloud any words in their mind while performing a task or solving a problem (Charters, 2003). The method has its roots in psychology (Ericsson & Simon, 1980), but is also commonly applied in other disciplines, including educational research, computer science, and health. The theoretical basis of think-aloud is that thoughts elicited by the method reflect thought processes involved in the mediation of the task being performed (Wilson et al., 1996).

The aim of the think aloud in this research was primarily to acquire insights into how and why staff arrived at sorting decisions, and secondarily, to inform further refinements of the individual programme theories. The sorting task was considered suitable for think aloud as it was a language-based activity at an intermediate level of cognitive difficulty for the target group (Charters, 2003), who were articulate and knowledgeable about the topic.

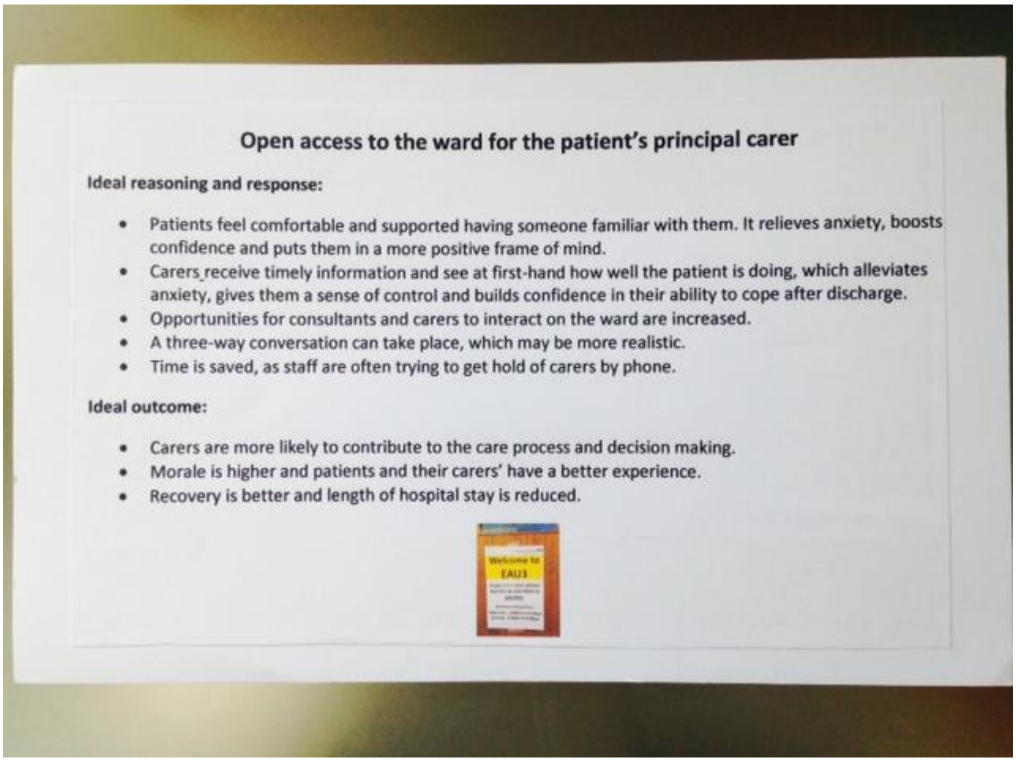
A potential drawback in applying the think aloud method, highlighted by (Arsal et al., 2016), is the potential to affect performance of the primary task and therefore affect the validity of thoughts elicited. However, other studies have demonstrated that the method does not lead to much disturbance of the thought process (Fox et al., 2011) or affect the accuracy of task performance (Ericsson and Simon, 1993). Another issue is that typically, the method increases the time required to complete the primary task. Therefore, to ensure the card-sort could be completed in a reasonable time frame, I undertook pre-testing and piloting as described in section 6.5.3 below.

There are several protocols for think aloud data collection suggested in the literature. In this study, as recommended by Charters (2003), participants were encouraged to ‘speak constantly as if they were alone in the room.’ They were not asked to describe or explain their thinking verbally, to avoid interrupting the flow of their thought process and hampering concentration. If they fell silent for fifteen seconds or more, I simply reminded participants to, ‘keep thinking aloud’ (Someren et al., 1994).

Insightful comments made during the sorting process were recorded as written field notes. This data was then entered into an MS-Excel spreadsheet and used to aid analysis. Immediately after the sorting was completed, a short debrief was also conducted in which participants were asked to recall their thinking and reasoning strategies (Fonteyn et al., 1993). This was used to clarify the reasoning associated with the placement of theories in particular positions. These retrospective verbal reports were used, together with the think aloud data from concurrent reporting, to provide the fullest possible description of their reasoning (Ericsson and Simon, 1980).

6.2.4 Materials

The number of cards that should be included in a card-sort is debated. Rugg and George (2005) suggest a maximum of 20 to 30 entities for convenience and manageability. All fourteen programme theories developed during the earlier stages of this study were sorted during the task. A key challenge in designing the card-sort was to create cards that effectively communicated the meaning of the programme theories but included a manageable level of detail. The full initial theories were detailed and lengthy (approximately 500 words each), capturing the problem context, the programme mechanism, and associated contextual factors (Appendix 16). I was mindful of participant fatigue, which has been shown to reduce the quality of data (Beatty et al., 2014), and the time-related pressures on the clinicians participating (BMA, 2018). Therefore, to ensure that the task was not too onerous, the theories were abridged for brevity and clarity into bullet point descriptions or ‘aide memoire’. These descriptions were short enough to be read quickly but retained sufficient detail to accurately represent the full programme theories. As rival theories were not included, it was stressed to participants that the cards were an idealised representation of the programme theories. Figure 33 provides an example of a simplified ‘aide memoire’ for theory 2, used in the card-sorting exercise. All the cards used in the sorting exercise are included in Appendix 17.



Open access to the ward for the patient’s principal carer

Ideal reasoning and response:

- Patients feel comfortable and supported having someone familiar with them. It relieves anxiety, boosts confidence and puts them in a more positive frame of mind.
- Carers receive timely information and see at first-hand how well the patient is doing, which alleviates anxiety, gives them a sense of control and builds confidence in their ability to cope after discharge.
- Opportunities for consultants and carers to interact on the ward are increased.
- A three-way conversation can take place, which may be more realistic.
- Time is saved, as staff are often trying to get hold of carers by phone.

Ideal outcome:

- Carers are more likely to contribute to the care process and decision making.
- Morale is higher and patients and their carers’ have a better experience.
- Recovery is better and length of hospital stay is reduced.

Figure 33: Example of card design

As recommended by Rugg and Mc George (2005), each of the theories was word processed, to ensure legibility, printed on to paper, and then stuck on to a separate 10cm x 15cm plain white index card for durability and to facilitate handling. The cards were uniform in size, format, and colour to avoid potential biases. Two header cards labelled ‘more important’ and ‘less important’ were used as placement markers for the card groupings, and ranking cards labelled 1, 2 and 3 were produced for participants to place alongside their selected cards.

6.2.5 Pretesting and piloting

To ensure that the card-sorting task was manageable, it was pre-tested by an academic researcher, and later piloted by a clinician with experience of working with the ERM programme. This generated useful feedback about the content of the cards and clarity of the theories. It was also a helpful benchmark of how long the task should take participants to complete. Based on the feedback from the pilot, the word count of each card was further reduced, and minor modifications were also made to the wording of several instructions to improve clarity. It was also suggested that, with the number and complexity of the theories under consideration, it would aid recall and make the task more engaging for participants if a small picture or photograph was added to each card. To this end, I added images to the cards, where possible taken from trust posters and leaflets and photographs, which were familiar to the staff.

6.2.6 Participants

There is no consensus in the literature as to the recommended number of participants to include in a card-sort. A review of card-sorting methods by (Hannah, 2008) points out that values range from two to ten people. Some guidelines recommend seven to ten participants (Spencer and Warfel, 2004), while others, as many as twenty-five to thirty (Wood & Wood, 2008). Paul (2008) suggests that ‘in practice even ten to fifteen participants is a high number of participants for a study.’

As the objective of this card-sort was to build a priority list based on practitioner viewpoints rather than statistical generalisation to a wider population, large numbers of participants were not considered necessary. A participant group of twelve was purposively selected consisting of hospital employees with direct ‘expert’ experience of the ERM programme. Many of the individuals were already known, through attendance at ERM huddle meetings and visits to various wards across the hospital site. Some participants had previously taken part in the earlier realist interviews. As the aim was to capture relevant and variable professional viewpoints and maximise the breadth of opinion, individuals from as many of the different staff groups involved in ERM programme as possible were recruited (see Table 13).

I made initial contact in person or via a short introductory email with members of staff known to me as having significant experience in ERM at the hospital. Interested individuals were emailed an invitation (Appendix 15) and those agreeing to participate were sent the full fourteen theories to read ahead of the one-to-one session (Appendix 16). As recommended by Wood & Wood (2008), I was explicit about the intended purpose of conducting the card-sorting exercise. An estimate of how long it would take to complete the card-sort (30 minutes) was also given to help staff gauge the required time and effort. A record of their participation in the research, for continuous professional development (CPD) purposes, was also offered as a small incentive to thank the participants for their help (Appendix 19).

Twelve individuals were approached to take part in the card-sorting exercise, of which ten (83.3%) participated in the one-to-one session and completed the ranking. Two individuals did not respond. Data was collected at the hospital site over a period of three weeks from February to March 2019. The mean time taken to complete the card-sort was 28 minutes (range 20–35). Table 13 shows the characteristics of the card-sort participants. The participants were representative of the staff involved in the ERM programme at the hospital. Six professions were represented with registered clinical staff accounting for 70% of the total number of participants. They reported a mean of 18.6 months (range 12 - 24) engaged with the ERM programme.

Table 13: Card-sort participants

Participant role	No of participants
Nurses	4
Therapists	1
Doctors	1
Managers	2
Healthcare support workers/Discharge coordinator	2
Total respondents	10

6.2.7 Card-sorting procedure

Each of the individual paper-based card-sorts were administered in person and completed in a single 30-minute session, which is within the general expectations of duration of one hour or less (Hannah, 2008). The work-intensive nature of paper-based sorting processes make it prone to human errors (Harper et al., 2002), therefore, execution of the session followed a clearly defined protocol based on generalised guidelines (Rugg and McGeorge 2005; Spencer and Warfel 2004), reported in Appendix 18.

To avoid introducing bias each sorting session commenced with the same scripted brief explanation of the purpose of the card-sort, along with clear verbal instructions about what participants were expected to do. To obtain insights into participants' thoughts and elicit their reasoning process for their card choices, prior to starting the card-sort, participants received standardised instructions to think-aloud. They were asked to explain their thinking aloud as they worked. Cards were shuffled prior to use, so they would be presented in random order, to avoid the effects of primacy and recency on participant choices.

Once sorted into the two separate groups, the cards chosen as 'less important' were then removed from the table, and from those remaining (i.e., those selected as 'more important'), participants were asked to rank their top three cards in order of importance, from 1 to 3. They were told they could rearrange the cards and have tied ranks. An example set of cards after sorting and ranking is shown in Figure 34. Once the sorting was complete, I conducted a short debrief to gain further insights into the participants reasoning (Ericsson and Simon, 1993). Demographic information was also collected to provide descriptive information about the participants.

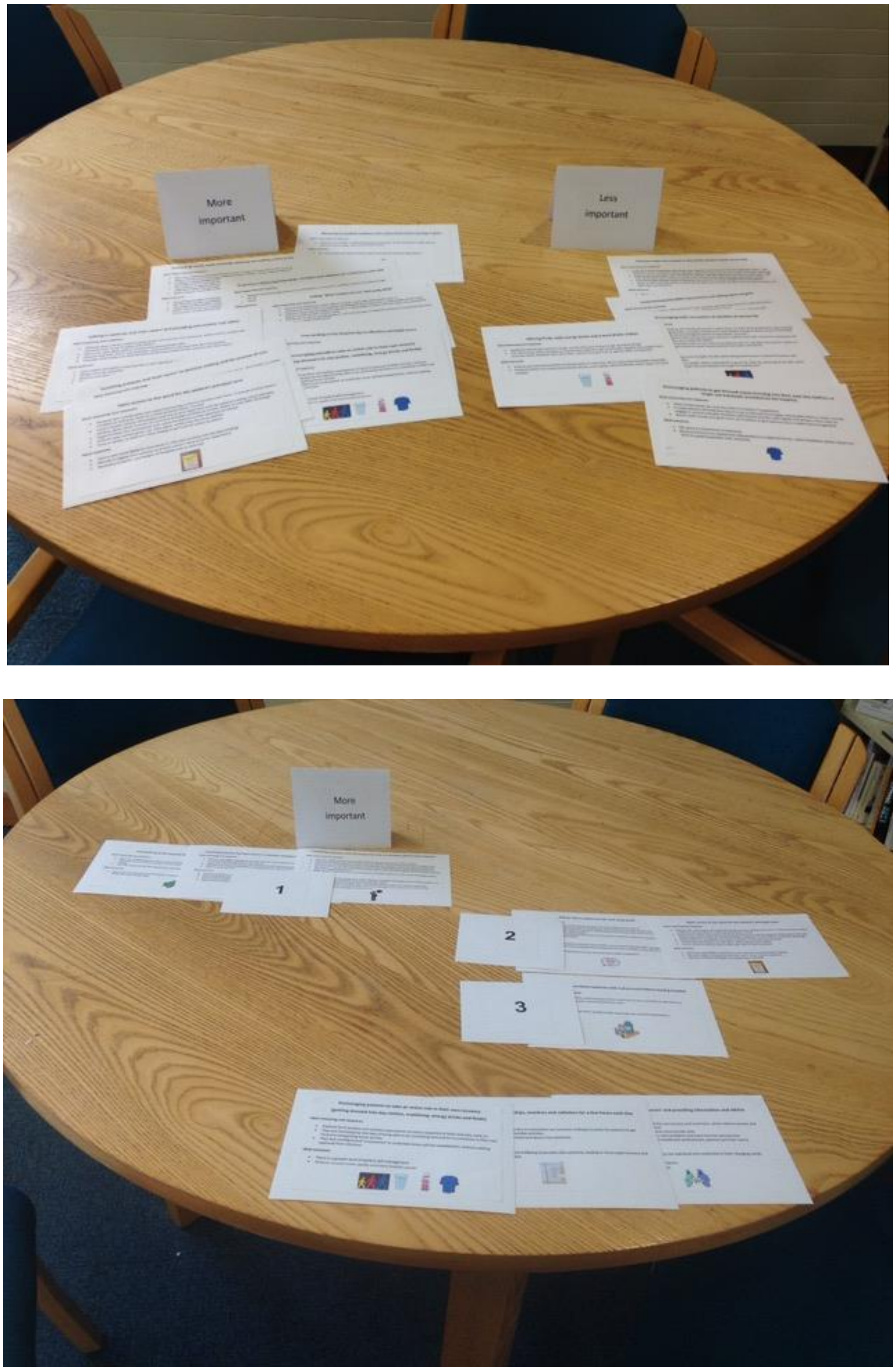


Figure 34: Images of a participant pathway through the card-sort

At the end of the card-sort exercise a record of where cards had been placed was made on a data sheet, and all cards were photographed as a back-up record of the groupings. The obtained data were entered into an MS-Excel spreadsheet for analysis. An example of a recorded sort is provided in Box 2.

Box 2: Example record of an individual card-sort (CS-05).

Group: ‘less important’	**Group: ‘more’ important’**
Theory 1	Theory 6 (rank1)
Theory 2	Theory 12 (rank 3)
Theory 3	Theory 14 (rank 2)
Theory 4	Theory 9
Theory 5	Theory 11
Theory 7	Theory 13
Theory 8	
Theory10	

6.3 Data analysis

Both quantitative and qualitative data analyses were performed on the data generated from the card-sort. Summary statistics were used to describe relevant demographic information about the participants (job role, location of work, and length of involvement with ERM programme). Card arrangement at the end of the first part of the exercise was explored using frequency counts of the number of ‘votes’ for each theory per category (‘more’ or ‘less’ important).

Since ranking produces ordinal data, which only allows assessment of gross ordering of items (i.e., there is a lack of information about the distance between any two or more rankings among the items), it can be adequately described using frequencies or percentages of response in each category (Harloff & Coxon, 2005). The ranking data were listed in terms of frequency counts highlighting the number of participants who selected each of the theories.

As the first few ranking positions were of particular interest, to obtain an overall indication of importance, the rankings were converted into surrogate weights.

To maintain proportionality a weight for the relative importance of each rank was established. The weighted values were determined by the number of available options (ranks n=3). The following point values or ‘weight’ were assigned: ranked 1st = 3 points, 2nd = 2 points, 3rd = 1 point. Un-ranked items were given a score of 0. The score calculated for each theory was the sum of all the weighted values, which resulted in weighted scores.

Participants' verbal comments generated from the think-aloud during the sorting processes were used to assist in interpretation of sort results and to further refine the individual programme theories. First, the comments were read as a corpus. Then, statements that related to the existing programme theories were highlighted and mapped against the appropriate programme theory. Any data that did not map onto any of the existing programme theories was formulated into themes, which contributed to the interpretations of the categorisation and ranking. The findings and possible interpretations of the data were discussed with supervisors. The findings were compiled in a report, which was offered to the participants for further collaboration and comments.

6.4 Results of card-sorting exercise

In this section, the results of the card-sorting exercise are presented. First, practitioners' perceptions of the importance of the candidate theories are summarised by category. Then, the rankings of the data are presented together with surrogate weights for top three rankings. Finally, the results from the think-aloud are reported.

6.4.1 Summary of results by category

Participants were first asked to sort the cards into two given categories, 'more important' or 'less important' according to their perceived importance in improving ERM programme outcomes. Figure 35 summarises the results, showing the percentage of participants who sorted each card into each category. Generally, participants placed more cards in the 'more important' category (range 5-12) than in the 'less important category (range 2-9). This could have reflected the high levels of personal enthusiasm for the programme.

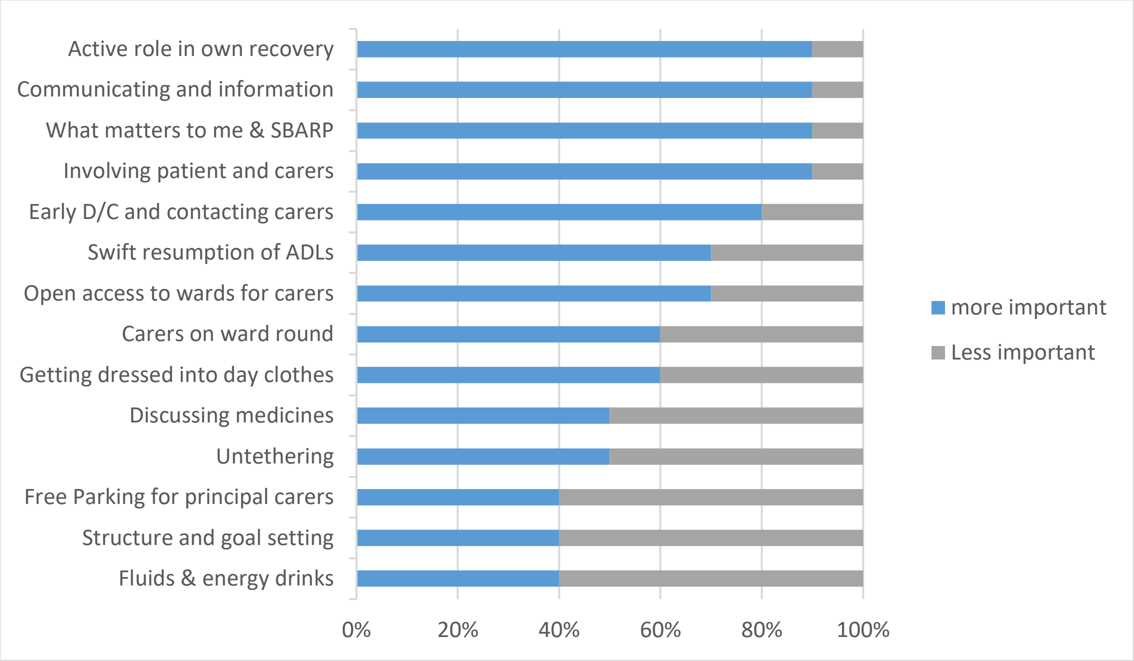


Figure 35: Distribution of sorting judgements on the 'importance' of the theories in contributing to programme outcomes

Table 14 below shows how many times a card was sorted into each category. It can be seen where there was highest and lowest agreement between participants on where the cards were placed. Certain cards generated a high degree of commonality in categories across all participants, suggesting a level of general consensus. The grey boxes show where there was high agreement between participants. Four cards, PT6, PT10, PT11 and PT12 showed the highest degree of commonality in the categories across all participants and were placed by nine out of ten participants into the 'more important' category. It also pinpoints the categories with the least agreement among participants. For example, staff opinion was divided on the importance of 'discussing medicines' (PT1) and 'untethering' (PT14), with both appearing 5 times as more important and 5 times under less important.

Table 14: Frequency count by category

	Programme theory	**More important**	**Less important**
PT1	Discussing medicines	5	5
PT2	Open access for principal carers	7	3
PT3	Principal carers are invited to the ward round	6	4
PT4	Free parking for principal carers	4	6
PT5	Proactive discharge planning	8	2
PT6	Patients take an active role in their recovery	9	1
PT7	Swift resumption of normal activities	7	3
PT8	Getting dressed into day clothes	6	4
PT9	Energy drinks round and drink station	4	6
PT10	Communication and sharing information	9	1
PT11	What matters to you? SBAR-P	9	1
PT12	Involving patients and their carers	9	1
PT13	Organising care and goal setting	4	6
PT14	Untethering	5	5

6.4.2 Results of ranking

Table 15 summarises the complete responses of participants when asked to rank their ‘top three’ theories.

Table 15: Compete ordinal rankings for the fourteen theories

Programme theory	Card-sort no (CS)									
	CS-01	CS-02	CS-03	CS-04	CS-05	CS-06	CS-07	CS-08	CS-09	CS-10
Discussing medicines	-	3	3	3	-	3	-	-	-	3
Open access for principal carers	3	1	2	2	-	-	1	-	2	2
Principal carers invited to ward round	3	-	-	2	-	1	-	2	2	1
Free parking	3	-	1	-	-	3	-	-	-	2
Proactive discharge planning	3	1	1	2	-	2	-	1	2	1
Patients take an active role in recovery	2	-	-	1	1	2	1	1	1	1
Swift resumption of activities	2	2	-	1	-	3	2	1	1	-
Getting dressed into day clothes	2	-	-	2	-	-	3	2	1	1
Energy drinks and drink station	-	-	-	-	-	-	-	3	1	2
Communication and sharing information	1	1	-	2	-	1	1	1	3	2
What matters to you? SBAR-P	1	2	2	3	-	-	1	1	1	2
Involving patient and carers	1	2	1	-	3	1	1	1	3	2
Organising care and goal setting	2	-	-	-	-	2	1	-	1	-
Untethering	-	-	-	-	2	2	-	-	1	2

Typically, participants gave a ranking to most of the cards they selected as ‘more important’ (range 12-3, median = 9). There was variation in the number of cards participants used per ranking (see Table 16). Ties were allowed, and generally participants clustered cards grouping theories together against ranks.

Table 16: Number of cards per rank

	Cards per rank		
	Min.	Max.	Median
Rank 1	1	7	3
Rank 2	1	7	3
Rank 3	1	4	1

The verbal comments revealed that practitioners often saw links between the theories or viewed the cards as connected by under-lying themes. Without prompting they qualified their choices and described these links. For example, one practitioner said, *‘it’s about removing barriers for carers’* (CS-07). Others saw them as linked by timing during the recovery trajectory, for example, ‘*this is all acute phase stuff’* (CS-02), similarly, *‘links with expectations at discharge’* (CS-05). One of the participants felt that theories were linked because they were *‘all concerned with changing processes and doing things differently’* (CS-01). Table 17 gives details of the interlinking theories and underlying themes.

Table 17: Interlinked theories and underlying themes

Cluster	**Theme**
Communication and sharing information + Principal carers on ward round + Proactive discharge planning.	Better communication (CS-07).
Open access + Free parking + Proactive discharge planning + Carers on the ward round.	Removing barriers for carers (CS-03).
Getting dressed into day clothes + Untethering + Patients take an active role + Energy drinks and drink station + What matters to you? SBAR-P + Organising care and goal setting.	Changing processes/doing things differently (CS-01).

Carers on ward round + Proactive discharge planning + Getting dressed into day clothes.	Acute phase (CS-02).
Communication and sharing information + Untethering + Energy drinks and drink station + What matters to you? SBAR-P + Involving patients and their carers' + Open access + Free parking.	Ensuring discharge goes smoothly (CS-09).
Discussing medicines + Open access + What matters to you? SBAR-P.	Problem solving (CS-05).

The results were then explored by looking at the theories according to how many 'rankings' each theory received. The distribution of rankings for all cards is shown by frequency in Figure 36.

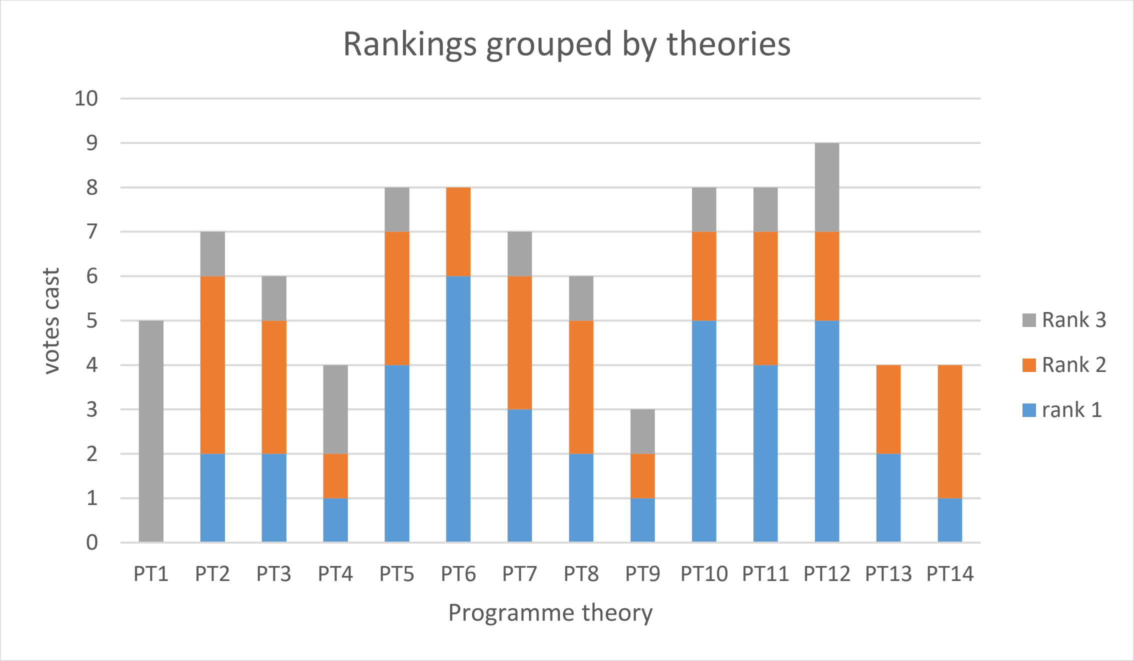


Figure 36: Distribution of rankings by theory

How often each theory appeared in the 'top three' rankings is summarised below in Table 18.

Table 18: Frequency of top three rankings

Programme theory		Frequency count			
		Rank 1	Rank 2	Rank 3	*Total*
Theory 1	Discussing medicines	0	0	5	*5*
Theory 2	Open access	2	4	1	*7*
Theory 3	Carers at ward round	2	3	1	*6*
Theory 4	Free parking	1	1	2	*4*
Theory 5	Proactive discharge planning	4	3	1	*8*
Theory 6	Active role in recovery	6	2	0	*8*
Theory 7	Swift resumption of ADL	3	3	1	*7*
Theory 8	Getting dressed	2	3	1	*6*
Theory 9	Energy drinks	1	1	1	*3*
Theory 10	Communication/information	5	2	1	*8*
Theory 11	What matters to you? SBAR-P	4	3	1	*8*
Theory 12	Involving patient and carers	5	2	2	*9*
Theory 13	organising care/goal setting	2	2	0	*6*
Theory 14	Untethering	1	3	0	*4*

The number of times a theory appeared in participants' top three rankings was summed. These totals were then ranked in descending order as shown in Table 19. Nearly all the participants selected theory 12, involving patients and carers (90%). Most participants also ranked in their top three theory 5 (80%), theory 6 (80%), theory 10 (80%) and theory 11 (80%).

Table 19: Number of times each card was ranked in the top three

Programme theory		How many times ranked in top 3
Theory 1	Discussing medicines	5
Theory 2	Open access	7
Theory 3	Carers at ward round	6
Theory 4	Free parking	4
Theory 5	Proactive discharge planning	**8**
Theory 6	Active role in recovery	**8**
Theory 7	Swift resumption of activities	7
Theory 8	Getting dressed	6
Theory 9	Energy drinks/drink station	3
Theory 10	Communication/ information	**8**
Theory 11	What matters to you? SBAR-P	**8**
Theory 12	Involving patient and carers	**9**
Theory 13	Organising care/goal setting	4
Theory 14	Untethering	4

6.4.3 Assignment of surrogate weights

To obtain an overall indication of importance, the ranking data was used to calculate numerical weights. The score calculated for each theory was the sum of all the weighted values, which resulted in weighted scores as shown in Table 20 and presented in Figure 19.

Table 20: Weighted scores

Programme theory		Weighted score			**Total score**
		Rank 1 (3pts)	Rank 2 (2pts)	Rank 3 (1pts)	
1.	Discussing medicines	0	0	5	**5**
2.	Open access	6	8	1	**15**
3.	Carers at ward round	6	6	1	**13**
4.	Free parking	3	2	2	**7**
5.	Proactive discharge	12	6	1	**19**
6.	Active role in recovery	18	4	0	**22**
7.	Swift resumption of activities	9	6	1	**16**
8.	Getting dressed	6	6	1	**13**
9.	Energy drinks	3	2	1	**6**
10.	Communication/information	15	4	1	**20**
11.	What matters to you? SBAR-P	12	6	1	**19**
12.	Involving patients and carers	15	4	2	**21**
13.	Organising care and goal setting	6	4	0	**10**
14.	Untethering	3	6	0	**9**

Figure 37 shows the weighted scores. The highest weightings were for theory 6 - active role in recovery (22), theory 12 - Involving patients and carers (21), and theory 10 – Communication and sharing information (20). A second ‘tier’ of theories with a weighted score of 19 each, theory 11 - What matters to me you? SBAR-P (19), theory 5 - Proactive discharge planning (19), were also considered as ’top’.

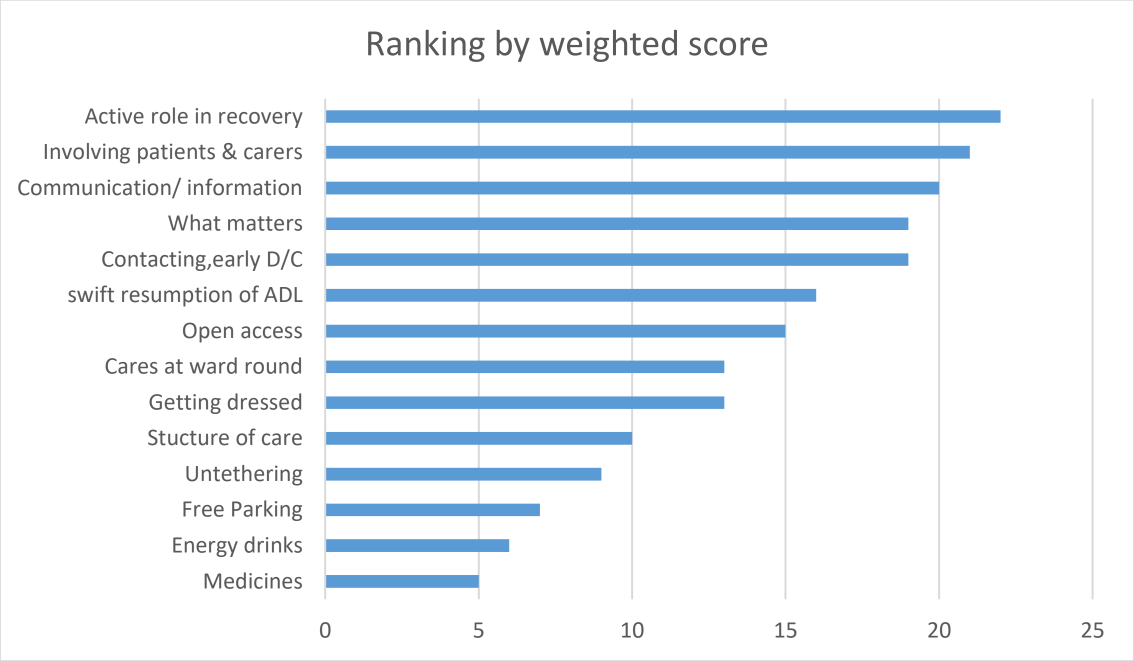


Figure 37: Ranking of theories by surrogate weight

A ‘cut-off score’ of 19 or higher was selected. This seemed to be a reasonable cut off as the distribution of the data grouped into two top tiers, and it was above the overall mean average score of 12.5. Therefore, the five theories with weightings of 19 or more were considered to represent the majority view the practitioners.

6.4.4 Findings from think aloud

In this section the findings from qualitative analysis of the think-aloud data are reported. The main purpose of the think-aloud was to understand how people approached the card-sorting task and to capture some of the reasoning about why theories were judged as more or less important. The degree of information yielded differed amongst individuals and the statements generated varied from single sentences to full paragraphs. Explanations were varied and reflected different perspectives. Based on the analysis, several observations were apparent about the thoughts of participants in relation to the perceived importance of the theories.

Opinion was equally divided over two cards ‘discussing medicines’ (PT1) and ‘untethering’ (PT14). For example, the theory ‘untethering’ appeared five times under ‘more important’ and five times under ‘less important’. Participants’ reasons for selecting this programme theory as ‘less’ important tended to pertain to a perception that this was already an embedded practice. Although views differed as to whether this was attributable to the ERM programme or not. One participant stated, *'we did it anyway as it is good practice'* (CS-08). *Another said, 'any remaining cannulas are taken out anyway'* (CS-04). *Another commented, '…because of ERM we are very good at untethering on EAU, on the ball, we are hot on this' (CS-02).* The reasons given by participants who indicated this theory was 'more' important were related to changing mind set in relation to practice. *'The new things were the drips; made you think a bit. We will put drips up overnight instead of during the day'* (CS-10).

Similarly, half of the participants indicated that 'discussing medicines' (PT1) was less important. Reasons given included failure to execute the intervention, or it was perceived to be ineffective and did not generate the expected outcome for patients. One participant stated, *"It didn't happen"* (CS-05). Another shared, *'even if you explain it doesn't make a difference, they don't remember anything about it when they go home… it's not beneficial for patients'* (CS-07). Other participants said that the intervention was not unique to the ERM programme and was undertaken as part of routine practice. *'It was less important because it could be done by a nurse or anybody'* (CS-09). *'Nurses go through meds at discharge with patients anyway'* (CS-08).

Contrastingly the 50% of participants that selected 'discussing medicines' (PT1) as more important, tended to highlight the problems or risks associated with poor medicines management. For example, *'It's critical because most of the time the carer knows but the patient doesn't'* (CS-03). *'People have no idea and a dangerous ability to take things'* (CS-04). *'It's a lower scoring area of patient experience reports…it's really important in principle, but not for our patients. We have more elderly patients and cognitive impairment, and they get muddled.'* (CS-10).

Most and least frequently endorsed theories

There was a high degree of agreement between participants that the following theories were important (90%): PT6, PT10, PT11 and PT12 were consistently important to practitioners.

There was high degree of agreement that the following theories were less important (90%): PT4, PT9, PT13, PT14 were consistently less important to practitioners.

Theory refinements

The card-sort also offered an opportunity to capture new theoretical insights about how people understood the different programme theories. Thoughts expressed related directly to the contexts, mechanisms, or outcomes of specific theories. Additional insights were added altering several explanations. The think aloud data supporting theory refinements is shown in Appendix 20.

6.5 Summary

The aim of this chapter was to understand the importance of the theories from the perspective of practitioners and to prioritise them for the subsequent stage of the research. A card-sorting task was conducted to focus the subsequent phase of evidence collection at the hospital. ‘Expert’ practitioners were asked to compare the different theories directly to one another to build a priority list. The practitioners drew on their experiences and prior knowledge of the programme to identify the theories they believed to be more important in contributing the improved outcomes of the programme. In general, they created groups demonstrating the connections they saw amongst the theories. There was great diversity in these groupings. Through the process of prioritisation with ‘expert’ practitioners, the list of theories to take forward to the subsequent testing phase of the study was reduced from fourteen down to five. These theories are presented in Table 21.

Based on the collected data, two tiers were identified. The top 3 theories perceived by staff to be the most important to the success of ERM were (1) ‘active role in recovery’, (2) ‘involving patients and carers’, and (3) ‘communication and sharing information’. A second tier comprised: (4) ‘what matters to you? and SBAR-P’ and (5) ‘proactive discharge planning’.

The card-sort method was an efficient and engaging means of gaining insight into practitioner priorities in ERM programme. The think aloud that accompanied the card-sorting clarified practitioners’ priorities and the reasons for endorsing theories. The sort was limited to a small sample of ten participants, which may have introduced bias.

The theories prioritised by practitioners were social mechanisms rather than physiological. I found this surprising given that surgical ERPs are focused on medicalised. The prioritised mechanisms could be described as patient centric.

The next chapter presents the analysis and results of the testing of these prioritised theories, through real-time ethnographic observations and interviews with staff, patients, and their carers’, at the case hospital.

Table 21: Prioritised theories

Theory	Context +	Mechanism-resource	Mechanism-reasoning/response =	Outcome
5. Proactive discharge planning	Engaged carers. Complex and changing discharge processes. Level of integration across services. Workload and skill of discharge coordinators Unpredictable recovery trajectories.	Proactive communication, information gathering and discharge planning with carers, including setting a date to leave hospital.	Greater understanding of what is happening reduces patient anxiety and motivates them to actively participate in their recovery. Carers are pleased to be involved and to have fewer hospital visits. Staff have shared goals to work towards. Discharge planning occurs alongside treatment. Problems can be solved before discharge day. Early identification of patients ongoing care needs and agreement on plans.	Simplifier and less problematic discharge process. Delays avoided. Shorter LOS and cost savings. Improved patient and carer experience. Earlier referral to supporting agencies. Good continuity of care. Less time available for rehabilitation. Increase support for carers may be needed.
6. Patients take an active role in their recovery	Patient characteristics. Support from carers.	Patients are encouraged to participate in their own recovery by doing simple things to help themselves.	Patients form positive and realistic expectation. Increased motivation and empowered to self-care without seeking approval.	Greater patient self-care. Reduced nursing workload. Shorter LOS. Alters roles and relationships between staff and patients. Responsibility for recovery is shared.
10. Communication and sharing information	Patient characteristics. Staff willingness, skills, and availability.	Time is spent communicating and sharing information with patient and carers.	Patients feel less anxious as they understand treatment and care process. Carers feel well informed and empowered ad they can input into ask questions and raise important social and practical issues.	Positive ward culture. Improved patient and carer experience. Trusting and equal relationship between staff, patients, and carers. Smoother hospital journey. Shorter LOS.
11. What matters to you? SBAR-P	Heterogeneity and high throughput of patients, Congruence with national policy. Effective MDT communication.	What matters to you? and SBAR-P approaches are used to capture patient perspective.	Staff value the patient perspective and customise care based on understanding of important issues and wider circumstances.	Improved coordination and timelier communication. Better quality of care and patient experience
12. Involving patients and carers in SDM and the care process.	Engaged carers. Organisational recognition and support for carers	Staff encourage and supports patients and carers to get involved in the care process and decision-making.	Patients feel safe, confident, a sense of ownership and are empowered to make decisions and suggest changes to care. There is more discussion and decision making is collaborative.	Cultural shift towards more patient-centred care. Better decisions are made, and care is more appropriate and individualised. Improved patient experience. Less problematic and shorter LOS. Better support for carers after discharge.

Chapter 7: Testing and refining theories

As discussed in Chapter 2, a realist evaluation seeks to understand how and why interventions cause outcomes, starting with theory and ending with more refined propositions for future testing (Pawson and Tilley, 1997). In the earlier stages of this research, I developed initial rough programme theories for the ERM programme from published literature. I revised these theories based on interviews with practitioners and the following five theories were prioritised: proactive discharge planning; encouraging an active role in recovery; communication and sharing information; what matters to you? and SBAR-P; involving patients and their carers' in SDM. The purpose of this phase of the research was to collect evidence to test and further refine these five prioritised theories in the organisational context in which the ERM programme was operating. I adopted an ethnographic approach using observations, conversational interviews, and documentary analysis to collect data across two clinical settings. This chapter presents the findings of the ethnographic fieldwork and is structured as follows:

Section 7.1 discusses and justifies the ethnographic methods of data collection adopted for this stage of the study. Section 7.2 provides details of participant selection, site selection and time sampling. Section 7.3 Introduces the settings in which the fieldwork took place and describes how access was gained to these clinical areas. Section 7.4 provides details of local stakeholder consultations undertaken to identify the implementation status of the programme, prior to entering the field. Section 7.5 details how the data was analysed. The findings from the fieldwork at the hospital are presented in section 7.6. Refinements made to the theories are discussed and the refined theories are presented. Finally, a chapter summary is provided in section 7.7.

7.1 Ethnographic methods

Ethnographers typically use a variety of methods in combination for eliciting and collecting data. In this study, ethnographic methods of participant observation, unstructured interviews and examination of documents were employed to study the ERP in the organisational context in which it was delivered. Triangulation is commonly used in ethnography to promote quality and provide comprehensive insight into the phenomenon under study (Flick, 2016). There are different types of triangulation, method triangulation, investigator triangulation, theory triangulation, and data source triangulation (Denzin, 1978). Using multiple methods and sources of data captured the complexity of the ERP. Multiple viewpoints on the phenomenon allowed comparisons and cross-checking for consistency, thereby increasing the credibility of the findings (Patton, 1990). The data collection methods used are discussed in greater detail below.

7.1.1 Observation

Observation is the main method of ethnography and has been used previously in realist evaluations as part of the theory testing and refinement process (Downey et al., 2021; Greenhalgh et al., 2009). Jorgensen (1989) states:

> Participant observation is exceptional for studying processes, relationships among people and events, the organisation of people and events, continuities over time, and patterns as well as the sociocultural contexts in which human existence unfolds.

Through direct observation it was possible to witness the actions which comprised the programme and gather information about processes, events, behaviour and interactions between patients' carers and staff, as they occurred in the natural working environment of the hospital. Reeves et al. (2008) suggest that this can be useful as 'what people say about their actions if often different from actual behaviour'. As the programme theories were based on accounts of practice from the staff interviews, the aim was to provide empirical data and rich insights into the programme, allowing any inaccuracies between what was said and done to be observed first-hand (Gans, 1999).

A key consideration when undertaking ethnographic observations is the extent of participation. Gold (2017) describes a continuum of positions from complete participation to complete observer. Emerson et al. (2011) argue that no field worker can be a completely neutral detached observer who is outside and independent of the observed phenomena. O'Reilly (2009) suggests it is more useful to consider what participation will achieve and how it can contribute to data collection and analysis. As my aim was to gain insight into how the ERP was implemented 'on the ground' and gain an understanding of associated contextual factors, I adopted the role of a passive observer with limited interaction. The aim was to merge into the background, thus, introduce less disruption into the setting, where staff were busy delivering services, and reduce the burden on participants. This was considered more likely to foster the acceptance and support required from participants to collect data.

The observations involved both formal and informal observations. Formal observations involved accompanying selected members of staff during everyday activities. Informal observations involved moving around the ward in an unplanned way observing from vantage points such as the nurses' station and the seating in the ward corridors. Observations were focused on everyday activities and interactions between staff, patients and their carers' (Pope & Mays, 1995). For example, during MDT meetings, board rounds, ward rounds, handovers, mealtimes, admission, and discharge. Detailed field notes were taken during or immediately after events.

Prior to observations, I gave out information about the study and details of how the data would be used (Appendices 8 and 20). Written or verbal consent was also obtained from participants (Appendices 9 and 22). Participants were given the option to receive a copy of the initial analysis and were encouraged to provide feedback and reflection. As observation periods frequently covered consecutive staff shifts, I introduced myself to the ward clerk and sought out either the senior nurse or consultant on duty to announce my presence on the ward/unit at the start of every session.

7.1.2 Conversational-style interviews

Realist explanations attempt to understand the reasoning of participants and how this brings about behaviour change. However, it is not possible to access people's mental processes, so only part of each CMO configuration is directly observable (Maxwell, 2012). Therefore, I chose to support observations with multiple, informal unstructured conversational-style interviews. These conversations were opportunistic and took place, face-to-face with staff, patients, and their carers'. They provided an opportunity to ask questions about 'reasoning' at the same time or immediately following observations of activity, which allowed participants to share their perceptions, opinions, and feelings in relation to them. This revealed different aspects of situations, providing confirmatory and contradictory interpretations, and generated new insights. I took an informal relaxed approach, in preference to formal interviewing, to minimise burden on busy staff delivering services and patients who were unwell.

A key distinction between ethnographic interviewing and other forms of interviewing is that it is conducted in the context of an established relationship (Heyl, 2001). In the early stages, I asked brief questions as and when possible, within everyday conversations, but as the observations progressed over time, I became a familiar presence on the wards, and as staff and patients got to know me, more in-depth conversations took place. These conversational interviews often occurred spontaneously, but at other times a more purposeful approach was taken, and I actively asked, 'can I talk to you about this?' Due to the pace of activity and the ward environment, on most occasions, I did not have the opportunity to decide where or how long conversations would take place. Interviews took place in the ward corridor, staff office, day room and at the bedside. When feasible, in-depth interviews were audio recorded on my mobile phone and were transcribed verbatim.

7.1.3 Field notes

During the fieldwork, observations of activities and conversations engaged in or overheard were recorded as field notes. Because the ward environments were busy and fast-paced, brief 'jottings' (i.e., key words and phrases) were recorded in situ in a small notebook as events were occurring (Emerson et al., 2011). Following observation sessions or at quiet times, whilst still fresh in my memory, they were written up more fully and reflected on, as recommended by Hammersley and Atkinson (2007). Bell et al. (2022) highlight the difficultly of memorising conversations and accurately recalling details about them. However, using audio recording stilted the free flow of ad hoc conversations, so I made a judgement in favour of less obtrusive written field notes.

Field notes are not simply recordings of witnessed events but are shaped and constructed by the researcher (Emerson et al., 2011). Therefore, it was important to take a reflexive approach to writing and capture my thoughts, feelings, and reflections throughout the fieldwork period.

7.1.4 Documents

Documentary evidence was collected throughout the fieldwork period. Although a largely neglected element, examination of pre-existing documents is important in ethnographic research in organisations, as it provides details from a perspective that may not be obtained by other methods (Atkinson and Coffey, 2010). The use of documentary evidence was helpful in orientating myself to the setting, understanding organisational processes and providing information about events, which occurred outside of observation periods. This data was used alongside data obtained from observations and interviews to corroborate or contrast with observed or reported accounts of events.

Numerous and varied documents were produced by the hospital staff as part of their everyday work, which were important in organising and recording their activity and were therefore essential to examine for relevant content. During the fieldwork, periods of inactivity on the wards were an opportunity to seek pre-existing organisational documents of interest such as, administrative and policy documentation, leaflets, bulletin boards, patients' medical notes, patient and carer feedback, clinical assessment forms and care plans. See Appendix 13, for a list of hospital documents collected. Entries in the patients' notes of study participants were valuable in determining patients' clinical status, general trajectory of recovery, past medical history, diagnosis, and biographical information. They were also useful in providing insight into clinical reasoning and decisions made, determining the timeline of events and interactions in hospital and circumstances of admission. Permission to access information from patients' medical notes was secured from the NHS South-West Exeter Research Ethics Committee (REC reference: 15/SW/0217) and the Research & Development Office at the NHS trust where the research took place (Appendices 2 and 3). I obtained informed consent from individual patients to look at their notes for information that was relevant to the study (Appendix 24), as stated in the information sheet provided to them (Appendix 22). Individual paper notes were retrieved by a senior member of the patient's clinical care team from a locked cabinet. Relevant excerpts of medical notes were transcribed at the nurses' station for consented patients. Records were not removed from the wards. All other relevant documents were photographed and uploaded with other data onto the university server.

7.2 Selecting settings, participants, and time sampling.

Hamersley and Atkinson (1998) highlight the importance of making explicit the criteria employed in selecting people, settings, and times in ethnographic research. I aimed to make purposeful and theoretically informed choices, driven by the need to find relevant data, to explore and to further refine the prioritised theories. However, I also made pragmatic decisions based on practical limitations (Maxwell, 2012), for example, ward access, and the time and resources available to conduct the fieldwork as a lone researcher.

One of the characteristics of ethnography is that ethnographers do not seek to overtly control or manage their field setting (Madden, 2017). My sampling strategy, although initially planned, was not fixed from the outset, but rather changed as the fieldwork progressed. This flexibility allowed the ongoing analysis of data to inform later stages of data collection. It also enabled me to take advantage of opportunities that arose to include individuals recommended during interviews and to consider other places, such as wards receiving patient transfers. For example, I initially aimed to follow selected patients throughout their entire hospital stay. However, it soon became apparent that the fast pace and rapid throughput on the EAU made accessing patients before they were discharged or transferred to other wards difficult. It took time to find the appropriate senior clinician to identify suitable candidates and patients were often too unwell at the start of admission to participate or they were sleeping. Therefore, one-off interviews were also included as necessary.

7.2.1 Participants

Participants included hospital staff, patients, carers, and relatives. Medical patients presenting to acute hospitals represent a seriously ill subgroup of patients. Recognising their potential vulnerability, I took particular care with recruitment, and data was collected for all the proposed theories from the same individuals to minimise the demand for participants. Sixteen patients (10 men and 6 women, aged 53-92 years) admitted to the hospital as acute medical in-patients were recruited. The sampling was theoretically informed and an on-going process as ideas and the analysis developed. I aimed to purposefully select the patients most likely to address the prioritised theories and to further develop ideas which arose. This included a range of potentially relevant characteristics of interest, such as age, gender, and level of support from carer. Some patients were undergoing assessment and were on the ward for a very short period, for example, awaiting tests or under observation. Others were actively receiving treatment. Both types of patients were selected and made a useful contribution to theory refinement. None of the patients withdrew from the study.

Potential participants were identified via screening of their medical notes by a senior member of their clinical care team. Patients met inclusion criteria if they were (1) over 18 years of age, (2) spoke English well enough to participate in an interview, (3) able to reason and reflect, (4) were medically stable. A senior nurse working with the patient assessed their capacity to consent at that time according to the Mental Capacity Act 2005. Patients with cognitive deficit, learning disabilities or dementia, and those with a terminal illness were excluded. Identifying participants as close to admission as possible was important because hospital LOS could be short (2-3 days) and ERM programme interventions happened early in the hospital stay.

An initial approach was made in person and potential participants were provided with information about the study (Appendix 21) and an invitation to participate (Appendix 22). Informed consent was gained from those patients willing to participate within 24 hours (Appendix 23). Verbal consent was sort at all subsequent contacts.

When present, family members, partners, or friends were eligible to participate if they had an active role in caring (paid or informally) for the patient participant. A member of the nursing team working with their relative approached them, provided information about the study (Appendix 24), an invitation to participate (Appendix 25), and gained informed consent (Appendix 26). Eight informal carers and relatives were interviewed whilst with patients. Further information about the participants can be found in Table 22.

Table 22: Details of patient and carer participants

Participant	**Age (years)**	**Ward**	**Reason for admission**	**Carer/relative interviewed**
Jim	59	EAU	Exacerbation of Angina	
Ken	57	EAU	Chest pain	Wife
Ivy	83	EAU	Infected leg ulcers	Husband
Charlie	91	EAU	Deteriorating renal failure, hypotension	Son
Andrew	53	EAU	Abdominal pain	Wife
Brian	65	EAU	Acute Kidney Injury (AKI)	
Hugh	90	EAU	Diarrhoea/general deterioration	
Audrey	91	Medical ward	Laceration to lower limb	
David	56	Medical ward	Deteriorating kidney function	
Robert	76	Medical ward	Sepsis	Wife and daughter
Anne	78	Medical ward	Chronic leg ulcers	
Clive	89	Medical ward	Fall, low blood pressure	
Shirley	92	Medical ward	Head injury from fall	Friend
Joyce	80	Medical ward	COPD, shortness of breath	
Phil	74	Medical ward	Heart failure, restricted mobility	Wife
Edith	78	Medical ward	Pneumonia	Husband

7.2.2 Data collection periods

In ethnography, time is an essential component in the building of rapport with participants. Sufficient time in the field is required to gain knowledge of local conditions and generate rich insights and deep analysis (O'Reilly 2009). Time was required to become familiar with relevant people to talk to, follow leads, and to allow participants time to become familiar with my presence. To overcome the Hawthorne Effect i.e., where people modify their behaviour when they know they are being watched, I attempted to gain trust by always introducing myself, smiling and conversing in an approachable manner. As suggested by Oswald et al. (2014), I also accompanied different staff when observing the same activities. As the weeks went by, I noted a tendency for some staff to be on their 'best behaviour' levelled off and they joked with me in private in ways that would have been unlikely in front of patients.

As different patterns of activity are evident on a hospital ward, according to the time of day and over the course of a week, it was necessary to purposefully decide when to carry out the fieldwork. Long periods of observation are not recommended as they are hard to sustain and can result in poor quality data. A more selective approach using time sampling is thought to typically result in better quality data (Hammersley and Atkinson 1983). Therefore, I took a selective intermittent time mode approach (Jeffrey & Troman, 2004), whereby the frequency of ward visits was flexible and dependent on relevant events. I visited the hospital on different days throughout the week and at different times of day. This ensured coverage of important periods and events, such as the handover between shifts, board rounds, ward rounds, which were identified as particularly relevant opportunities to see how theories were operationalised.

The ethnographic fieldwork took place over three months. Thirty-five days of observational fieldwork were undertaken. A single day of observation lasted between three and six hours. Approximately 130 hours of observation were conducted across the two wards in total. Twenty-one informal interviews were also carried out (during or after observations) with staff (nursing, medical and AHPs, pharmacists, support workers), patients, carers, and relatives. Table 23 gives details of the number of observation sessions and number of interviews conducted.

Table 23: Summary of observations and interviews

Location	**Total observations**	**No of patients interviewed**	**No of carers interviewed**	**No of staff interviewed**
Emergency Assessment Unit (EAU)	58 hours made up of 15 site visits	7	4	9
Specialist inpatient medical ward	72 hours made up of 20 site visits	9	5	12
Total		***16***	***8***	***21***

7.2.3 Setting selection

The Acute Medicine department occupied various locations at the hospital site and comprised of three specialist medical wards (respiratory, cardiology, care of the elderly), two Emergency Assessment Unit (EAUs), a Stroke Unit, Accident and Emergency Department (A&E), and Cardiac Care Unit (CCU). The ERM programme had been rolled out across a subset of these areas as specific patient groups were considered inappropriate (e.g., stroke, cardiac patients).

During the fieldwork, I focused on collecting data across two different clinical settings, an emergency assessment unit (EAU) and a general medical ward specialising in the care of older people. This selection was purposive and theory driven i.e., the wards were chosen based on features that would allow testing of the theories being developed in the research, and to maximise the amount information collected of relevance (Emmel, 2013). I was guided by my knowledge of the services, gained through witnessing much of the programme roll-out at first hand, and by staff opinions expressed during stakeholder consultations. I had also built positive relationships with many of the staff working on these wards through attendance at ERM huddles and their participation in earlier interviews.

As there were two EAUs within the hospital, I carried out preliminary visits to both areas and held meetings with ward matrons to assess the suitability and feasibility of carrying out the research there. At the time of the fieldwork, a major hospital redevelopment project was underway. This included redesigning the A&E, establishing a Clinical Decision Unit (CDU) for patients needing further assessments and diagnostic tests, and construction of a new purpose-built Ambulatory Medical Unit (AMU). The purpose of the AMU was to manage patients referred by GPs, who would otherwise have required admission to an inpatient ward. These structural changes particularly affected one of the EAUs and would have introduced additional contextual breadth, which I perceived as unhelpful. Moreover, the chosen EAU was a physically well-defined space unaffected by the development project, which had established a high level of ERM programme process measures.

An ethnographic ‘field’ is not equivalent solely to a geographic space but is also informed by putting interrogative boundaries around the enquiries into the human group or institution (Madden, 2017). Patients were moved between the chosen wards and other areas of the hospital depending on their medical needs, therefore, clearly defining the interrogative boundaries of the field was necessary. At the time of the fieldwork, for example, a local heatwave meant that there were an unusually high number of cardiac patients on the EAU who were subsequently transferred to the hospital’s Coronary Care Unit (CCU). This ward had not been part of the ERM programme rollout; therefore, patients’ observations were not continued after transfer.

7.3 Introducing the settings

As previously discussed, ERPs are complex interventions situated within the complex social system of health care. The context in which a programme operates is embraced in realist research and the success or failure of programme mechanisms of change is contingent on the contextual conditions that exist (Pawson, 1997). This section provides information about the two clinical settings in which the ethnographic fieldwork was carried out. Much of which was gleaned during the fieldwork. As a precursor, details of how access was obtained to conduct the fieldwork in these areas is also given.

7.3.1 Gaining access to clinical areas.

As the research progressed towards the ethnographic phase, it was necessary to seek permission to return to the hospital to undertake the fieldwork. I sought permission at an organisational level from directors and senior clinical leaders through a series of meetings (see Fieldwork Access Briefing, Appendix 26). Agreement was also obtained to access the chosen clinical areas from medical consultants, matrons and therapy leads. Introductory meetings were held to explain the proposed project, discuss the proposed fieldwork methods and procedures, and address any concerns (see Appendix 27 for information provided). I also made visits to the wards during ‘board rounds’ and team meetings to introduce myself and explain my research to the multidisciplinary teams, to ensure that staff in clinical areas were aware of the research and what it would involve (Hammersley and Atkinson, 2007). See Appendix 8, for staff information sheet provided.

The relationships established during the earlier stages of research meant that I was not approaching the ethnographic fieldwork ‘cold’. Members of the ERM huddle were well known to me and became key informants, facilitating introductions and identifying appropriate patient participants in the clinical areas.

7.3.2 Description of the Emergency Admission Unit (EAU)

The selected EAU was a short stay unit that provided care for patients arriving at the hospital with acute medical needs, who might need to be kept in hospital for treatment. The EAU also provided care for trauma, orthopaedic and surgical patients. The aim of the unit was to bridge the gap between the emergency department and the inpatient wards. Patients were admitted to the unit for assessment and stabilisation of their medical conditions, by referral from their GP or as emergencies following triage from the Emergency Department (A&E). EAU patients were then transferred within the hospital or discharged as appropriate to their needs. Typically, EAU patients were either; transferred to an appropriate specialist acute medical ward; transferred to the operating department; discharged home; discharged to a community hospital; discharged to a nursing or residential home. The EAU had 24 beds and during my observations the unit was consistently near to full capacity. A typical stay on the unit was short-term lasting around 2-3 days.

The EAU was made up of two ward areas laid out in an ‘H’ configuration with two nine bedded bays on one side designated for either female (A and B) or male patients (C and D), and 7 side rooms opening onto a long corridor on the other. A small office was situated behind the nurses’ station on a shorter linking corridor, and nearby there was a day room with an adjoining quiet room.

Staff were based in substantive roles within the unit as well as rotational roles, with many clinicians and specialist staff attending specific patients from other specialities and teams across the hospital. The staff most relevant to the ERM on the wards were registered nurses (RNs), doctors, healthcare assistants, Occupational Therapists, Physiotherapists and the Discharge Coordinators. Nurses were assigned to each bay and assigned therapists facilitated assessment of mobility and functional capacity.

The patient population within the EAU varied in age and admitting condition. Typical reasons for admission included, chest pain, undiagnosed conditions, urinary tract infection, pneumonia, diarrhoea/general deterioration, intoxication, worsening renal function, shortness of breath, abdominal pain. Some patients were receiving palliative/end of life care. Patients were typically local people, but as the fieldwork took place during the summer months many of the patients were holiday makers.

7.3.3 Description of the medical ward

The chosen medical ward specialised in the care of acute medically ill older adults. Care of the elderly is a specialist service addressing older people’s health needs. The majority of those admitted to the ward were emergency admissions from A&E, AMU and via the EAUs, but there were also surgical outliers (i.e., patients on a ward that is not suited to address their specific needs).

The ward was comprised of a single corridor with four ‘six bedded’ bays, which were designated to either male (C and D) or female patients (A and B), on one side. Four single side rooms on the other side were predominantly used for patients with immune deficiency (e.g., cancer patients), infectious diseases (e.g., viral diarrhoea and vomiting), learning disabilities, behavioural issues, and end of life care. They were also used if bed space in the bays ran out. Towards the exit there was a small office behind the nurses' bay, a day room (see box 7.3), a gym, various store cupboards, toilets, and showers.

The ward had 28 beds in total and during my observations was near to full capacity for most of the time. The typical length of stay was between 5 to 12 days. Reasons for admission in addition to those stated above were variable, including severe infections, deep venous thrombosis, and chronic obstructive pulmonary disease.

A multidisciplinary team took care of the patients. The designated allocation of staff comprised of five RNs and four healthcare support workers, plus extra bank staff. There were two consultant physicians on the ward plus registrars, two Senior House Officers and rotational junior doctors. They were never all in attendance at once. Physiotherapists and Occupational therapists covered the medical ward visiting patients if requested. Mealtime companions were also present during meals, talking to patients and encouraging better nutritional intake.

7.4 Stakeholder consultation

The programme theories were developed at a particular and proactive stage of the ERM programme implementation, whereas, it became apparent during the permission seeking process, that the ethnographic observations were about to take place when ERM implementation was more mature and less overt as a distinct project. Elements of the ERM programme were likely to have evolved and, therefore, it was possible that staff perceptions of the underlying theories might also have changed. For this reason and to inform the fieldwork planning and setting selection, a diverse group of internal stakeholders were consulted prior to commencing the fieldwork at the hospital.

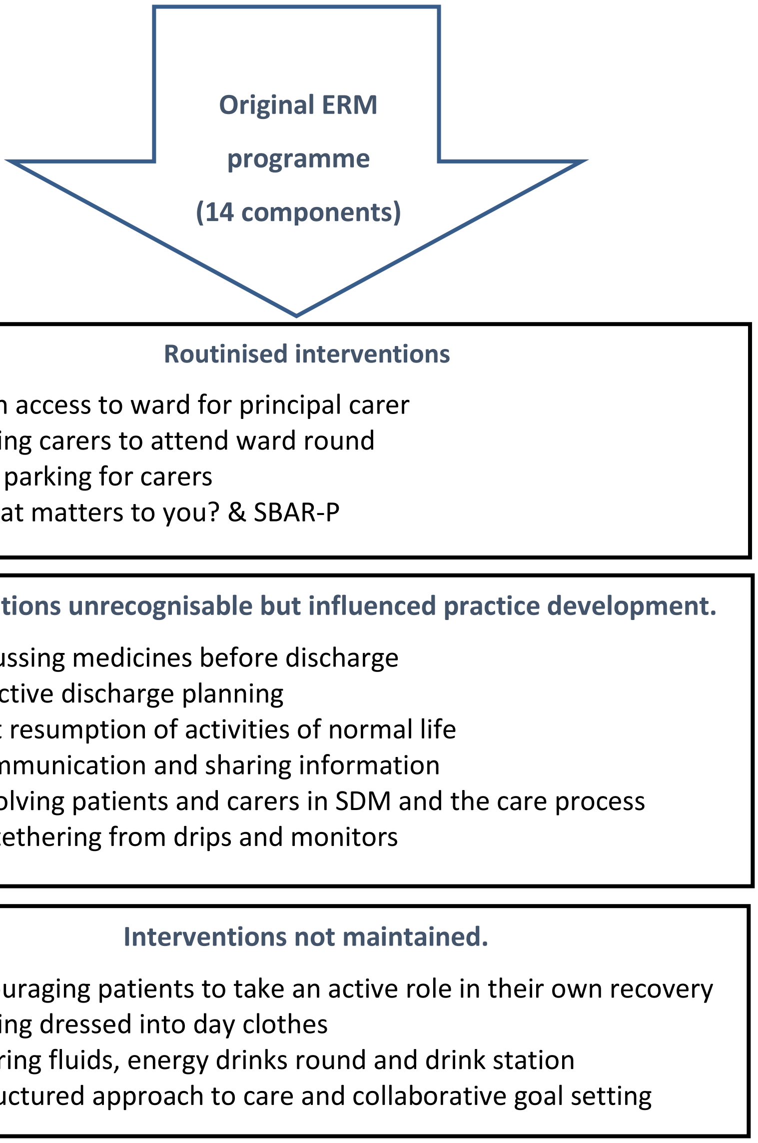
Stakeholders were purposely selected to represent a cross-section of hospital staff and provide a range of views and opinions. Participants included clinicians in leadership roles (doctors, nurses, therapists), managers and directors (see Table 24). Twelve individuals participated in one-to-one meetings that took place at the hospital site over a period of three weeks, lasting from 25 to 75 minutes. The cards used in the earlier sorting exercise were helpful during these meetings, acting as a visual guide and focus for the discussions. The conversations were recorded as field notes and an Excel table was constructed to capture this data.

Table 24: Stakeholders consulted by profession

Professional Background	**No of participants**
Senior managers and directors	2
Senior nurses (EAU and medical wards)	3
Senior therapists	1
Doctors (acute and geriatric)	3
Managers	3
Total	***12***

During the consultations stakeholders expressed their views regarding the success or failure of the interventions, development of practices, and contextual changes that had impacted on programme implementation. Three clear themes were identifiable from the data: (1) Some practices of the ERM programme were active in their original form and had become routinised interventions, (2) many interventions were no longer recognisable in their original form but were perceived by stakeholders to have been ‘catalysts’ for subsequent practice development and initiatives, and (3) other interventions were not maintained and had disappeared from practice. The themes are summarised in Figure 38.

Interviews are limited with respect to eliciting the tacit knowledge of practitioners (Braak et al 2018). Therefore, to avoid influencing my expectations and to ensure this data did not shape the ethnographic data collection, acceptance of these ideas was withheld awaiting the fieldwork observations that would be independently conducted. This data is included as part of the discussion of relevant programme theories in section 7.10.



Routinised interventions

PT2: Open access to ward for principal carer
PT3: Inviting carers to attend ward round
PT4: Free parking for carers
PT11: What matters to you? & SBAR-P

Interventions unrecognisable but influenced practice development.

PT1: Discussing medicines before discharge
PT5: Proactive discharge planning
PT7: Swift resumption of activities of normal life
PT10: Communication and sharing information
PT12: Involving patients and carers in SDM and the care process
PT14: Untethering from drips and monitors

Interventions not maintained.

PT6: Encouraging patients to take an active role in their own recovery
PT8: Getting dressed into day clothes
PT9: Offering fluids, energy drinks round and drink station
PT13: Structured approach to care and collaborative goal setting

Figure 38: Perceived changes in ERM implementation over the time-course of the study

7.5 Data analysis

In line with the ethnographic approach, the process of analysis occurred concurrently alongside the fieldwork (Hammersley and Atkinson, 2007). I used abductive and retroductive inference in conjunction with deductive reasoning (The Rameses II project, 2017) to test and refine the programme theories developed in the earlier phases of the research. Allowing for the development of unanticipated theories beyond the initial theories (Josephson and Josephson, 1994).

I coded all data types (interview and stakeholder consultation transcripts, field notes, documentary evidence) against the theories or individual context, mechanisms, or outcomes, developed through earlier stages of the study. This data could be supporting, contradictory, or new theory that appeared significant, but was not associated with the existing theories. Extracts of data were always considered within the context of the transcript they were taken from to ensure contexts, mechanisms, and outcomes were assessed in configurations (Pawson & Manzano-Santaella, 2012). The data type and source were also noted (Appendix 28). I used analytic notes to record my thinking alongside field notes and transcripts. Evidence was juxtaposed, adjudicate, reconciled, consolidated, and situated to refine and develop the theories (Pawson, 2006). Making sense of the data was an iterative process which involved repeated reading and reflecting on the data and moving between the theories, coding, and the data. I combined a categorising strategy (coding and considering how the data was similar or different) with a connecting strategy (looking for connections among data, considering how the data interacted and were associated with each other) (Maxwell, 2012).

7.6 Findings from ethnographic fieldwork

This section presents the data collected from the real-time observational fieldwork at the hospital. Sections 7.8.1 - 7.8.5 focus on refinements made to the five prioritised programme theories, considering the data collected and analysed. Following this, in sections 7.8.6 – 7.8.13, the data which emerged over the course of the fieldwork that related to the remaining theories is presented. Each section discusses one individual theory, drawing on the evidence gathered from interviews, observations, collected documents and stakeholder consultations that related to the whole or to parts of the CMOCs. At the end of each section, I summarise the key refinements and present the refined programme theory.

Quotes and field note examples are provided in the narrative to support my interpretations. Further evidence supporting the interpretations is summarised in Table 25. This data is provided in full in Appendix 30. To enable tracking of the data over the course of the theory development, the data was labelled and numbered, with SC for Stakeholder consultation, INV for Interviews, DOC for documents, and FN for observational field notes. Participants’ actual words are used and they are written in italics for clarity. For anonymity, generic job roles rather than specific job titles of staff have been used throughout. The names of patients and their carers have been changed to protect their identity.

Evidence to support some parts of the theories was not obtained during the fieldwork. This could suggest that they were not prominent, inherently difficult to observe, or that they were less important. However, they were still retained within the theories because they were unproved rather than disproved.

Table 25: Summary of additional evidence supporting theory refinements

Theory	**Source**
1. Discussing medicines before leaving hospital	STC-01, STC-05, STC-09, STC-11, STC-12.
2. Open access for principal carers	STC-01, STC-04, STC-05, STC-10, STC-12. INV-MW-S-02, INV-MW-S-05, INT-MW-S-07, INV-EAU-S-03. FN-78, FN-EAU-12, FN-MW-76.
3. Principal carers are invited to the ward round	STC-01, STC-04, STC-08, STC-09, STC-11, STC-12. INV-EAU-S-01, INV-EAU-S-04. INV-MW-S-07, INV-MW-S-10, INV-MW-S-11 FN- EAU-S-01 FN-EAU-S-04
4. Free parking for principal carers	STC-07, STC-08, STC-09, STC-12.
5. Proactive discharge planning	STC-01, STC-03, STC-04, STC-05, STC-06, STC-012. INV-EAU-S-01. INV-MW-S-02, INV-MW-S-12.
6. Patients take an active role in their recovery	DS-11, STC-06, STC-09, FN-MW-04, FN-EAU-34.
7. Swift resumption of normal activities	STC-03, STC-08, STC-11, STC-12. INV-EAU-S-01. INV-MW-S-05.
8. Getting dressed into day clothes	STC-05, STC-08, STC-09, STC-11, STC-12. INV-MW-S-04.
9. Energy drinks and drink-station	STC-01, STC-07, STC-09 STC11, STC12. INV-EAU-S-01, INV-EAU-S-02. FN-MW-6, FN-MW-52, FN-MW-71. FN-EAU-113, FN-EAU-48

10. Communication and sharing information	STC-06, STC-07, STC-08, STC,11, STC-12.
11. What matters to you? SBAR-P	STC-02, STC-03, STC-05 STC-06, STC-07, STC-09. STC-11. INV-MW-S-05, INV-MW-S-12 INV-EAU-S-06.
12. Involving patients and their carers’	STC-01, STC-03, STC-04, STC-08, STC-09, STC-10. INV-MW-S-04, INV-MW-S-12 FN-MW-65.
13. Organising care and goal setting	STC-3, STC-5, STC-8, STC-10.
14. Untethering	STC-09, STC-11, STC-12. FN-MW-31, FN-MW-70, FN-MW-81, FN-EAU-34.

7.6.1 Theory 5 - Proactive discharge planning

In this section, I discuss the evidence relating to ‘proactive discharge planning’ and how contextual factors interacted with the mechanism of proactive discharge planning to produce outcomes.

Changing models of care and competing priorities.

During stakeholder consultations participants reported major changes in discharge processes through the implementation of various new initiatives at the hospital. They described an increased focus on delivering ‘Care Closer to home’ through ‘In-Reach services’ from community providers and GPs, ‘Discharge to Assess’ models of care, and ‘Home First Services’ that continued care into the community.

During fieldwork observations, the new ward processes to facilitate discharge were evident. Most apparent was the implementation of a national improvement initiative called the SAFER model (see Box 3). The aim of the SAFER model is optimising patient flow i.e., the patient’s journey through the hospital. It was described by staff as a strategic change driven by top-down organisational policy and was perceived to be a more formal embodiment of the ERM activities around proactive discharge. They highlighted congruence between ERM programme and SAFER elements and principles, such as reducing delays on in-patient wards, early discharge decision making, effective communication with patients and their families, optimising the patient experience and enabling patients to return home as quickly as possible. One manager stated:

> *I attended the SAFER meeting and I asked are all wards ERM? They said 'yes, we like to think of ourselves as that, they're our principles'… there's a new leaflet now on all of the wards in the discharge pack called Leaving Hospital, it talks about all of the principles of ERM (INV-MW-S-10).*

SAFER meetings had replaced board rounds on the medical ward. Two SAFER meetings were held daily. The morning meeting at 9am (approximately 40 minutes to an hour in duration) covered all patients on the ward, and was consultant led with updates from doctors, nurses, therapists, and the discharge coordinator. A shorter afternoon meeting (approximately 15 to 30 minutes) focused on reviewing those patients who were medically fit with the potential to go home that day, or on the following day. These meetings were an established part of the daily ward routine and were consistently well attended.

Box 3: The SAFER patient flow bundle (adapted from NHS England, 2016)

Purpose:

The SAFER patient flow bundle is a practical tool to reduce delays for patients in adult inpatient wards. When followed consistently, length of stay reduces, and patient flow and safety improve. The SAFER bundle blends five elements of best practice, which are implemented together to achieve cumulative benefits.

Contents:

S - Senior Review. All patients will have a senior review before midday by a clinician able to make management and discharge decisions.

A - All patients will have an Expected Discharge Date and Clinical Criteria for Discharge. This is set assuming ideal recovery and assuming no unnecessary waiting.

F - Flow of patients will commence at the earliest opportunity from assessment units to inpatient wads. Wards that routinely receive patients from an assessment units will ensure the first patient arrives on the ward by 10am

E – Early discharge. 33% of patients will be discharged from base inpatient wards before midday.

R – A systematic MDT review of patients with extended lengths of stay (>7 days – stranded patients) with a clear 'home first' mind set.

Staff perceptions of the effectiveness of the new discharge processes varied. Some attributed positive results to these meetings suggesting that overall discharge planning had improved and the frequency of setting an ‘expected date of discharge’ (EDD) had increased. Others suggested that success was dependent, in part, on the skills of individual discharge coordinators and their workload. In both settings, EDDs appeared on the wards’ electronic boards against each patient’s name. Generally, this was updated daily, although I noted that it was often inaccurate, particularly on occasions when the discharge coordinator was off sick and there was insufficient staffing to cover the absence

Focus on flow and pressure for discharge above other areas of practice

A recurrent theme during conversations with staff was the organisation’s focus on patient flow. They described feeling a sense of increased pressure to discharge patients and reduce LOS, which they suggested was responsible for undesirable outcomes, such as increasing numbers of ‘failed’ discharges (i.e., situations where the discharge plan does not work out successfully as expected) and increased readmissions to hospital. One nurse described this as *‘shoving patients out too fast’ (*INV-MW-S-04). Another stated:

> *There are a lot of failed discharges and readmissions because they [patients] go home too soon because of pressure for beds* (INV-MW-S-05).

Staff were also professionally frustrated by the impact that this focus had on their roles, for example, their ability to undertake rehabilitation with patients.

> *There’s a focus now on flow so we’re able to do less now…were not allowed to rehab patients* (INV-MW-S-11).

Throughout the fieldwork, there was evidence of flow pressures in both settings. Few empty beds were observed over the weeks of observation. I frequently witnessed staff on the medical ward hastily cleaning spaces for incoming patients. On occasions, when news of a bed ‘opening up’ on a receiving ward was shared during the EAU board round, this was greeted with a palpable mix of excitement and relief. At the time of the fieldwork the hospital was on Operational Pressure Escalation Levels Framework (OPEL) 4 status. The National OPEL Framework (2016) is a method used by the NHS to measure the demand and pressure being experienced by hospitals, community, and emergency health services. OPEL4 represents the highest escalation level, when a hospital is unable to deliver comprehensive care and risk to patient safety is increased.

Interprofessional collaboration

In addition to the high demand for beds and through-put of patients, the medical ward was also experiencing staffing pressures. However, despite capacity issues the staff were observed working flexibly as a team to ensure that all bays were covered and represented during the SAFER meetings, and beds were prepared to receive new patients.

The importance of interprofessional collaboration in relation to timely discharge was clear during observations. Communication between the multidisciplinary team members around discharge focused on formulating and agreeing care plans. Predominantly, information was shared regarding assessment of the patient, how discharge was progressing, and patient transfer destinations. These discussions were especially prominent on the medical ward on Fridays when consideration was given to who would be present on the ward over the weekend, when staffing levels were reduced. The key focus of the SAFER meetings on the medical wards and EAU board rounds was information sharing and collaborative decision making between MDT members regarding discharge. Staff worked together actively to manage the discharge process and maintain momentum for patients moving through and out of the hospital. A nurse on the medical ward highlighted the interdependency between the staff who worked closely with the same patient group and the need for collaboration stating, *'… if we're short staffed, everyone mucks in making beds… we have to be flexible, everyone understands it's a heavy ward'* (INV-MW-S-12).

Staff valued this collaboration and felt frustrated if communication broke down. On one occasion, for example, inadequate communication between staff members delayed discharge for a patient who subsequently remained on the ward for a further four days until an alternative placement could be found. '*She* [patient] *had a bed at* [care home in nearby town] *but she lost it because the OT didn't tell anyone. It's poor communication'* (INV-MW-S-04).

Communicating with patients and their carers'

During the stakeholder consultations, there were contrasting views from staff about whether proactive discussions about discharge took place with patients and relatives. One participant described discharge planning on the medical ward as *'…more inclusive…we keep in regular contact and keep them updated about where we're up to...' (STC-08).*

It was evident from observations that streamline discharge was dependent on good communication between the staff, patients, carers, and relatives. During SAFER meetings and board rounds staff routinely referred to patients' preferences and demonstrated their knowledge of patients' social situations. For example:

> The team discuss the patient in bed 4C with two falls who lives in sheltered accommodation. A nurse says that he seems pleased that everyone is helping him out, but he really wants to go back to his place… (FN-MW-128).

In both settings, patients had a keen interest in their discharge date from shortly after admission. When asked, many were able to confirm that they were aware of their discharge date. However, this knowledge was not always routinely conveyed to patients and their carers' and there were many occasions when they were unsure about plans.

> *I have no idea where I'm going next. I thought they might get me back to [name of nearby] hospital* (INV-MW-P-01).

> On Monday his wife tells me that he [patient] has told her that he's going home either tomorrow or Wednesday. I ask her if anyone has spoken to her about this and she says no (FN-MW-090).

Generally, the need for communication regarding discharge was underestimated by staff. There was a sense of dependency with patients and carers waiting to hear from them regarding plans.

Staff endeavoured to inform patients about discharge plans, but at times they were unable to give as much detail as requested because of their workload pressures, or because they did not know themselves. An EAU HCA, I questioned an about whether one of her patients was going home replied, *'I don't know anything, I hardly get the chance to speak to anyone I'm so busy.'* (FN-EAU-061).

Unpredictable recovery trajectories - balancing risk to patient safety and managing expectations

Patient discharges on the medical ward were typically complicated, requiring packages of care organised by the discharge coordinator. Only a small number of those observed made their own way home or left with relatives. Most patients wanted to go home and were vocal about this, but the majority had complex needs and, therefore, discharge home was not always deemed realistic or safe because of levels of ability or care needs. Consequently, patients often went on to a short-term intermediate care placement to support recovery and independence.

Discharge involved clinical decisions about medical stability and risk to patient safety. Therapists described this responsibility as weighing up the pressure to discharge patients against understanding what might be detrimental for them.

> *The buck stops with me, if I agree the patient is to go home, they need to be functionally able. The physios can go in, or Discharge to Assess, or the Intermediate Care Team, to meet them at home and assess, which happens a lot…it's a balance between needing to get them home and needing to be risk adverse* (INV-EAU-01).
>
> *…C3, wants to go, but his flat is covered in fleas and maggots…he doesn't want anything and is refusing physio… I'm saying he's not suitable to go home because of access, there's two flights of stairs…* (FN-MW-127).

Patient recovery trajectories frequently fluctuated during their hospital stay and new acute problems often arose. Changes in patients' mobility and aggressive behaviour associated with delirium occurred frequently, affecting discharge planning and were common reasons why care homes refused to take patients back.

> He [patient] normally walks with a frame but he's really bad on his feet. We'll have to see if they'll have him back [nursing

> home]. He’s confused and trying to get up on his own (FN-MW-024).

Mixed views were expressed by staff regarding whether setting a discharge date was indeed helpful.

> *… it’s difficult to judge and subject to constant change and carers get it in their heads as fixed and lose faith in clinicians if it’s not met, and the hospital make plans to fill the bed then* (INV-MW-S-12).

It was also suggested that the discharge process started too early and could cause distress to patients and waste time.

> *…as recovery is unpredictable, it risks putting patents through stressful processes, such as viewing care homes and wasting time, if ultimately they get better* (INV-MW-S-005).

As evidenced in the following field note excerpt which describes a care home review observed on the medical ward.

> I enter the bay and notice that [patient name] has packed all of his belongings into a suitcase and placed it on his bed. His birthday cards have been cleared from the bedside table and his cake box is on the bed next to his packed suitcase. He is dressed and sitting by the bed. Two ladies are by the bedside, they introduce themselves as staff from a nursing home. He says, ‘I was told you were coming.’ They ask him ‘would you be happy to stay with us for a few weeks until your wife is better?’ I recall from his medical notes that his wife has been admitted to a different care home. They continue, ‘we would be looking after you, as you can’t stay in hospital if you’re O.K.’ He nods, says yes, and sits forward in his chair smiling. After some further conversation about what he likes for breakfast and if he gets up in the night? They tell him, ‘We need to speak to the nurses about when you can come to us.’ He fidgets in his chair and appears agitated and says, ‘I want to come now.’ One of the ladies replies, ‘I know dear, it’ll fly by, but it’s not today, it’ll be next week, they shouldn’t have told you that.’ Without asking, she proceeds to put his cake back in the bedside cupboard. Later, I find out from one of the nurses that following the assessment, the nursing home will not accept him because he has had a delirium before and gets aggressive*. ‘They won’t take him in case he gets it again’* (FN-MW-024).

There were also occasions when there were marked differences in the desires of patients and their carers and relatives around discharge.

> C4, patient is short of breath with heart failure. Medically fit for discharge, but his wife's not coping and doesn't want him home… there's safeguarding issues…RED for community social work team assessment (FN-EAU-042).

Hospital bed capacity, availability of community places and resources for onward care

Readiness for discharge was assessed by the MDT according to multiple criteria, such as medical stability, functional independence, mobility, and follow-up care. However, meeting the discharge needs of patients in a timely manner was not always possible due to external factors such as transfer of care outside of the hospital. Once assessed, patients often had to wait as there was not enough social care placement capacity.

In both settings, the status of each inpatient was evident to clinicians through the 'Red and Green Bed Days' visual management system (NHS Improvement, 2016). This system was used to assist in the identification of wasted time in the patient's journey and to reduce internal and external delays as part of the SAFER patient flow bundle (see Box 4). Coloured blocks were logged on the ward's electronic board against the name of each inpatient to indicate whether there were delays. A discharge coordinator explained:

> *… it's all about the discharge. If it's green, then processes are happening. If it's red, something is blocking progress like a scan or something. This lady [pointing to a patient's name on the electronic board] is much better now, but she is red*, very red (INV-MW-S-03).*
>
> *Meaning that the patient was waiting for an action to progress their care.

The promotion of early discharge meant that patients were discharged while still having on-going care needs, which needed to be managed at home or in community health care services. The challenges of managing the continuity between the ward and the external environment were evident in both settings. As part of a complex organisation and wider system of the primary, secondary, and tertiary care, to achieve discharge or transfer, staff members had to liaise with care homes, other hospital wards, and primary care (GPs).

Achieving a timely discharge was not straightforward, took time, and was often affected by factors outside of the control of ward staff. Discharge plans frequently needed adjustment to accommodate these factors. Organisation of post-discharge care, hospital transportation and psychological reviews were highlighted by staff as particular causes of significant delays. When asked about delays to discharge on the medical ward, a discharge coordinator said:

> *Our length of stay has torpedoed over the last 2 years. Homes aren't taking patients back and in [name of county] there's not so much care available. Social services aren't great, and [name of council] are struggling now as well. It's gone from four to six days over the last two years. There are seven people who are not supposed to be here. The main hold up is packages of care. The care package stops when the person comes into hospital then has to start up again…increasing packages of care needs a discharge date planned in advance*. (INV-MW-S-03).

Box 4: Red and Green Bed Days (adapted from NHS Improvement 2016)

A Red Day is a day of no value for a patient.

A Red Day is when a patient receives little or no value adding acute care. For example:

- A planned investigation, clinical assessment, procedure, or therapy intervention does not occur.
- The patient is in receipt of care that does not require a hospital bed.
- The medical care plan lacks a consultant approved expected date of discharge.
- There are no consultant approved physiological or functional clinical criteria for discharge in the medical care plan.

A Green Day is a day of value for a patient.

A Green Day is when a patient receives value adding medical care that progresses their care towards discharge.

A green Day is a day when everything planned or requested gets done.

A Green Day is a day when the patient receives care that can only be delivered in an acute hospital bed.

These difficulties in securing onward care were noted to increase around weekends.

> *Residential homes won't take patients on a Friday after 11am. Some won't take on a Monday either, others a Friday, or Saturday. Two patients have been red for over a week. I've tried forty-one!* (INV-MW-S-03).

Patients and carers often faced logistical challenges around discharge which needed consideration and could also cause delays. For example, one patient refused a placement at a care home a considerable distance away from her home because her husband only drove short distances. Another patient's discharge was delayed as his wife was attending her sister's funeral and despite respite care being previously arranged for him in advance his placement was refused at the last minute.

Similarly, on the EAU, transfers to other wards were frequently delayed due to bed capacity issues. There was obvious excitement at board rounds when a bed became available. Seasonal variation in admissions were factors common to both settings which affected demand for beds. One nurse stated:

> Pressures from holiday makers are clogging the system. One man was refused a place at a care home up north somewhere, so the relatives bought him down on holiday to a caravan park. Now the father's been dumped, so he's been admitted...there are financial drivers (INV-EAU-S-02).

At the time of the fieldwork a mini heatwave had resulted in an unusually high number of cardiac patients. There were hold ups for beds in the Cardiac Care Unit (CCU) and on the cardiology ward. The high level of demand caused delays in transferring patients to other hospital wards from the EAU. This was a source of frustration for both patients and staff. For example, a patient on the EAU awaiting an angiogram said:

> *…I'm waiting for a bed on the cardiac ward. When a bed's free you go immediately. I'd like a set time and date to go, an idea of what's what. I asked the consultant how long till I go to the CPU, but they don't know. I was told yesterday that apparently there's two people in front of me in the queue. I get it, I guess they have to react to what's available, but it's frustrating. It would be good to have some more information about the angiogram, I'd like to know what I'll be able to do afterwards when I get home, for how long [pause], and the worst-case*

> *scenario. It would help. It's not good what I'm saying to you, but It's not the nurses and doctors' fault. I want to go home, but I'm just waiting for this angiogram* (INV-EAU-P-08).

Delays in securing onward care meant that some patients on the medical ward were not always discharged as soon as they were medically fit and were often kept waiting. Interestingly in some instances these delays conferred benefit for the patients. For example, a doctor described how rehabilitation had been possible with a dementia patient with delirium whose discharge was delayed:

> *…she's* [patient with dementia] *been here for two weeks because there was a delay in care, so we've been able to do some rehab and there's been a great change… she's walking, it's really improved, twice the speed now.* (INV-MW-S-11).

The difficulties in securing placements in the community often created uncertainty and anxiety around discharge, particularly for those patients transferring to unfamiliar places. This was evident on one occasion on the medical ward while observing a nurse removing a cannula from a patient (90 years) who was going to a care home.

> Patient: '…will they want to put another one in?'
> Nurse: 'It depends.'
> Patient: [pause, he bites his lip] "what will they want to do to me there? (FN-MW-46).

Summary of theory refinements

An organisational focus on patient flow and new models of care prioritised ward activity around proactive discharge planning, which supported timely seamless discharge, shorter LOS and improved hospital experience for patients and carers. However, this focus also caused feelings of frustration for staff because it impacted their ability to deliver other valued activities such as rehabilitation. Shortened LOS could also lead to undesirable outcomes such as readmission. These processes were initiated in an inhibiting context of staff shortages, complex patient needs, unpredictable recovery trajectories, high bed occupancy, hospital transportation challenges, and limited community placement capacity, which caused delays in discharging patients. Strong pre-existing working relations between MDT members were beneficial, facilitating communication and collaboration, which maintained discharge processes and good communication between staff, patients, and carers. Patients desire to leave hospital was also an enabling factor.

Initial programme theory 5 was revised considering this evidence and the revised theory is presented below in Table 26. The ethnographic evidence mainly expanded the detailed contexts, mechanisms and range of outcomes related to proactive discharge planning but did not alter the core basis of the programme theory. Further evidence supporting the interpretations is shown in Table 25 and appears in full in Appendix 30.

Table 26: Refined theory 5 - Proactive discharge planning

Context +	Mechanism-resource	Mechanism reasoning/response =	Outcome
Complex discharge process involving multiple professionals and organisations. **Internal discharge processes subject to change.** **Organisational focus on patient flow above other areas of practice.** **Individual skills and knowledge of staff. Good pre-existing working relationships and collaboration between MDT members is valued.** **Low staffing levels, workload pressures and time constraints.** **High bed occupancy. Limited transportation, community placements and social care capacity.**	As soon as possible after admission, carers are contacted to discuss the patient's return home, or transition to a supportive setting outside the hospital, including scheduling a discharge date. Time is spent gathering as much background information as possible about the patient's needs, practical issues and base-line function, which is fed back to the MDT. Communication is maintained regarding discharge planning throughout the patient's hospital stay. If a patient is being moved from the EAU to a specialist ward, there is a plan of action and an estimated transfer date.	Any problems and practical issues that could delay discharge can be identified and overcome before the discharge day. The patient's on-going care needs (clinical, social, and psychological) are identified early, and care plans can be agreed that are appropriate to their needs, which can lead to earlier referral to supporting agencies. Everyone knows what is happening and what is planned is, which saves time being wasted. Staff work together towards a shared goal. Discharge planning can occur alongside treatment, while the patient is recovering. Staff have time to speak to care/residential homes about assessing whether they can take them back or start looking at other plans. Patients are pleased to be discharged quickly and are motivated to take an active part in their recovery. They know which day they are going to leave hospital and can plan how they will get home, which alleviates anxiety. Carers are pleased to be involved and appreciate having their relatives home earlier as this removes the need for hospital visits, which can be time-consuming, disruptive, expensive, and stressful. **Rival theory: Staff feel pressured to focus on discharge and shorter LOS**	Uncertainty is reduced and everything is in place for going home, which leads to a simplified discharge process with fewer problems on the day. Unnecessary delays are reduced, LOS is shortened with associated cost savings from reduced bed occupancy. Risk of hospital acquired infection is reduced. Patients and their carers' have a better hospital experience. Time away from and disruption to family life minimised. Better relationships are established with care homes and there is good continuity of care on return to the community (as the care package is already set up). Staff workload is shifted from the end to the beginning of the patients stay. **If the discharge process begins too early, patients may endure stressful processes such as viewing care homes, and time is wasted if ultimately they get better.** **Delays in transferring patients between wards and difficulties in securing onward care create uncertainty and anxiety.**

Unpredictable recovery trajectories and complex patient needs.		**reduces time available for managing other important aspects of recovery, such as rehabilitation, causing frustration.** Leaving hospital at an early stage of recovery means that much of the recovery process must be handled by patients and carers, which may necessitate different levels of support, change pre-existing roles and responsibilities, and increase the burden on carers. Carers may believe that shorter LOS equates to substandard care or **lose faith in clinicians if discharge date is not met.** Doctors may be resistant to setting a discharge date because they feel that it might discourage patients if they do not achieve it**. The need for communications about discharge may be underestimated by staff and information may not be routinely conveyed to patients and carers, causing uncertainty about plans, feelings of irritation and dependency.** Patients may feel disappointed and that they are overusing resources if they stay beyond their planned discharge date.	**Patients leave hospital too quickly resulting in increased readmissions and failed discharges.**

7.6.2 Theory 6: Patients take an active role in their recovery

In this section, I present the evidence relating to ‘encouraging an active role and shared responsibility for recovery’ and explain how and why this intervention activity impacted recovery. A summary of the refinements made to the programme theory considering the data collected is given at the end of the section, and the revised theory is presented.

The ERM conversation

The card-sort results revealed that this theory was regarded of the highest importance by practitioners. However, consultation participants indicated that engaging in a specific conversation in which simple things were communicated that patients could do themselves to help their recovery, had not been maintained. Observations confirmed this, however aspects of encouraging active participation prevailed. A major area of focus in relation to this theory was promoting and encouraging patients to get dressed and mobilise. Two other related theories, i.e., getting dressed (Theory 8), swift resumption of activities of normal life (Theory 7) are discussed separately in sections 7.8.5 to 7.8.7.

Expectations regarding shifting responsibilities for recovery

Staff expectations of appropriate patient activity when in hospital included both physical and mental participation. Attempts to ensure that patients knew what to do to help their recovery occurred through verbal encouragement, prompting, and reasoning during routine interactions. Voluntary behaviours such as getting up and dressed and walking were typically considered to be responsible activities within the control of most individuals. However, there were limitations on the responsibility some patients could take due to the circumstances of their illness.

> *If the patients are good enough it happens, and they will take responsibility, but it remains an issue for others. The big problem is cognitive impairment and delirium, especially at mealtimes* (INV-MW-S-12).

The extent to which patients could be held responsible related to their capability and condition. Staff demonstrated sensitivity to the individual status of patients, and they modified their expectations accordingly, for example, for those with dementia or delirium. Patients with serious symptoms could be overcome by pain or fatigue and were given support and encouragement to take small steps towards restoring activities of daily living.

Practice norms

Approaches to practice varied between the professional groups and did not support this mechanism to the same extent. For example, providing good nursing care in the ward environment was characterised by both care and control and was criticised for encouraging a sense of passivity that was inhibitory to this mechanism:

> *We control medications, take away medicines because of fear of litigation, which reduces patient autonomy* (INV-EAU-S-05).

Nurses encouraged or helped patients with washing, dressing, toileting, and mobilisation. They also undertook observation of vital signs and assessed levels of fluids, pain, and comfort. Overseeing patients and doing too much for them could be experienced as disempowering.

> *It's a nicely run ward, there's a few niggles, one of them is a bit of a sergeant major [referring to an HCA], she's already doing it and I have to say hey, I'll do that* (INV-MW-P-02).

Therapists on the other hand, who were involved with selected patients on the wards, described the primary focus of their role as restoring patients' normal levels of independent activity. One therapist described their work as *'holistic, and aligned to the objectives of ERM, which are business as usual for us.'* (INV-EAU-S-01).

Patients were often competent, but reluctant to mobilise and therapists demonstrated respect for patient autonomy by explaining the benefits of moving and the risk of not moving and staying in bed. They used persuasion as a strategy to support autonomous choice.

> The therapist came to see [patient name] and asks if she wants to get up and walk with her around the room. The patient declines. The therapist explains that staying in bed could lead to loss of strength and make her condition worse. She goes on to say, *'If you don't want to, I can't make you and I certainly*

> *wouldn't if that's not what you want, but I will come back and nag you, otherwise you're going to struggle to get back to it'* (FN-EAU-57).

Willingness to take on responsibility for recovery.

There were marked differences in the way in which individual patients behaved on the hospital wards and the extent to which they participated in the recovery process. Generally, patients took control of their personal care, accepting assistance from nursing staff where necessary. Some patients took responsibility of their recovery by taking an active interest in their care. They asked questions, were knowledgeable about their clinical condition, progression of symptoms, test results, and took a keen interest in their treatment plan. Some patients were able to use clinical language adeptly when conversing with staff. Others were not engaged in the recovery process to this level, but willingly adhered to the instructions/direction given by staff. For example, gladly undertaking mobilisation with therapists. However, they appeared to lack drive to initiate activities independently.

> I ask [patient name] why he's in bed and he replies*, 'no one's said anything about getting up and dressed'* (FN-EAU-01).

Other patients demonstrated a greater sense of personal responsibility for their recovery by taking independent action, undertaking positive health behaviours and self-care activities during their hospital stay:

> *…I'm aiming to go up to the family room. It's a different social area. It's good to move* (INV-MW-P-04).

Significantly, this was done intentionally without anyone telling them to do it.

Willingness to participate appeared to be influenced by individual levels of independent activity prior to admission.

> [Patient name] gets up to leave the table after Luncheon Club in the Day Room. The HCA asks if he wants a wheelchair to take him back to his bay, *'I'll walk"* he says *'it's good exercise. If you don't use'em you'll lose'em'* [points to his legs]. He shuffles slowly to the door (FN-MW-65).

Occasionally patients' desire for independence could be counterproductive to their recovery. One carer commented:

> *…they offered him [patient] a frame, but he won't use anything that takes his independence away even if he's struggling. He's got a riser-recliner chair in our living room, but he won't use it* (INV-MW-C-02).

At times a patient's desire for autonomy was at odds with their changed circumstances after their acute illness. As these factors varied from patient to patient, there was a need for staff to actively manage expectations. For example:

> *…A2, patient with bone metastases, she's going to get back to gardening. We'll have to have a conversation about realistic expectations. We'll get palliative care to help us with those conversations* (FN-MW-089).

The effect of hospitalisation on others was a sense of passivity which inhibited behaviours that could promote recovery, such as sitting out of bed or mobilising. Being ill and in hospital appeared to disempower them from undertaking their usual activities and was a common reason given for not getting out of bed or getting dressed. In many cases this did not seem to correspond with the status of their illness as recorded in the medical notes. The encouragement to take responsibility for recovery was unwelcomed and viewed as something imposed on them. Many patients chose to remain in bed during the day and remarked that there was little point in getting up and dressed unless they were going home. A doctor highlighted the effects of being in hospital on one patient admitted to the medical ward with a leg laceration:

> *She was keen to go, but now she doesn't want to. I think she's worried as she's had leg ulcers previously. I think we've institutionalised her in a week!* (FN-MW-023).

Patients' expectations or beliefs about their role during their inpatient stay varied. Some patients perceived the ward as a place of recouperation, expecting to rest in bed until they were well. One nurse stated:

> *…the odd few think it's a hotel which isn't helped by GPs setting unrealistic expectations… they'll say things like, 'My consultant says I can have three weeks on bed rest'* (INV-MW-S-04).

These individuals perceived care to be the duty of the staff and they appeared content to leave care to them and rely on hospital processes without challenge, as passive recipients of care. In these circumstances staff often took the lead due to the pressure to support flow but attempts to educate and persuade them were routinely initiated.

A few patients attempted to subtly or overtly manipulate staff to meet excessive care demands. This group were affectionately known by staff as ‘Queen Bees’.

Prior experience as an inpatient on the wards influenced expectations. One patient admitted to the medical ward told me:

> *I was in the same bed two-three years ago…I felt I was going to be in bed, its open-ended when I can go home, they’ve decided that I’m staying for at least a day or so, so I disrobed.* (INV-EAU-P-02).

Opportunities for responsibility

On the medical ward, opportunities for patients to socialise were part of daily ward routines. These activities were aimed at improving mental wellbeing and social inclusion and increased the opportunity for patients to exercise their personal autonomy and their ability to make positive choices. The Day Room, described in the field note excerpt in Box 5, was always accessible to patients and provided a comfortable and relaxing space away from the busy ward area for patients to socialise or meet visitors.

Box 5: The Medical Ward Day Room

There are several round tables in the Day Room seating 4 or 5, each draped with a red and white spotted tablecloth and a small glass vase of artificial flowers. There are cheerful landscapes prints on the walls and games and puzzles on a table by the window. A dresser on the far wall holds a china tea set, hardback books, and an antique Singer Sewing machine. A wall mural depicts an open fireplace, besides which sits an old television set in the corner, with a soft toy dog and a magazine rack. On a shelf above the fireplace there are stickers of Fry’s chocolate, a ration book and a 1930s driving license. This room has a homely and old-fashioned feel which is very different feel from the ward. I reflect that it feels very different from the day room on EAU (field notes, medical ward).

Typically, those able to mobilise independently visited the Day Room, which was regarded positively by both patients and their carers’.

> *The Day Room is something else, decorated as if you've stepped back in time, with music playing taking you fully back to another era. Like someone's very cosy house* (DS-11).
>
> *What an amazing space, where patients can be surrounded by memorabilia, talk amongst themselves…. amazed this space exists* (DS-11).

A 'Lunch Club' was offered daily on the medical ward to all patients. Mostly patients reported enjoying eating their meals together in the Day Room and saw these sessions as a change of scene outside of the normal ward routine.

> *It's a nice change from the questions and boredom of the ward, and I look forward to it* (INV-MW-P-07).
>
> *I spent lunch time with my mum and some of the other patients. It was a nice experience and good for my mum to get off the ward* (INV-MW-C-02).

Although interactions with other patients could also be viewed negatively, indicating a one-size fits all approach.

> *…It was nauseating. One lady was hugging a doll, it was upside down, and another lady was away with the fairies. The man opposite who I talked to went as well. He's into conservation…* (INV-MW-P-02).

Other social activities, such as quizzes and bingo, took place in the gym, which was shared with an adjacent ward. A notable example of an activity arranged voluntarily by the staff during the fieldwork period was 'Movie Day' (see Box 6 for details). These events were arranged by staff on an ad-hoc basis when time allowed. Days when staffing levels were lower than usual due to sickness absence, put additional pressure on existing staff. Conversely, having higher staffing levels relative to normal, took pressure off the staff and enabled them to perform these additional social activities.

> *The ward is always short staffed. Bank or agency staff don't care as much, or don't know the patients. The right staff numbers allow us to do more activities during the day* (INV-MW-S-11).

Choosing to take part in the enrichment activities on offer was a way of escaping the monotony of daily life of the wards. For these patients, becoming involved in social activities promoted a sense of normality and improved their hospital experience.

Box 6: Movie Day

It is movie day today and patients and their friends, family and carers are gathered in the Day Room. A special effort has been made by all the staff to press through their daily tasks and get everything done in time. Many of the staff have dressed up in 1950's costumes, old fashioned nurses' uniforms, Land Girls, tea dresses and Royal Airforce uniforms. The chairs in the Day Room have been lined up in four rows with the TV in front like a cinema screen. Wheelchairs have been accommodated and oxygen cannisters rolled in. Volunteers are seated next to those patients requiring support. One of the nurses calls out 'tickets please' and visits the patients to collect them. Another nurse goes round handing out ice-lollies and popcorn. There is lots of chatter, the lights dim, and The Sound of Music begins to play (field note, medical ward).

Disempowering organisational systems and processes

Certain ward systems and processes seemed to work against the mechanism of taking responsibility. There was a general sense of institution and rules. Overwhelmingly, patients followed the instructions of staff and the ward routines obediently. Some observed practices appeared to diminish patient autonomy by limiting their choices and self-reliance, as illustrated in the following field note excerpt:

> I went to check in with [patient name], a usually fit and independent older man, admitted with significant deteriorating renal function and hypotension. When I arrived, two doctors were sitting on his bed talking about his Venflon [IV cannula]. One said, *'don't undo it… do you understand?'* Going on to explain that removing it is an infection risk. The other doctor makes a good-natured joke about it making life difficult for them. After they have leave [patient name] tells me, *'I couldn't get out of my shirt, I know it's stupid, but I'm right-handed and I can't undo my buttons. It would be easier for the staff if they asked if people are right or left-handed. They want to help us oldies, but I'm independent and I like to do things'* (FN-EAU-70).

These behaviours were not always understood by staff and could be interpreted as patients being uncooperative. Furthermore, they did not approach him afterwards to explore any alternatives.

A lack of freedom to engage in normal activities impacted the mood and wellbeing of patients. A commonly reported theme was that patients found daily life of the wards monotonous and dull, particularly younger patients admitted to the EAU for testing and observation. With little to do, boredom was a problem.

> *I've been in for five days and I'm pretty bored. There's nothing to do.* (INV-EAU-P-03).

Both inpatient settings were highly structured care environments with specific tasks scheduled at certain times of day and performed in a certain order. The ward routines were typically task-based activities of staff, such as drug rounds and observations of vital signs. Medical interventions and procedures could be experienced as disruptive. As one EAU patient pointed out:

> *I'm hardly alone, they're taking my temperature, doing this and that, but they're only doing their job* (INV-EAU-06).

The ward environment

The ward environment imposed several contextual constraints, which impacted negatively on recovery. Choices regarding where patients could walk to or meet with family and friends were limited. The EAU was particularly fast moving and busy, and the Day Room was small and regularly used as a waiting room for those patients awaiting transport home, which enabled beds to be released earlier in the day. Box 6 provides an excerpt from field notes describing the context of the EAU.

Patients were critical of the busy and noisy environment of the wards, which negatively affected their ability to sleep and engage in positive health behaviours.

> *I got up today, but I don't feel up to it. A gentleman was screaming all night long* (INV-EAU-P-01).

The movement of patients between wards late at night or in the early morning was a particular source of irritation.

> *It was awful in the night because of the noise and disturbance from people being brought in. It's not their fault, they're busy. The nurses are nice, but I'm not sleeping. I got grumpy and asked the nurses for an eye mask and ear plugs. I got the fright*

> *of my life when the nurse tapped me on the shoulder this morning, I was nearly ready to punch someone!* (INV-EAU-P-02).

Box 7: The Context of the EAU

The time is now 10.45am. From my position at the nurses' station, I can see various staff seated at the long desk attending to computer screens. They are dressed in an array of uniforms blue, green and pink scrubs. The ward is warm, but not uncomfortable. The air feels stuffy and smells of antiseptic. There is a buzz of voices and intermittent electronic beeping sounds. A couple of staff pushing cleaning trollies sweep past me and into the long corridor ahead, which stretches to my left. They park their trollies and disappear into the side rooms. Other staff appear at intervals moving purposely about their business, sometimes stopping to converse, at other times collecting equipment parked against the corridor walls and disappearing behind doors. I notice the corridor is cluttered with equipment and every available space is occupied with observation monitors, basins, IV stands, plastic chairs, hygiene hand rubs and notices. It looks hazardous to walk through, but the staff are negotiating the space adeptly, cheerily excusing themselves as they weaved past each other and through the obstacles. I am startled by a loud urgent beeping sound which is suddenly audible, but no one else reacts or seems perturbed*…* (FN-EAU-05).

Summary of theory refinements

The extent to which patients could assume responsibility for managing aspects of their own recovery related to their capability, medical condition, and personal preferences. How responsibility was manifested varied, depending on the expectations of patients and their behavioural norms. Medicalisation and controlling styles of care did not support patient autonomy. The ward routines and physical environment impacted negatively on patient wellbeing and limited autonomy and freedom to make choices. Table 27 shows how the initial programme theory 6 was revised considering this evidence. Further evidence supporting the interpretation is shown in Table 25 and appears in full in Appendix 30.

Table 27: Refined theory 6 - Patients take an active role in their recovery

Context +	Mechanism-resource	Mechanism reasoning/response =	Outcome
Patients individual coping preferences, condition, capability, behavioural norms, expectations of the patient role, and bodily experience. Availability of support from carers. **Willingness of patients to participate.** **Ward environment and availability of enrichment opportunities.** **Personal and professional commitment of individual staff.** **Practice norms of professional groups.** **Systems and processes which are incompatible with person-centric care.**	From admission, or soon thereafter, expectations of patients are set out and they are encouraged and supported to actively participate in their own recovery by doing simple things to help themselves to get better whilst in hospital (i.e., pay attention to their nutrition, drink plenty of fluids, get up and dressed in day clothes, visit the drinks trolley, and organise their journey home).	Raises awareness of patients' personal responsibility to take an active role in their recovery. They feel positive, confident, and a sense of control over their health. They are motivated and empowered by the idea of contributing to their own recovery and are keen to meet the explicit role responsibilities and tasks of the ERP and get home quickly. **Rival theory:** Patients may prefer to take a passive role, **transfer responsibility for recovery onto staff,** or follow their own intuition, regardless of professional advice. Patients may feel a sense of pressure to meet expectations or feel frustrated by their condition. They may interpret participation as a need to follow strict rules and consequently feel disempowered and that their autonomy is inhibited.	Alters traditional roles and relationships between staff and patients and responsibility for recovery is shared. Greater self-care by patients and taking on tasks previously performed by nurses, reduces nursing workload and LOS.

7.6.3 Theory 10: Communication and sharing information

In this section I present the evidence relating to ‘communication and sharing information with patients and their carers’ and explain how and why this intervention activity impacted recovery. A summary of the refinements made to the programme theory considering the data collected is given at the end of the section, and the revised theory is presented.

Professional tasks and time constraints

The communication and information sharing aspects of the ERM programme were perceived by consultation participants to have worked well and to have impacted positively on practice. One participant stated:

> *Ensuring patients are fully informed is a current focus for our ward teams and is being supported by the hospital’s QI [Quality Improvement] team…this didn’t happen before ERM* (STC-03)*.*

Staff spent considerable time during their day interacting with patients, and these interactions were generally perceived as positive. Patients praised staff for qualities such as kindness and friendliness during their treatment and care interactions. One patient described his experience of the medical ward as *‘first class’* (INV-P-EAU-05). Staff generally felt that morale was high. One nurse commented, *‘This ward is so friendly, it's busy but relaxed’* (INV-MW-S-06). A student nurse said, ‘*I’ll be qualified in a few shifts and I’m staying. It’s a good team, the management’s supportive, there’s lots of different patients and specialisms, so it’s really interesting’* (FN-EAU-33).

A strong focus on routines and procedures however, meant that most communication typically took place while staff attended to the treatment or care needs of the patients. Conversations predominantly centred on the task being performed or gathering and imparting information about processes. Several nurses described how opportunities to develop conversation with patients were often missed due to workload pressures and the need for them to move onto other tasks. Demands meant that conversations were frequently cut short, which did not always allow patients time to raise questions. The pressure to complete tasks affected the staff’s autonomy to focus on building positive relationships.

> *I'm so busy with routines and answering bells, the social side? I can only talk to people half an hour before they leave* (INV-MW-S-06).

This caused feelings of frustration, particularly in relation to patients with complex communication needs, such as patients with dementia, who needed a greater allocation of time and attention.

Similarly, although there was recognition that keeping patients informed was important, staff found it difficult to provide information because of time constraints. The reality of their workload meant that during day-to-day activities this was often squeezed in as best as they could around clinical routines and responsibilities. At times of pressure, basic information was not always communicated. For example, there were occasions in the EAU when failure to make introductions meant patients were not aware of the name of their designated nurse. Often patients did not know what was going on or understand why events had happened. One patient told me that he was moved to a side room overnight, but when I ask him if he knew why, he replied, *'No, I assume it's them rather than me'* (FN-EAU-13). Opportunities were frequently missed to communicate information to patients regarding discharge. A 91-year-old patient on the EAU told me:

> *I thought I'd go home today, so I got dressed, but I'm here for another night. I saw a chap this morning and he was talking to another person. I got snatches of the conversation and assumed I was going home. It would have been nice to let you know what's going on, but it's such a busy place you can understand* (INV- EAU-P-01).

This indicates that improvements could be made in the way in which information is communicated to patients. The quote also illustrates a recurring theme in the data, that patients sensed how busy the staff were and they were therefore reluctant to disturb them. They were pragmatic and employed different strategies to obtain information, such as eavesdropping, guesswork, or simply waited to hear.

> [Patient name], speaking to her carer says, 'I don't know, but I think they will most likely send me to an intermediate place that could be in [nearby town]. Her carer replied, 'I think it's got to be what's best for you, but we'll just have to wait and see' (FN-MW-79).

Delays in communicating information could lead to distress and frustration for patients. However, overwhelmingly patients expressed great empathy for the staff who they felt were overburdened. It was not always possible for staff to share information that patients wanted as they were subject to the unpredictability of hospital systems and were often lacking information themselves. This was particularly evident when patients were impacted by delays in transferring to other wards and were held in the EAU, reliant on the availability of beds.

Relational aspects

Conversations between staff and patients were, at times, highly sensitive; for example, diagnoses could involve breaking bad news or a poor prognosis, which meant that establishing relationships was important. Honesty and respect were identified by patients as an important feature of these interactions. Honesty helped to build trust and facilitated future decision making. One patient commented:

> *Doctors are more forthcoming nowadays, they're not afraid to say you're dying, more genuine. I'd be dead upset if they don't tell me. I believe in the inevitable. I'm not afraid of it. I don't want to make a habit of doom and gloom, but I have to plan* (INV-MW-P-09).

This excerpt highlights another key contextual aspect identified, which was the physical, emotional, and cognitive vulnerability of patients. They often feared the worst in relation to their recovery and prognosis, so wanted more information about their medical condition, treatment, and care, to reduce uncertainty.

The ward environment did not support staff with relational aspects of care. Privacy during interactions was an issue identified by both staff and patients. Although staff showed respect for patients' dignity by routinely pulling the fabric curtains around the bed area when carrying out treatment or during sensitive encounters, it was possible to clearly overhear conversations. Several patients in the four-bedded bays expressed feeling anxious during conversations and a need for privacy.

> *When you come into hospital there's limited privacy. I worry about it. It can be a problem as it gets a bit personal sometimes* (INV-MW-P-04).

On several occasions whilst present on these bays, I overheard discussions taking place behind the curtains regarding difficult topics, such as cancer diagnosis and leg amputation. Some patients were observed attempting to promote privacy by purposely looking away and avoiding eye contact when others were interacting.

Using humour

A feature of the ward culture was the use of humour when communicating. This style of communication helped to lighten the atmosphere during personal care, which could be intimate.

> *I try to make light of everything, joke with them. You know how far to take it and with who* (INV-MW-P-02).

Humour was also used amongst staff themselves to counter workload stress and emotionally draining situations.

> We are waiting for [nurse's name] at the SAFER meeting and the doctors say, *'…she'll be here in a minute, she's being bled all-over at the moment, so we better crack on…'* (FN-MW-122).

Impact of technology and administrative processes

The implementation of new technology, with the aim of strengthening communication, was perceived by staff to have caused unintended consequences. Modernisation of information technology (IT) systems intended to free up clinical capacity took staff additional time and resulted in duplication of work. One nurse described how technical sophistication meant that accessing information required multiple systems and was slow, which hampered information exchange across teams.

> *We don't get much background information here; we have to patch it together…we don't have the information we need. I'll give you an example, so for a heart failure patient we get the printout from the A&E 'Symphony' system, but we aren't able to access it live. We can access the old notes and there's often a lot of those. We often end up doing things, then the consultant says, 'Don't do this, or that'. We can't access PARIS*

> *[Community IT system] for the past medical history, only the discharge coordinator can, so we have to go to her and ask, but they aren't based on the ward or specific to the ward, its who's on. It's not integrated* (INV-MW-S-04).

Entering information into electronic systems during ward rounds could cause time delays.

> *A doctor on the ward round said '…we're caught up with IT. It's supposed to make life easier for us, but it's taken twice as long as it should have'* (FN-MW-88).

Another doctor expressed feelings of frustration in relation to a new electronic prescribing (EPMA) system used during ward rounds.

> *The electronic prescribing was for the pharmacists to save money, so less drugs were stored on site, and to cut waste. We thought great, this is going to really help us speed up the ward round, but all the functions that would help us haven't been enabled. They were switched off* (INV-MW-S-11).

Others remarked that the availability of hardware used in carrying out their routine work was an inhibitory factor. One nurse speaking about handheld tablets used on the medical ward said:

> *…I put it down my bra to make sure no one else nicks it, because if you haven't got one, you have to find someone who does* (FN-MW-90).

Note taking was a critical aspect of communicating knowledge within and across teams. Information was recorded both manually and electronically. Consequently, duplication of patient records existed, which took time to deal with, impacting on time for face-to-face patient contact.

> *It would be easier with systems that didn't change all the time. There is duplication, electronic and paper. It takes out clinical time* (FN-MW-127).

Both staff and patients felt that poor administrative processes wasted their time. A therapist spoke about how she found discharge paperwork exasperating.

> *For rehab packages of care, we need to fill in a goals form. We heard in a meeting today that the washing and dressing goals*

> *need to be filled in on separate forms, or the hub send it back to us [rolls eyes]. They're linked!* (INV-MW-S-01).

Similarly, patients were dissatisfied when information previously shared needed to be repeated. One EAU patient told me with resignation:

> *They should have the record here for me because I've given this information already…* (INV-EAU-PT-04).

Communication with carers

One of the aims of the ERM programme was to encourage information sharing between carers and staff. Consultation participants reported the implementation of various new processes which were '*gaining traction',* such as a 'Carer Awareness' course, which was included as part of the trust's induction programme. A 'Way Finder' service had also been created to help visitors find their way around the hospital site. These developments were believed to have burgeoned because of the raised profile of carers resulting from implementation of the ERM programme. One participant described '*a shift of perspective in the way carers were viewed'* (STC-04)*.*

Observations confirmed that resources available to support carers had increased noticeably. For example, orange lanyards were now worn by registered carers actively caring for patients on the wards, which nurses felt aided communication.

> *It was difficult to identify carers with so many visitors on the wards and they're now more visible, which helps* (INV-MW-S-05).

Communication and information exchange with carers took place verbally during face-to-face interactions on the wards, and via the telephone. They contributed knowledge regarding patients' preferences and their social situations. Carers and relatives phoned the ward frequently throughout the day and were given information directly by the clinical team. A great deal of effort was made to track down appropriate clinicians to take each call. These conversations often related to practical and logistical issues.

> His daughter rang yesterday, needs the heads up if she needs to travel down. (FN-MW-44).

A Therapist stated:

> *We love relatives. The rellies ask for daily updates. It's important that they have a say. It's really important to get an accurate social history. It depends who, but most are seen on the ward and talk in passing. They probably will phone and ask if they want an appointment with a medic. There are more lovely relatives than not. Some are not happy with discharge plans. Some will bridge the care and are brilliant* (INV-MW-S-02).

There was evidence of staff engaging in conversations to inform carers of diagnosis or treatment plans. Carers felt that receiving information directly was important in helping them to plan. However, they also experienced communication difficulties because of poor hospital systems. Opportunities were lost when phone lines were busy.

> *I was very worried because he [patient] was telling this story about the whole ward being on drugs and that all the patients were being taken outside at three o'clock in the morning. It was fantastical! I've never heard him speak like that before*. I ask her if she has told anyone about this? * She says, *'No, I rang up a couple of times, but it was really difficult to get through. I was cut off because it was ringing so long. You doubt yourself in the end, have I got the right number?'* (INV-MW-C-02).

* Aware that a UTI can cause delirium*.*

High staff turnover affected the continuity of care. One nurse interviewed described how this could hinder communication with carers:

> *Some nurses are very nervous about communicating with carers in case they say the wrong thing or get anxious when spoken to because it shows they don't know the patient that well* (INV-EAU-S-05).

Summary of theory refinements

The availability of time as an enabler supporting good communication, but when limited, time became a constraint. A culture of efficiency and a focus on completing tasks shaped practice. Together with workload pressures this had a negative influence on communication and information exchange, through restricting conversations and affecting the willingness of patients to request information. New technologies and administrative processes acted as contextual constraints by slowing down procedures and in turn reduced contact-time with patients. A lack of privacy during sensitive encounters could lead to patient anxiety. The unpredictability of hospital systems meant that staff were often unable to meet the information needs of patients and their carers'. Honesty and humour in communication reduced uncertainty for vulnerable patients with potentially poor diagnoses. The initial programme theory 10 was revised considering this evidence and is presented in Table 28. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 28: Refined theory 10 - Communication and sharing information

Context +	**Mechanism-resource**	**Mechanism reasoning/response =**	**Outcome**
Vulnerability of patients, uncertainty of prognosis, and fear of dying. Patients' knowledge, beliefs, expectations, illness severity and time course, desire for information about treatment and care process. Availability, knowledge, willingness, and communication skills of staff. Lack of staff training. Format, method, frequency, amount, and timing of information provision. Serious and time-dependent medical assessment and treatment. **Culture of efficiency and task-orientated care. Workload pressures and time constraints.** **Accessing information technology systems, hospital data systems, and administrative processes.**	As soon as possible after admission, time is spent talking and listening to patients and carers in a positive adult-to-adult way using everyday language. Information (written and verbal) and practical advice is provided about the expected process of recovery, treatment, diagnosis, and managing the acute episode. What patients can do to help themselves recover is emphasised, such as mobilising, using the drink station and participating in the decision making.	Enables patients to ask questions, express their feelings and discuss important issues. They feel well-informed and have a better understanding of what is expected of them, staff roles, treatment and care processes. Reduces uncertainty and anxiety. Promotes positive and realistic expectations, confidence, autonomy and a sense of control and safety. This motivates and empowers them to take personal responsibility for their recovery and actively participate in the programme. Carers appreciate being told what is happening, are clear who to communicate with, and find the information helpful for planning care after discharge. Written information can be referred to when needed. Staff feel they are providing better care, and the ward atmosphere is better. **Rival theory:** Patients and carers may not notice the posters and promotional material or feel too ill to read them. **Patients may be reluctant to ask for help when needed as they perceive staff to be overburdened. Staff workload causes delays in communicating and exchanging information.**	Builds trusting and equal relationships between staff, patients, and carers. Individual information needs are appropriately addressed. Removes some of the communication burden from patients. The hospital journey is smoother, patients recover more rapidly, and LOS is reduced. Improves morale, and the ward culture is more positive. Patients and carers have a better experience.

7.6.4 Theory 11: What matters to you? SBAR-P.

In this section, I present the evidence relating to what matters to you? and SBAR-P and explain how and why these interventions impacted recovery. A summary of the refinements made to the programme theory considering the data collected is given at the end of the section, and the revised theory is presented in Table 29.

What matters to you?

There was consensus amongst consultation participants that asking what mattered to patients was part of routine practice. One participant added that this was an important organisational strategy *'being pushed out across the whole trust in all documents'* (STC-07).

Observations showed that psychological and social aspects of patients' circumstances were routinely elicited, generally well known, and considered in both settings. SAFER Meetings, board rounds, handovers, and patient notes all provided important formal opportunities to share contextual information relating to the patient's personal circumstances and their preferences. Staff on both wards reported that they asked more questions about personal situations than they had done prior to the implementation of the ERM programme. Asking the specific question, what matters to you? did not occur at every encounter, but there was evidence of genuine interest in understanding more deeply what was important to individual patients. Details of patient's social circumstances were apparent in care plans. Awareness of important issues in patients' lives appeared to guide care planning.

> *[Patient name] collapsed during dialysis. She's due to have dialysis this morning...she's not coping with the CA [cancer] diagnosis. The thought of going for dialysis is terrifying her. One of the aims of dialysis is about quality of life… I don't think she'd tolerate the journey* (FN-EAU-39).

Several staff explained how their own personal values drove this style of communication. They gave examples of their own relatives' illness and hospitalization experiences to illustrate why this was important.

The ‘what matters to you?’ approach was embraced on the medical ward. There was evidence that staff listened, respected, and acted on issues that surfaced. Asking what matters to you, shifted power to the patients. For example, what mattered to one 78-year-old lady, admitted with pneumonia, was going to an intermediate care placement close to her own home, as her husband did not drive and relied on public transport. This information was taken to the MDT meetings and collaborative decision was made to wait for a placement nearer to her home.

Understanding what mattered to patients helped staff to customise their care. A large proportion of the in-patients had dementia, and caring for this group was challenging. Staff spent time getting to know these patients, recognising their emotional needs, adapting their routines, and were creative with their interventions. A particular example of this was the use of a mechanical therapy baby doll for a dementia patient who was agitated and confused. When given therapy baby doll to cuddle, this had a soothing and calming effect. A nurse explained:

> *The baby doll is really helpful, she’s nursing it. The family liked it so much they’ve gone and bought a mechanical cat for her to stroke because she loves cats* (FN-MW-114).

There was evidence of adjustments being made to discharge plans because of patient preferences. For example, an 80-year-old patient admitted to the medical ward with COPD was due to be discharged to a community hospital. However, she refused this as her husband only drove short distances and the hospital was in a town 13 miles away from her home. A new placement was sought closer to her home.

Further indication of an awareness of and attention to patients’ needs was the care and respect staff paid to their personal belongings. For instance, I noticed HCAs carefully laying out and folding patients clothing neatly by patients’ bed sides, and ensuring hearing aids were safely stored and accessible. Meaningful occasions such as birthdays were recognised and celebrated. Another example was the introduction of ward volunteers, who operated as mealtime companions talking to those who needed prompting or company to eat, to encourage better nutritional intake.

Engagement and disclosing concerns.

Patients' experiences of engagement were generally positive. They shared examples of how staff gave their time to them, which left them feeling cared for. One 80-year-old lady stated:

> *It's terribly boring. The TV's broken. There's nothing at all going on. She [name of nurse] entertains me. It's lonely and she comes over and chats to me* (INV-MW-P-01).

Both patients and staff reported a positive impact on morale from this approach. Trusting relationships were built through interactions in which staff listened and responded to patient needs. Patients explained that being listened to was important, and when staff listened to them it relieved anxiety and stress. Patient wellbeing seemed to be important to staff. They took time to chat and joke with patients, which helped them to connect and build familiarity.

> Nurse*: Are you alright my darling?*
> Patient*: I'm just stretching my legs.*
> Nurse*: Not escaping then?* [they both laugh]
> (FN-EAU-64).

On the medical ward as LOS was typically longer than on the EAU, patients were often known to staff. Familiar patients were greeted warmly on their return. Staff paid attention to farewells when patients were discharged, and these were typically friendly and on first name terms.

> I overhear one of the nurses speaking to a social worker who is visiting a patient on the ward. She says, *'Ah is he going? Everyone's going.'* [She pulls a sad face]. Later, this patient comes past me in a wheelchair towards the exit, pushed by one of the porters. He is leaving. He reaches out to one of the nurses and they shake hands. An HCA calls out from the bay opposite *'See you later Fred'* (FN-MW-16).

Authentic relationships between staff and patients facilitated disclosure of patient's individual preferences and concerns. However, although patients wanted their preferences to be understood, they did not always disclose problems and concerns. They were aware of the workload pressures on staff and this perception made them reluctant to ask for help with their basic care. As illustrated in the following field note excerpt.

> [Patient name] tells me that she wants to go back to bed. I ask if she would like me to fetch someone to help her. She replies, *'in a minute, I expect they're busy'* (FN-MW-115).

Not wanting to be seen as a 'burden' was a commonly expressed concern. Consequently, patients were accepting of situations that were less than desirable. This indicates that a lack of engagement on the part of patients may be due to the perceived availability of staff.

Meeting patient preferences

Patient preferences could not always be met for a variety of reasons. What was important to individuals was not always realistic. For example, one 92-year-old patient admitted with a head injury following a fall, said that what mattered to her was wearing her own sandals to mobilise.

> *She tells me that she has been up today with the therapist, but has not got a suitable pair of sandals to walk in. She has asked her friend to have a look for them at home. She shows me the 'tote' socks the therapists have given her and says, '…they're not for me, my toes are out of them'. Later, I chat to her friend who tells me, 'I'll bring in the sandals, she hates those socks, but the straps won't fit, her feet are too swollen because of the bandages, I have told her…'* (INV-MW-P-01).

Similarly, some problems or concerns could not be solved or given immediate answers by the staff as it was not within their scope of practice to deal with these issues. They needed to be taken to external teams such as social care colleagues.

However, there was general recognition from the staff interviewed that patient-centredness could be improved. Although a patient-centred approach was promoted, it was not always apparent in interactions. At times, staff could be dismissive of patient concerns, as illustrated in the following quote.

> I pulled up a chair to [patient's name] bedside this morning, and we chatted about his family who were due to visit him later that day. As the conversation progressed, he told me he was bored because the TV in the bay was broken. The curtains around his cubicle were open during the conversation, and from across the bay one of the HCAs who was changing bed sheets a few beds away called out to me *'most of them are deaf so they can't hear it anyway'* (FN-MW-30).

Incompatibility of hospital systems and processes with patient-centred care

There were occasions when hospital systems and processes were barriers to the ability of staff to act on expressed preferences and made delivering person-centric care difficult for them, causing frustration.

> *My lady has bowel cancer, and she only wants to eat omelettes, but they [catering] won't do that for her...our ward sister had to email them! That's an extra thing to do when we're all pushed for time* (INT-MW-S-04).

Dominance of biomedical perspective

Practicalities, such as an overwhelming workload and lack of time were also problematic, with implications for the staffs' ability to interact with patients in this way. Staff time was predominantly spent taking care of the physical needs of the patients and coordinating their care. My overall sense was that during MDT discussions biomedical considerations took priority, with less time spent on person-centric aspects.

SBAR-P and paternalistic practices

The daily board round was a central activity in the EAU each morning. Members of the healthcare team met to discuss, plan, and coordinate a multi-disciplinary approach to patient treatment and care. The progress of each patient was reviewed systematically against their care and discharge plans and was noted on the wall-hung electronic board. These meetings were fast paced, led by a consultant, with contributions from various professionals who offered up information relating to patient status, diagnosis, test results, symptoms, and treatment. The focus of these meetings appeared to be on patient flow, assessment of patient progress towards their expected date of discharge (EDD), and transfers of care from the hospital to community settings. Given the organisation's focus on flow and bed pressures described previously, this was perhaps unsurprising. The SBAR technique provided a framework for communication between the healthcare professionals during the EAU board rounds. The 'P' provided an opportunity to formally capture patient preferences and share this with other members of the MDT.

Although SBAR was not referred to explicitly, the format was generally followed. Consultation participants had reported that although SBAR was used during board rounds, the patient centric ‘P’ element was used inconsistently, depending on which specific doctor was leading the board round. This was confirmed through observations. The ‘P’ component was used sporadically. Several doctors acknowledged this, reflecting that the ‘P’ was simply *‘not always remembered, particularly when patient throughput was high’.* Another doctor reflected:

> *The ‘P’ is often totally unanticipated; it can surprise us. We’re guilty of making a lot of assumptions… we’re used to making decisions and are not good at listening. What we say goes, I know what’s best for you* (INV-EAU-S-04).

This quote implies that a paternalistic attitude was prevalent i.e., that doctors made decisions based on what they considered was good for patients. In these models of care clinicians hold unequal power and patients adopt a passive role in response. This may indicate also that, as the dominant model was biomedical and staff were focused on completing and managing tasks, at times of pressure, they defaulted to the most familiar ways of practicing rather than patient-centred approaches.

Serious and time-dependent medical issues

The EAU had high patient admission and discharge rates. In this context, caring for a continuous flow of patients with short LOS meant that time was more limited than on the medical ward. This affected the staff’s ability to attend to person-centric aspects of the programme. Building relationships from scratch between staff and patients and creating partnerships in the busy EAU, when LOS stay was short, posed challenges. There was acknowledgement from various EAU staff that patient centeredness could be improved. A wide variety of admission circumstances meant that individuals had different health and social care needs (see Box 7). The urgency of medical conditions meant that high value was attached to recording clinical observations such as vital signs, and there was a greater focus on recording medical information rather than personal preferences. Therefore, these demands diverted attention away from personal preferences.

Box 8: Example of patient conditions taken from an EAU Board Round

Pancreatic cancer
Parkinson’s disease
Abdominal pain
Chronic leg ulcers
Heart failure
Chest infection
Vascular dementia
Worsening renal function
Miscarriage
Fall
Diarrhoea
General deterioration
Delirium
Shortness of breath
Chest pain
Sepsis
Infected ulcers

Although this aspect was less frequently observed on the EAU, person-centric aspects were considered during the board round for most patients. Staff did not use the exact words ‘what matters to you?’ but they ensured patients’ concerns were prioritised, when known. There was evidence that person-centric aspects were brought to the attention of the group during board round meetings. Frequent reference was made to patient’s priorities, such as their desire to get home and whether relatives knew about discharge plans or changes in treatment.

> *Is the husband happy for her [the patient] to go home?* (FN-EAU-19).

They paid attention to the patients’ social circumstances and wider roles. For one patient this included a patient’s caring responsibilities for an elderly wife. For another, parenting responsibilities for young children.

> *The main importance is for [patient name] to go home, so we need to set up a p.m. review, that’s her main priority* (FN-EAU-35).
>
> *5C needs to get to his son’s assembly, so whatever happens we have to make it, so I’ll contact them before* (FN-EAU-38).

Summary of theory refinements

I found support for this theory in both settings. Staff recognised patients as individuals and were responsive to personal preferences, which were frequently shared across the MDT. This guided decision making and affected the delivery of their care. However, time to communicate was particularly limited on the

EAU due to the workload demands of dealing with emergency admissions. Therefore, less attention was paid to person-centric aspects. Furthermore, despite encouragement from staff, patients did not always express their needs or make them clear due to perception that staff were busy and overloaded. The initial theory has therefore been refined considering this evidence and is presented at below in Table 29. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 29: Refined theory 11 - What matters to you? SBAR-P

Context +	**Mechanism-resource**	**Mechanism reasoning/response =**	**Outcome**
Heterogeneity of patients. High patient through-put, staff turnover and rotational roles. Siloed working. Congruence with national policy priorities and role modelling by senior staff. Prioritisation of clinical aspects of care, **paternalistic, and task-focused practice norms. Serious, and time-dependent medical issues.** **Personal values of staff.** **Employment of volunteers** **Low staffing levels and workload pressures.** **Incompatibility of hospital processes with patient-centred care.**	From admission, staff communicate more with patients as equals in a positive way, and encourage them to raise concerns and personal preferences by asking 'what matters to you?' The SBAR model, with the addition of 'P' is used at the daily MDT board round and on handover sheets, to communicate the patient's perspective. Provides an opportunity for patients to express their individual needs and priorities and brings them the attention of all staff.	Patients feel listened to, and that their opinions and wishes and taken notice of, which relieves anxiety, helps them to feel relaxed and comfortable and empowers them. Staff develop an understanding of the important issues in patient's lives and their wider social circumstances. They value the patient perspective and are responsive to their individual needs and preferences. Care is tailored to address psychological and social issues as well as their medical needs. **Builds authentic and trusting relationships between staff and patients, which facilitates further disclosure of important issues.** **Rival theory: Patients wishes may be unrealistic. Perceived work pressures mean patients are reluctant to share their preferences with staff.**	Better coordination and better, timelier communication between staff. The patients' preferences guide decision making and are integrated into subsequent actions, shaping treatment and the way care is delivered. Resulting in more effective and better quality of care. **The burden of illness and treatment is reduced.** Patients have a better hospital experience.

7.6.5 Theory 12: Involving patients and cares in SDM and the care process

A central aim of the ERM programme was promoting patients’ and their carers’ involvement in SDM and care processes. In this section, I present the evidence relating to this theory and explain how and why this intervention activity impacted recovery. The initial programme theory was revised considering this evidence and is presented at the end of the section in Table 30.

Autonomy and empowerment

SDM was described during stakeholder consultations as ‘*part of the ICO ethos and one of the key ICO aims*’ (STC-08). The idea that patients should have freedom to make choices about their treatment and care was a strongly held belief amongst the staff interviewed. SDM took place in relation to immediate and future care and treatment needs. Discussions about treatment options and explanations of the risks and benefits of possible choices were communicated, and preferences were recorded, which supported patients’ autonomy. Providing information was important in enabling patients to participate in the decision-making process. Patients interviewed were generally aware of their diagnosis or had some knowledge of their condition.

Examples of SDM were evident in practice. For example, a therapist was observed discussing nutrition with a malnourished patient and providing leaflets about meal delivery services available in the community, to support her autonomy and decision making after discharge. On another occasion, a conversation took place with a patient, in which treatment options and potential outcomes were discussed in relation to possible lower limb amputation.

Consent for treatment was routinely sought and recorded, including occasions when patients refused treatment. Treatment options discussed with patients were documented in medical notes and their treatment preferences were recorded.

SDM was described as *‘part of daily rounds and assessment’* on the medical ward (INV-MW-S-12). During ‘SAFER’ meetings, staff incorporated patients concerns and preferences into decisions about patient care.

> *Bed 23, small bowel obstruction, but doesn't want treatment. End of life, he wants to die here, he's had enough…we're waiting for a side room* (FN-MW-125).

The daily ward round, where doctors systematically reviewed patients, was set up in a way that limited the number of staff at the patients' bed side and allowed one-to-one conversations. Doctors were observed explaining treatment and answering questions that they had been asked.

Variability in the health status of patients challenged SDM and there was a need to vary approaches. Cognitive ability and the level of sickness could make it difficult for patients to participate. Doctors were seen to adjust the timings of their patient visits to maximise potential engagement in decision making.

> *We will avoid seeing Mr [patient name] in the morning. Mid-morning is not his moment, it's like Rip Van Winkle* (FN-MW-109).

Power imbalance and paternalism

Staff acknowledge that there was scope to improve this aspect of their practice. One nurse described SDM practice as *'ad-hoc'* (FN-EAU-68). There were observed shortfalls in terms of working with patients as equal partners in decision-making. Traditional practice norms and professional dominance over decision making could inhibit involvement. There was criticism of doctor-patient communication from other health professionals, including doctors undertaking conversations between themselves that did not include patients, using 'jargon' when speaking to patients rather than conversing in a simple clear way. One nurse described her role as an interpreter stating, *'We always have a nurse with consultants now to explain things'* (INV-EAU-S-06).

Patients felt they were not always involved as equal partners in decision making. Indeed, much of the decision making seemed to occur outside of the conversations that took place with patients. Typically, decisions were made by the staff during their meetings, based on information that had been shared with them in earlier conversations with patients rather than in a truly co-produced way. In these meetings, the members of the MDT participated in making decisions about patients' care, each offering different professional perspectives and building a consensus about suitable treatment.

A key contextual aspect identified during the earlier realist interviews was a perceived power imbalance between patients and staff. Some participants had referred to patients being treated like ‘prisoners’ prior to the introduction of the ERM programme. The following quote highlights how doctors could be viewed as authority figures.

> *…Consultants were always God-like, if you asked questions, you were frowned upon. The young doctors haven’t learnt that lesson* (INV-MW-P-05).

This statement also illustrates that shifts in the balance of power may have occurred because of the altered communication, information and support given.

Time dependant emergency treatment

Not all decision-making could be collaborative. The unpredictability and time pressured nature of dealing with medical emergencies and potentially life-threatening illness meant attention to critical physical needs of patients was prioritised in the EAU. Important decisions, which could have significant consequences, needed to be made as quickly as possible. In this context, shared decision making was not always feasible or appropriate.

Preferences for involvement in SDM.

The role that patients wanted to play in decision-making varied. Some wanted to be actively involved, while others expressed a preference for assuming a passive role. There were times when patients seemed to want staff to make decisions for them, even when they were capable of doing so themselves. One patient admitted to the EAU described how leaving treatment decisions to the staff made her *‘feel safe’.* On these occasions, staff took the lead and dominated interactions using their expertise to diagnose and recommend treatments based on what they considered was best for the patients. Patient involvement was limited to giving consent. A possible interpretation of this is that patients perceived that they lacked the necessary expertise to make decisions or feared the consequences of making their own choices. Another patient reflected:

> *We take too much for granted, whether it’s good for us or not. You expect your doctor to do the best for you with the condition*

> *you have, and we the general public accept that's the way it is and we don't take enough interest.* (INV-EAU-P-04).

This quotation indicates a level of trust and confidence in the staff to work in their best interests.

Carer involvement

According to consultation participants, the ERM programme had influenced hospital culture. One participant described the programme as a 'catalyst' for new hospital initiatives which supported carer involvement. A carer survey conducted at the hospital in 2015 had identified SDM as an area of work needing attention. Consequently, new initiatives were being implemented at the hospital such as the 'Triangle of Care' approach. This is an inclusive approach which recognises carers as key partners.

Observed decision-making frequently involved carers as well as the patients. One doctor stated, *'We couldn't do our job without these discussions'* (INV-MW-S-11). At times, the seriousness of patient's illness was likely to have a significant impact on other family members and, therefore, necessitated advocacy on their behalf. For example, during episodes of delirium. In other instances, carers took on roles such as gathering information and feeding back information to staff. Navigating the relationships between patients and their families was not always straightforward.

> *…patient with CA [cancer] diagnosis, he doesn't want his family to know, but her daughter rang the ward last night and he asked to speak to her...* (FN-MW-69).

Sometimes disagreements between patient and families meant that consensus could not be reached. A nurse explained, '*they want to go home, but that depends on the carer, and this isn't always possible'* (INV-MW-S-05). On occasions there seemed to be a mismatch between patient preferences and the wishes of their caregivers.

> *He's another patient whose only here cause he's beaten up his wife. The family is saying he's in pain. He's saying he's not* (FN-MW-110).

Summary of theory refinements

Staff valued the SDM model and supported patient autonomy to make choices about treatment through sharing information, explaining risks and benefits of choices, and seeking consent. However, staff tended towards more traditional paternalistic attitudes to decision-making in which they dominated interactions and made decisions on behalf of their patients, based on what they discerned to be in their best interest. This paternalistic model could be practical in a context of time dependant emergency treatment. The extent of involvement varied depending on patient characteristics, such as cognitive status, personal values, and expectations. Carers supported patients by participating in SDM, but they did not always agree. The initial theory has therefore been refined considering this evidence and is presented below in Table 30. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 30: Refined theory 12 - Involving patients and carers in SDM and care process

Context	**Mechanism-resource**	**Mechanism reasoning/response**	**Outcome**
An organisation where there is recognition that carers are important to patient recovery, and support is available for them. Hospital admission is often the result of carer's difficulties in coping with patient needs reaching crisis point. Pressures of emergency assessment and treatment limit communication time. Willingness of **patients** and carers to be involved. **Patient condition and capacity.** **Professional dominance and traditional practice norms.**	Following immediate medical treatment, patients and carers are encouraged and supported to get involved in SDM and the care process. This provides an opportunity for them to suggest changes to planned care and to choose what is best for them.	Patients feel happy and safe because they are involved and empowered **to make autonomous decisions.** Carers want to be involved in decisions about the person they are caring for and are grateful for the opportunity to express their wishes. They feel empowered and treated as equal partners. Their knowledge of carer support staff and services increases. Key stakeholders perceive value in and are supportive of the idea of getting carers involved and utilise their professional relationships to influence their peers. There is more discussion and decision making is a collaborative process with all parties working together, sharing their preferences and expertise, contributing actively, and taking responsibility for reaching mutually agreed decisions. **Rival theory:** Carers may feel unwelcome, ignored, or that they are intruding. Their views may not be requested or respected. They may not be offered any information or support in their caring role. Patients and carers may have conflicting views. Patients may feel confused. Consultants may not wish to lose their power and status.	There is a change in attitudes and values of staff, and a more patient-centred approach is embraced. Better decisions are made, and care is more appropriate and individualised. There is greater adherence to planned treatment. The patient's hospital journey is less problematic, and LOS is reduced. Gaps in care provision can be identified and support provided for carers on a continuing basis after the patient has been discharged, if needed. Patients and carers have a better hospital experience. There are fewer complaints about communication issues. Raises the profile of carers, which enables issues to be raised in wider hospital forums and helps carers to influence and be involved in other hospital strategies and services.

7.6.6 Refinements to other theories

This section synthesises and presents evidence from the field work data that related to the remaining, non-prioritised theories. I focused my attention on the subset of theories prioritised through the card-sort exercise with practitioners (chapter 6). However, when something of interest became evident, and I thought greater exploration might provide insight in relation to the other theories, these events were pursued. In this way I remained open to emergent findings.

The evidence relating to each theory is presented in turn accompanied by an explanation, and the relevant revised theory.

Theory 1: Discussing medicines before leaving hospital

Several consultation participants reported that a dedicated pharmacist was now present on each of the acute hospital wards. One individual accredited this to the ERM programme. A marked change in emphasis of the pharmacists' work was described, moving away from providing explanations to patients, towards medicines reconciliation and safe prescribing. Medicines reconciliation is the process of identifying an accurate list of a patient's current medicines and comparing it with the list in use at a transition point in patient care (NICE, 2015). The roll out of an electronic prescribing system (Dedalus EPMA system) across selected acute wards was also described. The aim being to reduce drug errors; improve discharge efficiency; supply GPs with complete drug and treatment information; and avoid unnecessary admissions. Participants felt that these developments were driven by top-down NHS policy such as The NHS Long-term plan (NHS England, 2019) as well as low scores on the organisation's patient experience reports. These new systems and procedures were evident during the fieldwork. I interpreted these changes as an inhibitory contextual factor, with organisational attention and resources shifting away from the ERM programme intervention towards competing strategic aims and policy ambitions.

Pharmacists were observed on the wards at various times of the day, although their presence was limited, as individuals covered multiple wards. On one occasion, a discussion regarding medications was observed. A theme on this occasion was a lack of patient knowledge about their medicines and a passive acceptance of the recommended medication routine.

> The pharmacist asks [patient name] if he knows what his medications are for? He replies, '*I know the little brown one is warfarin; I take that at night... I just take what I've been given. I don't really know what they're for'* (FN-MW-128).

A nurse supported this idea during an interview, stating:

> *The Doctors aren't good at telling anyone when they change the patients' meds. The patients are really confused. The god like GPs!* (INT-MW-S-04)

The initial programme theory was revised to include these ideas and is presented below in Table 31. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 31: Refined theory 1 - Discussing medicines before leaving hospital

Context +	**Mechanism-resource**	**Mechanism reasoning/response =**	**Outcome**
Patients lack knowledge about medicines (especially people with complicated medication regimens and those using multiple concurrent medications). **Lack of communication between GPs and patients regarding changes to medicines.** **Organisational focus on medicines reconciliation and electronic prescribing rather than patient understanding of their medicines.**	Patients can discuss prescribed medicines with the pharmacist before leaving hospital. Provides an accurate and understandable explanation about prescribed medicines and an opportunity for patients to ask questions.	Helps patients to understand the purpose, duration, and possible side effects of their medicines, which in turn increases the likelihood that drugs are taken as recommended and they gain optimal benefit from them. **Rival Theory:** Patients may not remember the explanation given when they return home. **Older patients and those with cognitive impairment may get muddled, and relatives call the ward after discharge.** **Patients passively accept recommended medicines.**	Fewer problems after discharge and reduced readmissions. The priority of preventing medication errors is raised within the organisation. Timesaving for doctors as they spend less time with drug charts.

Theory 2: Open access for principal carers

Participant views on this topic during the stakeholder consultations were mixed. Several participants emphasised their support for the principles underlying open access, describing it as patient-centred and ethically right. A nurse reflected:

> *Having loved ones around is important to recovery of all patients. It isn't a prison. I wouldn't want to be told I couldn't see my dad, and it's difficult to see consultants on the EAU* (STC-09).
>
> *Open access is key to recovery. There's nothing worse than lying in a hospital bed. People have visitors but they don't come because they can't make two p.m. [visiting time], but could have come before nine a.m. Some wards clerks are like prison wardens. Nursing care doesn't stop between two and four, so why not allow visitors all the time? It's busier in the morning, but they have curtains and clamps and 'do not disturb personal care going on' signs. Not all wards are flexible (*STC-07).

Others described imposing access restrictions to ensure clinical activities could be carried out efficiently, and to ensure that the privacy of patients was not compromised. One nurse reported trying to avoid carers visiting during certain times of the day, such as, during washing and dressing. Similarly, a doctor described a 'protected am', stating:

> *They're not encouraged to come in the morning, there's no bar put up, but some people see it as protected time to get their stuff done (Doctor, medical ward).*

Fieldwork observations revealed that the visiting times on the medical ward were between 2pm and 4.30pm and from 6.30pm until 8pm. Outside of these hours the nurses' approved requests. Visitors who were observed on the ward outside of these hours, when questioned, were generally living outside of the local area, and had telephoned the ward to make a request in advance.

Open access was not widely recognised on the EAU. Posters were in situ on entrance doors specifying set visiting times (2 to 4.30pm and 6.30 to 8pm). However, specific restrictions were only imposed during board rounds.

Carers responsibilities

There were various ways in which carers physically supported patients or took responsibility for them while in hospital. For example, by assisting with feeding during mealtimes, bringing in clothing, snacks, and drinks, collecting them on discharge day, and assisting them to use the bathroom. Carers also monitored symptoms, acted as advisors, emotionally encouraged them, or simply kept them company. Patients were aware of the demands visiting placed on carers, friends, and relatives who came to see them at the hospital.

> *My wife doesn't drive; she's got a bad ulcer on her foot. She's mobile, but not to a large extent. It's a team effort. My daughter's had to come up from [town 70 miles away]. She's had to take time of work and she's self-employed* (INT-EAU-P-06).

Visiting the hospital could be particularly stressful for some older carers and relatives.

> *Wife: I'm glad my daughter was here, it's exhausting.*
> *Daughter: Mum has leukaemia, its sheer exhaustion, mental and physical.*
> *Wife: I have to do the garden and the pets… it's on a slope, but nothing like the hill up to here* [she puffs to show how much effort it required to walk up to the hospital entrance from the car park] (INV-MW-C-02).

The presence of friends and relatives was valued by patients and important for their wellbeing. They looked forward to these visits, which brought them feelings of joy and reduced isolation.

> *…I'm fed up and if my wife wasn't coming in this afternoon, I'd want to go home* (INV-EAU-P-09)

However, those relying on the assistance of others could feel guilt. One patient stated:

> *I'm worried as my friend Margaret has been doing my washing and bringing things in, but she's going on holiday to Egypt for three weeks on the 31st. I'm really grateful as she lives in* [town 25 minutes' drive away]*, and it's quite a way to come back and forwards to the hospital. I feel bad keep asking her…I'm causing such trouble* (INV-MW-P-01).

Staff were also aware of the high level of demand placed on carers and openly expressed respect for them and the challenges they overcame in meeting the needs of patients.

> *She* [patient admitted with vascular dementia and stroke] *really sounds frail, the daughter is managing well. A very capable young lady* (FN-MW-93).

Privacy and dignity

Vulnerability of patients was a central theme during hospitalisation, and some staff expressed concerns that open access would encroach on their privacy and dignity. Confidentially was not supported by the physical environment of the ward, or some of the typical ward routines. For example, the fabric curtains surrounding patients' cubicles were not soundproof, thus conversations could be easily overheard during intimate activities such as the use of commodes at the bedside for toileting. There were examples of carers endeavouring to protect patient's privacy by choosing to remain in the day room when personal tasks were being undertaken, such as dressing and toileting.

Prioritising ward processes

During stakeholder consultations, staff expressed concerns that allowing open access would interrupt ward processes. One nurse stated, *'they wander around and get in the way*' (INV-EAU-S-03). If carers were willing to assist with caring duties such as feeding during mealtimes, their presence was actively encouraged on the medical ward. One nurse explained that this was '*timesaving for staff and important for readmission avoidance'* (STC-04). This view was supported during observations of the 'Luncheon Club' on the medical ward, where having individual support from carers with feeding was viewed positively and benefited staff by releasing them to perform other tasks. One nurse suggested that an additional benefit was that '*It stops the car parking crowding at two o'clock'* (INV-MW-S-05).

The initial programme theory was revised to include these ideas and is presented below in Table 32. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 32: Refined theory 2 - Open access for principal carers

Context +	**Mechanism-resource**	**Mechanism reasoning/response =**	**Outcome**
Carers willingness to be involved. Convenience of conventional hospital visiting times for working carers, those living at a distance, or relying on public transport. The experience of emergency admission and uncertainty of an acute medical condition can be frightening and isolating for patients. Carers may be nervous about facilitating recovery at home after discharge.	When patients are medically stable, allowing principal carers access to the ward at any time throughout the day, increases opportunities for staff and carers to interact and communicate. A three-way conversation can take place between the carer, staff, and the patient about routines and preferences. Provides carers with direct and timely information and an opportunity to assist with care and to see at first-hand how well patients are progressing with activities they normally do at home. Patients have someone familiar with them who can assist with tasks.	Patients feel comfortable and supported which relieves stress and isolation and helps develop a more positive mind set (especially patients with cognitive impairment, or those who would otherwise be 'specialled'). Helps alleviate carers' feelings of anxiety, gives them a sense of control, and builds confidence in their ability to cope after discharge. They feel welcome and valued and are therefore more likely to contribute to the care process and decision making. **Staff recognise the importance of carers in the recovery process and feel empathetic towards them, based on their own personal experience**. They feel that it is ethically right for carers to be present. Conversations are perceived to be more realistic, which helps them to identify and resolve any problems that might delay discharge early on. **Rival theory:** Staff may be unaware of changes to conventional visiting times or find it difficult to identify carers. Inconsistent messages about visiting times may be given out because of ingrained habits, a sense of losing control, or concern about disrupting ward routines. Staff may feel that restricted access is necessary at times to maintain privacy and dignity, and due to limited space at the bedside. Staff (especially doctors) may not consider things from the patients' perspective. Consultants may be anxious that their morning ward rounds will take longer. Carers may feel obliged to visit or feel guilty if they do not because of the perceived authority of nurses. Others may not be aware of their eligibility or see hospitalisation as a respite from caring duties.	Separation from loved ones is minimised and familiar routines are maintained. High morale and a better hospital experience for patients and cares. **Reduced readmissions** and LOS. Timesaving for staff as they are often trying to contact carers by phone (especially if a patient is confused). Help from carers is an additional resource for staff. **Car park crowding is relieved during visiting hours.**

Theory 3: Principal carers are invited to the ward round

Overall, consultation participants agreed that principal carers were being invited to attend the doctor's ward round visit. However, only a small number of carers were reported to have attended. Opinions varied on the reasons for this. Some participants thought this was because of improved access to information, through a new 'carer inclusion' initiative and telephone access to a new carer database. Increased flexibility and a more consistent presence of doctors on the wards through the day, and shorter LOS were also believed to have impacted attendance. Contrastingly, others suggested that carers often felt unwelcome, which was compounded by a lack of support available to meet their needs. Another difficulty expressed by nurses was identifying principal carers when patients had many family members who wanted to attend.

During ward round observations, doctors reviewed each bay in turn and visited individual patients at the bedside. The ward round was longer on the medical ward than on the EAU. Much of this time was spent reading and writing notes. The amount of time spent with patients varied according to their condition and whether they were new to the ward. Interactions typically lasted for several minutes per patient. Friends and relatives were typically asked not to visit during these times (except for those living at a distance or visiting terminally ill patients). Staff stated that this was due to the ward *'getting too busy'.* The congested environment was apparent during observations, as illustrated in the field note excerpt below.

> During the ward round, seven doctors are gathered around the note's cabinet. We are sandwiched between a wheeled computer stand, a drugs trolley, two side room doors and the entrance to the bay. It feels congested and I consciously try not to get in anyone's way. An HCA pushing an ultrasound machine along the corridor approaches the group and says, *'Excuse me.'* The computer stand and the notes trolley must be moved out of the way, and everyone shuffles about to let her through. The conversation recommences, but a few minutes later another HCA arrives pushing the tea trolley and everyone moves again to let it pass (FN-MW-130).

The initial programme theory for PT3 was revised considering this evidence and is presented in Table 32. Further evidence supporting the interpretations is shown in Table 25.

Table 33: Refined theory 3 - Principal carers are invited to the ward round

Context	**Mechanism-resource**	**Mechanism reasoning/response**	**Outcome**
Typically, little information about the process or rationale of in-patient care is provided to carers. Hospital policy which limits the amount of information that can be given via telephone. Carers may have difficulty getting through to the ward or speaking to the right person. Medical focus of doctors and workload pressures. **Ward environment.**	The patient's principal carer is invited to attend the doctor's morning ward round visit. This provides an opportunity for carers to speak directly with the doctor, ask questions, hear about the patient's condition, discuss the management plan, and raise important practical and social issues.	Patients feel less anxious, dependent, and more confident having someone to support and advocate for them during the consultation. Carers prefer to speak to the doctor 'face to face' because they get accurate information. Knowing what is happening and planned is reassuring and relieves anxiety. Doctors feel that the interaction is more valuable because they get a better sense of the patient as a person, a 'truer picture' of their social circumstances, and gain additional information (especially if the patient has a cognitive impairment). **Rival theory:** Nurses may find identifying principal carers difficult. Doctors may be concerned about time pressures and feel that relatives asking questions will hold them up. Carers may not attend if they view the hospital stay as a respite from their caring role and an opportunity to attend to their own needs. Because of poor communication they may not receive an invitation. The timing of the ward rounds may be problematic for carers who work, live at a distance, or are reliant on public buses. Carers may feel that patients do not need them there; they already know enough about the situation or the care process (particularly if the patient has had multiple admissions); they are too busy; they would rather 'leave it to the professionals' (unless it is something serious); speaking to doctors may feel uncomfortable or intimidating for cares because they do not understand the language used. **Reduced LOS and better access to information and doctors may reduce carers attendance.** There is a risk that the carer takes over the consultation and the patient's preferences are not heard.	There is a change in organisational culture and relationships are more equal. The consultation does not take any longer. Carers are more engaged and influence decisions made about patient care. Better and more personalised care plans can be agreed and taken forward that include patient and carer preferences. Patients have a better hospital experience.

Theory 4: Free parking for principal carers

There was strong support for offering free parking amongst consultation participants. It was thought to be ethical due to the demands of the carer role, particularly during palliative care. However, the number of carers taking advantage of the free parking was less than anticipated. One member of staff suggested that carers will come anyway as they already feel well supported.

The initial theory for was revised considering this evidence and is presented below in Table 34. Further evidence supporting the interpretations is shown in Table 25 and appears in full in Appendix 30.

Table 34: Refined theory 4 - Free parking for principal carers

Context	**Mechanism-resource +**	**Mechanism reasoning/response =**	**Outcome**
Parking at the hospital site is limited, expensive and a major frustration for carers visiting the hospital frequently. Willingness of people to identify themselves as carers (typically, men may be reluctant). **Availability of support for carers from the organisation.**	Free parking at the hospital site is offered to principal carers registered with the hospital. Demonstrates recognition of the valuable role carers play in supporting the recovery of patients and reduces the financial burden of visiting the hospital.	Acts as an incentive to attend ward rounds. Eliminates stress and frustration for carers because they no longer arrive on the ward in a tense state or need to ‘clock watch whilst visiting. They feel supported and valued. **Staff believe this is an ethical practice due to the demands of the carer role, particularly during palliative care.** **Rival theory:** Carers may be unaware of the free parking initiative. **Carers will come anyway as they already feel well supported.** People claim to be principal carers when they are not, to benefit from free parking.	Carers are present more often and are more involved in decision making, resulting in better quality decisions being made. It helps to identify carers and promote ‘carer registration’, which gives carers access to support from the hospital, such as peers network and resources.

Theory 7: Swift resumption of normal activities

Consultation participants reported that the ERM programme had increased awareness of the importance of resuming normal activities *(*STC-03), and this had been a catalyst for the development of new hospital initiatives. For example, a pilot scheme in progress at a nearby rehabilitation unit was believed to be *‘similar to ERM in that it aims to change ward culture and establish good habits around eating and getting dressed’* (STC-09). Inpatient wards had recently ‘signed up’ for ‘health coaching’ and ‘social prescribing’ initiatives. A related national social media campaign called ‘# End PJ paralysis’, was also described, which was launched in 2016 to address the issue of prolonged immobility in hospital. This had been trialled at the hospital for a few weeks, however, a participant reported that staff were critical of the approach because *‘It promoted a less positive message than ERM, so was not embraced’* (STC-08)*.* Overall, improvements in getting people sitting out of bed and moving physically were reported on both wards.

An important contextual change highlighted was a change in the patient population of the EAU. One nurse stated, *‘when people can walk, they go elsewhere now. They are moved on to intermediate care’* (STC-11)*.*

Early mobilisation

It became clear during observations that promoting and supporting early mobility was a key focus for staff in both settings. They routinely explained the benefits of moving around, encouraged patients to get out of bed, ‘sit out’ in bedside armchairs, move around the ward and use the day rooms. Verbal reassurance and practical assistance was provided when necessary. An EAU nurse reflected *‘It takes a lot of encouragement to get them walking, but they like it.’*

> *The therapists are very proactive, we have to haul them off the patients rather than put it on. They’re very proactive. Proactive individuals make the difference, not the processes. The HCAs are also very good, very proactive. You need HCAs with enthusiasm, but if there are too many patients in one bay, capacity is too saturated to do it. And when the numbers are too high, they will lose heart. Challenging patients change the numbers* (INT-MW-S-03).

Attempts by staff to encourage patients to be physically active met with contrasting responses. Willingness to mobilise was affected by patient condition and preferences. Some patients reported that physical participation felt *'too hard'* given the stressful circumstances of their illness and their preference was to rest their bodies and stay in bed. Others were concerned by pain and one patient described '*giving into tempting to stay in bed because it was more comfortable'.* The repeated challenge of choosing to undertake activity could cause fatigue, particularly for frail patients. Some patients were motivated to get up and move around independently because they understood it would help them to recover. Others stated that they chose to mobilise simply because it was enjoyable. There were beneficial knock-on effects of the nurses getting patients up and dressed as explained by one of the therapists:

> *If we walk into a bay and the nurses have been really on it, they're out, the radio's on, and they're much more engaged in therapy* (INV-MW-S-01).

A key aspect of the therapists' work was to encourage and enable independence and in particular mobilisation. Rehabilitation interventions were valued by carers and family members and small progressions were celebrated. Seeing their loved ones regaining 'normal' levels of independence was both a positive experience and reassuring.

> *It was the first time we've seen him up* [carer's father]. *He was walking with a stick, and he'd walked to the Day Room. It was nice to see that* (INV-MW-C-02).

However, rehabilitation activity was limited.

> *It's frustrating that we can't offer daily rehab. The physiotherapy input is quite basic. It's either an independent or heavy double. The session may be only sit-to-stand. Once they've reached their baseline, we don't see them unless any problems are flagged by the nurses. It's new patients and discharges* (INV-EAU-01).

Patients were mostly seen sitting out in bed-side armchairs or lying on their beds. There was less observable movement of patients around the ward. Generally, they were sedentary. In stark contrast, staff were engaged in constant activity, purposefully going about their work, and moving around the wards, against a consistent backdrop of new arrivals and departures.

Deconditioning

It became clear during observations that hospitalisation itself had a deleterious effect on some patients. I witnessed the physical decline of several older patients who were independently mobile when admitted to the medical ward. Within a matter of days, insufficient physical activity generated lethargy, they became progressively inactive and spent increasing amounts of time in bed wearing their pyjamas throughout the day. This did not appear to correlate with any decline in their medical condition, as evidenced by cross checking in medical notes and through conversations with staff.

Physical environment

One possible explanation for this lack of patient activity could be a lack of meaningful places to go. The bed areas were small and ward corridors cluttered and appeared unconducive to ambulation. One nurse described diagnostic tests as inhibitory.

> *…they could go to the café*, but they're anxious about missing something on the ward. They would eventually get it, but if they miss their slot, it could delay discharge* (INV-S-EAU-05).

**Situated in another area of the hospital*

Most patients managed to adapt to the ward environment, however, I noted that one patient fell trying to mobilise during the fieldwork period due to cognitive problems.

The initial programme theory was revised to include these ideas and is presented below in Table 35. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 35: Refined theory 7- Swift resumption of normal activities

Context	**Mechanism-resource**	**Mechanism reasoning/response**	**Outcome**
Personal preferences and motivation for physical activity. Patient characteristics, such as condition, normal level of activity, and circumstances of admission. Positive and trusting relationships between patients and staff. Sleep quality and presence of lines and monitors. **Suitability of physical environment and places to go.** Time pressures and capacity issues. **MDT approach, strong therapy presence and proactive attitude of team members.**	The importance of avoiding unnecessary bed rest is emphasised and patients are encouraged and assisted (if necessary) to mobilise (within 24 hours of admission). Nursing tasks are carried out in a different order and focus on encouraging independence, self-care and helping patients to follow their normal personal routines.	Patients enjoy getting up and mobilising. This alters their perspective, reduces feelings of resignation, and they feel physically and psychologically better in themselves (less sick). Facilitates self-efficacy and independence by enabling them to complete everyday tasks, such as washing and dressing, walking to the toilet, getting their own drinks, and helping other patients. Nurses experience positive interactions and increased engagement from patients. Everyone is enthused, especially those who want to leave hospital as soon as possible. When patients are up and dressed, there is a noticeable difference in morale, the ward atmosphere feels better, and rehabilitation is facilitated. Maintaining usual everyday routines and normal activities whilst in hospital gives patients a sense of control, builds confidence in their abilities, helps them to feel confident and safer going home**. It brings relief to carers,** and reduces convalescent demands on them after discharge. **Rival theory:** Nurses may be resistant to changing established ways of working or perceive ERM as extra work. Patient's ideas about what will contribute to their recovery may conflict with the advice and expectations of staff. Patients experiencing pain and fatigue may feel weak and incompetent regarding doing as recommended. Patients with expectations of bed rest may feel pressured and that they are sent home too soon.	Minimising periods of inactivity preserves muscle strength and functional capacity. Recovery is faster and complications and LOS are reduced. Patients maintain their independence whilst in hospital and the ability to perform activities of daily living, leaving hospital less debilitated. Primary and social care services have fewer dependent patients to provide services for. If patients take on tasks previously performed by nurses, then nursing care time per stay is reduced, and there is a shift from nurses attending to physical needs to giving information and advice. Older patients benefit most.

Theory 8: Getting dressed into day clothes.

Consultation participants suggested that tracksuits were no longer provided by the hospital (STC-05, STC-09). This was confirmed through observations and therefore, this aspect of the theory remained unchanged.

Urgency of emergency admissions

The urgency of emergency admissions frequently resulted in patients lacking clothing and other personal items. If clothing was not available to them, they relied on hospital clothing and gowns, which were often worn out of necessity rather than choice. On both wards, I observed that hospital gowns were worn unnecessarily on occasions when pyjamas or regular clothes would have been more appropriate.

Carers, friends, and relatives assisted patients by dropping off personal belongings. A patient who lived alone with no family nearby, who was admitted with a head injury following a fall stated.

> *I've got no idea when I came in. I had a fall at home, and I was brought in by the paramedics. I usually have a bag packed just in case, but it only had some of my things in it. I've got enough to put on because my friend has brought some things in for me* (INV-MW-P-01).

However, clothes bought in by carers and relatives could be ruined quickly, as explained in the following field note except from a conversation with the wife of a patient admitted to the medical ward.

> The patient's wife tells me, *'I've been bringing clothes in for him every day. They were perfect'*. I ask if she knows why her husband is sitting out in his chair in his pyjamas today? She replies that she doesn't know. An HCA who is nearby says, *'they were dirty'.* The patient's wife goes on to say, *'he only has to go to the bathroom and his trousers drop to the floor, then they're all wet so they're no good'* (INV-MW-C-03).

The staff in both settings worked hard to ensure patients were clean, presentable, and dressed. However, variability in illness status was a feature of the acute context. The patient's condition could influence the patient's ability and desire to get dressed.

> *I try to get patients up and dressed by 12pm because of pressure areas. It depends on the patient. Some prefer to stay all day in bed. Not everyone wants to get up, but the doctors are on my back if they're not out, but you can't force anyone. They may have been out all the previous day* (INV-MW-S-06).

Patients were particularly motivated to get up and dress when going home or receiving visitors.

> *I got up because I thought I was going home today* (FN-MW-228).

Personal appearance was important to many patients as a way of maintaining self-identity and feeling oneself. Personal decisions on what to wear were supported and encouraged by nurses.

> A nurse walks into the bay to find the patient freshly dressed in a clean white t-shirt, navy slacks and black velvet slippers and combing her own hair. She exclaims aloud and appreciatively *'Wow, look at you!'* The patient looks pleased and says, *'I haven't been wearing a bra in here, but I think I need to with this top...'*(FN-MW-32).

I also noticed that the patients' usual appearance was important to their relatives.

> *I've never seen dad without his glasses on, it's odd, he doesn't look like himself…* (INV-MW-C-02).

The initial programme theory was revised considering this evidence and the refined theory is presented in Table 36. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 36: Refined theory 8 - Getting dressed into day clothes

Context	Mechanism-resource	Mechanism reasoning/response	Outcome
Urgency of emergency admission. Patients who live alone or do not have carers nearby. Availability of sponsorship to purchase tracksuits. Staff perception of cost/benefit of tracksuit purchase. Patient characteristics such as age and medical condition. Patient expectations of hospitalisation e.g., equating hospital with bed rest. Conventional hospital care is bed focused. Willingness to change traditional bed-centric nursing practices.	Patients are encouraged to get dressed every morning into their own day clothes. Carers are asked to bring these in, but when this is not possible, single use tracksuits are provided.	Tracksuits are popular and valued by patients. Getting dressed into day clothes (rather than wearing pyjamas of flappy hospital gowns) **maintains self-identity.** Patients feel better, ‘normal’ and more comfortable. Changes expectations of having to stay in bed, encourages and enables them to move around and engage in normal everyday activities with dignity and privacy from early on in their hospital stay. Older patients have more social interactions. Seeing patients dressed boosts staff morale and is an incentive to give them more support and encouragement. **Rival theory:** Tracksuits are taken by staff from other wards for patients who are homeless or have soiled their clothing. More experienced nurses may resist adopting new practices. Tracksuits may be perceived as an expensive resource rather than a saving in comparison to extra days in hospital.	Patients’ experience of being in hospital is improved. Mobility is increased as patients regain their independence sooner. Older patients benefit most and get home quicker. Patients’ privacy and dignity is maintained. Risk of bodily exposure from wearing hospital gowns is reduced.

Theory refinements 9: Energy drinks round and drink station

While drink stations and daily drink rounds were operating on several of the specialist medical wards at the hospital, during the fieldwork period, they were no longer taking place on either of the selected wards. Consultation participants offered the following explanations regarding the disappearance of the drink stations. Structural changes to the EAU, specifically, the creation of a clinical assessment room, had increased pressure for space and resulted in reorganisation of the ward. The layout of EAU had posed a risk for patients walking down long corridor with hot drinks. There were also concerns about infection control.

Energy drinks were only given out when prescribed, as prior to ERM programme implementation. There were mixed views regarding this. Some staff expressed regret because they perceived energy drinks to be quick and low-cost, whereas others described low up-take by patients and personal frustration at the high levels of waste.

Patients appeared to receive adequate fluids because hot and cold drinks were offered regularly throughout the day. Relatives also brought in drinks for patients. Water jugs were generally present by the bedside and were regularly topped up. However, a lack of care in the placement of water glasses and teacups could prevent some patients reaching their drinks, as illustrated in the following field note taken during the ward round:

> The doctor pulls a table towards a patient sitting in her bedside chair so that she can reach her drink. He says *'Classic, we all do it. Why doesn't she drink? The table is at the end of the bed and she's wheelchair bound'* (FN-MW-40).

Furthermore, 'Intentional rounding' (Flowers et al., 2016) had been implemented on the wards for patients identified as at risk from falling or pressure ulcers. This initiative involved staff visiting patents regularly every few hours (depending on individual need), checking and recording their care needs. This included asking whether they required a drink, with the aim of reducing dehydration.

This evidence led to several refinements of the initial programme theory shown in Table 37. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 37: Refined theory 9 - Energy drinks round and drink station

Context +	**Mechanism-resource**	**Mechanism reasoning/response =**	**Outcome**
Older people at risk of being discharged with an ADL disability. Patients with nutritional deficiencies and an increased tendency to develop dehydration. Long waits between hot drinks being offered and unpleasant tasting hospital water. **Availability of physical space and safety issues.**	From admission, energy drinks are provided daily during an additional morning 'drink round'. Patients are encouraged to drink plenty of fluids, and staff explain why this is important. A drink station is provided on the ward for ambulant patients to use at any time.	Patients like the energy drinks which are easier to tolerate than hospital food when feeling unwell. They may also stimulate appetite. They feel physically better and more inclined to get out of bed and do things because they are hydrated, and the additional calories give them energy. The drink station provides an incentive for patients to get up and walk regularly. Access to drinks whenever patients want them, without having to ask staff, or wait for staff to bring them, supports patient autonomy. **Rival theory:** Staff may be reluctant to offer energy drinks because they think patients will not drink them or will leave them unfinished (as they are sweet, rich and taste unpleasant), **which is wasteful.** Young girls may be reluctant to drink energy drinks as they are high in calories. Nurses may be reluctance to take on the extra drink round due to time pressures. Consultants may be unsure about the clinical benefits of energy drinks. **A lack of care in placing teacups and water glasses can limit patient access to fluids.**	Patients may not need an intravenous (IV) drip, Iatrogenic complications and LOS are reduced. Physical activity is increased, and faster recovery, which facilitates earlier departure from hospital and associated cost savings.

Theory 13: Organising care and goal setting

Consultation participants suggested that the ERM programme provided a sense of order for staff, describing it as *'a practical framework for how the ward was run and a check list for action, which aimed to get patients into a routine in a safe environment.'* (STC-03). Some ERM interventions were reported to have disappeared from practice. Staff suggested that other interventions, were no longer maintained in their original form, but had been influential in shaping hospital culture. Various explanations for this were offered, including patients not being on the ward long enough for daily interventions, reluctance of nurses who '*learnt to nurse in a bed'* (STC-07) to take on additional clinical tasks and new practices. It was also suggested that high workload and patient throughput were inhibitory, distracting staff from following the process.

Posters produced to provide information about the programme were in situ on the EAU. The principles of ERM were clearly referenced in newly written leaflets distributed to patients as part of a discharge pack titled 'leaving hospital'. It was unclear whether these reflected interventions becoming embedded as routine practices or an organisational legacy from earlier iterations of the programme. Therefore, to explore this idea further, I questioned various staff with different lengths of service of the wards. Some of the newer nurses had limited knowledge of the programme details but were familiar with the ERM name. More experienced staff had a strong working knowledge. Observations confirmed that the structured daily delivery of the ERM intervention bundles had not been maintained in their original format and daily process measures were no longer routinely collected. However, staff in both settings described continuing with ERM interventions, but without referring specifically to them by name. For example, on the medical ward the discharge coordinator said:

> *Every now and then, doctor [name] mentions ERM. We still do all the things, getting people up, without naming it* (INV-MW-S-03).

A newly recruited EAU senior nurse stated:

> *We're doing untethering and SBAR. They follow this, but don't state it and the P bit could be better* (FN-EAU-49).

The degree to which staff perceived the interventions were beneficial to practice, facilitated adoption. When practitioners were not convinced of the advantages of innovations, they reverted to practice routines that were familiar or less demanding.

Collaborative goal setting was undertaken for those patients who were not going home. Therapists were observed working with patients to set up, support and progress goals regarding mobility and activities of daily life.

Social community/leadership

Card-sort participants had indicated that leadership played an important role in promoting and facilitating implementation of the ERM interventions. The ERM project team members acted as a role models, championing the new practices, and supporting and training colleagues. Around the time of the fieldwork however, several central members of staff changed job role, took maternity leave, or retired, which significantly impacted implementation. One participant reflecting on the role of the huddle members stated:

> *Her [name of discharge coordinator] enthusiasm was infectious. [therapist name] was a key influencer as she was a manager of the Band 6s. [Manager name] had great networks and a connection with the Medical Director. [Nurse name] was key* (STC-03).

Similarly, a contextual factor which influenced the implementation of the programme was a lack of the perceived endorsement and support from organisation leaders. An example of this was a lack of success in securing financial support for a dedicated programme administrator role.

Congruence with organisational strategic aims and performance measures.

Organisational strategy was important in influencing and directing staff activity and a high value was placed on organisational targets. At the time of the research, the four-hour maximum waiting time targets in the Emergency Department (ED), outlined in the NHS operating Framework (2018), was an organisational priority which dominated practice. At an institutional level, a key context at the time of the fieldwork was the vertical integration of the acute trust with community services to become an ICO, as described previously. Staff felt that large scale organisational change initiatives were well supported by senior leaders, but smaller clinically focused projects such as the ERM programme had received less attention and support. They were also critical of clinical middle managers, who they believed were reluctant to support innovations which were not sponsored by senior executives and colleagues. One participant stated, *'only the goals that are important to the service are pushed and pressured'* (STC-12).

Another stated:

> *…the matrons weren't overly interested as there was no operational messages. There were always naysayers, convinced we were already doing O.K and into the paternalistic thing. Some front-line staff were old school... faces didn't fit, and success depends on who buys in'* (STC-07).

A doctor spoke about '*jumping on the bandwagon'* (STC-10) and capitalising on opportunities presented by top-down organisational initiatives to focus on areas that would improve care in their own speciality.

Unintended cultural shift

One of the unexpected outcomes of the ERM programme revealed in earlier interviews was a rise in the profile of carers across the organisation. On commencing the fieldwork, I noticed positive changes in relation to carers, which indicated a positive shift in culture regarding their perceived value.

The initial programme theory was revised to include these ideas and is presented below in Table 38. Further evidence supporting the interpretations is shown in Table 25, and appears in full in Appendix 30.

Table 38: Refined theory 13 - Organising care and goal setting

Context +	**Mechanism-resource**	**Mechanism reasoning/response =**	**Outcome**
Engagement of individual members of staff. Patient condition and recovery trajectory. Positive feedback on progress from staff which can enhance patients' efforts to achieve goals. **LOS, workload pressures, and patient throughput.** **Congruence with organisational strategy, competing priorities, and highly valued performance targets. Lack of endorsement, and resources from organisation's senior leaders.** **Reluctance of nurses to adopt new practices and additional tasks. Availability of evidence to support new practices.** **Community of enthusiastic and credible multi-professional leaders.**	From admission, 'bundles' of interventions are implemented daily (e.g., welcome to ward, reminder that principal carers can come in at any time, drinks trolley, taking down drips, getting dressed into day clothes, mobilisation, daily energy drinks round and drink station). A standardised approach is taken to gathering and sharing information, explaining how patients can help themselves recover, and including patients and carers in decision making and care processes. Staff work with patients and carers to create an individual daily routine (tailored to the patient's particular condition, needs, values, and wants) and set personal realistic daily goals to aim for. The patient is reminded of these goals daily and is encouraged and supported to achieve them.	Patients feel energised, have something to strive for and focus on and take an active role. Engages all staff on the ward, **provides a sense of order, a checklist for action** and a shared focus, and they work together with a common purpose. Nurses have more input into the care provided and more control over their routines. They work flexibly around established ward processes (e.g., the drugs round), but are not restrained by them. Knowledge of the patient and professional judgement are used to adjust the plan and progress goals throughout the patient's hospital stay. **Staff recognise an opportunity to promote change in their own area through jumping on the 'bandwagon' of other organisational initiatives.** **Rival theory:** The focus on tasks and techniques may get in the way of nurses responding to patients' personal and emotion needs. Processes may conflict with patient preferences. Implementing and coordinating ERP interventions can be difficult. Staff may lack motivation to progress patients due to workload pressures. Nursing routines and the ward environment may feel disordered at times. Time demands on nurses may increase, but being behind on tasks is acceptable if there is a justifiable rationale.	Successful programme implementation. Faster recovery, shorter LOS, and associated cost savings. Care quality is improved because it is flexible, personalised and considers the patient's individual condition and preferences. **Unintended cultural shift leads to implementation of innovations and polices as a by-product of the programme.**

Theory 14: Untethering from drips and monitors

Consultation participants agreed that ‘untethering’ from drips and monitors was routinely practiced. Some felt it was an older established practice, while others believed this change had come about because of the ERM programme. One participant suggested that there was potential to further improve untethering. There was consensus that ‘drip free mornings’ were no longer taking place on the wards, and this was confirmed through observations. One participant suggested that on the EAU this was because urgent medical needs needed to be prioritised.

> *Treatment must come first. If a patient’s sodium is low in the EAU, it has to be put right straight away. Drips are needed for urgent treatment, so you can’t mess with them* (STC-08).

Generally, nurses were observed to be proactive in taking down IV drips. Patients were also regularly seen mobilising accompanied by clinicians with their IV drips in situ, hooked onto drip stands. Inserting or removing an intravenous cannula (Venflon) involves following a sterile technique due to the risk of infection. Only registered nurses were permitted to carry out this task. Monitoring was also needed to ensure IV drips continued to function properly, as there is a high risk of dislodgement from undue movement. Several patients described how they found IV drips difficult to manage and uncomfortable.

> Phil (74 years) has an IV fluid drip. He tells me it is very sensitive and that it is beeping because it is blocking. He says, *‘It’s done that six times this morning. I thought I was helping by wrapping it around my hand, but I got told off. It’s still not right’.* While we are chatting, an HCA responds to the beeps and comes over to check it. She unwraps the line from his hand and sorts it out. When she has left us, he tells me, *‘If I want to go to the toilet, I’ll undo it. I won’t ask…’* (FN-MW-25).

Another patient was frustrated by the impact of an IV drip on his ability to carry out everyday activities such as dressing and toileting independently (INV-EAU-P-07). This indicates that untethering was particularly important for independent patients who feel a sense of frustration and helplessness when their freedom and choices and limited by IV drips and are more likely to rebel against the instructions of the clinicians.

The initial programme theory was altered to reflect these observations and is shown in Table 39. Evidence supporting the interpretation is summarised in Table 25, and appears in full in Appendix 30.

Table 39: Refined theory 14 - Untethering from drips and monitors

Context +	**Mechanism resource**	**Mechanism reasoning/response =**	**Outcome**
Older patients at risk of developing complications and being discharge with an ADL disability. **Patients' desire for independence.** Role and experience of staff. **Urgency of medical treatment needs.**	Proactive taking down of IV drips, and removal of monitors as soon as possible. More consideration is given to whether an IV drip is needed and when to start it (aiming to untether patients for a few hours daily or a 'drip free morning'). Avoiding techniques that enforce bed rest such as 24-hour IV fluids.	Removes physical and psychological barriers to mobilisation, which makes it easier for patients to get up, dress and do normal everyday tasks. **Promotes autonomy and freedom.** Minimises upset, **frustration** and discomfort. Patients feel more comfortable, less medicalised. Creates a more peaceful environment and improves patients' sleep, which ensures they have enough energy to cope with rehabilitation tasks.	Wellbeing is improved and physical abilities are maintained (especially older patients), which facilitates earlier departure from hospital and an easier transition to the demands of self-care after discharge. **Reduces the likelihood of non-sterile removal of catheters by patients and risk of harm.**

7.7 Summary

In this chapter, I have presented the findings from the ethnographic fieldwork and mapped this data to the theories developed through earlier phases of the study. Refinements were made accordingly, and the final revised theories presented. Through testing and refining the theories in a real-world setting my understanding of how and why ERPs work deepened, which led to further development of my theories. The ethnographic approach enabled exploration of the theories in everyday practice, provided a detailed understanding of the ERP from a wide range of perspectives (Staff, patients, and carers), and rich contextual insights from the two embedded case studies.

Testing and refinement revealed that:

(1) Proactive discharge planning supported timely seamless discharge, shorter LOS, and improved hospital experience for patients and carers. However, it could also lead to feelings of frustration for staff because it impacted on their ability to deliver rehabilitation and was perceived to increase failed discharges and readmissions. Low staffing levels, workload pressures, time constraints, complex patient needs, unpredictable recovery trajectories, high bed occupancy, availability of hospital transportation and community placement capacity were inhibitory. Enabling contextual factors included an organisational focus on patient flow and new discharge models, strong MDT working relations, good communication between staff, patients and carers, and patients' desire to leave hospital.

(2) Involving patients and carers in decision-making and care processes fostered a sense of ownership and control, empowered patients, and increased collaboration. Resulting in more appropriate and individualised care, shorter LOS, improved hospital experience for patients and carers, and support for carers. This was affected by patient characteristics, individual patient and carer preferences, organisational priorities, and staff attitudes.

(3) Encouraging an active role and sharing responsibility for recovery supported patient autonomy by motivating and empowering patients, leading to enhanced engagement and greater self-care activity. This was affected by individual

patient characteristics, behavioural norms, expectations and preferences, practice norms of professional groups, and the ward environment.

(4) Recognising patients as individuals and being responsive to what matters to them empowered patients, and enabled care to be tailored to address their bio-psychosocial needs. Leading to improved patient well-being, positive morale, and better-quality care. Congruence with organisational priorities, personal values of staff, and authentic relationships were facilitatory contextual factors. Insufficient time and heavy workload, urgency of medical issues, hospital systems and processes, paternalistic and task-based care were inhibitory.

(5) Communicating with patients and carers and sharing information motivated and empowered patients to participate in positive health behaviours, such as physical activity and self-care. In turn, this altered relationships, leading to a positive ward atmosphere, shorter LOS and reduces readmissions. Trust, authenticity, and humour were enabling to this mechanism. Open hospital wards, a culture of efficiency and task-based care, access to technology and hospital systems were inhibitory factors. Time was an enabler but became a constraint when limited.

In the chapter that follows, I discuss the refined programme theories in relation to the wider academic literature. Reflecting on the limitations and strength of my research and how these findings may be transferable to other organisations.

Chapter 8: Discussion

The previous chapter presented the findings from the ethnographic fieldwork and mapped this data to the theories developed through earlier stages of the research. Refinements were made accordingly, and the final revised theories were presented, which offer insights that help to explain how and why the ERM programme might produce different outcomes in different contexts.

This chapter summarises the main findings of the research in section 8.1 and demonstrates how the study aim was met, and the extent to which the research questions were answered. In section 8.2 medical and surgical ERPs are compared. In section 8.3 the study findings are discussed in the context of the existing literature. Section 8.4 discusses programme implementation and sustainability issues. The strengths and limitations of this research are considered in section 8.5.

8.1 Summary of findings

In U.K. NHS hospitals ERPs have emerged first, in the specialism of planned surgery and more recently and less extensively in the specialisms of acute and internal medicine. Although ERPs hold promise to benefit medical patients, there is little understanding of how and why they might impact recovery, or which interventions and mechanisms that underlie effectiveness in planned surgery transfer to patients admitted to hospital with acute medical illness. To address this problem, I undertook a realist evaluation of an ERP in an NHS acute district hospital in England. To my knowledge, this study is the first to explore ERPs in the context of medicine. This study aimed to understand how ERPs in medical settings work for whom, under what circumstances and why. The overarching research questions addressed in this thesis were:

1. What are the key characteristics and processes of ERPs in medicine?
2. What are the underlying causal mechanisms of change in medical ERPs?
3. How do contextual factors influence (enable or inhibit) the mechanisms?
4. What are the outcomes (expected and unexpected) of ERPs in medicine?

To address the first research question, I undertook an initial scoping review of published research and grey literature on the topic of enhanced recovery programmes in medical settings. Data from all stages of the study were used to address research questions 2 to 4. The different stages of the research focused on the individuals involved in the development and delivery of the ERP at the hospital as well as programme participants (patients, carers, and hospital staff). A diverse range of perspectives were captured, and a wealth of valuable high-quality data was generated.

The review of the medical literature relating to ERPs revealed an underdeveloped and fragmented body of grey literature. I identified various ERPs implemented in NHS hospitals, at different stages of development. The extent to which programmes were described varied, but some common characteristics of programmes were discernible. Medical ERPs are complex, consisting of multiple interacting interventions, delivered by numerous professional groups between hospital admission and patient discharge. Programmes address not only the physical care of patients, but also their psychological and socio-economic needs. This indicates that they are based on a broad conceptualisation of recovery. Outcomes were identified at the individual, relational, organisational and system level. It was possible to elicit twelve tentative initial programme theories from the published evidence. However, I found explanatory detail and empirical evidence was limited. Therefore, to inform the development of the initial programme theories for medical care settings, I sought transferable insights from similar well-established programmes in the hospital specialty of surgery.

Reviewing the surgical literature showed that previous research has focused on the effectiveness of ERPs (Chapter 3). Biological and economic outcome measures of recovery are well researched, but the patient perspective and outcomes after discharge remain relatively unexplored. The data from the review provided significant evidence of biological mechanisms, but psychological and socio-economic mechanisms were also identified, which have received less research attention. This indicates that surgical ERPs are largely based on a biomedical model of recovery and that other key dimensions of recovery are unlikely to be accounted for. Surgical ERPs are structured and standardised care pathways, however there is disagreement about the number and type of interventions that should be included. Implementation difficulties are common, adoption into practice is variable, and compliance with component interventions inconsistent. This suggests that alternative research approaches are required, where the focus is on contextual factors, implementation variation, and social and relational factors, which effect outcomes. From the substantial literature, twenty-one surgical CMOCs were generated, of which, ten were judged to be applicable to medicine (based on shared underlying principles and alignment of interventions). Integrating the two sets of programme theories from planned surgery and medicine resulted in fourteen programme theories, which were then refined and developed through realist interviews with practitioners at the study site.

Data from the interviews revealed that the ERP at the research site, known as the ERM, was an established and widespread programme in place on both acute and general medical wards. The programme was a bottom-up initiative, led by a project team of front-line staff and was widely recognised and accepted within the organisation. Some aspects, such as securing resources and establishing outcome measures were at an early stage of development. The ERM consisted of a total of twelve biological, psychological socio-economic, interventions, which closely matched those identified in the literature. However, although based on a surgical ERP model, substantial modifications meant that there were some significant differences in the way the ERM programme was managed and delivered. Rather than a strict care pathway, a ‘care bundle’ approach was used, with a group of daily programme interventions carried out together. Adaptations were made at the discretion of the staff to ensure flexibility and customisation to individual patient needs and preferences. Implementation difficulties were also noted. A further finding from the interviews was that cultural transformation was an intended mechanism of change. There were also different professional viewpoints about the value of the ERM approach and how it aligned with current practices.

Through a card-sorting exercise a core of five theories were prioritised by practitioners as most important in generating programme outcomes. Rather than clinical, these theories were predominantly person-centric, and one theory focused on efficient discharge. Enhancements in recovery were explained by key mechanisms: (1) proactive discharge planning, (2) involving patients and carers in decision making and the process of care, (3) encouraging an active role and sharing responsibility for recovery, (4) individualising care, and (5) communicating and sharing information. Incorporating the card-sort revealed additional insights into how practitioners perceived the programme, which appeared to link to their job roles.

The prioritised theories were then tested and refined through ethnographic observational and interview data gathered in an acute medical unit and a specialist medical ward. This revealed further insights, which developed the theories, but also some implementation issues that need to be considered. Overall, the findings indicate that medical ERPs have a positive impact on recovery for patients admitted to hospital with acute medical illness. Patients with complex health and social care needs may particularly benefit for the following reasons. The approach addresses a broad range of physical, psychological, and social needs, which is important for patients with multimorbidity, polypharmacy, poor functional status, and age-related physiological changes, who are at risk of adverse outcomes from hospitalisation. An emphasis on communication is important for understanding the individual needs and preferences of those with cognitive impairment, enabling them and their carers to comprehend and participate in care decisions and processes. The ethnographic data suggested that the main benefit of the programme lies in understanding and addressing each patient’s unique situation, preferences, and goals, ensuring care that is personalised and responsive to their individual circumstances.

I was directed to the ward areas because the ERP at the case site happened to have been rolled out on the acute medical units and a general medical ward. However, given that most patients requiring acute medical care are older people (Age UK, 2023), it is reasonable to assume that these results are likely to be generalisable across other acute medical contexts.

Another finding from this stage of the research was that the ERM programme was viewed differently by different professional groups. Doctors and nurses saw the ERM as a significant practice change, while therapists thought the approach resembled their conventional way of working. This difference is likely to reflect variations in underlying professional models between professions. A professional model of care refers to the approach, principles and standards guiding healthcare professionals in delivering treatment.

Both in-hospital and after-discharge outcomes were identified. This reflects the long-term nature of recovery from acute illness. Positive outcomes observed at an individual and relational level included: improved patient wellbeing; fewer complications during hospitalisation and after discharge; improved functional ability and independence following hospitalisation; improved patient and carer experience; better support for carers; better and more equal relationships between staff, patients, and carers. Beneficial changes at a system level were also identified, including better working relationships with care homes and reduced demands on community services. Organisational level outcomes included, more appropriate and individualised care, time savings, smoother discharge processes and improved ward culture and morale. Consistent with outcomes in surgery, reduced LOS was an expected outcome (with associated cost savings). I was informed that there was hospital data supporting a small reduction in LOS, however, I did not have the opportunity to review this data. In surgery, no notable difference in hospital readmission rates between ERPs and standard care have been found (NICE, 2020b), whereas in the medical care setting of my study, I revealed there were conflicting opinions regarding failed discharges and readmission rates.

The findings show that the various mechanisms were influenced by a wide range of contextual factors operating at different levels. Important contextual factors inhibiting several of the mechanisms included: paternalistic and task-focused care; the physical ward environment; availability of hospital and community resources such as intermediate care placements; workforce pressures; accessibility of IT and data systems; unpredictability of recovery trajectories. Contextual factors facilitating different mechanisms in this study included, strong MDT working, congruence with organisational priorities, personal values of staff, effective and authentic communication between staff patients and carers. Patient characteristics, staff attitudes and practice norms, acted as either facilitators or inhibitors of causal mechanisms.

The final fourteen theories are presented in Table 40 and are considered in the context of previous research in the sections below.

Table 40: Overview of programme theories

Theory	Context +	Mechanism-resource	Mechanism-reasoning/response =	Outcome
1. Discussing medicines	Limited knowledge and communication about regimens and multiple medications. Congruence with hospital priorities.	Interactive dialogue about prescribed medications before discharge.	Increased understanding and likelihood that drugs are taken as recommended	Fewer problems after discharge and reduced readmissions.
2. Open access	Engaged carers. Logistical issues. Urgency of admission.	Principal carer is allowed access the ward at any time of day.	Improved communication and information sharing. Provides comfort and familiar help for patients. Sense of control and confidence/positive attitude Timely information sharing and first-hand view of progress.	High morale. Better patient and carer experience. Staff time savings. Reduced readmissions and LOS
2. Carers invited to the ward round	Ward environment. Medical focus and workload pressures. Limited access to information.	Principal carer is invited to attend the ward round.	Greater awareness relieves anxiety and increases patient confidence. Direct and timely information. Doctors have a truer picture of patient's social circumstances. Improved information sharing	Cultural change. Better equal relationships. Better decisions are made about care and more personalised care plans. Better patient experience.
4. Free Parking	Expensive and limited parking. Availability of organisational support for carers.	Free parking at the hospital for principal carers.	Carers feel supported and valued and stress is reduced and attendance at ward rounds is incentivised. Staff feel this an ethical practice.	Carers are more involved in decision making and can access hospital support services.
5. Proactive discharge planning	Engaged carers. Complex and changing discharge processes. Level of integration across services. Workload and skill of discharge coordinators Unpredictable recovery trajectories.	Proactive communication, information gathering and discharge planning with carers, including setting a date to leave hospital.	Greater awareness of what is happening relieves anxiety and motivates patients to actively participate. Carers feel valued are pleased to be involved and appreciate having fewer hospital visits. Staff have shared goals to work towards. Discharge planning occurs alongside treatment. Problems can be solved before discharge day. Early identification of patients ongoing care needs and agreement on plans.	Simplifier and less problematic discharge process. Delays avoided. Shorter LOS and cost savings. Improved patient and carer experience. Earlier referral to supporting agencies. Good continuity of care. Less time available for rehabilitation. Increase support for carers may be needed.

6. Patients take an active role in their recovery.	Patient characteristics. Support from carers.	Patients are encouraged to participate in their own recovery by doing simple things to help themselves.	Patients form positive and realistic expectation. Increased motivation and empowered to self-care without seeking approval.	Greater patient self-care. Reduced nursing workload. Shorter LOS. Alters roles and relationships between staff and patients. Responsibility for recovery is shared..
7. Swift resumption of normal activities.	Patient characteristics. Trusting relationships between staff and patients. Ward environment. Staff time pressures and capacity issues. Strong MDT and positive attitude.	Avoiding prolonged bedrest is emphasised. Patients are encouraged and supported to mobilise as soon as possible.	Patients enjoy getting up and mobilising and feel ‘less sick’. Staff experience positive interactions and more engagement from patients. Better morale. Maintaining normal activities gives patients a senso of control and builds confidence. Brings relief to cares and reduces convalescent demands after discharge.	Minimising prolonged inactivity preserves muscle strength and functional capacity. Patients leave hospital less debilitated primary and community services have few dependent people to provide services for. Timesaving for nurses
8.Getting dressed.	Urgency of admission. Patient characteristics. Availability of sponsorship. Staff attitudes.	Patients are encouraged to get dressed into their own day clothes every morning. Tracksuits are provided when this is not possible.	Tracksuits are popular and valued by patients. Self-identity is maintained. Patients feel better and more comfortable. Alters expectations of bed rest and enables normal activities and social interactions. Boosts staff morale and is an incentive to give more support and encouragement.	Improved patient experience. Patients’ privacy and dignity are maintained. Increased mobility and independence.
9.Energy drinks and drink station.	Nutritional deficiencies and increased tendency to develop dehydration. Older people at risk of being discharged with an ADL disability. Ward environment.	Daily energy drinks and an additional drink round and drink station.	Patients like the energy drinks. Hydration and extra calories energise patients, and they feel better and are more likely to get out of bed and be active	Improved hydration removes the need for IV drips. Increased physical activity. Reduced LOS and associated cost savings.
10. Communication and sharing information.	Patient characteristics. Staff attitudes, skills, and availability.	Time is spent communicating and sharing information with patient and carers.	Patients feel less anxious as they understand treatment and care process. Carers feel well informed and empowered and they can input into ask questions and raise important social and practical issues.	Positive ward culture. Improved patient and carer experience. Trusting and equal relationship between staff, patients, and carers. Smoother hospital journey. Shorter LOS.

11. What matters to you? SBAR-P	Heterogeneity and high throughput of patients, Congruence with national policy. Effective MDT communication.	What matters to you? and SBAR-P approaches are used to capture patient perspective.	Staff value the patient perspective and customise care based on understanding of important issues and wider circumstances.	Improved coordination and timelier communication. Better quality of care and patient experience
12. Involving patients and carers in SDM and the care process.	Engaged carers. Organisational recognition and support for carers.	Staff encourage and supports patients and carers to get involved in the care process and decision-making.	Patients feel safe, confident, a sense of ownership and are empowered to make decisions and suggest changes to care. There is more discussion and decision making is collaborative.	Cultural shift towards more patient-centred care. Better decisions are made, and care is more appropriate and individualised. Improved patient experience. Less problematic and shorter LOS. Better support for carers after discharge.
13. Organising care and goal setting.	Engaged staff. Patient condition and recovery trajectory. Workload pressures, high throughput, and short LOS. Congruence with organisational priorities and performance targets. Endorsement and resources from senior leaders. Staff attitudes.	Bundles of daily interventions are implemented. Tailored daily routine created in collaboration with realistic goals encouraged and supported.	Sense of order for staff. Engages staff who work together with a shared focus. Patients feel energised, have a goal to strive fore and take an active roll to strive for. Nurses have more input into care and more control over their routines and use their professional judgement to adjust the plan and progress goals.	Individualised and flexible care. Shorter LOS. Cultural change and innovation as a by-product of the programme.
14.Untethering.	Older patients at risk of iatrogenic disability. Patient behavioural norms. Urgency of medical needs. Role and experience of staff.	Proactive untethering from drips and monitors.	Removes physical and psychological barriers to ADLs and promotes patient autonomy. Minimises discomfort.	Improves patient wellbeing and maintains functional ability. Reduced LOS and better continuity of care.

8.2 Comparison between medical and surgical ERPs

The theory development stage revised and added to the programme theories, based on the direct experience and perspectives of the staff implementing the ERM programme in practice. The findings show significant differences between the way in which surgical and medical ERPs are perceived, managed, and delivered.

Standardisation is a central concept in surgical ERPs, thought to reduce unnecessary variation in care quality and improve outcomes (Gustafsson et al., 2013). Surgical ERPs comprise a care pathway, including a timeline and strict sequence of actions. However, there is disagreement regarding the degree of standardisation and some authors have argued that patients need tailored care and appropriate adaptations within the standardised ERP pathway (Gillis et al., 2017). Fawcett et al. (2021) suggest that the balance between individualised and standardised care is an issue that needs further consideration in surgery.

The number or specific combination of interventions necessary for successful implementation of surgical ERPs is a contentious theme in the literature. There are different recommendations and the interventions applied in practice vary (Aarts et al., 2018). Since their introduction over two decades ago, ERPs have been developed and new interventions added (Kehlet & Wilmore, 2005). ERAS guidelines typically include over twenty interventions (Gustafsson et al., 2013). Numerous specific guidelines exist for different surgical specialities (Joliat et al., 2023; McGinigle et al., 2022; Nelson et al., 2023). Some authors have suggested that strict compliance with the many individual components of the protocol is necessary to achieve improved clinical outcomes (Gustafsson et al., 2011; Messenger et al., 2017). However, more recently Kehlet (2018) has advocated a focus on five well established core components, preoperative patient information, epidural anaesthesia, fluid balance, early feeding and mobilisation), arguing that too many interventions can hinder implementation in a busy clinical environment. Oliver et al. (2022) have proposed a simpler care bundle approach known as ‘DrEaMing’, which uses fewer interventions and prioritises drinking, eating, and mobilising. This approach has been shown to reduce LOS and major complications.

The findings from this study show that medical ERPs take a similar care bundle approach, whereby interventions are bundled together and implemented as a package. Care bundles typically have a small number of interventions than care pathways and can be modified to suit local conditions (Green et al., 2017). In this study, delivering ERM interventions in an adaptive and flexible manner enabled practitioners to use their professional judgment to ensure care was personalised and tailored. This appeared to be more appropriate for the heterogeneous patient population with uncertain recovery trajectories and widely varying and complex needs. This idea is consistent with previous research in the wider literature. Rycroft-Malone et al. (2009) suggest that standardized care approaches should be adapted to account for the complex and unpredictable reality of clinical practice. Similarly, Lawton and Parker (1999) suggest that allowing sufficient flexibility for professionals to use their clinical judgement within a standardised pathway is important to implementation success. Care bundles have been shown to be an effective way of improving care delivery in medicine (Resar et al., 2012). In an acute care setting, those with fewer interventions have been shown to have better compliance (Gilhooly et al., 2019). A variety of care bundles and care pathways already exist, designed to help drive change, based on evidence-based interventions and national best practice guidelines (Gilhooly et al., 2019). For example, care bundles have been established to ensure the early recognition and treatment of sepsis (Daniels et al., 2011). Delirium Care Bundles aim at early recognition and management of delirium in hospitalised patients (Wilson et al., 2020). Early supported discharge schemes (ESD) for stoke patients, aim to achieve earlier discharge from hospital and provide continuous rehabilitation in the community (Langhorne et al., 2017). According to the Consolidated Framework for Implementation Research (CFIR), which identifies factors that influence implementation of innovations in healthcare settings (Damschroder et al., 2009), difficulties in implementing programmes can arise because of the complexity of an intervention. Therefore, it seems likely that narrowing down medical ERPs from fourteen to the five core theories identified through the prioritisation process could make implementation more achievable in a busy medical setting.

The five core theories identified in this study were predominantly person-centric but also included a focus on efficient discharge. Patient and service objectives can be seen as conflicting, when they are often compatible (Alderwick et al., 2017). My evidence supported this idea of compatibility as many of the theories that supported patient well-being also helped support timely discharge.

Patient-centred care (PCC) is widely recognised as a fundamental aspect of high-quality healthcare globally because it is associated with numerous positive health outcomes (Rathert, 2013; Jeneka et al., 2023). PCC is an increasingly important priority in U.K healthcare policy and is considered central to achieving the commitments of the NHS Long Term Plan (NHS England, 2019). However, although widely used, the PCC concept is not well-defined, and a universal definition is lacking. Nonetheless, definitions commonly involve understanding the patient as a person, the relationship between the patient and the healthcare professional and coordination of care across the healthcare system (Langberg et al., 2019). The essence of PCC is prioritising the individual needs, values, and care preferences of patients, including understanding, and responding to both clinical and non-clinical needs in the broader context of the patient’s life. Organising acute care around the wider needs, and care preferences of patients has been advocated in recent guidance from the Royal college of Physicians (RCP, 2018). In acute hospital settings, implementing patient-centred interventions have been shown to improve care quality, care efficiency and patient and staff experiences (Jenerka et al., 2023). An example of a person-centred initiative is the Comprehensive Geriatric Assessment (CGA). The CGA is a multidisciplinary assessment and management process through which medical, psychosocial, and functional capacity for older adults can be evaluated and acted upon (Ellis et al., 2017). Studies suggest that CGA is beneficial, increasing the likelihood of older patients returning home after emergency hospital admission and reducing morbidity and deterioration (Ellis, 2017; Descholt, 2013). Taken together, the five core theories identified in this research share similarities with the CGA and other PCC approaches in their focus on holistic care and prioritising individualised treatment and care plans. The principles underpinning the GCA include holistic, multidimensional and interdisciplinary evaluation, coordination of care, what matters most to patients and personalised care plans, assessment of functional capabilities, nutritional status, and medication review (Aggarwal et al., 2020). Consistent with medical ERPs, the aim of the GCA is to address the complex multifaceted needs of patients and maintain or improve quality of life, promoting independence, dignity, and comfort. In a recent review of acute care settings, Jeneka et al., (2023) identified the following facilitators of PCC, which are congruent with the core theories identified in this research: interprofessional communication, involving the patient and their family in care, providing information about their condition and treatment, engaging with patients, and getting to know them as a person. All these approaches share a common goal of optimising health outcomes and patient well-being by addressing their individual needs in a comprehensive and patient-centred manner.

This poses an interesting question about ‘what is actually new in a medical ERP?’, or whether the core theories simply represent principles of routine good quality PCC? It could be argued that in a context of persistent deficits in the quality of care in this setting and given that operationalising PCC approaches in clinical practice can be challenging (Ekman, 2011), an explicitly defined ERP in medicine represents a way to get back to good quality care by reinforcing patient-centred practices. This resonates with a recent review of PCC interventions in acute care (Janerka et al., 2017), which identified organisational factors such as systems, tools, care plans and bundles consisting of multiple interventions as facilitators of PCC. Furthermore, implementing PCC has been described as challenging in the surgical setting due to high patient turnover and standardised prescribing (Moore et al., 2017).

Conversely, it could also be argued that, even though part of medical ERPs, most of these elements have individually been gradually adopted over many years by staff in medical wards, and it is likely that the core ERP theories are now already standard care in most settings. There is some support for this argument in the literature. Sutton (2018) in a study of a surgical ERP in a UK hospital noted that some participants were less sure that significant change in relation to preexisting practices had ensued because of ERP implementation.

If ERPs are widely seen essentially as core principles of good care rather than introducing entirely new concepts, these findings raise interesting questions regarding the applicability of patient-centred principles, which are relevant not just to acute care, but also to surgical patients and especially non-elective emergency surgery. Understanding the patient perspective and patient centric aspects of surgical ERPs are important but under researched areas in surgical ERPs (Wang et al., 2023). Patient-centred interventions constitute a small number of the predominantly physiological interventions of surgical programmes. Petersson et al. (2023) point to the need for further improvement in the care of colorectal cancer patients to achieve PCC care within the standardised ERP pathway. Rydmark Kersley and Berterö (2021) highlight a need for an increased person-centred approach focusing on and establishing personal goals, adapting the programme to personal needs, and identifying patients in need of extra support.

PCC implies a shift away from a dominantly clinical perspective, and the literature indicates a need to progress from the current biomedical approach towards a broader perspective. My findings emphasise that attention to PCC is likely to support enhancements in recovery. It seems reasonable to assume that this may have a positive effect on deficits such as low patient adherence throughout the pathway, which has proven to be difficult to address. By formalising PCC elements within ERPs in surgery, it might be possible to progress these important aspects of care, assess progress and bring recognition to new wider practice norms. These findings may be useful in addressing how PCC might be incorporated into the delivery of the surgical ERP pathway. The current findings could serve as the basis for interventions to improve the patient-centredness of ERPs in surgery.

This is an important consideration for hospitals looking to implement ERPs in emergency surgery, which is an emerging area in the literature (Lohsiriwat & Jitmungngan, 2019). Emergency surgery shares contextual similarities with acute medical care in that they both involve urgent interventions that address patient groups that are diverse and heterogeneous, with a high prevalence of comorbidity, polypharmacy, functional and cognitive impairments (Vilches-Moraga & Fox, 2018). Emergency surgery represents a demanding and unpredictable clinical context in which PCC may be difficult to apply. However, Corbianchi et al., (2023) argue that even in challenging clinical situations, care should encompass patient-centred principles. Moreover, personalised, multiprofessional holistic and collaborative approaches, such as GCA, have been advocated for all older surgical patients, but particularly those presenting acutely (Vilches-Moraga & Fox, 2018).

8.3 How findings relate to the existing literature

The data from the ethnographic fieldwork refined and tested the programme theories in a real-world setting and provided a more nuanced and contextualised understanding of the ERP at the hospital. How my findings for each of the five core theories align with the existing research literature is discussed below.

8.3.1 Theory 5 - Involving patient and carers in SDM and the care process

Involving patients and carers in shared decision making (SDM) with clinicians and care processes was a key mechanism identified in this study. This had an enhancing effect on recovery through fostering a sense of ownership and control over the patient's own recovery. The important role patients and carers can potentially play in the planning and processes of care is demonstrated at a national policy level. For example, patient's' right to be included in care processes and decision making is stated in the NHS Constitution for England (Department of Health and Social Care, 2023). Snyder and Engström (2016) have referred to this as a 'paradigmatic shift in which patients are moving from being passive recipients to more autonomous, active, and involved participants' in decision making and care processes. However, the term 'involvement' is used in different ways in the literature and is often used synonymously with other terms, such as participation and engagement, which can lead to confusion and inconsistency in understanding their implications (Gallivan et al., 2012).

My findings identified a range of ways in which patients could be involved in their own care and different levels of engagement, such as asking questions, providing information, and participating in activities. Patients and carers typically wanted to be involved in decision making and care processes, which is consistent with previous studies from elective surgery (Shinkunas et al., 2020). However, it was not always appropriate in all situations due to patient condition. Other patients did not want to be involved, preferring to take a 'passive' role. Authors have highlighted similar findings in surgical ERPs. For example, Aasa et al., (2013) described how patients' perceptions of involvement differed, with some feeling involved when 'expressing their needs to staff', and others were involved when performing activities, such as mobilisation or completing checklists on food intake. Norlyk & Harder, (2009) showed how the postoperative complications such as pain and PONV influenced patient participation after colonic surgery. Postoperative discomfort and weakness caused a conflict for individuals between following professional guidance and ERP goals or trusting their own instincts about what might benefit their health and wellbeing.

Within the broader concept of patient involvement, SDM is a specific way in which patients can participate in their own healthcare. SDM is an established concept that has been central to UK NHS reforms (Coulter & Collins, 2011). It has been suggested that SDM is preferred by patients over professional-led decision-making (Coulter, 2010). However, although increasingly promoted as an ideal model of decision-making (Department of Health, 2010b), it is often poorly defined or is used inconsistently in the literature (Moumjid et al., 2007). Furthermore, the relationship between SDM and patient outcomes has yet to be fully established (Shay & Lafata, 2015).

SDM is an integral part of EPRs in surgery. Ideally the patient is considered an equal partner in collaborative decision-making processes (NHS Improvement, 2012). In this context, SDM may involve discussing postoperative mobilisation, pain management, nutrition, and follow-up plans. Several studies, however, have shown that due to dominance of healthcare professionals, patients can feel excluded from decision making, reducing their autonomy (Philips, 2019; Rattray, 2019; Norlyk and Harder, 2009; Lui et al., 2019). Furthermore, patients' desire for collaborative development of personalised treatment planning may not be met (Gillis 2017; Lui et al, 2019).

In traditional paternalistic models of healthcare, professionals hold responsibility for decision making and care planning, and patients were not expected to be involved. Changing attitudes about patient involvement in healthcare is a key policy aim reflected in modern guidelines and recommendations (NHS England, 2019). My findings suggest that the ERM programme at the case of the study hospital targeted this to good effect, successfully altering the role of patients and relationships between patients' carers and staff. However, the unpredictability and time pressured circumstances of urgent medical treatment often made collaborative decision making difficult. Similarly, studies in emergency surgery suggest that lack of time, which often characterizes emergency contexts, is a barrier to SDM (Cobianchi et al., 2023).

One of the aims of ERPs in surgery is to improve care through the involvement of carers (NHS Improvement, 2012). However, few studies have been conducted on the role of carers in ERPs. In this study, the case hospital was highly engaged in meeting carer needs. Many types of support were available to them, including information, advice, peer groups and activities. Carers were recognised by the organisation through ERM interventions, such as flexible visiting hours, encouraging attendance at the ward round, and free parking. Establishing relationships with carers was important because they provided vital support for patients, as noted in previous studies of ERPs in planned surgery which emphasise the role of family and friends carers, and the need for greater encouragement to feel involved within an ERP (Bernard & Foss, 2014; Rymaruk et al., 2013). An emergency admission often came about because of a breakdown in the carers' role, therefore, they often required support for their own needs. This study, like Lilleheie et al. (2020) points out that finding a balance between encouraging and forcing carer involvement is important.

8.3.2 Theory 6 – Patients take an active role in their recovery

In this study, encouraging an active patient role and shared responsibility for recovery was revealed to be a key mechanism. This supported patient autonomy by motivating and empowering patients. Leading to enhanced engagement and greater self-care activity, which aligns with findings from studies of surgical ERPs (Norlyk & Harder, 2009; Vandrevala et al., 2016). Consistent with findings from previous research, patients had different individual preferences for responsibility. In a study by Brooks et al. (2015), exploring perceptions of recovery from the point of view of people with long-term health conditions, participants conceptualised recovery as a 'complex nonlinear personal journey'. Participants felt it was their own responsibility to work towards personally defined recovery goals. Contrastingly, Owens and Batchelor (1996) found that a tendency towards passivity and acceptance of paternalistic healthcare is a common feature of chronic patient populations. My findings support previous research in elective surgical ERPs, which indicate that informing patients about role responsibilities is important (Gillis et al., 2017). A specific form of patient participation was undertaking self-care, which in the current context of increasing demand on the NHS services and workforce supply issues, is a key policy objective (NHS England, 2019). Martínez et al. (2021) defines self-care as ‘the ability to care for oneself through awareness, self-control, and self-reliance in order to achieve, maintain, or promote optimal health and wellbeing’. In a study of women’s experiences of an ERP in elective abdominal surgery, Rydmark Kersley and Berterö (2021) noted a range of attitudes to self-care, which ranged from high levels of motivation to passivity. Ability to participate in selfcare was affected by individuals’ physical wellbeing, such as preexisting unrelated chronic pain and post-surgery fatigue. Both staff and patients have active roles in surgical ERPs. However, compliance with active elements of surgical ERPs (mostly postoperative) has been shown to be difficult to achieve and is strongly associated with poor surgical outcomes (Thorne et al., 2016). Previous studies have demonstrated that enhancing self-care is particularly beneficial for patients on surgical ERP pathways (Wang et al., 2023). However, because of the short LOS, there may be less opportunities for them to consult with healthcare professionals and receive self-care education (Kim et al., 2018).

The ward environment was an important contextual factor which influenced patient activity. Consistent with prior research (Hesselink et al., 2020), ‘positive distractions’, such as enrichment opportunities and suitable places to walk to were found to be important to avoid boredom and frustration. Ambient factors, such as noise from staff-patient conversations and mechanical devices have also been identified as detrimental to sleep, negatively influencing engagement in activity in surgical ERPs (Wilmore & Kehlet, 2001). These findings support prior studies which emphasise the relationship between the physical design of hospital environments and improve outcomes such as healing (Gharaveis et al., 2018; Ulrich et al., 2008).Furthermore, disempowering organisational processes and strict ward routines did not support patient autonomy.

This study also highlights variation in the compatibility of medical ERPs with existing practice norms of different professional groups. Similarly, in an ethnographic study of a surgical ERP for hip and knee replacement, Drew et al.

(2019) describe challenges across different staff groups in changing existing working practices. For example, incompatibility of ‘encouraging patients to be so independent’ for nurses.

8.3.3 Theory 11 – What matters to you? SBAR-P

The findings from this study show that using the ‘what matters to you?’ approach as part of the ERM programme supported and encourage meaningful conversations, and increased understanding about patient preferences and their wider circumstances. Individualisation in surgical ERPs is an area of contention due to differing opinions on its efficacy and implementation. Several researchers have highlighted the importance of surgical ERPs being sufficiently flexibility to meet individual needs (Drew et al., 2017; Jeff & Taylor, 2014). Rydmark Kersley and Berterö (2021), found that allowing patients to express their concerns and by seeing them within the wider context of their own lives, staff became more sensitive to their individual needs. In this study, high workload and a focus on clinical tasks made it difficult for staff to attend to patient-centred aspects, and they often defaulted to familiar ways of practice. Patients did not always feel listened to, and the perceived busyness of staff could obstruct patients from requesting sufficient support. These findings align with observations of a surgical ERP in elective colorectal surgery, obtained by Petersson et al. (2023), who describe a discrepancy between patient goals for their stay, and health care professional’s assumptions due to a lack of communication and time constraints. Surgical ERPs have been criticised for prioritising efficiency over individual patient needs and preferences, making it difficult for nurses to be involved with patients (Missel et al., 2024).

The SBAR-P communication model ensured patient preferences were communicated to all members of the MDT. This led to cohesion, with everyone aware of each other’s actions and altering the types of conversations and relationships between patients and staff. However, this mechanism did not entirely overcome the paternalistic, hierarchical organisational culture and typical task-focused care. This was highlighted by staff as an area requiring improvement. Effective communication between members of the MDT is also considered critical for successful outcomes in surgical ERPs (Drew et al., 2019). However, ineffective communication has been noted (Lyon et al., 2014; Wang et al., 2022) indicating that incorporating a communication tool such as SBAR-P may ensure that relevant information is effectively communicated throughout the perioperative period.

8.3.4 Theory 5 - Proactive discharge planning

This study found that proactive discharge planning was a key mechanism in the success of the ERM programme, which supported timely seamless discharge, shorter LOS, and improved hospital experience for patients and carers. This finding aligns with national guidance and previous research, which emphasises the importance of proactive discharge planning and timely discharge from acute hospitals (Department of Health, 2010c; Emes et al., 2017). A recent review by Gonçalves-Bradley et al. (2022) demonstrated that individualised discharge planning can reduce LOS and readmission rates for older patients admitted to hospital with a medical condition. Interestingly, in this study, I found conflicting perceptions regarding readmissions and failed discharge rates. A possible explanation for this could be that this patient group is more likely to be readmitted because conditions are characterised by relapses or acute exacerbations. Alternatively, discharging them prematurely into community services that may not be able to manage them may result in readmission, due to insufficient support. These contrasting findings indicate a need to investigate medical ERPs after discharge and assess hospital readmission data more rigorously and comprehensively.

Discharging patients from acute hospital care is known to be complex and challenging. My findings indicate that proactive planning was particularly difficult for patients with complex needs requiring packages of care or discharge to care homes. This echoes findings from a study by Katsaliaki et al. (2005) who have shown the organisational complexity of care services through modelling discharge of older adults after acute hospitalisation. In the UK, government guidelines on hospital discharge emphasise that discharge planning should start on admission and processes should be person-entered (Department of Health and Social Care, 2022). MDTs should work together with individuals and carers and across hospital and community settings. In my study an organisational focus on patient flow enabled proactive discharge by focusing ward activity and attention on planning and addressing problems. However, staff experienced feelings of pressure to achieve safe and timely discharge and experienced frustration because it impacted their ability to deliver rehabilitation. According to several authors pressure to discharge after acute hospitalisation can result in rushed or unsafe discharge and emergency readmission (Considine et al., 2020; Healthwatch, 2022) and exacerbate moral distress among clinicians (Meo et al., 2020; Oliver, 2023).

Surgical ERPs also support a proactive approach to discharge planning, through standardised protocols, coordinated multidisciplinary approach, early mobilisation, and preoperative education. Delivery of ERPs involves multiple professions and therefore team collaboration and communication are essential (Ljungqvist, 2020; Sharkiya, 2023). In this study effective interdisciplinary working and clear communication between staff was found to be an important factor in supporting proactive discharge. This view is supported in other studies (Bull & Roberts, 2001; Emes et al., 2017; Lyon et al., 2014). My findings support previous research that suggests that communication between staff, patients and carers is important for successful discharge (Considine et al., 2020; Wong et al., 2011). In line with studies of surgical ERPs, this study also shows that good communication between hospital and community services regarding the organisation of onward care is also important in ERPs (Lyon et al., 2014; Pearsall et al., 2015). However, my findings also demonstrate that a lack of social care can cause problems of delayed discharge. Workforce pressures (staffing shortages, capacity, and time constraints) within the hospital constrained this mechanism. Oliver (2023) refers to ‘the mismatch between the stopwatch pressure on acute care beds and the calendar ability of overstretched social care services to respond’ negatively impacting patients, their families, and staff. The NHS long term workforce plan published earlier this year outlines a major reform to address increasing staff shortages (NHS England, 2023c).

8.3.5 Theory 10 – Communication and sharing information

The importance of communication between staff patients and carers to healthcare quality has been emphasised in the literature (Sharkiya, 2023). My findings identified a strong focus on communication and providing information which aligns with a fundamental component of surgical ERPs (Aasa et al., 2013;

Swart & Houghton, 2010). Education and information are provided in patient-centred information sessions in preparation for surgery, however, prior research has shown a lack of information about treatment and diagnosis (Gillis, 2017), or what to expect postoperatively (Wang 2023). Patients may also feel that communication is one-way, hurried and not adapted to their individual needs (Samuelsson et al., 2018). Furthermore, Thorn et al. (2016) have noted a tendency for surgeons to give information about preoperative and intraoperative procedures, neglecting the postoperative period. Additionally, my findings identified that patients may not read written information provided, which has also been highlighted by researchers of surgical ERPs (Ljungqvist, 2020).

A key aim of ERPs in medicine is to facilitate communication with carers, which aligns with studies of surgical ERPs that highlight the importance of providing useful and adequate information is to carers (Rymaruk, 2013; Ljungqvist, 2020)

In contemporary healthcare, the use of hospital information systems supports care effectiveness and efficiency (Maguire et al., 2018). However, my findings identified challenges in accessing new technology and inefficiencies in administrative processes were contextual factors which reduced contact time with patients.

8.4 Programme implementation and sustainability

In this study some critical implementation and sustainability issues were noted which need to be considered. The ERM programme under investigation was initially embraced at the hospital and thrived for several years. Subsequently, many of the interventions that had been introduced were no longer delivered as intended, or disappeared completely, while others became part of standard care. This made it harder to study.

It was unclear why this occurred, but a possible explanation could be that although there was a recognised need for a package of interventions to improve care quality, and enhanced recovery offered an exciting opportunity for potential improvement, many of these ideas related to existing evidence-based practice or activities which staff were already undertaking. Therefore, a new prescriptive model or the discrete ‘packaging’ and labelling of these interventions may not have been needed. The interventions simply built on what was already there and evolving. There was evidence to support this argument as many of the interventions, such as untethering, and the early resumption of physical activities became embedded into standard care practices and the organisation's culture, leading to sustained positive change. Free parking and open access for principal carers were other examples of these persisting elements.

Interventions that became standard practice were typically easier to implement than others because they aligned with national policy and built on best practice standards and long-standing practices. For example, most of the five core interventions represented a shift towards a more patient-centred way of working advocated in key national policy documents, which helped to sustain change. Another explanation could be that the interventions were a genuine improvement, but implementation required a level of investment and sponsorship that was not available. Individual perceptions of the value of an intervention and familiarity with underlying principles can influence implementation effectiveness (Damschroder et al., 2009).

Surgical ERPs have been shown to be difficult to implement (Ahmed et al., 2012; Kehlet, 2018; Pearsall et al., 2015). Reasons for this include, inadequate leadership and funding, interventions which differ from established practices, a need for ongoing MDT working, unmet patient expectations, workload and staffing pressures, poor training and support, and insufficient data (Fawcett et al., 2021). I would argue that a combination of factors appeared to constrain the sustainability of the ERM programme. Staff described implementing the ERM programme against a backdrop of competing organisational priorities. At this time, the restructuring of the trust into an ICO and government policy targets around emergency care waiting times were a strong focus of senior leaders and operational ward management. It could be that the ERM programme, which was a bottom-up locally driven change initiative, simply could not keep up with other projects, and went as far as it could without the sponsorship and engagement of senior leadership. Gioia (1996) in an analysis of why programmes fail suggests that programmes only succeed when senior leaders prioritise and communicate their commitment to a programme across all levels of an organisation. Dixon-Woods et al. (2012) argue that without adequate financial support and infrastructure, quality improvement efforts can be difficult to achieve. My findings support this idea. The ERM project team were unable to secure financial support from the organisation for a dedicated project coordinator. Additionally, sponsorship for the supply of single-use tracksuits was also an ongoing challenge. Two attempts to secure external funding to scale up the project in partnership with other hospitals failed. This left the team feeling disappointed and deflated.

The ERM programme had various process measures used to monitor how well its specific component interventions were being implemented. Improvements were made based on this data which was regularly assessed at the weekly meetings. Measures of the overall intended programme outcomes, however, were undefined. This appeared to make it difficult for the project team to demonstrate improvement results in an organisational climate where efficiency and performance targets were highly valued. Patterson et al. (2010) has described the NHS as a ‘perform or perish’ service model where success is measured by quantifiable metrics. The lack of data could be a possible reason why the programme did not attract the required support and funding from senior organisational leaders.

Furthermore, the ERM programme rollout at the research site was enabled by committed front-line staff champions. Three key champions ceased working for the trust shortly before the ERM implementation lost momentum. My findings are consistent with other studies that highlight the importance of champions in the successful implementation of ERPs (Cohen & Gooberman-Hill, 2019; Drew et al., 2019; Gotlib Conn, 2015; Gramlich et al., 2017). Evidence suggests that when ERPs are introduced into practice, ensuring sponsorship from senior leaders, alignment with organisational priorities, provision of adequate resourcing, and the establishment of ERP champions at ward level are important to programme success.

The ERM programme was introduced into the hospital through a bottom-up change process which aimed to bring about positive change and improvement for acute medical patients. It has been suggested that ‘nurturing staff that want to do things differently’ is important in improving services and staff morale (Williams, 2023). Jabbal and Lewis (2018) argue that organisation change can be facilitated by ‘empowering front-line staff to lead improvement work’ rather than imposing ‘top-down improvement solutions.’

Despite these programme management challenges, I would argue the programme was successful because it seemed to achieve lasting positive impact on the organisation, on care quality, and on targeted outcomes.

8.5 Strengths and weaknesses of the research

Using realist evaluation in an emerging area of study is a strength of the methodology (Westhorpe et al., 2018). It can generate valuable insights when there is limited or diverse existing research in a new field. As there was little prior knowledge about medical ERPs, realist evaluation provided a good fit for this study design and enabled the development of context-specific explanatory theory. Focusing on abstracted theories can generate transferable lessons from previous relevant studies, for example studies of related programmes or ones that may have shared underlying causal mechanisms (Pawson & Tilley, 1997). Using knowledge from surgical ERPs was a strength, in that, it informed the development of the initial medical theories, providing a valuable starting point from which adaptations could be made rather than starting from scratch.

The in-depth case study design using ethnographic methods was a strength of this research. The implementation of a local ERP was directly observed under varying conditions over time and a large amount of data was collected and triangulated between sources. Focusing on two different ward settings enabled a detailed exploration of how some different contextual factors influenced mechanisms and outcomes. Comparing and contrasting the findings from the two ward settings provided a deeper understanding of how and why interventions did or did not work in the different contexts.

A further strength of this research was the use of multiple sources of data to study the ERP. Combining interviews, observations, and document review to triangulate data strengthened the reliability of the data and analysis. Including a wide range of relevant participants in this research, such as hospital staff (in various roles and professions), patients, and carers provided information from a diversity of perspectives. This ensured representativeness, relevance, deeper understanding, and enhanced the credibility of the research. The credibility of the research was further enhanced by an emphasis on reflexivity and a clear audit trail.

The evaluation of the ERP in medicine took place over an extended period from 2014-2019. Over time the interactions between programmes and the contexts in which they operate typically change and evolve (Greenhalgh & Manzano, 2022). Following the development of the ERP over a longer period enabled a greater understanding of the programme against a changing context. For example, contextual changes, such as changes in service delivery, organisational priorities, and new technology influenced how outcomes came about. It also reflected delayed effects that became apparent over the longer term, such as an unanticipated rise in the profile and influence of care support staff and a shift towards greater investment in carers services. The ERP itself was a new initiative which evolved during the study period. The elongated study period allowed tracking of adaptations to interventions and the sustainability of the programme.

Realist evaluation does not aim to provide universal generalisation but rather focuses on the potential transferability of increasingly nuanced and empirically supported findings (Pawson & Tilley, 1997). The programme theories developed can be transferred to other programmes or similar contexts where the same mechanisms are likely to be activated. However, it is important to consider the extent to which the findings apply to a specific context and whether (and why) adaptations are needed.

This study had several weaknesses which should be considered when interpreting these findings. The data was collected in a single NHS acute district hospital in the U.K. Attempts to gain access to a second NHS hospital were unsuccessful. The limitations of single case study research are well known (Yin, 2014). While the results are credible, the programme theories developed could be explored and tested in other organisations that are adopting enhanced recovery. The study was carried out between 2015 and 2019, prior to the COVID-19 pandemic, and therefore the findings may not represent current practice. A further limitation of this evaluation is that the identified outcomes were not formally or rigorously assessed. I had planned to utilise the hospital’s routine data to inform the analysis, but due to operational pressures during the COVID-19 pandemic, access was not possible. Using both quantitative and qualitative methods to measure, monitor and apportion outcome patterns in realist research has been recommended rather than relying solely on qualitative data (Pawson & Manzano-Santaella, 2012). Using quantitative methods to analyse patient-level outcome data may have further enhanced the credibility of the study.

Operationalising realist evaluation is considered intellectually challenging (Pawson & Tilley, 2004) and can be difficult and time consuming (Dalkin et al., 2015; Jagosh et al., 2013; Salter & Kothari, 2014), especially for researchers new to the methodology (Wong, 2018). There is no standardised approach to follow (Pawson & Tilley, 2004) and high-quality studies to learn from are scarce (Wong, 2018). As realist evaluation is a relatively new and developing methodology, training materials, resources, and quality and reporting standards were not available until the latter stages of this research (Wong et al., 2017). There is also a lack of guidance for using a realist approach to evaluate evolving healthcare programmes in rapidly changing contexts (Jagosh, 2022). As a newcomer to realist research, I found the methodology took time to understand. Applying the CMO construct was challenging because distinguishing contexts from mechanisms and understanding the interactions between them was difficult. The CMOCs formulated were deliberately broad to capture the multiple interventions of the ERP. This generated a large amount of data and made the analysis feel overwhelming at times. Abstracting from the data was difficult as I did not want to lose the depth of explanation informed by the data. Therefore, the final theories are more detailed than might typically be expected in a realist evaluation.

Using ethnography within a realist evaluation to test and refine theories was also challenging. Although these approaches are seen as complementary, little practical guidance is currently available. Ethnography is time-consuming, and working as an individual researcher meant that observations were limited to scheduled fieldwork visits. Only one period of ethnographic data collection was possible due to COVID-19 lock-down restrictions. Although I was able to collect a wide range of data, a further round would have allowed me to test and refine the CMOCs further.

Realist philosophy recognises knowledge as inevitably partial (Maxwell, 2012). Therefore, this thesis represents one interpretation of the impact of ERPs on recovery based on a particular implementation of the ERP idea in a particular hospital setting. As interpretive judgements are part of realist analysis, another researcher addressing the same research questions might have produced different results. Therefore, these findings should be seen as a robust but provisional starting point for developing medical ERPs.

The strengths and limitations previously discussed in earlier chapters about specific stages of the research are summarised in Table 41.

Table 41: Summary of stage-specific strengths and weaknesses

Study stage	Strengths	Weaknesses
1. Theory elicitation (realist reviews).	Takes a realist (theory building) approach to the reviews.	Searching of the substantial surgical literature was not exhaustive; therefore, important information may have been missed.
	Theories were identified across multiple dimensions of recovery (physical, psychological, and socio-economic).	Surgical data was fragmented, which limited explanations.
	Mechanisms were identified at the level of material, individual, and social operating conjointly.	Lack of existing published evidence in medicine resulted in limited theories and explanation.
	Insights sought from wider evidence from surgical ERPs where the data was rich. Surgical mechanisms offered transferable learning.	Review evidence accessed for relevance but not rigour.
2. Theory development (realist interviews, document review, and preliminary discussions).	Data triangulation (documents, realist interviews, preliminary discussions, and meeting observations) used to validate and refine CMOCs.	Potential sampling bias as staff with positive experience of the ERP may have been more likely to participate in the interviews.
	Interviewees representative of a wide range of stakeholders and multiple perspectives.	Limited number of doctors interviewed.

	Theories were checked for credibility by staff through realist interview approach.	Risk of social desirability bias.
3. Theory prioritisation (card-sort exercise).	Practitioners involved in the prioritisation of theories which informed the focus of research.	Small participant group may not represent the diversity of stakeholders.
	Simplicity and speed.	
4. Theory testing and refinement (ethnographic field work).	Data triangulation (documents, ethnographic interviews, and observations) used to test and refine CMOCs.	Time consuming.
	Combining ethnographic and realist approach allowed in-depth and holistic understanding of how ERP operates in real-world setting.	Lack of practical guidance regarding combining approaches.
	Uncovered tacit knowledge that was not revealed in interviews.	Interpretated from my sole perspective.
	Involved staff, patients, and carers.	Selective observation potentially missing important events.

Chapter 9: Conclusion

9.1 Overall conclusions

This research has fulfilled the aim of the study by providing a better understanding of why, how, and under what circumstances ERPs work in hospital medicine. The field of ERPs in medicine was found to be immature and fragmented and no research has been published to date. There are programmes in existence in several NHS hospitals, but implementation is inconsistent, and adoption varies across different locations. Therefore, there is a need to be pre-emptive in evaluating them.

ERPs in medicine aim to improve the recovery of people admitted to hospital with acute medical illness. Programmes are bottom-up change initiatives delivered by multiple professionals across the period from admission to discharge, in both acute and general medical wards. Programmes are complex and comprise up to fourteen interacting interventions, which include biological, psychological, and socio-economic dimensions, and are based on a broad conceptualisation of recovery. Programmes are different from the structured and standardised care pathways in surgery, on which they are based. ERPs in medicine are individualised, adaptive, and flexible care bundles that reflect the heterogeneity of this patient group with complex needs and changing organisational context in this specialism.

Using a realist approach has enabled the development of fourteen programme theories. Biological, psychological, and social mechanisms operated conjointly at multiple levels of the system. However, some of these interventions at the heart of the delivery may already exist due to other changes in the way care is delivered. Therefore, a core of five patient-centric theories, prioritised by practitioners may be more realistic in the busy medical environment. The key underlying causal mechanisms of change in medical ERPs are (1) proactive discharge planning, (2) involving patients and carers in decision making and care processes, (3) encouraging an active role and sharing responsibility for recovery, (4) individualising care, (5) and communicating and sharing information. These theories should be embraced in practice and used for developing medical ERPs in practice. The full fourteen theories are presented in Table 40.

Providers of medical ERPs and many patients receiving care within them believe that they to have a positive impact on recovery following admission for acute illness. Patients with complex health and care needs at risk of poor hospital outcomes may particularly benefit due to customisation and focus on their individual circumstances. Both in hospital and after discharge outcomes were identified, reflecting the long-term nature of recovery from acute illness. Perceived outcomes at an individual and relational level were beneficial and numerous including improved patient wellbeing; fewer complications (during hospitalisation and after discharge); improved functional ability and independence following hospitalisation; improved patient and carer experience; better support for carers; and better, more equal relationships between staff, patients, and carers. Outcomes attributed to the ERM programme at a system level included better working relationships with care homes and reduced demands on community services. Perceived organisational level outcomes included more appropriate and individualised care; smoother discharge processes; positive changes in ward culture and morale; time savings for staff; reduce LOS and associated cost savings. However, the effect on failed discharges and readmission rates was unclear and needs further investigation.

Important contextual factors inhibiting different mechanisms included: paternalistic and task-focused care; the material ward environment; provision of hospital and community resources; workforce pressures; accessibility of IT and data systems; unpredictability of recovery trajectories. Contextual factors enabling mechanisms in this study included strong MDT working; congruence with organisational priorities; personal and professional values of staff; and effective, authentic communication between staff patients and carers. Patient characteristics, staff attitudes and practice norms, acted as both facilitators and inhibitors of causal mechanisms.

There were implementation difficulties and the ERM programme evolved from a prescriptive model to a simpler bundle of interventions, which built on existing practice to achieve lasting positive change.

The findings of this study, suggest that the application of ERPs is experienced and perceived as beneficial for patients admitted to hospital with acute medical illness. This study supports the wider adoption of ERPs in a medical context because they provide a basis for increasing patient-centred care in the specialism. As the use of ERPs becomes more widespread in this speciality, continued exploration of programmes in other hospitals is needed to further test and refine my theories in other cases.

9.2 Potential implications for practitioners and researchers

These findings have direct relevance for practitioners and decision-makers involved in health service delivery. They provide an in-depth understanding of how ERPs work in medicine, which could inform the development and implementation of ERPs in this context. I have identified programme theories that can be used as a guide to inform the design of new programmes and improve existing programmes in other NHS hospitals.

The need for or likely effectiveness of specific mechanisms can be partly determined by a systematic assessment of the presence or absence of various contextual factors known to be important. Knowledge of the theorised intermediate and ultimate patient outcomes can be used to guide data collection, establish monitoring, and measure success of programmes in a way that is tailored to the programme theories.

Since this study was undertaken, the Covid-19 pandemic has fundamentally changed many ways in which health and care services are organised and delivered. Rapid take up of digital technologies, increased collaboration between organisations, and opportunities for positive innovation have been seen (BMA, 2023). Less positively, demand for medical services continues to rise due to an aging population, rising patient expectations and complexity of needs, and public health challenges (SAM, 2023). Funding constraints and operational pressures have led to a renewed emphasis on how organisations can improve care quality and deliver better value services (Jabbal & Lewis, 2018). Transformation and continuous improvement are a key priority of the NHS Long term plan (NHS England, 2019). Therefore, approaches such as

ERPs that can potentially improve quality outcomes and reduce cost are important and have direct relevance to current policy.

The number of delayed discharges from hospital is rising (Oliver, 2023). Therefore, efficient discharge management is imperative and has been the focus of recent policy initiatives guidance (DHSC, 2022). NHS England has published a new framework for intermediate care (NHS England, 2023a) and best practice guidance for community rehabilitation and reablement (NHS England, 2023b) which aim to achieve timely discharge, support the recovery of older people after ill health, and reduce hospital readmissions. A stated aim of the framework is to make certain that patients and their families are the focal point of discussions, and that transitions between care settings are still seen as a major priority. Delivering personalised care for patients that considers an individual’s needs and expectations remains a strong national policy ambition and is central to a new service model for the U.K. NHS set out in the NHS Long Term Plan (NHS England, 2019).

9.3 Contribution of the thesis

The original contributions to knowledge of this thesis are as follows:

There is currently a lack of understanding about medical ERPs. To my knowledge, this study is the first to evaluate ERPs in the context of acute medicine. In contrast to most previous studies of ERPs in peri-operative settings that focus on assessment of programme effectiveness, this research took a theory driven and explanatory evaluative approach, responding to a call for theoretically informed studies in this field (Gotlib Conn, 2015) . Theory can enhance understanding of programmes and facilitate development and improvement (Davidoff, 2009; Skivington et al., 2021). These findings contribute new knowledge to the field about the interventions and processes of programmes and provides empirical evidence that refines our understanding of how, why, and under what circumstances ERPs work in an acute medical setting. Thereby addressing questions raised by Kehlet (2013) regarding how well the ERP approach might translate to acute medicine.

This study contributes to knowledge by the identification of fourteen programme theories for medical ERPs, including a prioritised core of five programme theories. Support for some established theory in relation to senior management support and project champions was also identified in a medical ERP context.

9.4 Suggestions for future research

Areas for future research could include addressing the limitations of this study, such as measuring and apportioning the outcomes identified. For example, analysis of routine hospital data could be used to assess the impact of the ERP on LOS. It is important to establish if readmissions and failed discharges following medical ERPs are more frequent and, if so, the reasons why. Future research could investigate outcomes beyond hospital discharge, such as quality of life, readmission rates, or levels of disability and dependency for individuals.

Further work is needed to explore and refine the identified theories. Possible research could include investigation of the five core theories in more depth or examine in more detail how contextual factors influence mechanisms and lead to outcomes. The theories formulated could be developed further by drawing on relevant broader social science theories (Greenhalgh et al., 2017). Future studies should examine the applicability of the theories in various hospital contexts.

The insights gained from this evaluation could be applied to other ERP specialisms. As described previously, realist evaluations are cumulative and allow learning from theorising from previous relevant studies without the need to reinvent the wheel with each study. (Pawson & Tilley, 1997). Therefore, the programme theories I have developed could be carried forward by other researchers as programmes evolve and used as a foundation for further theory development of ERPs in medicine.

This research suggests that psychological and social aspects of ERPs are critical but under-researched aspects of recovery in surgical ERPs. Therefore, further development of the identified psychological and social CMOCs could be an important avenue for further research.

References

Aarts, M.-A., Rotstein, O. D., Pearsall, E. A., Victor, J. C., Okrainec, A., McKenzie, M., McCluskey, S. A., Conn, L. G., & McLeod, R. S. (2018). Postoperative ERAS interventions have the greatest impact on optimal recovery: experience with implementation of ERAS across multiple hospitals. *Annals of Surgery*, *267*(6), 992-997.

Aasa, A., Hovback, M., & Bertero, C. M. (2013). The importance of preoperative information for patient participation in colorectal surgery care. *J Clin Nurs*, *22*(11-12), 1604-1612. https://doi.org/10.1111/jocn.12110

Abreu, M. (2011). New concepts in perioperative normothermia: from monitoring to management. *Anesthesiology News Special Edition*.

Age UK. (2023). *The State of Health and Care of Older People in England 2023.*

Aggarwal, P., Woolford, S. J., & Patel, H. P. (2020). Multi-morbidity and polypharmacy in older people: challenges and opportunities for clinical practice. *Geriatrics*, *5*(4), 85.

Ahmed, J., Khan, S., Gatt, M., Kallam, R., & MacFie, J. (2010). Compliance with enhanced recovery programmes in elective colorectal surgery [Comparative Study]. *British Journal of Surgery*, *97*(5), 754-758. https://doi.org/http://dx.doi.org/10.1002/bjs.6961

Ahmed, J., Khan, S., Lim, M., Chandrasekaran, T. V., & MacFie, J. (2012). Enhanced recovery after surgery protocols - compliance and variations in practice during routine colorectal surgery. *Colorectal Disease*, *14*(9), 1045-1051. https://doi.org/10.1111/j.1463-1318.2011.02856.x

Alderwick, H., Charles, A., Jones, B., & Warburton, W. (2017). *Making the case for quality improvement.* T. K. s. F. website. www.kingsfund.org.uk/publications/ making-case-quality-improvement

Ali, S., & Ronaldson, S. (2012). Ordinal preference elicitation methods in health economics and health services research: using discrete choice experiments and ranking methods. *British Medical Bulletin*, *103*(1), 21-44.

Allvin, R., Berg, K., Idvall, E., & Nilsson, U. (2007). Postoperative recovery: a concept analysis. *Journal of Advanced Nursing*, *57*(5), 552-558. https://doi.org/10.1111/j.1365-2648.2006.04156.x

Allvin, R., Ehnfors, M., Rawal, N., & Idvall, E. (2008). Experiences of the postoperative recovery process: an interview study. *Open Nurs J*, *2*, 1-7. https://doi.org/10.2174/1874434600802010001

Alwin, D. F., & Krosnick, J. A. (1985). The measurement of values in surveys: A comparison of ratings and rankings. *Public Opinion Quarterly*, *49*(4), 535-552.

Anderson, F. A., & Spencer, F. A. (2003). Risk Factors for Venous Thromboembolism. *Circulation*, *107*(23 suppl 1), I-9-I-16. https://doi.org/10.1161/01.cir.0000078469.07362.e6

Apfel, C. C., Heidrich, F. M., Jukar-Rao, S., Jalota, L., Hornuss, C., Whelan, R. P., Zhang, K., & Cakmakkaya, O. S. (2012). Evidence-based analysis of risk factors for postoperative nausea and vomiting. *Br J Anaesth*, *109*(5), 742-753. https://doi.org/10.1093/bja/aes276

Archer, M. (1995). *Realist social theory: the morphogenic approach*. Cambridge University Press. https://doi.org/10.1017/cbo9780511557675

Archer, M., Bhaskar, R., Collier, A., Lawson, T., & Norrie, A. (2013). *Critical realism: Essential readings*. Routledge.

Archer, S., Montague, J., & Bali, A. (2014). Exploring the experience of an enhanced recovery programme for gynaecological cancer patients: a qualitative study. *Perioper Med (Lond)*, *3*(1), 2. https://doi.org/10.1186/2047-0525-3-2

Arroyo, A., Ramirez, J., Callejo, D., Viñas, X., Maeso, S., Cabezali, R., & Miranda, E. (2012). Influence of size and complexity of the hospitals in an enhanced recovery programme for colorectal resection. *Int J Colorectal Dis*, *27*(12), 1637-1644. https://doi.org/10.1007/s00384-012-1497-4

Arsal, G., Eccles, D. W., & Ericsson, K. A. (2016). Cognitive mediation of putting: Use of a think-aloud measure and implications for studies of golf-putting in the laboratory. *Psychology of sport and exercise*, *27*, 18-27.

Astbury, B., & Leeuw, F. (2010). Unpacking Black Boxes: Mechanisms and Theory Building in Evaluation. *American Journal of Evaluation*, *31*(3), 363-381. http://search.ebscohost.com/login.aspx?direct=true&db=eoah&AN=22184210&site=ehost-live

Atkin, C., Riley, B., & Sapey, E. (2022). How do we identify acute medical admissions that are suitable for same day emergency care? *Clinical Medicine*, *22*(2), 131.

Awad, S., Carter, S., Purkayastha, S., Hakky, S., Cousins, J., Moorthy, K., & Ahmed, A. (2013). Enhanced recovery after bariatric surgery (ERABS): Operative and clinical outcomes from a tertiary referral bariatric centre [Conference Abstract]. *Obes Surg*, *23 (8)*, 1213-1214. https://doi.org/http://dx.doi.org/10.1007/s11695-013-0986-z

Aziz, A., Hawkins, A., Gainer, Y., Simpson, C., Barlow, R., & Varma, C. (2020). General medicine consultant of the week model shortens hospital length of stay and improves the patient journey. *Future Healthcare Journal*, *7*(3), 218.

Bagnall, N., Malietzis, G., Kennedy, R., Athanasiou, T., Faiz, O., & Darzi, A. (2014). A systematic review of enhanced recovery care after colorectal surgery in elderly patients [Conference Abstract]. *Colorectal Disease*, *16*, 73. https://doi.org/http://dx.doi.org/10.1111/codi.12644

Barry, M. J., & Edgman-Levitan, S. (2012). Shared decision making—The pinnacle patient-centered care. *N Engl J Med 366*, 780-781.

Beatty, S. E., Martin, W. K., Yoon, M. H., & Kahle, L. R. (2014). Improving Value Ratings: An Assessment of the Rank-Then-Rate Approach. Proceedings of the 1996 Academy of Marketing Science (AMS) Annual Conference,

Beck, A. M., Seemer, J., Knudsen, A. W., & Munk, T. (2021). Narrative review of low-intake dehydration in older adults. *Nutrients*, *13*(9), 3142.

Bell, E., Bryman, A., & Harley, B. (2022). *Business Research Methods.* (6th ed.). Oxford University Press.

Benjamin, B. (2013). *Enhanced recovery in medicine: Shaping the Future.* Retrieved 14th March from www.slideshare.net/NHSIQ/enhanced-recovery-in-medicine

Bernard, H. (2013). Patient warming in surgery and the enhanced recovery. *Br J Nurs*, *22*(6), 319-320, 322-315.

Bernard, H., & Foss, M. (2014). Patient experiences of enhanced recovery after surgery (ERAS). *Br J Nurs*, *23*(2), 100-106.

Berwick, D. M. (2008). The science of improvement. *JAMA*, *299*(10), 1182-1184. https://doi.org/10.1001/jama.299.10.1182

Bhaskar, R. (2008). *A realist theory of science.* . Routledge.

Bilimoria, K. Y., Cella, D., & Butt, Z. (2014). Current challenges in using patient-reported outcomes for surgical care and performance measurement: Everybody wants to hear from the patient, but are we ready to listen? *JAMA Surgery*. https://doi.org/10.1001/jamasurg.2013.5285

Blamey, A., & MacKenzie, M. (2007). Theories of change and realistic evaluation: peas in a pod or apples and oranges? *Evaluation*, *13*(4), 439-456. https://doi.org/http://dx.doi.org/10.1177/1356389007082129

Blazeby, J. M. (2014). Systematic review of outcomes used to evaluate enhanced recovery after surgery (Br J Surg 2014; 101: 159-170). *Br J Surg*, *101*(3), 171. https://doi.org/10.1002/bjs.9378

Blazeby, J. M., Soulsby, M., Winstone, K., King, P. M., Bulley, S., & Kennedy, R. H. (2010). A qualitative evaluation of patients' experiences of an enhanced recovery programme for colorectal cancer. *Colorectal Disease*, *12*(10), E236-E242. https://doi.org/10.1111/j.1463-1318.2009.02104.x

BMA. (2018). Working in a system that is under pressure. *British Medical Association, London*.

BMJ. (2023). Rethinking Health and Care Systems: NHS innovation must value staff and inspire hope. *British Medical Journal*, *382*, 1497. http://dx.doi.org/10.1136/bmj.p149

Bouras, A. F. (2014). Hospital discharge of elderly patients after surgery: fast-track recovery versus the need for convalescence [Editorial]. *J Visc Surg*, *151*(2), 89-90. https://doi.org/http://dx.doi.org/10.1016/j.jviscsurg.2014.01.006

Bourhis, J. (2017). Scales, Rank order. In M. Allen (Ed.), *The SAGE encyclopedia of communication research methods*. SAGE publications.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. sage.

Bratzler, D. W., & Houck, P. M. (2004). Antimicrobial prophylaxis for surgery: an advisory statement from the National Surgical Infection Prevention Project. *Clinical Infectious Diseases*, 1706-1715.

Bridges, J., Flatley, M., & Meyer, J. (2010). Older people's and relatives’ experiences in acute care settings: Systematic review and synthesis of qualitative studies. *International Journal of Nursing Studies*, *47*(1), 89-107. https://doi.org/10.1016/j.ijnurstu.2009.09.009

Bridges, J., Pope, C., & Braithwaite, J. (2019). Making health care responsive to the needs of older people. *Age Ageing*, *48*(6), 785-788.

Brieger, G. H. (1983). Early ambulation. A study in the history of surgery. *Annals of Surgery*, *197*(4), 443.

British Geriatrics Society. (2022). *Protecting the rights of older people to health and social care*. s. b. R. L. a. R. E. British Geriatrics Society statement. https://www.bgs.org.uk/policy-and-media/protecting-the-rights-of-older-people-to-health-and-social-care#:~:text=Older%20people%20are%20the%20largest,for%2040%25%20of%20hospital%20admissions.

Brooks, H. L., Rogers, A., Sanders, C., & Pilgrim, D. (2015). Perceptions of recovery and prognosis from long-term conditions: The relevance of hope and imagined futures. *Chronic Illn*, *11*(1), 3-20.

Broom, A., & Willis, E. (2007). Conpeting paradigms and health research. In M. Saks & J. Allsop (Eds.), *Researching Helath: Qualitative, quantitative and mixed methods* (pp. 16-30). Thousand Oaks.

Brown, C. J., Redden, D. T., Flood, K. L., & Allman, R. M. (2009). The Underrecognized Epidemic of Low Mobility During Hospitalization of Older Adults. *J Am Geriatr Soc*, *57*(9), 1660-1665. https://doi.org/10.1111/j.1532-5415.2009.02393.x

Bull, M. J., & Roberts, J. (2001). Components of a proper hospital discharge for elders. *Journal of Advanced Nursing*, *35*(4), 571-581.

Bunce, A. E., Gold, R., Davis, J. V., McMullen, C. K., Jaworski, V., Mercer, M., & Nelson, C. (2014). Ethnographic process evaluation in primary care: explaining the complexity of implementation. *BMC Health Serv Res*, *14*(1), 1-10.

Burrell, G., & Morgan, G. (1979). *Sociological Paradigms and Organisational Analysis: Elements of the Sociology of Corporate Life*. Gower.

Bussolon, S., Russi, B., & Missier, F. D. (2006). Online card sorting: as good as the paper version. Proceedings of the 13th Eurpoean conference on Cognitive ergonomics: trust and control in complex socio-technical systems,

Campbell, D. T., & Stanley, J. C. (2015). *Experimental and quasi-experimental designs for research*. Ravenio Books.

Carli, F., Charlebois, P., Stein, B., Feldman, L., Zavorsky, G., Kim, D., Scott, S., & Mayo, N. (2010). Randomized clinical trial of prehabilitation in colorectal surgery. *Journal of British Surgery*, *97*(8), 1187-1197.

Carli, F., & Zavorsky, G. S. (2005). Optimizing functional exercise capacity in the elderly surgical population. *Current Opinion in Clinical Nutrition & Metabolic Care*, *8*(1), 23-32.

Carr, D. B., & Goudas, L. C. (1999). Acute pain. *The Lancet*, *353*(9169), 2051-2058.

Ceresoli, M., Biloslavo, A., Bisagni, P., Ciuffa, C., Fortuna, L., La Greca, A., Tartaglia, D., Zago, M., Ficari, F., & Foti, G. (2023). Implementing enhanced perioperative care in emergency general surgery: a prospective multicenter observational study. *World Journal of Surgery*, *47*(6), 1339-1347.

Chan, A. H. Y., Aspden, T., Brackley, K., Ashmore-Price, H., & Honey, M. (2020). What information do patients want about their medicines? An exploration of the perspectives of general medicine inpatients. *BMC Health Serv Res*, *20*(1), 1-8.

Charters, E. (2003). The use of think-aloud methods in qualitative research an introduction to think-aloud methods. *Brock Education Journal*, *12*(2).

Chen, H.-T., & Rossi, P. H. (1983). Evaluating with Sense: The Theory-Driven Approach. *Evaluation Review*, *7*(3), 283-302.

Clarke, A. R., R. (2001). Length of Hospital Stay: How short should hospital care be? *Eur J Public Health*, *11*(2), 166-170.

Cobianchi, L., Dal Mas, F., Agnoletti, V., Ansaloni, L., Biffl, W., Butturini, G., Campostrini, S., Catena, F., Denicolai, S., & Fugazzola, P. (2023). Time for a paradigm shift in shared decision-making in trauma and emergency surgery? Results from an international survey. *World Journal Of Emergency Surgery*, *18*(1), 14.

Cohen, R., & Gooberman-Hill, R. (2019). Staff experiences of enhanced recovery after surgery: systematic review of qualitative studies. *BMJ Open*, *9*(2), e022259.

Considine, J., Berry, D., Sprogis, S. K., Newnham, E., Fox, K., Darzins, P., Rawson, H., & Street, M. (2020). Understanding the patient experience of early unplanned hospital readmission following acute care discharge: a qualitative descriptive study. *BMJ Open*, *10*(5), e034728.

Costa, D. S., Mercieca-Bebber, R., Tesson, S., Seidler, Z., & Lopez, A.-L. (2019). Patient, client, consumer, survivor or other alternatives? A scoping review of preferred terms for labelling individuals who access healthcare across settings. *BMJ Open*, *9*(3), e025166.

Coulter, A. (1999). Paternalism or partnership? *BMJ*, *319*(7212), 719-720.

Coulter, A. (2010). Do patients want a choice and does it work? *BMJ*, *341*. https://doi.org/10.1136/bmj.c4989

Coulter, A., & Collins, A. (2011). *Making shared decision-making a reality: no decision about me, without me*. King's Fund.

Covinsky, K. E., Palmer, R. M., Fortinsky, R. H., Counsell, S. R., Stewart, A. L., Kresevic, D., Burant, C. J., & Landefeld, C. S. (2003). Loss of independence in activities of daily living in older adults hospitalized with medical illnesses: increased vulnerability with age. *J Am Geriatr Soc*, *51*(4), 451-458. http://onlinelibrary.wiley.com/doi/10.1046/j.1532-5415.2003.51152.x/abstract

Coxon, A. P. M. (1999). *Sorting data: Collection and analysis* (Vol. 127). Sage.

Coyle, J., & Williams, B. (2001). Valuing people as individuals: development of an instrument through a survey of person-centredness in secondary care. *J Adv Nurs*, *36*(3), 450-459.

Crane, M., Bauman, A., Lloyd, B., McGill, B., Rissel, C., & Grunseit, A. (2019). Applying pragmatic approaches to complex program evaluation: A case study of implementation of the New South Wales Get Healthy at Work program. *Health Promotion Journal of Australia*, *30*(3), 422-432.

Creditor, M. C. (1993). Hazards of Hospitalization of the Elderly. *Annals of Internal Medicine*, *118*(3), 219-223. https://doi.org/10.7326/0003-4819-118-3-199302010-00011

Cresswell, J. (2007). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches.* (2nd. ed.). Sage Publications.

Cronbach, L. J., & Shapiro, K. (1982). *Designing evaluations of educational and social programs*. Jossey-Bass.

Crotty, M. (1998). *The Foundations of Social Research: Meaning and perspective in the research process*. Sage.

Cuthbertson, D. P. (1930). The disturbance of metabolism produced by bony and non-bony injury, with notes on certain abnormal conditions of bone. *Biochem J*, *24*(4), 1244-1263.

Dalkin, S. M., Greenhalgh, J., Jones, D., Cunningham, B., & Lhussier, M. (2015). What's in a mechanism? Development of a key concept in realist evaluation [journal article]. *Implementation Science*, *10*(1), 1-7. https://doi.org/10.1186/s13012-015-0237-x

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science*, *4*(1), 1-15.

Daniels, R., Nutbeam, T., McNamara, G., & Galvin, C. (2011). The sepsis six and the severe sepsis resuscitation bundle: a prospective observational cohort study. *Emergency Medicine Journal*, *28*(6), 507-512.

Davidoff, F. (2009). Heterogeneity is not always noise: lessons from improvement. *JAMA: The Journal Of The American Medical Association*, *302*(23), 2580-2586. https://doi.org/10.1001/jama.2009.1845

Davidoff, F., Dixon-Woods, M., Leviton, L., & Michie, S. (2015). Demystifying theory and its use in improvement. *BMJ Quality & Safety*. https://doi.org/10.1136/bmjqs-2014-003627

Davies, S. J., & Wilson, R. J. T. (2004). Preoperative optimization of the high-risk surgical patient. *British Journal of Anaesthesia*, *93*(1), 121-128. https://doi.org/10.1093/bja/aeh164

De Weger, E., Van Vooren, N., Wong, G., Dalkin, S., Marchal, B., Drewes, H., & Baan, C. (2020). What's in a realist configuration? Deciding which causal configurations to use, how, and why. *International Journal of Qualitative Methods*, *19*, 1609406920938577.

Dean, H. F., Carter, F., & Francis, N. K. (2019). Modern perioperative medicine–past, present, and future. *Innovative Surgical Sciences*, *4*(4), 123-131.

Dean, J., Jones, M., Dyer, P., Moulton, C., Price, V., & Lasserson, D. (2022). Possible futures of acute medical care in the NHS: a multispecialty approach. *Future Healthcare Journal*, *9*(2), 125.

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods.* McGraw-Hill.

Department of Health. (2010a). *Enhanced Recovery Partnership Programme. Delivering enhanced recovery: helping patients to get better sooner after surgery.* .

Department of Health. (2010b). *Equity and Excellence: Liberating the NHS.* www.dh.gov.uk

Department of Health. (2010c). *Ready to go? Planning the discharge and the transfer of patients from hospital and intermediate care*. Department of Health.

Department of Health. (2011). *Enhanced Recovery Parnership Report March 2011*. D. o. Health. https://assets.publishing.service.gov.uk/media/5a75a7afed915d506ee807a6/dh_128707.pdf

Department of Health. (2016a). *The Government's mandate to NHS England for 2016-17*. https://assets.publishing.service.gov.uk/media/5a82e0d3ed915d74e623815c/NHSE_Mandate_2016-17.pdf

Department of Health. (2016b). *NHS Outcomes Framework 2016 to 2017*. https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017

Department of Health and Social Care. (2022). *Hospital discharge and community support guidance.* GOV.UK. https://www.gov.uk/government/publications/hospital-discharge-and-community-support-guidance

Department of Health and Social Care. (2023). *The NHS Constitution for England*. Department of Health London Retrieved from https://www.gov.uk/government/publications/the-nhs-constitution-for-england

Desborough, J. (2000). The stress response to trauma and surgery. *British Journal of Anaesthesia*, *85*(1), 109-117.

Devine, E. C. (1992). Effects of psychoeducational care for adult surgical patients: a meta-analysis of 191 studies. *Patient Education and Counseling*, *19*(2), 129-142.

Dixon-Woods, M., McNicol, S., & Martin, G. (2012). Ten challenges in improving quality in healthcare: lessons from the Health Foundation's programme evaluations and relevant literature. *BMJ Quality & Safety*, *21*(10), 876-884.

Downey, J., Shearn, K., Brown, N., Wadey, R., & Breckon, J. (2021). Behaviour change practices in exercise referral schemes: developing realist programme theory of implementation. *BMC Health Serv Res*, *21*(1), 1-9.

Drew, S., Judge, A., Cohen, R., Fitzpatrick, R., Barker, K., & Gooberman-Hill, R. (2019). Enhanced Recovery After Surgery implementation in practice: an ethnographic study of services for hip and knee replacement. *BMJ Open*, *9*(3), e024431.

Durrand, J. W., Batterham, A. M., & Danjoux, G. R. (2014). Pre-habilitation (i): aggregation of marginal gains. *Anaesthesia*, *69*(5), 403-406. https://doi.org/10.1111/anae.12666

Easterby-Smith, M., Jaspersen, L., Thorpe, R., & Valizade, D. (2021). *Management and Business Research.* (7th ed.).

Edis, H., Maxwell-Armstrong, C., & Ferguson, E. (2015). A feasibility study investigating the association between self-efficacy and the success of patients on the ERAS programme [Conference Abstract]. *Gut*, *64*, A352-A353. https://doi.org/http://dx.doi.org/10.1136/gutjnl-2015-309861.770

Egbert, L. D., Battit, G. E., Welch, C. E., & Bartlett, M. K. (1964). Reduction of Postoperative Pain by Encouragement and Instruction of Patients. *New England Journal of Medicine*, *270*(16), 825-827. https://doi.org/doi:10.1056/NEJM196404162701606

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, *50*(1), 25-32.

El-Gamal, N., El-Kassabany, N., Frank, S. M., Amar, R., Khabar, H. A., El-Rahmany, H. K., & Okasha, A. S. (2000). Age-related thermoregulatory differences in a warm operating room environment (approximately 26 degrees C). *Anesth Analg*, *90*(3), 694-698.

Elia, M. (2015). The cost of malnutrition in England and potential cost savings from nutritional interventions (short version). *Malnutrition Action Group of BAPEN and the National Institute for Health Research Southampton Biomedical Research Centre: Southampton, UK*.

Eling, P., Derckx, K., & Maes, R. (2008). On the historical and conceptual background of the Wisconsin Card Sorting Test. *Brain and cognition*, *67*(3), 247-253.

Emerson, R., Fretz, R., & Shaw, L. (2011). *Writing Ethnographic Fieldnotes* (2nd ed.). The University of Chicago Press.

Emes, M., Smith, S., Ward, S., Smith, A., & Ming, T. (2017). Care and flow: using soft systems methodology to understand tensions in the patient discharge process. *Health Systems*, *6*(3), 260-278.

Emmel, N. (2013). *Sampling and choosing cases in realist research: A realist approach*. SAGE.

ERAS. (2023). *ERAS Society web page*. Retrieved 28th November from https://erassociety.org/

Ericsson, K. A., & Simon, H. A. (1980). Verbal reports as data. *Psychological review*, *87*(3), 215.

Ezzy, D. (2013). *Qualitative analysis*. Routledge.

Fawcett, W. J., Mythen, M. G., & Scott, M. J. (2021). Enhanced recovery: joining the dots. *British Journal of Anaesthesia*, *126*(4), 751-755.

Fearon, K., Ljungqvist, O., Von Meyenfeldt, M., Revhaug, A., Dejong, C., Lassen, K., Nygren, J., Hausel, J., Soop, M., & Andersen, J. (2005). Enhanced recovery after surgery: a consensus review of clinical care for patients undergoing colonic resection. *Clinical nutrition*, *24*(3), 466-477.

Fearon, K., & Luff, R. (2003). The nutritional management of surgical patients: enhanced recovery after surgery. *Proc Nutr Soc*, *62*(4), 807-811. https://doi.org/10.1079/pns2003299

Fincher, S., & Tenenberg, J. (2005). Making sense of card sorting data. *Expert Systems*, *22*(3), 89-93.

Finlay, L. (1998). Reflexivity: an essential component for all research? *British Journal of Occupational Therapy*, *61*(10), 453-456.

Finlay, L. (2002). "Outing" the researcher: The provenance, process, and practice of reflexivity. *Qualitative Health Research*, *12*(4), 531-545.

Flick, U. (2016). Mixing methods, triangulation, and integrated research: Challenges for qualitative research in a World of crisis. In *Qualitative inquiry and global crises* (pp. 132-152). Routledge.

Flowers, K., Wright, K., Langdon, R., McIlwrath, M., Wainwright, C., & Johnson, M. (2016). Intentional rounding: facilitators, benefits and barriers. *J Clin Nurs*, *25*(9-10), 1346-1355.

Fok, D., Paap, R., & Van Dijk, B. (2012). A rank-ordered logit model with unobserved heterogeneity in ranking capabilities. *Journal of applied econometrics*, *27*(5), 831-846.

Fonteyn, M. E., Kuipers, B., & Grobe, S. J. (1993). A description of think aloud method and protocol analysis. *Qualitative Health Research*, *3*(4), 430-441.

Fowler, A. J., Wahedally, M. H., Abbott, T. E., Prowle, J. R., Cromwell, D. A., & Pearse, R. M. (2023). Long-term disease interactions amongst surgical patients: a population cohort study. *British Journal of Anaesthesia*, *131*(2), 407-417.

Fox, M. C., Ericsson, K. A., & Best, R. (2011). Do procedures for verbal reporting of thinking have to be reactive? A meta-analysis and recommendations for best reporting methods. *Psychol Bull*, *137*(2), 316.

Fulbright-Anderson, K., Kubisch, A. C., & Connell, J. P. (1998). New approaches to evaluating community initiatives: Theory, measurement, and analysis. *Washington, DC: The Aspen Institute*.

Gage, N. L. (1989). The paradigm wars and their aftermath a "historical" sketch of research on teaching since 1989. *Educational researcher*, *18*(7), 4-10.

Galli, E., Fagnani, C., Laurora, I., Marchese, C., Capretti, G., Pecorelli, N., Marzo, E., Palese, A., & Zannini, L. (2015). Enhanced Recovery After Surgery (ERAS()) multimodal programme as experienced by pancreatic surgery patients: Findings from an Italian qualitative study. *International Journal of Surgery*, *23*(Pt A), 152-159. https://doi.org/http://dx.doi.org/10.1016/j.ijsu.2015.09.071

Gallivan, J., Kovacs Burns, K., Bellows, M., & Eigenseher, C. (2012). The many faces of patient engagement. *J Particip Med*, *4*(23), e32.

Gans, H. J. (1999). Participant observation in the era of "ethnography". *Journal of contemporary ethnography*, *28*(5), 540-548.

Gaudillière, B., Fragiadakis, G. K., Bruggner, R. V., Nicolau, M., Finck, R., Tingle, M., Silva, J., Ganio, E. A., Yeh, C. G., Maloney, W. J., Huddleston, J. I., Goodman, S. B., Davis, M. M., Bendall, S. C., Fantl, W. J., Angst, M. S., & Nolan, G. P. (2014). Clinical recovery from surgery correlates with single-cell immune signatures. *Science translational medicine*, *6*(255), 255ra131. https://doi.org/10.1126/scitranslmed.3009701

Gharaveis, A., Hamilton, D. K., & Pati, D. (2018). The impact of environmental design on teamwork and communication in healthcare facilities: a systematic literature review. *HERD: Health Environments Research & Design Journal*, *11*(1), 119-137.

Gilhooly, D., Green, S., McCann, C., Black, N., & Moonesinghe, S. (2019). Barriers and facilitators to the successful development, implementation and evaluation of care bundles in acute care in hospital: a scoping review. *Implementation Science*, *14*(1), 1-12.

Gillis, C., Gill, M., Marlett, N., MacKean, G., GermAnn, K., Gilmour, L., Nelson, G., Wasylak, T., Nguyen, S., & Araujo, E. (2017). Patients as partners in enhanced recovery after surgery: a qualitative patient-led study. *BMJ Open*, *7*(6), e017002.

Gillis, C., Li, C., Lee, L., Awasthi, R., Augustin, B., Gamsa, A., Liberman, A. S., Stein, B., Charlebois, P., Feldman, L. S., & Carli, F. (2014). Prehabilitation versus rehabilitation: a randomized control trial in patients undergoing colorectal resection for cancer [Comparative Study Randomized Controlled Trial Research Support, Non-U.S. Gov't].

Anesthesiology, *121*(5), 937-947. https://doi.org/http://dx.doi.org/10.1097/ALN.0000000000000393

Gioia, J. (1996). Twelve reasons why programs fail. *PM NETWORK*, *10*, 16-20.

Gold, R. L. (2017). Roles in sociological field observations. In *Sociological methods* (pp. 363-380). Routledge.

Gonçalves-Bradley, D. C., Lannin, N. A., Clemson, L., Cameron, I. D., & Shepperd, S. (2022). Discharge planning from hospital. *Cochrane Database of Systematic Reviews*(2).

Gonenc, M., Dural, A. C., Celik, F., Akarsu, C., Kocatas, A., Kalayci, M. U., Dogan, Y., & Alis, H. (2014). Enhanced postoperative recovery pathways in emergency surgery: A randomised controlled clinical trial. *American Journal of Surgery*, *207*(6), 807-814. https://doi.org/http://dx.doi.org/10.1016/j.amjsurg.2013.07.025

Goodson, L., & Vassar, M. (2011). An overview of ethnography in healthcare and medical education research. *Journal of educational evaluation for health professions*, *8*.

Gotlib Conn, L. (2015). Successful implementation of an enhanced recovery after surgery programme for elective colorectal surgery: a process evaluation of champions' experiences. *Implementation Science*, *10*(1), 1-11 11p. https://doi.org/10.1186/s13012-015-0289-y

Gouvas, N., Tan, E., Windsor, A., Xynos, E., & Tekkis, P. P. (2009). Fast-track vs standard care in colorectal surgery: a meta-analysis update. *Int J Colorectal Dis*, *24*(10), 1119-1131. https://doi.org/10.1007/s00384-009-0703-5

Gramlich, L. M., Sheppard, C. E., Wasylak, T., Gilmour, L. E., Ljungqvist, O., Basualdo-Hammond, C., & Nelson, G. (2017). Implementation of Enhanced Recovery After Surgery: a strategy to transform surgical care across a health system. *Implementation Science*, *12*(1), 1-17.

Greco, M., Capretti, G., Beretta, L., Gemma, M., Pecorelli, N., & Braga, M. (2014). Enhanced recovery program in colorectal surgery: a meta-analysis of randomized controlled trials. *World Journal of Surgery*, *38*, 1531-1541.

Green, S. A., Bell, D., & Mays, N. (2017). Identification of factors that support successful implementation of care bundles in the acute medical setting: a qualitative study. *BMC Health Serv Res*, *17*(1), 1-8.

Greenhalgh, J., & Manzano, A. (2022). Understanding 'context'in realist evaluation and synthesis. *International Journal of Social Research Methodology*, *25*(5), 583-595.

Greenhalgh, T., Humphrey, C., Hughes, J., Macfarlane, F., Butler, C., & Pawson, R. (2009). How do you modernize a health service? A realist evaluation of whole-scale transformation in London. *Milbank Q*, *87*. https://doi.org/10.1111/j.1468-0009.2009.00562.x

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017). *What realists mean by context; or, Why nothing works everywhere or for everyone*. The RAMESES II Project: Training materials. https://www.ramesesproject.org/media/RAMESES_II_Context.pdf

Greve, G. (2014). Different or alike? Comparing computer-based and paper-based card sorting. *International Journal of Strategic Innovative Marketing*, *1*(1), 27-36.

Grocott, M. P., Plumb, J. O., Edwards, M., Fecher-Jones, I., & Levett, D. Z. (2017). Re-designing the pathway to surgery: better care and added value. *Perioperative Medicine*, *6*(1), 1-7.

Grol, R., & Grimshaw, J. (2003). From best evidence to best practice: effective implementation of change in patients' care. *The Lancet*, *362*(9391), 1225-1230.

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Sage.

Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin & T. S. Lincoln (Eds.), *Handbook of Qualitative Research.* Thousand Oaks.

Güenaga, K. F., Matos, D., & Wille-Jørgensen, P. (2011). Mechanical bowel preparation for elective colorectal surgery. *Cochrane Database of Systematic Reviews*(9).

Gustafsson, U. O., Hausel, J., Thorell, A., Ljungqvist, O., Soop, M., Nygren, J., & Enhanced Recovery After Surgery Study, G. (2011). Adherence to the enhanced recovery after surgery protocol and outcomes after colorectal cancer surgery [Comparative Study

Research Support, Non-U.S. Gov't]. *Archives of Surgery*, *146*(5), 571-577. https://doi.org/http://dx.doi.org/10.1001/archsurg.2010.309

Gustafsson, U. O., Scott, M. J., Schwenk, W., Demartines, N., Roulin, D., Francis, N., McNaught, C. E., Macfie, J., Liberman, A. S., Soop, M., Hill, A., Kennedy, R. H., Lobo, D. N., Fearon, K., Ljungqvist, O., Enhanced Recovery After Surgery Society, f. P. C., European Society for Clinical, N., Metabolism, International Association for Surgical, M., & Nutrition. (2013). Guidelines for perioperative care in elective colonic surgery: Enhanced Recovery After Surgery (ERAS()) Society recommendations [Note]. *World Journal of Surgery*, *37*(2), 259-284. https://doi.org/http://dx.doi.org/10.1007/s00268-012-1772-0

Haig, K. M., Sutton, S., & Whittington, J. (2006). SBAR: a shared mental model for improving communication between clinicians. *Joint Commission Journal on Quality & Patient Safety*, *32*(3), 167-175.

Hammersley, M. (1992). *What's wrong with Ethnography?* Routledge.

Hammersley, M. (2018). What is ethnography? Can it survive? Should it? *Ethnography and education*, *13*(1), 1-17.

Hammersley, M., & Atkinson, P. (1983). *Ethnography: Principles in Practice*. Tavistock. https://books.google.co.uk/books?id=c08OAAAAQAAJ

Hannah, S. (2008). Sorting out card sorting: Comparing methods for information architects, usability specialists, and other practitioners.

Hargis, M. B., & Castel, A. D. (2018). Improving medication understanding and adherence using principles of memory and metacognition. *Policy insights from the behavioral and brain sciences*, *5*(2), 147-154.

Harloff, J., & Coxon, A. P. (2005). How to sort. *A Short Guide on Sorting Investigations. Version*.

Harper, C. M., & Lyles, Y. M. (1988). Physiology and complications of bed rest. *J Am Geriatr Soc*, *36*(11), 1047-1054.

Harper, M. E., Jentsch, F., Van Duyne, L. R., Smith-Jentsch, K., & Sanchez, A. D. (2002). Computerized card sort training tool: Is it comparable to manual card sorting? Proceedings of the Human Factors and Ergonomics Society Annual Meeting,

Harries, R. L., Bradshaw, C. A., Jones, E. A., & Lewis, P. (2013). To admit or not to admit on the morning of surgery patients' perspectives on day of surgery admission. *J Perioper Pract*, *23*(3), 56-58.

Hausel, J., Nygren, J., Lagerkranser, M., Hellström, P. M., Hammarqvist, F., Almström, C., Lindh, A., Thorell, A., & Ljungqvist, O. (2001). A Carbohydrate-Rich Drink Reduces Preoperative Discomfort in Elective Surgery Patients. *Anesthesia & Analgesia*, *93*(5), 1344-1350. https://doi.org/10.1097/00000539-200111000-00063

Healthwatch. (2022). Our position on safe hospital discharge. https://www.healthwatch.co.uk/news/2022-12-02/our-position-safe-hospital-discharge

Healthwatch Devon. (2013). *Film launch for pioneering approach that aids quicker recovery for patients.* Retrieved 14th March from http://www.healthwatchdevon.co.uk/tag/enhanced-recovery/

Healthwatch Devon. (2014). *Appeal for sponsorship to help patients' road to recovery.* Retrieved 14th March from https://healthwatchdevon.co.uk/appeal-sponsorship-help-patients-road-recovery/

Hesselink, G., Smits, M., Doedens, M., Nijenhuis, S. M., van Bavel, D., van Goor, H., & van de Belt, T. H. (2020). Environmental needs, barriers, and facilitators for optimal healing in the postoperative process: A qualitative study of patients' lived experiences and perceptions. *HERD: Health Environments Research & Design Journal*, *13*(3), 125-139.

Heyl, B. S. (2001). *Ethnographic interviewing*.

Heyman, J., & Sailors, J. (2016). A respondent-friendly method of ranking long lists. *International Journal of Market Research*, *58*(5), 693-710.

Hoffmann, H., & Kettelhack, C. (2012). Fast-track surgery-conditions and challenges in postsurgical treatment: A review of elements of translational research in enhanced recovery after surgery [Review]. *European Surgical Research*, *49*(1), 24-34. https://doi.org/http://dx.doi.org/10.1159/000339859

Hofweber, T. (2017). Logic and Ontology In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2014 ed., Vol. 2017). The Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/fall2014/entries/logic-ontology

House, E. R. (1978). Assumptions underlying evaluation models. *Educational researcher*, *7*(3), 4-12.

Hui, V., Hyman, N., Viscomi, C., & Osler, T. (2011). Implementing a fast-track protocol for bowel resection: Not so fast [Conference Abstract]. *Dis Colon Rectum*, *54 (5)*, e90-e91. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=emed10&AN=71635249

Hume, D. (2014). A Treatise of Human Nature (Second Edition). http://oxfordscholarlyeditions.com/view/10.1093/actrade/9780198245872.book.1/actrade-9780198245872-book-1

Hunt, G. R., Hall, G. M., Murthy, B. V. S., O'Brien, S., Beverland, D., Lynch, M. C., & Salmon, P. (2009). Early discharge following hip arthroplasty: patients' acceptance masks doubts and concerns. *Health Expectations*, *12*(2), 130-137. http://search.ebscohost.com/login.aspx?direct=true&db=eoah&AN=18767113&site=ehost-live

Jabbal, J., & Lewis, M. C. (2018). *Approaches to better value in the NHS: Improving quality and cost.* file:///C:/Users/hn236/OneDrive%20-%20University%20of%20Exeter/ALL%20SUBMISSION%20READY/References/Jabbal%20&%20Lewis%20(2018)%20approaches-to-better-value-october2018_0.pdf

Jagosh, J. (2020). Retroductive theorizing in Pawson and Tilley's applied scientific realism. *Journal of Critical Realism*, *19*(2), 121-130.

Jagosh, J., Bush, P. L., Salsberg, J., Macaulay, A. C., Greenhalgh, T., Wong, G., Cargo, M., Green, L. W., Herbert, C. P., & Pluye, P. (2015). A realist evaluation of community-based participatory research: partnership synergy, trust building and related ripple effects. *BMC Public Health*, *15*(1), 1-11.

Jagosh, J., Macaulay, A. C., Pluye, P., Salsberg, J., Bush, P. L., Henderson, J., Sirett, E., Wong, G., Cargo, M., & Herbert, C. P. (2012). Uncovering the benefits of participatory research: implications of a realist review for health research and practice. *The Milbank Quarterly*, *90*(2), 311-346.

Jagosh, J., Pluye, P., Wong, G., Cargo, M., Salsberg, J., & Bush, P. L. (2013). Critical reflections on realist review: insights from customizing the methodology to the needs of participatory research assessment. *Res Synth Methods*, *5*. https://doi.org/10.1002/jrsm.1099

Jagosh, J., Pluye, P., Wong, G., Cargo, M., Salsberg, J., Bush, P. L., Herbert, C. P., Green, L. W., Greenhalgh, T., & Macaulay, A. C. (2014). Critical reflections on realist review: insights from customizing the methodology to the needs of participatory research assessment. *Research synthesis methods*, *5*(2), 131-141.

Jagosh, J., Stott, H., Halls, S., Thomas, R., Liddiard, C., Cupples, M., Cramp, F., Kersten, P., Foster, D., & Walsh, N. E. (2022). Benefits of realist evaluation for rapidly changing health service delivery. *BMJ Open*, *12*(7), e060347.

Jakobsen, D. H., Sonne, E., Andreasen, J., & Kehlet, H. (2006). Convalescence after colonic surgery with fast-track vs conventional care [Comparative Study]. *Colorectal Disease*, *8*(8), 683-687. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=med5&AN=16970579

Janis, I. L. (2008). Groupthink. *IEEE Engineering Management Review*, *36*(1), 36.

Jeff, A., & Taylor, C. (2014). Ward nurses' experience of enhanced recovery after surgery: a grounded theory approach. *Gastrointestinal Nursing*, *12*(4), 23-31 29p.

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=103945460&site=ehost-live

Jeffrey, B., & Troman, G. (2004). Time for ethnography. *British educational research journal*, *30*(4), 535-548.

Jin, F., & Chung, F. (2001). Minimizing perioperative adverse events in the elderly†. *British Journal of Anaesthesia*, *87*(4), 608-624. https://doi.org/10.1093/bja/87.4.608

Joliat, G.-R., Hübner, M., Roulin, D., & Demartines, N. (2020). Cost analysis of enhanced recovery programs in colorectal, pancreatic, and hepatic surgery: a systematic review. *World Journal of Surgery*, *44*, 647-655.

Joliat, G.-R., Kobayashi, K., Hasegawa, K., Thomson, J.-E., Padbury, R., Scott, M., Brustia, R., Scatton, O., Tran Cao, H. S., & Vauthey, J.-N. (2023). Guidelines for perioperative care for liver surgery: enhanced recovery after surgery (ERAS) society recommendations 2022. *World Journal of Surgery*, *47*(1), 11-34.

Jones, M., & Dyer, P. (2022). *GIRFT programme national specialty report for acute and general medicine.* GIRFT. www.gettingitrightfirsttime.co.uk/girft-reports/

Jorgensen, D. (1989). Participant Observation. In. SAGE Publications, Inc. https://doi.org/10.4135/9781412985376

Jørgensen, L. B., & Fridlund, B. (2016). Restoring integrity-A grounded theory of coping with a fast track surgery programme. *International Journal of Qualitative Studies on Health and Well-being*, *11*.

Jung, B., Lannerstad, O., Påhlman, L., Arodell, M., Unosson, M., & Nilsson, E. (2007). Preoperative mechanical preparation of the colon: the patient's experience [journal article]. *BMC Surg*, *7*(1), 1-5. https://doi.org/10.1186/1471-2482-7-5

Kaka, A. S., Zhao, S., Ozer, E., Agrawal, A., Kang, S., Rocco, J., Carrau, R., Teknos, T., Clapp, J. D., & Weed, H. (2017). Comparison of clinical outcomes following head and neck surgery among patients who contract to abstain from alcohol vs patients who abuse alcohol. *JAMA Otolaryngology–Head & Neck Surgery*, *143*(12), 1181-1186.

Katsaliaki, K., Brailsford, S., Browning, D., & Knight, P. (2005). Mapping care pathways for the elderly. *Journal of health organization and management*, *19*(1), 57-72.

Keen, J., & Packwood, T. (1995). Case study evaluation. *BMJ (British Medical Journal)*, *311*(7002), 444-446. http://ejournals.ebsco.com/direct.asp?ArticleID=4E239F2AE2CB5BBD68C2

Kehlet, H. (1997). Multimodal approach to control postoperative pathophysiology and rehabilitation. *British Journal of Anaesthesia*, *78*(5), 606-617. https://doi.org/10.1093/bja/78.5.606

Kehlet, H. (2011a). Fast-track surgery-an update on physiological care principles to enhance recovery [Review]. *Langenbecks Archives of Surgery*, *396*(5), 585-590. https://doi.org/http://dx.doi.org/10.1007/s00423-011-0790-y

Kehlet, H. (2011b). Surgery: Fast-track colonic surgery and the 'knowing-doing' gap [News]. *Nature Reviews Gastroenterology & Hepatology*, *8*(10), 539-540. https://doi.org/http://dx.doi.org/10.1038/nrgastro.2011.153

Kehlet, H. (2012). Enhanced recovery future developments and transferability into acute medicine. . Enhanced Recovery Summit 2012

Kehlet, H. (2013). *Enhanced recovery - future developments and transferability into acute medicine?* https://www.slideshare.net/mobile/NHSIQ/enhanced-recovery-29249486

Kehlet, H. (2015). Enhanced Recovery After Surgery (ERAS): good for now, but what about the future? [Editorial]. *Canadian Journal of Anaesthesia*, *62*(2), 99-104. https://doi.org/http://dx.doi.org/10.1007/s12630-014-0261-3

Kehlet, H. (2018). ERAS implementation—time to move forward. *Annals of Surgery*, *267*(6), 998-999.

Kehlet, H., Buchler, M. W., Beart Jr, R. W., Billingham, R. P., & Williamson, R. (2006). Care after colonic operation - Is it evidence-based? Results from a multinational survey in Europe and the United States [Review]. *J Am Coll Surg*, *202*(1), 45-54. https://doi.org/http://dx.doi.org/10.1016/j.jamcollsurg.2005.08.006

Kehlet, H., & Dahl, J. B. (2003). Anaesthesia, surgery, and challenges in postoperative recovery. *The Lancet*, *362*(9399), 1921-1928. https://doi.org/10.1016/s0140-6736(03)14966-5

Kehlet, H., & Mogensen, T. (1999). Hospital stay of 2 days after open sigmoidectomy with a multimodal rehabilitation programme. *British Journal of Surgery*, *86*(2), 227-230.

Kehlet, H., & Wilmore, D. (2008). Evidence-based surgical care and the evolution of fast-track surgery. *Annals of Surgery*, *248*(2), 189-198.

Kehlet, H., & Wilmore, D. W. (2002). Multimodal strategies to improve surgical outcome. *American Journal of Surgery*, *183*(6), 630-641. https://doi.org/10.1016/s0002-9610(02)00866-8

Kehlet, H., & Wilmore, D. W. (2005). Fast-track surgery [Research Support, Non-U.S. Gov't]. *British Journal of Surgery*, *92*(1), 3-4. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=med5&AN=15635603

Keller, D., Bankwitz, B., Woconish, D., Champagne, B., Reynolds, H., Jr., Stein, S., & Delaney, C. (2014). Predicting who will fail early discharge after laparoscopic colorectal surgery with an established enhanced recovery pathway. *Surgical Endoscopy*, *28*(1), 74-79. https://doi.org/10.1007/s00464-013-3158-2

Kelly, C. J., & Young, A. J. (2017). Promoting innovation in healthcare. *Future Healthcare Journal*, *4*(2), 121.

Khan, S., Gatt, M., Horgan, A., Anderson, I., & McFie, J. (2009). *Issues in Professional Practice: Guidelines for Implementation of Enhanced Recovery Protocols*

Khan, S., Wilson, T., Ahmed, J., Owais, A., & MacFie, J. (2010). Quality of life and patient satisfaction with enhanced recovery protocols. *Colorectal Dis*, *12*(12), 1175-1182. https://doi.org/10.1111/j.1463-1318.2009.01997.x

Kiecolt-Glaser, J. K., Page, G. G., Marucha, P. T., MacCallum, R. C., & Glaser, R. (1998). Psychological influences on surgical recovery: perspectives from psychoneuroimmunology. *American Psychologist*, *53*(11), 1209.

Kim, B.-Y., Park, K.-J., & Ryoo, S.-B. (2018). Effects of a mobile educational program for colorectal cancer patients undergoing the enhanced recovery after surgery. *Open Nurs J*, *12*, 142.

King, P. M., Blazeby, J. M., Ewings, P., Longman, R. J., Kipling, R. M., Franks, P. J., Sheffield, J. P., Evans, L. B., Soulsby, M., Bulley, S. H., & Kennedy, R. H. (2006). The influence of an enhanced recovery programme on clinical outcomes, costs and quality of life after surgery for colorectal cancer. *Colorectal Dis*, *8*(6), 506-513. https://doi.org/10.1111/j.1463-1318.2006.00963.x

Kiyohara, L. Y., Kayano, L. K., Oliveira, L. M., Yamamoto, M. U., Inagaki, M. M., Ogawa, N. Y., Gonzales, P. E., Mandelbaum, R., Okubo, S. T., Watanuki, T., & Vieira, J. E. (2004). Surgery information reduces anxiety in the pre-operative period. *Rev Hosp Clin Fac Med Sao Paulo*, *59*(2), 51-56.

Kruzik, N. (2009). Benefits of preoperative education for adult elective surgery patients. *AORN J*, *90*(3), 381-387.

Kuper, M. (2013). *Whittington Health Enhanced Recovery Health System Future Drections.* . Retrieved 14th March from www.healthcareconferencesuk.co.uk/news/newsfiles/martin-kuper_762.pdf

Kurz, A., Sessler, D. I., & Lenhardt, R. (1996). Perioperative normothermia to reduce the incidence of surgical-wound infection and shorten hospitalization. *New England Journal of Medicine*, *334*(19), 1209-1216.

Lacouture, A., Breton, E., Guichard, A., & Ridde, V. (2015). The concept of mechanism from a realist approach: a scoping review to facilitate its operationalization in public health program evaluation. *Implementation Science*, *10*(1), 1-10.

Lafont, C., Gérard, S., Voisin, T., Pahor, M., & Vellas, B. (2011). Reducing "iatrogenic disability" in the hospitalized frail elderly. *The Journal Of Nutrition, Health & Aging*, *15*(8), 645-660. http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=21968859&site=ehost-live

Langberg, E. M., Dyhr, L., & Davidsen, A. S. (2019). Development of the concept of patient-centredness–A systematic review. *Patient Education and Counseling*, *102*(7), 1228-1236.

Langhorne, P., Baylan, S., & Trialists, E. S. D. (2017). Early supported discharge services for people with acute stroke. *Cochrane Database of Systematic Reviews*(7).

Lassen, K., Soop, M., Nygren, J., Cox, P. B. W., Hendry, P. O., Spies, C., Von Meyenfeldt, M. F., Fearon, K. C. H., Revhaug, A., Norderval, S., Ljungqvist, O., Lobo, D. N., & Dejong, C. H. C. (2009). Consensus review of optimal perioperative care in colorectal surgery: Enhanced Recovery after Surgery (ERAS) Group recommendations [Review]. *Archives of Surgery*, *144*(10), 961-969. https://doi.org/http://dx.doi.org/10.1001/archsurg.2009.170

Lavallée, J. F., Gray, T. A., Dumville, J., Russell, W., & Cullum, N. (2017). The effects of care bundles on patient outcomes: a systematic review and meta-analysis. *Implementation Science*, *12*, 1-13.

Lawlor, M. C. (2003). Gazing anew: The shift from a clinical gaze to an ethnographic lens. *The American journal of occupational therapy*, *57*(1), 29-39.

Lawrence, V. A., Hazuda, H. P., Cornell, J. E., Pederson, T., Bradshaw, P. T., Mulrow, C. D., & Page, C. P. (2004). Functional independence after major abdominal surgery in the elderly. *J Am Coll Surg*, *199*(5), 762-772. https://doi.org/http://dx.doi.org/10.1016/j.jamcollsurg.2004.05.280

Lawton, R., & Parker, D. (1999). Procedures and the professional: the case of the British NHS1. *Soc Sci Med*, *48*(3), 353-361. https://doi.org/http://dx.doi.org/10.1016/S0277-9536(98)00345-1

Lee, L., Li, C., Landry, T., Latimer, E., Carli, F., Fried, G. M., & Feldman, L. S. (2014). A systematic review of economic evaluations of enhanced recovery pathways for colorectal surgery [Comparative Study Review]. *Annals of Surgery*, *259*(4), 670-676. https://doi.org/http://dx.doi.org/10.1097/SLA.0b013e318295fef8

Lee, L., Tran, T., Mayo, N. E., Carli, F., & Feldman, L. S. (2014). What does it really mean to "recover" from an operation? *Surgery*, *155*(2), 211-216. https://doi.org/10.1016/j.surg.2013.10.002

Lemanu, D. P., Singh, P. P., Stowers, M. D., & Hill, A. G. (2014). A systematic review to assess cost effectiveness of enhanced recovery after surgery programmes in colorectal surgery. *Colorectal Dis*, *16*(5), 338-346. https://doi.org/10.1111/codi.12505

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.

Lilleheie, I., Debesay, J., Bye, A., & Bergland, A. (2020). A qualitative study of old patients' experiences of the quality of the health services in hospital and 30 days after hospitalization. *BMC Health Serv Res*, *20*, 1-14.

Ljungqvist, O. (2014). ERAS - Enhanced Recovery after Surgery: Moving Evidence-Based Perioperative Care to Practice. *Journal of Parenteral and Enteral Nutrition*, *38*(5), 559-566. https://doi.org/http://dx.doi.org/10.1177/0148607114523451

Ljungqvist, O., de Boer, H. D., Balfour, A., Fawcett, W. J., Lobo, D. N., Nelson, G., Scott, M. J., Wainwright, T. W., & Demartines, N. (2021). Opportunities and challenges for the next phase of enhanced recovery after surgery: a review. *JAMA Surgery*, *156*(8), 775-784.

Ljungqvist, O., Francis, N, Urman, R,D. (Ed.). (2020). *Enhanced Recovery After Surgery: A Complete Guide to Optimizing Outcomes.* Springer

Ljungqvist, O., Hausel, J., Nygren, J., Thorell, A., Soop, M., & In Collaboration With The Eras Study, G. (2007). Preoperative patient preparation for enhanced recovery after surgery. *Transfusion Alternatives in Transfusion Medicine*, *9*(1), 45-49. https://doi.org/10.1111/j.1778-428X.2007.00045.x

Ljungqvist, O., Nygren, J., Thorell, A., Brodin, U., & Efendic, S. (2001). Preoperative nutrition — elective surgery in the fed or the overnight fasted state. *Clinical nutrition*, *20, Supplement 1*, 167-171. https://doi.org/http://dx.doi.org/10.1054/clnu.2001.0462

Ljungqvist, O., & Rasmussen, L. S. (2014). Recovery after anaesthesia and surgery. *Acta Anaesthesiologica Scandinavica*, *58*(6), 639-641. https://doi.org/10.1111/aas.12324

Ljungqvist, O., Scott, M., & Fearon, K. C. (2017). Enhanced recovery after surgery: a review. *JAMA Surgery*, *152*(3), 292-298.

Ljungqvist, O., Soop, M., & Hedström, M. (2007). Why metabolism matters in elective orthopedic surgery: A review. *Acta Orthop*, *78*(5), 610-615. https://doi.org/doi:10.1080/17453670710014293

Ljungqvist, O., & Soreide, E. (2003). Preoperative fasting. *Br J Surg*, *90*(4), 400-406. https://doi.org/10.1002/bjs.4066

Lohsiriwat, V., & Jitmungngan, R. (2019). Enhanced recovery after surgery in emergency colorectal surgery: review of literature and current practices. *World J Gastrointest Surg*, *11*(2), 41.

Lv, D., Wang, X., & Shi, G. (2010). Perioperative enhanced recovery programmes for gynaecological cancer patients [Review]. *Cochrane Database of Systematic Reviews*(6), CD008239. https://doi.org/http://dx.doi.org/10.1002/14651858.CD008239.pub2

Lv, L., Shao, Y. F., & Zhou, Y. B. (2012). The enhanced recovery after surgery (ERAS) pathway for patients undergoing colorectal surgery: an update of meta-analysis of randomized controlled trials. *Int J Colorectal Dis*, *27*(12), 1549-1554. https://doi.org/10.1007/s00384-012-1577-5

Lyon, A., Payne, C. J., & Mackay, G. J. (2012). Enhanced recovery programme in colorectal surgery: does one size fit all? *World J Gastroenterol*, *18*(40), 5661-5663. https://doi.org/10.3748/wjg.v18.i40.5661

Lyon, A., Solomon, M. J., & Harrison, J. D. (2014). A Qualitative Study Assessing the Barriers to Implementation of Enhanced Recovery After Surgery. *World J Surg*. https://doi.org/10.1007/s00268-013-2441-7

Macdonald, S. (2001). British social anthropology. *Handbook of ethnography*, 60-79.

MacFie, J. (2016). Enhanced Recovery After Surgery Is Obsolete. *Diseases of the Colon & Rectum*, *59*(10), 1002-1003. https://doi.org/10.1097/dcr.0000000000000622

Madden, R. (2017). *Being ethnographic: A guide to the theory and practice of ethnography.* Sage Publishing.

Maessen, J., Dejong, C. H., Hausel, J., Nygren, J., Lassen, K., Andersen, J., Kessels, A. G., Revhaug, A., Kehlet, H., Ljungqvist, O., Fearon, K. C., & von Meyenfeldt, M. F. (2007). A protocol is not enough to implement an enhanced recovery programme for colorectal resection. *Br J Surg*, *94*(2), 224-231. https://doi.org/10.1002/bjs.5468

Maessen, J. M., Dejong, C. H., Kessels, A. G., & von Meyenfeldt, M. F. (2008). Length of stay: an inappropriate readout of the success of enhanced recovery programs. *World J Surg*, *32*(6), 971-975. https://doi.org/10.1007/s00268-007-9404-9

Maltby, J. R. (2006). Fasting from midnight – the history behind the dogma. *Best Practice & Research Clinical Anaesthesiology*, *20*(3), 363-378. https://doi.org/http://dx.doi.org/10.1016/j.bpa.2006.02.001

Manzano-Santaella, A. (2016). The Craft of Interviewing in Realist Evaluation. *Evaluation*.

Marchal, B., Belle, S., Olmen, J., Hoerée, T., & Kegels, G. (2012). Is realist evaluation keeping its promise? A literature review of methodological practice in health systems research. *Evaluation*, *18*. https://doi.org/10.1177/1356389012442444

Marik, P. E., & Flemmer, M. (2012). The immune response to surgery and trauma: Implications for treatment. *Journal of Trauma and Acute Care Surgery*, *73*(4), 801-808.

Mark, M., & Henry, G. (2006). Methods for policy-making and knowledge development evaluations. *Handbook of evaluation: Policies, programs and practices*, 317-339.

Martínez, N., Connelly, C. D., Pérez, A., & Calero, P. (2021). Self-care: A concept analysis. *International Journal of Nursing Sciences*, *8*(4), 418-425.

Maxwell, J. (2012). *A Realist Approach for Qualitative Research.* Sage Publications.

Mayhew, D., Mendonca, V., & Murthy, B. (2019). A review of ASA physical status–historical perspectives and modern developments. *Anaesthesia*, *74*(3), 373-379.

McGinigle, K. L., Spangler, E. L., Pichel, A. C., Ayyash, K., Arya, S., Settembrini, A. M., Garg, J., Thomas, M. M., Dell, K. E., & Swiderski, I. J. (2022). Perioperative care in open aortic vascular surgery: A consensus statement by the Enhanced Recovery After Surgery (ERAS) Society and Society for Vascular Surgery. *Journal of Vascular Surgery*, *75*(6), 1796-1820.

McKechnie, T., Tessier, L., Archer, V., Park, L., Cohen, D., Levac, B., Parpia, S., Bhandari, M., Dionne, J., & Eskicioglu, C. (2023). Enhanced recovery after surgery protocols following emergency intra-abdominal surgery: a systematic review and meta-analysis. *European Journal of Trauma and Emergency Surgery*, 1-26.

Meo, N., Bann, M., Sanchez, M., Reddy, A., & Cornia, P. B. (2020). Getting unstuck: challenges and opportunities in caring for patients experiencing prolonged hospitalization while stable for discharge. *The American Journal of Medicine*, *133*(12), 1406-1410.

Meredith, J. (1998). Building operations management theory through case and field research. *Journal of operations management*, *16*(4), 441-454.

Merton, R. K. (1968). *Social theory and social structure*. Simon and Schuster.

Messenger, D. E., Curtis, N. J., Jones, A., Jones, E. L., Smart, N. J., & Francis, N. K. (2017). Factors predicting outcome from enhanced recovery programmes in laparoscopic colorectal surgery: a systematic review. *Surgical Endoscopy*, *31*, 2050-2071.

Miller, T. E., Raghunathan, K., & Gan, T. J. (2014). State-of-the-art fluid management in the operating room [Review]. *Best Pract Res Clin Anaesthesiol*, *28*(3), 261-273. https://doi.org/http://dx.doi.org/10.1016/j.bpa.2014.07.003

Miller, T. E., Roche, A. M., & Mythen, M. (2015). In reply: Fluid management issues in Enhanced Recovery After Surgery and Canadian Anesthesiologists' Society standards. *Canadian Journal of Anesthesia*, *62*(8), 931.

Minary, L., Trompette, J., Kivits, J., Cambon, L., Tarquinio, C., & Alla, F. (2019). Which design to evaluate complex interventions? Toward a methodological framework through a systematic review. *BMC Medical Research Methodology*, *19*(1), 1-9.

Missel, M., Donsel, P. O., Petersen, R. H., & Beck, M. (2024). Ready to Go Home? Nurses' Perspectives of Prolonged Admission for Patients Undergoing Video-Assisted Thoracic Surgery for Non-Small-Cell Lung Cancer in Denmark. *Qualitative Health Research*, 10497323231191709.

Mohler, E. C., & Rudman, D. L. (2022). Negotiating the insider/outsider researcher position within qualitative disability studies research. *The Qualitative Report*, *27*(6), 1511-1521.

Moller, A. M., Villebro, N., Pedersen, T., & Tonnesen, H. (2002). Effect of preoperative smoking intervention on postoperative complications: a randomised clinical trial. *Lancet*, *359*(9301), 114-117. https://doi.org/10.1016/s0140-6736(02)07369-5

Moumjid, N., Gafni, A., Bremond, A., & Carrere, M.-O. (2007). Shared decision making in the medical encounter: are we all talking about the same thing? *Medical Decision Making*, *27*(5), 539-546.

Mythen, M. G., Swart, M., Acheson, N., Crawford, R., Jones, K., Kuper, M., McGrath, J. S., & Horgan, A. (2012). Perioperative fluid management: Consensus statement from the enhanced recovery partnership. *Perioperative Medicine*, *1 (1) (no pagination)*(2). https://doi.org/http://dx.doi.org/10.1186/2047-0525-1-2

Nadler, A., Pearsall, E. A., Charles Victor, J., Aarts, M. A., Okrainec, A., & McLeod, R. S. (2014). Understanding surgical residents' postoperative practices and barriers and enablers to the implementation of an enhanced recovery after surgery (ERAS) guideline. *Journal of Surgical Education*, *71*(4), 632-638. https://doi.org/http://dx.doi.org/10.1016/j.jsurg.2014.01.014

Náfrádi, L., Galimberti, E., Nakamoto, K., & Schulz, P. J. (2016). Intentional and unintentional medication non-adherence in hypertension: the role of health literacy, empowerment and medication beliefs. *Journal of public health research*, *5*(3), jphr. 2016.2762.

National Audit Office. (2000). *Hip Replacements: Getting it Right First Time.* N. A. Office. https://gettingitrightfirsttime.co.uk/wp-content/uploads/2017/07/1a.-GIRFT-BHS-and-BOA-Best-Practice-hip-arthroplasty-documentation.pdf

Nelson, G., Fotopoulou, C., Taylor, J., Glaser, G., Bakkum-Gamez, J., Meyer, L., Stone, R., Mena, G., Elias, K., & Altman, A. (2023). Enhanced recovery after surgery (ERAS®) society guidelines for gynecologic oncology: Addressing implementation challenges-2023 update. *Gynecologic Oncology*, *173*, 58-67.

Neuberger, J., & Tallis, R. (1999). Education and debateDo we need a new word for patients? Let's do away with “patients” Commentary: Leave well alone. *BMJ*, *318*(7200), 1756-1758.

Neville, A., Lee, L., Antonescu, I., Mayo, N. E., Vassiliou, M. C., Fried, G. M., & Feldman, L. S. (2014). Systematic review of outcomes used to evaluate enhanced recovery after surgery. *Br J Surg*, *101*(3), 159-171. https://doi.org/10.1002/bjs.9324

NHS England. (2019). *The NHS Long Term Plan.* Retrieved from https://www.longtermplan.nhs.uk/

NHS England. (2022). *Online library of Quality, Service, Improvement and Redesign Tools: Enhanced Recovery*. Retrieved 13th July from https://www.england.nhs.uk/wp-content/uploads/2022/01/qsir-enhanced-recovery.pdf

NHS England. (2023a). *Intermediate care framework for rehabilitation, reablement and recovery following hospital discharge*. N. England. https://www.england.nhs.uk/publication/intermediate-care-framework-for-rehabilitation-reablement-and-recovery-following-hospital-discharge/

NHS England. (2023b). *A new community rehabilitation and reablement model. Good practice guidance for integrated care boards (commissioners and providers).* N. ENgland. https://www.england.nhs.uk/wp-content/uploads/2023/09/PRN00761ii-a-new-community-rehabilitation-and-reablement-model.pdf

NHS England. (2023c). *The NHS Long Term Workforce Plan.* London: NHS England. Retrieved from https://www.england.nhs.uk/publication/nhs-long-term-workforce-plan/

NHS Improvement. (2012). *Fullfilling the potential: a better journey for patients and a better deal for the NHS,* .

NHS Improvement. (2016). *Rapid Improvement Guide to: Red and Green Bed Days*. https://www.england.nhs.uk/south/wp-content/uploads/sites/6/2016/12/rig-red-green-bed-days.pdf

NHS Improving Quality. (2013). *Enhanced recovery care pathway: a better deal for patients seven days a week and a better deal for the NHS*. N. I. Quality. www.nhsiq.nhs.uk

NICE. (2008). Hypothermia: prevention and managment in adults having surgery. In: National Institute for Health and Clinical Ecxellence.

NICE. (2020a). *Evidence review for enhanced recovery programmes: Perioperative care in adults: Evidence review B.* https://www.ncbi.nlm.nih.gov/books/NBK561974/

NICE. (2020b). Perioperative care in adults. NG180. In: National Institute for Health and Care Excellence. .

NICE. (2021). *Shared Decision making. NICE guideline*. https://www.nice.org.uk/guidance/ng197/resources/shared-decision-making-pdf-66142087186885

Nicholson, A., Lowe, M. C., Parker, J., Lewis, S. R., Alderson, P., & Smith, A. F. (2014). Systematic review and meta-analysis of enhanced recovery programmes in surgical patients. *Br J Surg*, *101*(3), 172-188. https://doi.org/10.1002/bjs.9394

Nicholson, D. J. (2012). The concept of mechanism in biology. *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, *43*(1), 152-163.

Nicolaus, S., Crelier, B., Donzé, J. D., & Aubert, C. E. (2022). Definition of patient complexity in adults: A narrative review. *Journal of Multimorbidity and Comorbidity*, *12*, 26335565221081288.

NMC. (2015). *Nursing and Midwifery Council (NMC) The Code: Professional standards of practice and behaviour for nurses, midwives and nursing associates*. N. a. M. Council. https://www.nmc.org.uk/standards/code/

Noblett, S. E., Watson, D. S., Huong, H., Davison, B., Hainsworth, P. J., & Horgan, A. F. (2006). Pre-operative oral carbohydrate loading in colorectal surgery: a randomized controlled trial. *Colorectal Disease*, *8*(7), 563-569. https://doi.org/10.1111/j.1463-1318.2006.00965.x

Norlyk, A., & Harder, I. (2009). After colonic surgery: The lived experience of participating in a fast-track programme. *International Journal of Qualitative Studies on Health and Well-being*, *4*(3), 170-180.

Norlyk, A., & Martinsen, B. (2013). The extended arm of health professionals? Relatives' experiences of patient's recovery in a fast-track programme. *J Adv Nurs*, *69*(8), 1737-1746. https://doi.org/10.1111/jan.12034

Northern Devon Healthcare NHS Trust. (2018). Enhanced recovery in medicine. In.

Nygren, J., & Gustafsson, U. (2011). Diverting stoma did not improve outcome in 289 consecutive patients undergoing low anterior resection for rectal cancer within an ERAS program [Conference Abstract]. *Colorectal Disease*, *13*, 68. https://doi.org/http://dx.doi.org/10.1111/j.1463-1318.2011.02656.x

O'Cathain, A., Murphy, E., & Nicholl, J. (2007). Why, and how, mixed methods research is undertaken in health services research in England: a mixed methods study [journal article]. *BMC Health Serv Res*, *7*(1), 85. https://doi.org/10.1186/1472-6963-7-85

O'Reilly, K. (2009). *Key Concepts in Ethnography.* SAGE.

Oliver, C. M., Warnakulasuriya, S., McGuckin, D., Singleton, G., Martin, P., Santos, C., Bedford, J., Wagstaff, D., Sahni, A., & Gilhooly, D. (2022). Delivery of drinking, eating and mobilising (DrEaMing) and its association with length of hospital stay after major noncardiac surgery: observational cohort study. *British Journal of Anaesthesia*, *129*(1), 114-126.

Oliver, D. (2023). David Oliver: Delayed discharges harm patients, staff, and health systems alike. In (Vol. 380): British Medical Journal Publishing Group.

Oppedal, K., Møller, A. M., Pedersen, B., & Tønnesen, H. (2012). Preoperative alcohol cessation prior to elective surgery. *Cochrane Database of Systematic Reviews*(7).

Oswald, D., Sherratt, F., & Smith, S. (2014). Handling the Hawthorne effect: The challenges surrounding a participant observer. *Review of social studies*, *1*(1), 53-73.

Owens, D. J., & Batchelor, C. (1996). Patient satisfaction and the elderly. *Soc Sci Med*, *42*(11), 1483-1491.

Paduraru, M., Ponchietti, L., Casas, I. M., Svenningsen, P., & Zago, M. (2017). Enhanced recovery after emergency surgery: a systematic review. *Bulletin of Emergency & Trauma*, *5*(2), 70.

Palleschi, L., Galdi, F., & Pedone, C. (2018). Acute medical illness and disability in the elderly. *Geriatric Care*, *4*(3).

Pannick, S., Wachter, R. M., Vincent, C., & Sevdalis, N. (2016). Rethinking medical ward quality. *BMJ*, *355*.

Pape, B., Thiessen, P. S., Jakobsen, F., & Hansen, T. B. (2013). Interprofessional collaboration may pay off: introducing a collaborative approach in an orthopaedic ward. *Journal of Interprofessional Care*, *27*(6), 496-500. https://doi.org/http://dx.doi.org/10.3109/13561820.2013.808611

Paton, F., Chambers, D., Wilson, P., Eastwood, A., Craig, D., Fox, D., Jayne, D., & McGinnes, E. (2014). Effectiveness and implementation of enhanced recovery after surgery programmes: a rapid evidence synthesis. *BMJ Open*, *4*(7). https://doi.org/10.1136/bmjopen-2014-005015

Patterson, M., Nolan, M., Rick, J., Brown, J., & Adams, R. (2010). From metrics to meaning: culture change and quality of acute hospital care for older people.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. SAGE Publications, inc.

Patton, M. Q. (2018). A historical perspective on the evolution of evaluative thinking. *New Directions for Evaluation*, *2018*(158), 11-28.

Paul, C. L. (2008). A modified delphi approach to a new card sorting methodology. *Journal of Usability Studies*, *4*(1), 7-30.

Pawson, R. (1989). *A measure for measures: a manifesto for empirical sociology*. Routledge. https://doi.org/10.4324/9780203393338

Pawson, R. (1996). Theorizing the interview. *British Journal of Sociology*, 295-314.

Pawson, R. (2002). Evidence-based Policy: The Promise of `Realist Synthesis'. *Evaluation*, *8*(3), 340-358. https://doi.org/10.1177/135638902401462448

Pawson, R. (2003). Nothing as Practical as a Good Theory. *Evaluation*, *9*(4), 471-490. https://doi.org/10.1177/1356389003094007

Pawson, R. (2006). *Evidence Based Policy: a Realist Perspective.* Sage.

Pawson, R. (2013). *The science of evaluation: a realist manifesto*. SAGE. https://doi.org/10.4135/9781473913820

Pawson, R. (2014). *Digging for nuggets: how 'bad' research may yield 'good' evidence.* http://www.leeds.ac.uk/realistsynthesis/supreadings.htm

Pawson, R. (2016). Realist evaluation caricatured: a reply to Porter. *Nursing Philosophy*, *17*(2), 132-139. https://doi.org/10.1111/nup.12118

Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review - a new method of systematic review designed for complex policy interventions. *J Health Serv Res Policy*, *10*. https://doi.org/10.1258/1355819054308530

Pawson, R., & Manzano-Santaella, A. (2012). A realist diagnostic workshop. *Evaluation*, *18*(2), 176-191. https://doi.org/10.1177/1356389012440912

Pawson, R., & Tilley, N. (1997). *Realistic Evaluation*. SAGE.

Pearsall, E. A., Meghji, Z., Pitzul, K. B., Aarts, M. A., McKenzie, M., McLeod, R. S., & Okrainec, A. (2015). A qualitative study to understand the barriers and enablers in implementing an enhanced recovery after surgery program. *Ann Surg*, *261*(1), 92-96. https://doi.org/10.1097/sla.0000000000000604

Petersson, Å., Hellström, A., Assarsson, J., & Schildmeijer, K. (2023). Following a standardised pathway: Healthcare professionals' perspectives on person-centred care within ERAS for patients with colorectal cancer. *J Clin Nurs*, *32*(13-14), 4070-4080.

Phillips, A. W., & Horgan, A. F. (2014). Fast track surgery and preoperative optimization. *Surgery (Oxford)*, *32*(2), 84-88. https://doi.org/10.1016/j.mpsur.2013.12.004

Phillips, D. C. (1987). *Philosophy, science and social inquiry: Contemporary methodological controversies in social science and related applied fields of research*. Pergamon Press.

Plsek, P. E., & Greenhalgh, T. (2001). The challenge of complexity in health care. *BMJ*, *323*(7313), 625-628.

Polle, S. W., Wind, J., Fuhring, J. W., Hofland, J., Gouma, D. J., & Bemelman, W. A. (2007). Implementation of a Fast-Track Perioperative Care Program: What Are the Difficulties? *Dig Surg*, *24*(6), 441-449. http://www.karger.com/DOI/10.1159/000108327

Pope, C., & Mays, N. (1995). Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *BMJ: British Medical Journal*, *311*(6996), 42.

Porter, S. (2015). The uncritical realism of realist evaluation. *Evaluation*, *21*(1), 65-82. https://doi.org/doi:10.1177/1356389014566134

Porter, S. (2016). Evaluating realist evaluation: a response to Pawson's reply. *Nursing Philosophy*, n/a-n/a. https://doi.org/10.1111/nup.12155

Prasad, P. (2005). *Crafting Qualitative Research: Working in the Postpositivist Traditions*. Routledge.

Quintans, J. R., Yonekura, T., Trapé, C. A., & Soares, C. B. (2020). Realist evaluation for programs and services in the health area: an integrative review of the theoretical and methodological literature. *Revista latino-americana de enfermagem*, *28*, e3255.

Rankin, W. L., & Grube, J. W. (1980). A comparison of ranking and rating procedures for value system measurement. *European Journal of Social Psychology*, *10*(3), 233-246.

RCOA. (2022). Preparing for surgery: Fitter Better Sooner. In (2nd Edition. ed.). London.: The Royal College of Anaesthetists.

RCP. (2007). *Acute medical care. The right person, in the right setting - first time. Report of the Acute Medicine Task Force*. RCP.

RCP. (2012). *Acute care toolkit 4: Delivering a 12-hour, 7-day consultant presence on the acute medical unit.* R. C. o. Physicians. https://www.rcplondon.ac.uk/guidelines-policy/acute-care-toolkit-4-delivering-12-hour-7-day-consultant-presence-acute-medical-unit

RCP. (2013). Future Hospital Commission. Future hospital: caring for medical patients. A report from the Future Hospital Commission to the Royal College of Physicians.

RCP. (2018). *Top tips: person-centred care.* https://www.rcplondon.ac.uk/news/new-person-centred-care-guidance-puts-patients-heart-treatment

RCP. (2022a). *Consensus statement: Coordinated and consistent emergency and urgent medical care.* R. C. o. Physicians. file:///C:/Users/hn236/OneDrive%20-%20University%20of%20Exeter/ALL%20SUBMISSION%20READY/References/RCP%20(2022)%20urgernt%20care%20consensus%20statement.pdf

RCP. (2022b). *Rebuilding the NHS: Better medical pathways for acute care 2022*. R. C. o. Physicians.

Read, T. E., Brozovich, M., & Caushaj, P. F. (2018). Perioperative hypothermia during colectomy: when do patients get cold? *Techniques in Coloproctology*, *22*, 343-346.

Reeves, S., Kuper, A., & Hodges, B. D. (2008). Qualitative research methodologies: ethnography. *BMJ*, *337*.

Resar, R., Griffin, F., Haraden, C., & Nolan, T. (2012). Using care bundles to improve health care quality. *IHI innovation series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement*, *14*, 15-16.

Restrick, R. (2017). *How do we enhance recovery together?Meeting the needs of people on medical wards using enhance recovery.* http://www.rcpsych.ac.uk/pdf/CALC_GAP14LouiseRestrick.pdf

Richards, H., & Emslie, C. (2000). The 'doctor' or the 'girl from the University'? Considering the influence of professional roles on qualitative interviewing. *Family Practice*, *17*, 71-75. https://doi.org/10.1093/fampra/17.1.71

Riege, A. M. (2003). Validity and reliability tests in case study research: A literature review with "hands-on" applications for each research phase. *Qualitative Market Research*, *6*(2), 75-86. http://search.proquest.com/docview/213438739?accountid=10792

Righi, C., James, J., Beasley, M., Day, D. L., Fox, J. E., Gieber, J., Howe, C., & Ruby, L. (2013). Card sort analysis best practices. *Journal of Usability Studies*, *8*(3), 69-89.

Rodgers, A., Walker, N., Schug, S., McKee, A., Kehlet, H., Van Zundert, A., Sage, D., Futter, M., Saville, G., & Clark, T. (2000). Reduction of postoperative mortality and morbidity with epidural or spinal anaesthesia: results from overview of randomised trials. *BMJ*, *321*(7275), 1493.

Royal College of Physicians of Edinburgh, S. G. (2013). RCPE UK Consensus Statement on "Acute Medicine: Improving quality of care through effective patient flow – it's everyone's business!

Rubin, H. J., & Rubin, I. S. (1995). *Qualitative Interviewing: The Art of Hearing Data*. Sage Publications.

Rugg, G., & McGeorge, P. (2005). The sorting techniques: a tutorial paper on card sorts, picture sorts and item sorts. *Expert Systems*, *22*(3), 94-107.

Rusby, J. E., Welch, C. M. M., & Lamparelli, M. J. (2005). Fast-track surgery (Br J Surg 2005; 92: 3-4). *British Journal of Surgery*, *92*(6), 783-783. https://doi.org/10.1002/bjs.5085

Rycroft-Malone, J., Fontenla, M., Bick, D., & Seers, K. (2010). A realistic evaluation: the case of protocol-based care. *Implementation Science*, *5*, 1-14.

Rycroft-Malone, J., Fontenla, M., Seers, K., & Bick, D. (2009). Protocol-based care: the standardisation of decision-making? *J Clin Nurs*, *18*(10), 1490-1500. https://doi.org/10.1111/j.1365-2702.2008.02605.x

Rycroft-Malone, J. (2008). Evidence-informed practice: from individual to context. *Journal of Nursing Management*, *16*(4), 404-408.

Rydmark Kersley, Å., & Berterö, C. (2021). Women's experiences of an enhanced recovery after surgery program: A qualitative study. *Nursing & Health Sciences*, *23*(1), 263-272.

Rymaruk, S., Williams, J., & Kurrimboccus, S. (2013). Carers' Perceptions of the Enhanced Recovery Programme in Colorectal Surgery. *J Perioper Pract*, *23*(11), 246-250.

Sackett, D. L., Rosenberg, W. M., Gray, J. M., Haynes, R. B., & Richardson, W. S. (1996). Evidence based medicine: what it is and what it isn't. In (Vol. 312, pp. 71-72): British Medical Journal Publishing Group.

Salter, K., & Kothari, A. (2014). Using realist evaluation to open the black box of knowledge translation: a state-of-the-art review. *Implement Sci*, *9*.

SAM. (2023). *Acute Medicine: A policy vision for improving urgent and emergency (UEC) care.* . https://www.acutemedicine.org.uk/wp-content/uploads/SAM-policy-document.pdf

Samuelsson, K. S., Egenvall, M., Klarin, I., Lökk, J., Gunnarsson, U., & Iwarzon, M. (2018). The older patient's experience of the healthcare chain and information when undergoing colorectal cancer surgery according to the enhanced recovery after surgery concept. *J Clin Nurs*, *27*(7-8), e1580-e1588.

Sanders, D., & Haines, A. (2006). Implementation research is needed to achieve international health goals. *PLoS Medicine*, *3*(6), e186.

Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research Methods for Research Students.* (9th ed.). Pearson Education Limited.

Savage, J. (2000). Ethnography and health care. *BMJ*, *321*(7273), 1400-1402. https://doi.org/10.1136/bmj.321.7273.1400

Sayer, A. (2000). *Realism and social science*. Sage. https://doi.org/10.4135/9781446218730

Scharfenberg, M., Raue, W., Junghans, T., & Schwenk, W. (2007). "Fast-track" rehabilitation after colonic surgery in elderly patients—is it feasible? *Int J Colorectal Dis*, *22*(12), 1469-1474. https://doi.org/10.1007/s00384-007-0317-8

Schoetz, D. J., Bockler, M., Rosenblatt, M. S., Malhotra, S., Roberts, P. L., Murray, J. J., Coller, J. A., & Rusin, L. C. (1997). "Ideal" length of stay after colectomy [journal article]. *Diseases of the Colon & Rectum*, *40*(7), 806-810. https://doi.org/10.1007/bf02055437

Schrijvers, G., van Hoorn, A., & Huiskes, N. (2012). The care pathway: concepts and theories: an introduction. *International journal of integrated care*, *12*(Special Edition Integrated Care Pathways).

Schwarzbach, M., Hasenberg, T., Linke, M., Kienle, P., Post, S., & Ronellenfitsch, U. (2011). Perioperative quality of care is modulated by process management with clinical pathways for fast-track surgery of the colon [journal article]. *Int J Colorectal Dis*, *26*(12), 1567-1575. https://doi.org/10.1007/s00384-011-1260-2

Scott, N. B., McDonald, D., Campbell, J., Smith, R. D., Carey, A. K., Johnston, I. G., James, K. R., & Breusch, S. J. (2013). The use of enhanced recovery after surgery (ERAS) principles in Scottish orthopaedic units--an implementation and follow-up at 1 year, 2010-2011: a report from the Musculoskeletal Audit, Scotland. *Arch Orthop Trauma Surg*, *133*(1), 117-124. https://doi.org/10.1007/s00402-012-1619-z

Sessler, M. D. Daniel I. (2001). Complications and Treatment of Mild Hypothermia. *Anesthesiology*, *95*(2), 531-543. http://dx.doi.org/

Sharkiya, S. H. (2023). Quality communication can improve patient-centred health outcomes among older patients: a rapid review. *BMC Health Serv Res*, *23*(1), 886. https://doi.org/10.1186/s12913-023-09869-8

Shay, L. A., & Lafata, J. E. (2015). Where Is the Evidence? A Systematic Review of Shared Decision Making and Patient Outcomes. *Medical Decision Making*, *35*(1), 114-131. https://doi.org/10.1177/0272989x14551638

Sheeran, P., & Hall, G. M. (1997). Cytokines in anaesthesia. *British Journal of Anaesthesia*, *78*(2), 201-219. https://doi.org/10.1093/bja/78.2.201

Shinkunas, L. A., Klipowicz, C. J., & Carlisle, E. M. (2020). Shared decision making in surgery: a scoping review of patient and surgeon preferences. *BMC medical informatics and decision making*, *20*, 1-14.

Short, V., Atkinson, C., Ness, A. R., Thomas, S., Burden, S., & Sutton, E. (2016). Patient experiences of perioperative nutrition within an Enhanced Recovery After Surgery programme for colorectal surgery: a qualitative study. *Colorectal Disease*, *18*(2), O74-80. https://doi.org/http://dx.doi.org/10.1111/codi.13245

Silverman, D. (2006). *Interpreting qualitative data: Methods for analyzing talk, text and interaction* (3rd ed.). Sage Publications Ltd.

Simini, B. (1999). Preoperative fasting. *Lancet*, *353*(9156), 862. https://doi.org/10.1016/s0140-6736(99)00081-1

Sjetne, I. S., Krogstad, U., Odegard, S., & Engh, M. E. (2009). Improving quality by introducing enhanced recovery after surgery in a gynaecological department: consequences for ward nursing practice. *Qual Saf Health Care*, *18*(3), 236-240. https://doi.org/10.1136/qshc.2007.023382

Skivington, K., Matthews, L., Simpson, S. A., Craig, P., Baird, J., Blazeby, J. M., Boyd, K. A., Craig, N., French, D. P., & McIntosh, E. (2021). A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ*, *374*.

Slim, K. (2013). Oral sweet liquids 2 hours before surgery, chewing-gum and coffee after surgery... What else! *J Visc Surg*, *150*(1), 1-2. https://doi.org/10.1016/j.jviscsurg.2013.01.003

Slim, K., Demartines, N., Fearon, K. C., Lobo, D. N., Ramirez, J., Scott, M., & Ljungqvist, O. (2014). Beyond ERAS? [Letter]. *Colorectal Disease*, *16*(3), 219-220. https://doi.org/http://dx.doi.org/10.1111/codi.12515

Slim, K., & Kehlet, H. (2012). Commentary: Fast track surgery: the need for improved study design. *Colorectal Disease*, *14*(8), 1013-1014. https://doi.org/10.1111/j.1463-1318.2012.03114.x

Slim, K., & Vignaud, M. (2015). Enhanced recovery after surgery: The patient, the team, and the society [Letter]. *Anaesthesia Critical Care & Pain Medicine*, *34*(4), 249-250. https://doi.org/http://dx.doi.org/10.1016/j.accpm.2015.02.005

Smith, I., Kranke, P., Murat, I., Smith, A., O'Sullivan, G., Søreide, E., & Spies, C. (2011). Perioperative fasting in adults and children: guidelines from the European Society of Anaesthesiology. *European Journal of Anaesthesiology| EJA*, *28*(8), 556-569.

Snyder, H., & Engström, J. (2016). The antecedents, forms and consequences of patient involvement: a narrative review of the literature. *International Journal of Nursing Studies*, *53*, 351-378.

Someren, M. W. v., Barnard, Y. F., & Sandberg, J. (1994). The think aloud method: A practical guide to modelling cognitive processes. *(No Title)*.

South Devon NHS Foundation Healthcare Trust. (2012, September 2012). *Enhanced Recovery in Medicine: Getting you better; so you can go home safely and at the right time.* https://www.youtube.com/watch?v=TT2vP2mL4Qk

South Devon NHS Foundation Healthcare Trust. (2014). *Enhanced Recovery in Medicine: What matters?* S. D. N. F. H. Trust. https://vimeo.com/105631245

Spanjersberg Willem, R., Reurings, J., Keus, F., & van Laarhoven Cornelis, J. H. M. (2011). Fast track surgery versus conventional recovery strategies for colorectal surgery. *Cochrane Database of Systematic Reviews*(2). http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007635.pub2/abstract

Spanjersberg, W. R., Reurings, J., Keus, F., & van Laarhoven, C. J. (2011). Fast track surgery versus conventional recovery strategies for colorectal surgery. *Cochrane Database Syst Rev*(2), CD007635. https://doi.org/10.1002/14651858.CD007635.pub2

Spencer, D., & Warfel, T. (2004). Card sorting: a definitive guide. *Boxes and arrows*, *2*(2004), 1-23.

Starks, I., Wainwright, T. W., Lewis, J., Lloyd, J., & Middleton, R. G. (2014). Older patients have the most to gain from orthopaedic enhanced recovery programmes. *Age Ageing*. https://doi.org/10.1093/ageing/afu014

Stevenson, G. W., Hall, S. C., Rudnick, S., Seleny, F. L., & Stevenson, H. C. (1990). THE EFFECT OF ANESTHETIC AGENTS ON THE HUMAN IMMUNE-RESPONSE [Review]. *Anesthesiology*, *72*(3), 542-552. https://doi.org/10.1097/00000542-199003000-00024

Stone, A. B., Yuan, C. T., Rosen, M. A., Grant, M. C., Benishek, L. E., Hanahan, E., Lubomski, L. H., Ko, C., & Wick, E. C. (2018). Barriers to and facilitators of implementing enhanced recovery pathways using an implementation framework: a systematic review. *JAMA Surgery*, *153*(3), 270-279.

Stowers, M. D. J., Lemanu, D. P., & Hill, A. G. (2015). Health economics in Enhanced Recovery After Surgery programs [journal article]. *Canadian Journal of Anesthesia/Journal canadien d'anesthésie*, *62*(2), 219-230. https://doi.org/10.1007/s12630-014-0272-0

Stufflebeam, D. L., & Webster, W. J. (1980). An Analysis of Alternative Approaches to Evaluation. *Educational Evaluation and Policy Analysis*, *2*(3), 5-20. https://doi.org/10.2307/1163593

Sullivan, P., Harris, M. L., & Bell, D. (2013). The quality of patient experience of short-stay acute medical admissions: findings of the Adult Inpatient Survey in England. *Clinical Medicine*, *13*(6), 553-556. https://doi.org/10.7861/clinmedicine.13-6-553

Swart, M., & Houghton, K. (2010). Pre-operative preparation: Essential elements for delivering enhanced recovery pathways. *Current Anaesthesia and Critical Care*, *21*(3), 142-147. https://doi.org/http://dx.doi.org/10.1016/j.cacc.2010.02.003

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches* (Vol. 46). Sage.

Taylor, C., & Burch, J. (2011). Feedback on an enhanced recovery programme for colorectal surgery. *Br J Nurs*, *20*(5), 286-290.

Thorn, C. C., White, I., Burch, J., Malietzis, G., Kennedy, R., & Jenkins, J. T. (2016). Active and passive compliance in an enhanced recovery programme. *Int J Colorectal Dis*, *31*(7), 1329-1339. https://doi.org/10.1007/s00384-016-2588-4

Tonnesen, H. (2003). Alcohol abuse and postoperative morbidity [Review]. *Danish Medical Bulletin*, *50*(2), 139-160. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=med4&AN=12812138

Tonnesen, H., & Kehlet, H. (1999). Preoperative alcoholism and postoperative morbidity. *Br J Surg*, *86*(7), 869-874. https://doi.org/10.1046/j.1365-2168.1999.01181.x

Tønnesen, H., Nielsen, P. R., Lauritzen, J. B., & Møller, A. M. (2009). Smoking and alcohol intervention before surgery: evidence for best practice. *British Journal of Anaesthesia*, *102*(3), 297-306. https://doi.org/10.1093/bja/aen401

Torbay and South Devon NHS Foundation Trust. (2013). *Enhanced Recovery in Medicine* Retrieved 14th March from http://www.torbayandsouthdevon.nhs.uk/visiting-us/torbay-hospital/patient-care/patient-information/enhanced-recovery-in-medicine/

Torbay and South Devon NHS Foundation Trust. (2015). *Evaluation of Enhanced Recovery in Medicine: Carers' and Patients' Experience.*

http://www.torbayandsouthdevon.nhs.uk/uploads/evaluation-of-enhanced-recovery-in-medicine.pdf

Traynor, C., & Hall, G. (1981). Endocrine and metabolic changes during surgery: anaesthetic implications. *British Journal of Anaesthesia*, *53*(2), 153-160.

Ulrich, R. S., Zimring, C., Zhu, X., DuBose, J., Seo, H.-B., Choi, Y.-S., Quan, X., & Joseph, A. (2008). A review of the research literature on evidence-based healthcare design. *HERD: Health Environments Research & Design Journal*, *1*(3), 61-125.

Vandrevala, T., Senior, V., Spring, L., Kelliher, L., & Jones, C. (2016). ‘Am I really ready to go home?’: a qualitative study of patients’ experience of early discharge following an enhanced recovery programme for liver resection surgery [journal article]. *Supportive Care in Cancer*, *24*(8), 3447-3454. https://doi.org/10.1007/s00520-016-3158-6

Varadhan, K. K., Lobo, D. N., & Ljungqvist, O. (2010). Enhanced recovery after surgery: the future of improving surgical care. *Crit Care Clin*, *26*(3), 527-547, x. https://doi.org/10.1016/j.ccc.2010.04.003

Veziant, J., & Slim, K. (2014). Patients' willingness to drink carbohydrate liquids two hours before surgery.[Erratum appears in J Perioper Pract. 2015 Mar;25(3):36 Note: Vesiant, J [corrected to Veziant, J]]. *J Perioper Pract*, *24*(11), 257-258. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=medl&AN=26012197

Vilches-Moraga, A., & Fox, J. (2018). Geriatricians and the older emergency general surgical patient: proactive assessment and patient centred interventions. Salford-POP-GS. *Aging Clinical And Experimental Research*, *30*, 277-282.

Vlug, M. S., Wind, J., Hollmann, M. W., Ubbink, D. T., Cense, H. A., Engel, A. F., Gerhards, M. F., Wagensveld, B. A., Zaag, E. S., Geloven, A. A., Sprangers, M. A., Cuesta, M. A., & Bemelman, W. A. (2011). Laparoscopy in combination with fast track multimodal management is the best perioperative strategy in patients undergoing colonic surgery: a randomized clinical trial (LAFA-study) (Provisional abstract). *Annals of Surgery*, *254*(6), 868-875. http://onlinelibrary.wiley.com/o/cochrane/cleed/articles/NHSEED-22012000034/frame.html

Volicer, B. J., Isenberg, M. A., & Burns, M. W. (1977). Medical-surgical differences in hospital stress factors. *Journal of Human Stress*, *3*(2), 3-13.

Volkert, D., Beck, A. M., Cederholm, T., Cruz-Jentoft, A., Goisser, S., Hooper, L., Kiesswetter, E., Maggio, M., Raynaud-Simon, A., & Sieber, C. C. (2019). ESPEN guideline on clinical nutrition and hydration in geriatrics. *Clinical nutrition*, *38*(1), 10-47.

Walter, C. J., Collin, J., Dumville, J. C., Drew, P. J., & Monson, J. R. (2009). Enhanced recovery in colorectal resections: a systematic review and meta-analysis. *Colorectal Dis*, *11*(4), 344-353. https://doi.org/10.1111/j.1463-1318.2009.01789.x

Wang, D., Hu, Y., Liu, K., Liu, Z., Chen, X., Cao, L., Zhang, W., Li, K., & Hu, J. (2023). Issues in patients’ experiences of enhanced recovery after surgery (ERAS): a systematic review of qualitative evidence. *BMJ Open*, *13*(2), e068910.

Wang, D., Liu, Z., Zhou, J., Yang, J., Chen, X., Chang, C., Liu, C., Li, K., & Hu, J. (2022). Barriers to implementation of enhanced recovery after surgery (ERAS) by a multidisciplinary team in China: a multicentre qualitative study. *BMJ Open*, *12*(3), e053687.

Warner, D. O. (2009). Surgery as a teachable moment: Lost opportunities to improve public health. *Archives of Surgery*, *144*(12), 1106-1107. https://doi.org/10.1001/archsurg.2009.205

Watcha, M. F., & White, P. F. (1992). Postoperative nausea and vomiting. Its etiology, treatment, and prevention. *Anesthesiology*, *77*(1), 162-184.

Weiss, C. H. (1997). Theory-based evaluation: Past, present, and future. *New Directions for Evaluation*, *1997*(76), 41-55. https://doi.org/10.1002/ev.1086

Weller, S. C., & Romney, A. K. (1988). *Systematic data collection* (Vol. 10). Sage publications.

Westhorp, G. (2014). *Realist impact evaluation: an introduction*.

Westhorp, G. (2018). Understanding Mechanisms in Realist Evaluation and Research. . In N. Emmel, J. Greenhalgh, M. Manzano, M. Monaghan, & S. Dalkin (Eds.), *Doing Realist Research.* (pp. 41–57). SAGE Publications.

Whittington Health NHS Trust. (2014). *Our Enhanced Recovery Progamme: Getting better sooner.* http://ourfuture.whittington.nhs.uk/our-enhanced-recovery-programme-getting-better-sooner

Williams, C. (2023). NHS innovation must value staff and inspire hope. *BMJ*, *382*.

Wilmore, D. W. (2002). From Cuthbertson to fast-track surgery: 70 years of progress in reducing stress in surgical patients. *Ann Surg*, *236*(5), 643-648. https://doi.org/10.1097/01.sla.0000032942.79841.ed

Wilmore, D. W., & Kehlet, H. (2001). Management of patients in fast track surgery. *BMJ*, *322*(7284), 473-476.

Wilson, J. E., Mart, M. F., Cunningham, C., Shehabi, Y., Girard, T. D., MacLullich, A. M., Slooter, A. J., & Ely, E. W. (2020). Delirium. *Nature Reviews Disease Primers*, *6*(1), 90.

Wilson, W. J., & Chaddha, A. (2009). The role of theory in ethnographic research. *Ethnography*, *10*(4), 549-564.

Wind, J., Polle, S. W., Jin, H., Dejong, C. H. C., von Meyenfeldt, M. F., Ubbink, D. T., Gouma, D. J., Bemelman, W. A., Grp, L. S. S., & Grp, E. (2006). Systematic review of enhanced recovery programmes in colonic surgery. *British Journal of Surgery*, *93*(7), 800-809. https://doi.org/10.1002/bjs.5384

Wong, E. L., Yam, C. H., Cheung, A. W., Leung, M. C., Chan, F. W., Wong, F. Y., & Yeoh, E.-K. (2011). Barriers to effective discharge planning: a qualitative study investigating the perspectives of frontline healthcare professionals. *BMC Health Serv Res*, *11*, 1-10.

Wong, G. (2018). Data gathering in realist reviews: Looking for needles in haystacks. In N. Emmel, J. Greenhalgh, & A. Manzano (Eds.), *Doing realist research.* (pp. 131-145). Sage Publications.

Wong, G., Greenhalgh, T., Westhorp, G., Buckingham, J., & Pawson, R. (2013). RAMESES publication standards: realist syntheses. *BMC Medicine*, *11*.

Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., Jagosh, J., & Greenhalgh, T. (2017). Quality and reporting standards, resources, training materials and information for realist evaluation: the RAMESES II project. *Health Services and Delivery Research*, *5*(28), 1-108.

Wong, G., Westhorp, G., Manzano, A., Greenhalgh, J., Jagosh, J., & Greenhalgh, T. (2016). RAMESES II reporting standards for realist evaluations [journal article]. *BMC Medicine*, *14*(1), 96. https://doi.org/10.1186/s12916-016-0643-1

Wood, J. R., & Wood, L. E. (2008). Card sorting: current practices and beyond. *Journal of Usability Studies*, *4*(1), 1-6.

Yanos, P. T., & Ziedonis, D. M. (2006). The patient-oriented clinician-researcher: advantages and challenges of being a double agent. *Psychiatric Services*, *57*(2), 249-253.

Yim, A. P., Wan, S., Lee, T. W., & Arifi, A. A. (2000). VATS lobectomy reduces cytokine responses compared with conventional surgery. *The Annals Of Thoracic Surgery*, *70*(1), 243-247.

Yin, R. K. (2014). *Case Study Research, Design and Methods.* (5th ed.). Sage.

Yousaf, O., Stefanopoulou, E., Grunfeld, E. A., & Hunter, M. S. (2012). A randomised controlled trial of a cognitive behavioural intervention for men who have hot flushes following prostate cancer treatment (MANCAN): trial protocol. *BMC Cancer*, *12*(1), 1-7.

Yuill, K., Richardson, R. A., Davidson, H., Garden, O., & Parks, R. (2005). The administration of an oral carbohydrate-containing fluid prior to major elective upper-gastrointestinal surgery preserves skeletal muscle mass postoperatively—a randomised clinical trial. *Clinical nutrition*, *24*(1), 32-37.

Zargar-Shoshtari, K., Paddison, J. S., Booth, R. J., & Hill, A. G. (2009). A prospective study on the influence of a fast-track program on postoperative fatigue and functional recovery after major colonic surgery [Controlled Clinical Trial; Research Support, Non-U.S.

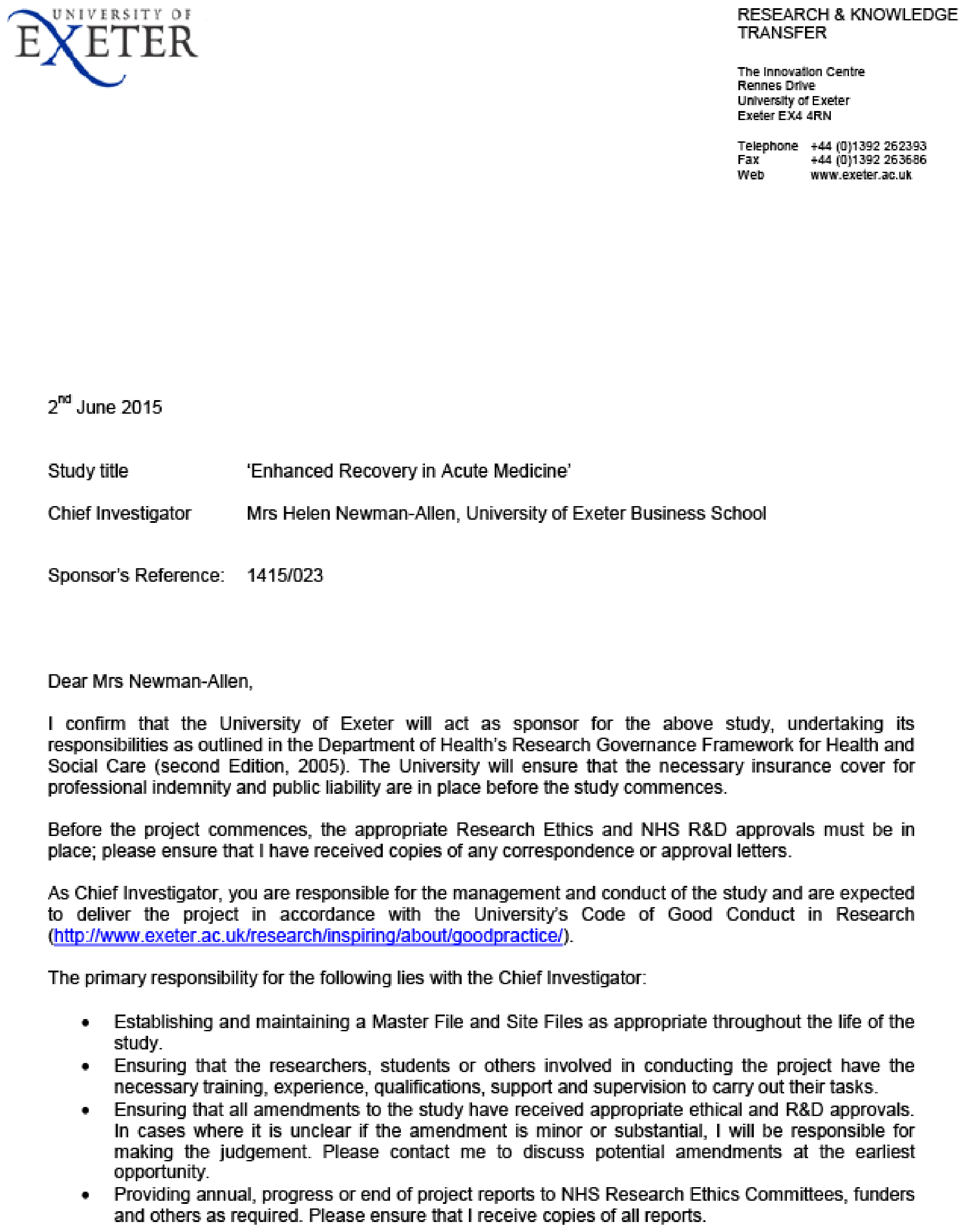
Gov't]. *The Journal Of Surgical Research*, *154*(2), 330-335. http://onlinelibrary.wiley.com/o/cochrane/clcentral/articles/819/CN-00702819/frame.html

Zhang, X., Yang, J., Chen, X., Du, L., Li, K., & Zhou, Y. (2020). Enhanced recovery after surgery on multiple clinical outcomes: Umbrella review of systematic reviews and meta-analyses. *Medicine*, *99*(29).

Zonca, P., Stigler, J., Maly, T., Neoral, C., Hajek, M., & Stiglerova, S. (2008). Do we really apply fast-track surgery? *Bratisl Lek Listy*, *109*(2), 61-65.

Appendices

APPENDIX 1: University ethical approval



UNIVERSITY OF
EXETER

RESEARCH & KNOWLEDGE
TRANSFER

The Innovation Centre
Rennes Drive
University of Exeter
Exeter EX4 4RN

Telephone +44 (0)1392 262393
Fax +44 (0)1392 263686
Web www.exeter.ac.uk

2nd June 2015

Study title	'Enhanced Recovery in Acute Medicine'
Chief Investigator	Mrs Helen Newman-Allen, University of Exeter Business School
Sponsor's Reference:	1415/023

Dear Mrs Newman-Allen,

I confirm that the University of Exeter will act as sponsor for the above study, undertaking its responsibilities as outlined in the Department of Health's Research Governance Framework for Health and Social Care (second Edition, 2005). The University will ensure that the necessary insurance cover for professional indemnity and public liability are in place before the study commences.

Before the project commences, the appropriate Research Ethics and NHS R&D approvals must be in place; please ensure that I have received copies of any correspondence or approval letters.

As Chief Investigator, you are responsible for the management and conduct of the study and are expected to deliver the project in accordance with the University's Code of Good Conduct in Research (http://www.exeter.ac.uk/research/inspiring/about/goodpractice/).

The primary responsibility for the following lies with the Chief Investigator:

- Establishing and maintaining a Master File and Site Files as appropriate throughout the life of the study.
- Ensuring that the researchers, students or others involved in conducting the project have the necessary training, experience, qualifications, support and supervision to carry out their tasks.
- Ensuring that all amendments to the study have received appropriate ethical and R&D approvals. In cases where it is unclear if the amendment is minor or substantial, I will be responsible for making the judgement. Please contact me to discuss potential amendments at the earliest opportunity.
- Providing annual, progress or end of project reports to NHS Research Ethics Committees, funders and others as required. Please ensure that I receive copies of all reports.

- Reporting adverse events or breaches of protocol or good practice, should they occur (a template adverse event report form is available at http://www.hra.nhs.uk/resources/during-and-after-your-study/progress-and-safety-reporting/ . You must ensure that I am informed of adverse events or breaches as soon as possible after they occur and **always within 24 hours** of the incident. If required, I will take responsibility for ensuring that the event or breach is reported to the NHS REC, funder or other appropriate organisation within 15 days of the incident.
- Appropriate dissemination of the findings

Please note that announced or unannounced monitoring visits may be conducted either as part of the University's routine research governance audit process or in response to a specific concern or incident. The University reserves the right to withdraw sponsorship and take any action necessary to ensure the safety of participants if it believes that the Chief Investigator is not fulfilling their obligations.

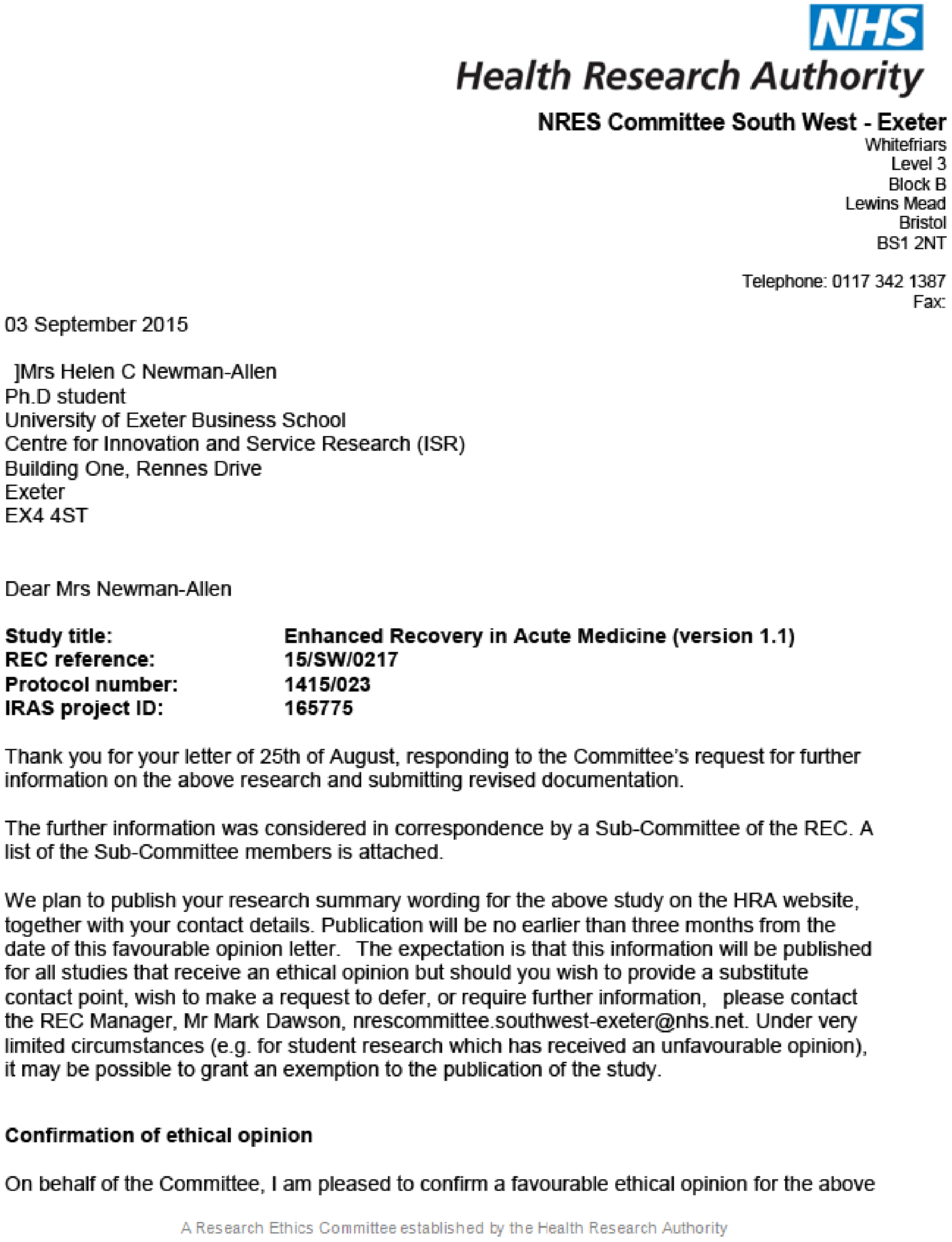
Please do contact me at any time if you have queries or concerns, for additional support or to discuss any aspect of your project.

Yours sincerely,

Gail Seymour
Research Ethics and Governance Manager

Direct line: 01392 72(6621)
Mobile: 07974 206250
Email: g.m.seymour@exeter.ac.uk

APPENDIX 2: Letter of ethical approval NHS



NHS
Health Research Authority

NRES Committee South West - Exeter
Whitefriars
Level 3
Block B
Lewins Mead
Bristol
BS1 2NT

Telephone: 0117 342 1387
Fax:

03 September 2015

]Mrs Helen C Newman-Allen
Ph.D student
University of Exeter Business School
Centre for Innovation and Service Research (ISR)
Building One, Rennes Drive
Exeter
EX4 4ST

Dear Mrs Newman-Allen

Study title: **Enhanced Recovery in Acute Medicine (version 1.1)**
REC reference: **15/SW/0217**
Protocol number: **1415/023**
IRAS project ID: **165775**

Thank you for your letter of 25th of August, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered in correspondence by a Sub-Committee of the REC. A list of the Sub-Committee members is attached.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager, Mr Mark Dawson, nrescommittee.southwest-exeter@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from the HRA. Guidance on where to register is provided on the HRA website.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Covering letter on headed paper [Covering Letter]		14 May 2015
Covering letter on headed paper [Covering Letter]		25 August 2015
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [PITWIMC]		29 July 2015
Interview schedules or topic guides for participants [Realist Interview Guide - staff]	1.1	06 April 2015
Interview schedules or topic guides for participants [Informal Conversational Interview Topic Guide - Patients]	1.1	18 August 2015
Interview schedules or topic guides for participants [Informal Interview Topic Guide - Friend, family & carers]	1.1	18 August 2015
IRAS Checklist XML [Checklist_25082015]		25 August 2015
Letter from funder [Confirmation of Studentship Award Letter]		08 October 2013
Letter from sponsor		02 June 2015
Letters of invitation to participant [Letter of Invitation to Participate - Staff Realist Interviews]	1.1	06 April 2015
Letters of invitation to participant [Letter of Invitation to Participate - Staff Observations & Interviews]	1.1	06 April 2015
Letters of invitation to participant [Letter of Invitation to Participate - Patient Observations & Interviews]	1.1	06 April 2015
Letters of invitation to participant [Letters of Invitation to Participate - Family, Friend & Carer Observations & Interviews]	1.1	06 April 2015
Other		
Other [Funding Letter Helen Newman-Allen]		12 June 2015
Other [UoE Public Liability]		28 July 2015
Participant consent form [Participant Consent Form - Staff]	1.2	18 August 2015
Participant consent form [Participant Consent Form - Family, Friend & Carer]	1.2	18 August 2015
Participant consent form [Participant Consent Form - Patient]	1.2	18 August 2015
Participant information sheet (PIS) [Participant Information Sheet - Patients]	1.2	18 August 2015
Participant information sheet (PIS) [Participant Information Sheet - Family, Friends & Carers]	1.2	18 August 2015
Participant information sheet (PIS) [Participant Information Sheet - Staff]	1.2	18 August 2015
REC Application Form [REC_Form_13072015]		13 July 2015
Referee's report or other scientific critique report [Peer Review]		16 March 2015
Research protocol or project proposal [Research Protocol]	1.3	17 August 2015
Summary CV for Chief Investigator (CI) [CV Helen Newman-Allen]		

Summary CV for supervisor (student research) [Supervisor CV]		

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:
http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at
http://www.hra.nhs.uk/hra-training/

15/SW/0217	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project.

Yours sincerely

Mrs Joan Ramsey
Vice-Chair

Email:nrescommittee.southwest-exeter@nhs.net

Enclosures:	*List of names and professions of members who were present at the meeting and those who submitted written comments* "After ethical review – guidance for researchers" *[SL-AR2]*
Copy to:	*Mrs Gail Seymour* *Ms Fiona Roberts, South Devon Healthcare NHS Trust*

NRES Committee South West - Exeter

Attendance at Sub-Committee of the REC meeting on 26 August 2015

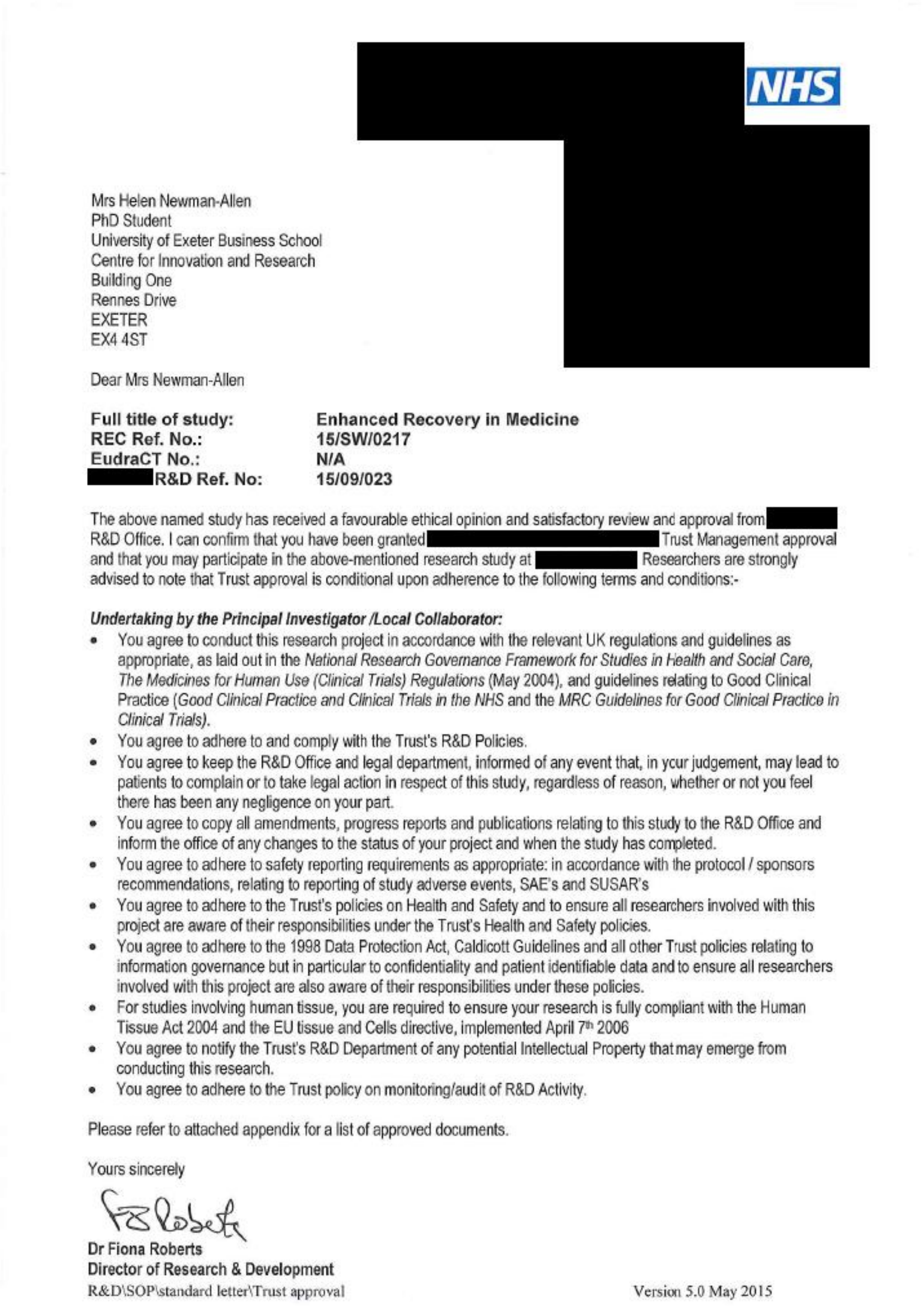
Committee Members:

Name	*Profession*	*Present*	*Notes*
Dr Nicole Dorey	Consultant Clinical Oncologist	Yes	
Mrs Joan Ramsay (Chair)	Retired Associate Director of Nursing (Women and Children)	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Mr Mark Dawson	REC Manager

APPENDIX 3: Ethical approval NHS Trust Research & Development Office and Letters of Access (2015 & 2019)



[redacted]

NHS

Mrs Helen Newman-Allen
PhD Student
University of Exeter Business School
Centre for Innovation and Research
Building One
Rennes Drive
EXETER
EX4 4ST

Dear Mrs Newman-Allen

Full title of study: **Enhanced Recovery in Medicine**
REC Ref. No.: **15/SW/0217**
EudraCT No.: **N/A**
[redacted] **R&D Ref. No:** **15/09/023**

The above named study has received a favourable ethical opinion and satisfactory review and approval from [redacted] R&D Office. I can confirm that you have been granted [redacted] Trust Management approval and that you may participate in the above-mentioned research study at [redacted] Researchers are strongly advised to note that Trust approval is conditional upon adherence to the following terms and conditions:-

Undertaking by the Principal Investigator /Local Collaborator:

- You agree to conduct this research project in accordance with the relevant UK regulations and guidelines as appropriate, as laid out in the *National Research Governance Framework for Studies in Health and Social Care, The Medicines for Human Use (Clinical Trials) Regulations* (May 2004), and guidelines relating to Good Clinical Practice (*Good Clinical Practice and Clinical Trials in the NHS* and the *MRC Guidelines for Good Clinical Practice in Clinical Trials*).
- You agree to adhere to and comply with the Trust's R&D Policies.
- You agree to keep the R&D Office and legal department, informed of any event that, in your judgement, may lead to patients to complain or to take legal action in respect of this study, regardless of reason, whether or not you feel there has been any negligence on your part.
- You agree to copy all amendments, progress reports and publications relating to this study to the R&D Office and inform the office of any changes to the status of your project and when the study has completed.
- You agree to adhere to safety reporting requirements as appropriate: in accordance with the protocol / sponsors recommendations, relating to reporting of study adverse events, SAE's and SUSAR's
- You agree to adhere to the Trust's policies on Health and Safety and to ensure all researchers involved with this project are aware of their responsibilities under the Trust's Health and Safety policies.
- You agree to adhere to the 1998 Data Protection Act, Caldicott Guidelines and all other Trust policies relating to information governance but in particular to confidentiality and patient identifiable data and to ensure all researchers involved with this project are also aware of their responsibilities under these policies.
- For studies involving human tissue, you are required to ensure your research is fully compliant with the Human Tissue Act 2004 and the EU tissue and Cells directive, implemented April 7th 2006
- You agree to notify the Trust's R&D Department of any potential Intellectual Property that may emerge from conducting this research.
- You agree to adhere to the Trust policy on monitoring/audit of R&D Activity.

Please refer to attached appendix for a list of approved documents.

Yours sincerely

Dr Fiona Roberts
Director of Research & Development

R&D\SOP\standard letter\Trust approval   Version 5.0 May 2015

Cc: R&D File

Research Passport File

Susan Martin, [redacted]
Emailed: susan.martin@nhs.net

Dr K Gannon, Senior Administrator, Research Programmes, University of Exeter
k.a.gannon@exeter.ac.uk

Full title of study: **Enhanced Recovery in Medicine**
REC Ref. No.: **15/SW/0217**
EudraCT No.: **N/A**
[redacted] **R&D Ref. No:** **15/09/023**

List of documents reviewed as part of Trust approval process

Document Details	Version No.	Date
Signed SSI Form		26.08.2015
R&D Form		19.06.2015
Confirmation of Sponsorship (IRAS Form)		19.06.2015
REC Provisional Approval letter		17.08.2015
REC Approval Letter		03.09.2015
Participant Information Sheet – Patient	V1.2	18.08.2015
Participant Information Sheet – Family, Friends & Carers	V1.2	18.08.2015
Participant Information Sheet – Staff	V1.2	18.08.2015
Participant Consent Form – Patient	V1.3	07.09.2015
Participant Consent Form – Family, Friends & Carers	V1.2	18.08.2015
Participant Consent Form – Staff	V1.3	07.09.2015
Letter of Invitation to Participate – Patient Observations & Interviews	V1.1	06.04.2015
Letter of Invitation to Participate – Staff	V1.1	06.04.2015
Letter of Invitation to Participate – Staff Observations & Interviews	V1.1	06.04.2015
Informal Conversational Interview Topic Guide – Family, Friends & Carers	V1.1	18.08.2015
Informal Conversational Interview Topic Guide – Patients	V1.1	18.08.2015
Public Liability		28.07.2015
Research Passport for PI		16.01.2015
Confirmation of Studentship award letter		08.10.2013
Funding Letter		12.06.2015

[redacted] NHS

[redacted]

Mrs Helen Newman-Allen
PhD Student
University of Exeter Business School
Centre for Innovation and Research
Building One
Rennes Drive
Exeter
EX4 4ST

10th September 2015

Dear Mrs Newman-Allen

Letter of access for research: 'Enhanced recovery in medicine'
REC Ref. No: 15/SW/0217
[redacted] **R&D Ref. No: 15/09/023**

This letter confirms your right of access to conduct research through [redacted] NHS Foundation Trust for the purpose and on the terms and conditions set out below. This right of access commences on **10th September 2015** and ends on **31st October 2016** unless terminated earlier in accordance with the clauses below.

You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from [redacted] NHS Foundation Trust. Please note that you cannot start the research until the Principal Investigator for the research project has received a letter from us giving permission to conduct the project.

The information supplied about your role in research at [redacted] NHS Foundation Trust has been reviewed and you do not require an honorary research contract with this NHS organisation. We are satisfied that such pre-engagement checks as we consider necessary have been carried out. Evidence of checks should be available on request to this NHS organisation.

You are considered to be a legal visitor to [redacted] NHS Foundation Trust premises. You are not entitled to any form of payment or access to other benefits provided by this NHS organisation to employees and this letter does not give rise to any other relationship between you and this NHS organisation, in particular that of an employee.

While undertaking research through [redacted] NHS Foundation Trust, you will remain accountable to your substantive employer University of Exeter but you are required to follow the reasonable instructions of [redacted] Director (research supervisor) in this NHS organisation or those given on her/his behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by this NHS organisation in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

You must act in accordance with [redacted] NHS Foundation Trust policies and procedures, which are available to you upon request, and the Research Governance Framework.

You are required to co-operate with [redacted] NHS Foundation Trust in discharging its duties under the Health and Safety at Work etc Act 1974 and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while on [redacted] NHS Foundation Trust premises. You must observe the same standards of care and propriety in dealing with patients, staff, visitors, equipment and premises as is expected of any other contract holder and you must act appropriately, responsibly and professionally at all times.

If you have a physical or mental health condition or disability which may affect your research role and which might require special adjustments to your role, if you have not already done so, you must notify your employer and the Trust Dr Fiona Roberts, R&D Director prior to commencing your research role at the Trust.

You are required to ensure that all information regarding patients or staff remains secure and *strictly confidential* at all times. You must ensure that you understand and comply with the requirements of the NHS Confidentiality Code of Practice and the Data Protection Act 1998. Furthermore you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

You should ensure that, where you are issued with an identity or security card, a bleep number, email or library account, keys or protective clothing, these are returned upon termination of this arrangement. Please also ensure that while on the premises you wear your ID badge at all times, or are able to prove your identity if challenged. Please note that this NHS organisation accepts no responsibility for damage to or loss of personal property.

This organisation may revoke this letter and may terminate your right to attend at any time either by giving seven days' written notice to you or immediately without any notice if you are in breach of any of the terms or conditions described in this letter or if you commit any act that we reasonably consider to amount to serious misconduct or to be disruptive and/or prejudicial to the interests and/or business of this NHS organisation or if you are convicted of any criminal offence. You must not undertake regulated activity if you are barred from such work. If you are barred from working with adults or children this letter of access is immediately terminated. Your employer will immediately withdraw you from undertaking this or any other regulated activity and you MUST stop undertaking any regulated activity immediately.

Your substantive employer is responsible for your conduct during this research project and may in the circumstances described above instigate disciplinary action against you.

[redacted] Foundation Trust will not indemnify you against any liability incurred as a result of any breach of confidentiality or breach of the Data Protection Act 1998. Any breach of the Data Protection Act 1998 may result in legal action against you and/or your substantive employer.

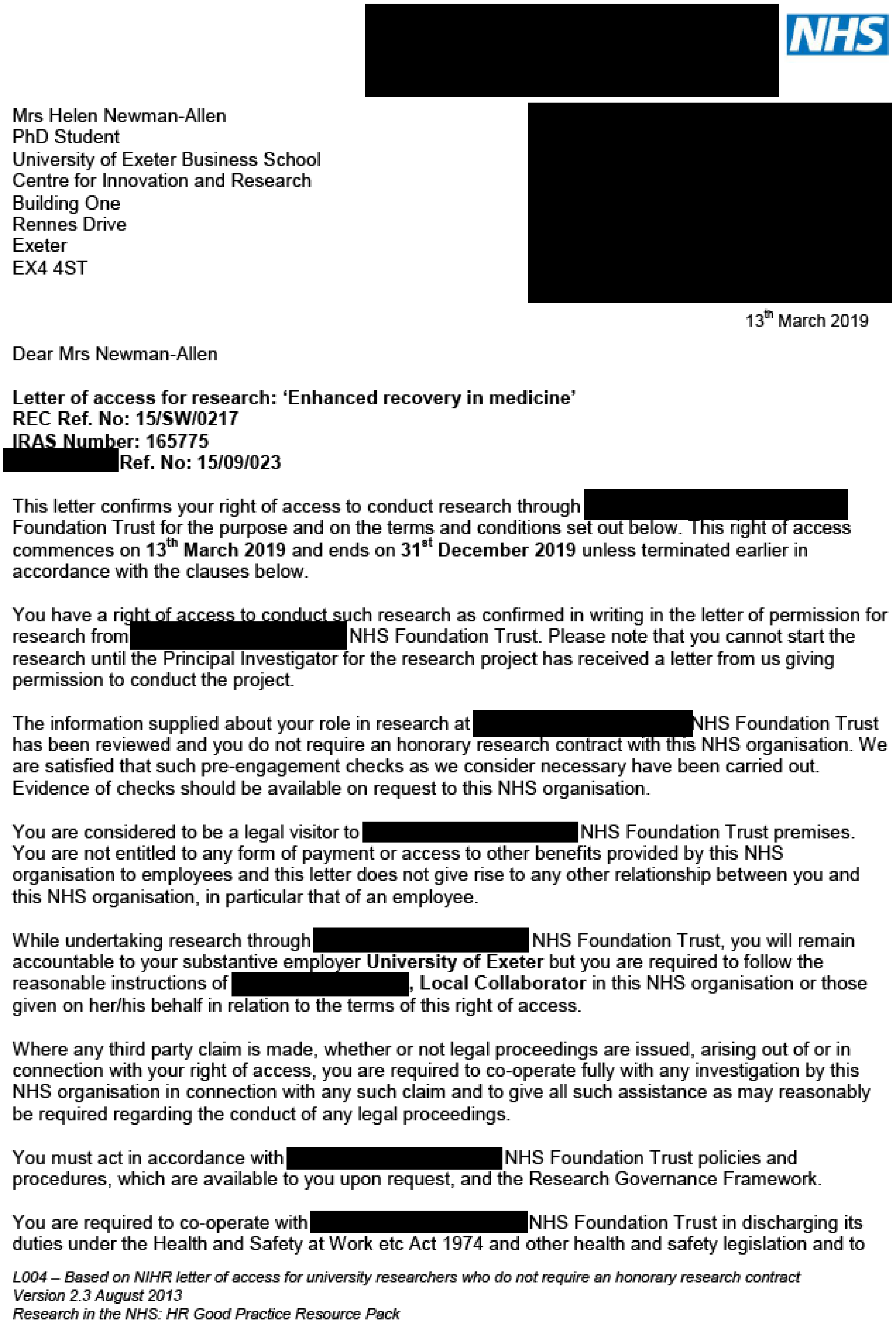
If your current role or involvement in research changes, or any of the information provided in your Research Passport changes, you must inform your employer through their normal procedures. You must also inform your nominated manager in this NHS organisation.

Yours sincerely

Dr Fiona Roberts
Research and Development Director
[redacted] **NHS Foundation Trust**

cc: [redacted]
Dr K Gannon, Senior Admistrator, Research Programmes, University of Exeter
(k.a.gannon@exeter.ac.uk)
R&D study File
Research Passport file

L004 – Based on NIHR letter of access for university researchers who do not require an honorary research contract
Version 2.3 August 2013
Research in the NHS: HR Good Practice Resource Pack



[redacted] NHS

[redacted]

Mrs Helen Newman-Allen
PhD Student
University of Exeter Business School
Centre for Innovation and Research
Building One
Rennes Drive
Exeter
EX4 4ST

13th March 2019

Dear Mrs Newman-Allen

Letter of access for research: ‘Enhanced recovery in medicine’
REC Ref. No: 15/SW/0217
IRAS Number: 165775
[redacted] **Ref. No: 15/09/023**

This letter confirms your right of access to conduct research through [redacted] Foundation Trust for the purpose and on the terms and conditions set out below. This right of access commences on **13th March 2019** and ends on **31st December 2019** unless terminated earlier in accordance with the clauses below.

You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from [redacted] NHS Foundation Trust. Please note that you cannot start the research until the Principal Investigator for the research project has received a letter from us giving permission to conduct the project.

The information supplied about your role in research at [redacted] NHS Foundation Trust has been reviewed and you do not require an honorary research contract with this NHS organisation. We are satisfied that such pre-engagement checks as we consider necessary have been carried out. Evidence of checks should be available on request to this NHS organisation.

You are considered to be a legal visitor to [redacted] NHS Foundation Trust premises. You are not entitled to any form of payment or access to other benefits provided by this NHS organisation to employees and this letter does not give rise to any other relationship between you and this NHS organisation, in particular that of an employee.

While undertaking research through [redacted] NHS Foundation Trust, you will remain accountable to your substantive employer **University of Exeter** but you are required to follow the reasonable instructions of [redacted]**, Local Collaborator** in this NHS organisation or those given on her/his behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by this NHS organisation in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

You must act in accordance with [redacted] NHS Foundation Trust policies and procedures, which are available to you upon request, and the Research Governance Framework.

You are required to co-operate with [redacted] NHS Foundation Trust in discharging its duties under the Health and Safety at Work etc Act 1974 and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while on [redacted] NHS Foundation Trust premises. You must observe the same standards of care and propriety in dealing with patients, staff, visitors, equipment and premises as is expected of any other contract holder and you must act appropriately, responsibly and professionally at all times.

If you have a physical or mental health condition or disability which may affect your research role and which might require special adjustments to your role, if you have not already done so, you must notify your employer and the Trust (email R&D Department on [redacted]@nhs.net) prior to commencing your research role at the Trust.

You are required to ensure that all information regarding patients or staff remains secure and *strictly confidential* at all times. You must ensure that you understand and comply with the requirements of the NHS Confidentiality Code of Practice and the Data Protection Act 2018. Furthermore you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

You should ensure that, where you are issued with an identity or security card, a bleep number, email or library account, keys or protective clothing, these are returned upon termination of this arrangement. Please also ensure that while on the premises you wear your ID badge at all times, or are able to prove your identity if challenged. Please note that this NHS organisation accepts no responsibility for damage to or loss of personal property.

This organisation may revoke this letter and may terminate your right to attend at any time either by giving seven days' written notice to you or immediately without any notice if you are in breach of any of the terms or conditions described in this letter or if you commit any act that we reasonably consider to amount to serious misconduct or to be disruptive and/or prejudicial to the interests and/or business of this NHS organisation or if you are convicted of any criminal offence. You must not undertake regulated activity if you are barred from such work. If you are barred from working with adults or children this letter of access is immediately terminated. Your employer will immediately withdraw you from undertaking this or any other regulated activity and you MUST stop undertaking any regulated activity immediately.

Your substantive employer is responsible for your conduct during this research project and may in the circumstances described above instigate disciplinary action against you.

[redacted] NHS Foundation Trust will not indemnify you against any liability incurred as a result of any breach of confidentiality or breach of the Data Protection Act 2018. Any breach of the Data Protection Act 2018 may result in legal action against you and/or your substantive employer.

If your current role or involvement in research changes, or any of the information provided in your Research Passport changes, you must inform your employer through their normal procedures. You must also inform your nominated manager in this NHS organisation.

To enable you to engage in research studies at [redacted] NHS Foundation Trust, and in line with the New Data Protection Legislation, you are advised that personal information provided to us by you will be held securely in the Investigators Site file. This file will have restricted access and be held for the duration of the clinical trial and subsequent archiving period, after which time it will be destroyed.

Yours sincerely

Dr Fiona Roberts
R&D Director
cc: HR department of the substantive employer (uebs-pgradmin@exeter.ac.uk)
[redacted], Local Collaborator, [redacted]
R&D File
Research Passport file
Investigator Site File (if applicable)

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Research in the NHS: HR Good Practice Resource Pack

APPENDIX 4: Search strategy used in surgical review

For each database, subject headings were used where possible, and related free text terms (where possible with truncations and proximity operators). The broad search terms describing the intervention were combined with the OR Boolean operator. These were then combined with specialty descriptions using the AND Boolean operator.

Search terms used to describe enhanced recovery programmes in surgery

Concept	Population
Enhanced recovery	surgery
Enhanced recovery program	surgical
Enhanced recovery pathways	Perioperative care
Enhanced recovery after surgery	
ERAS	
ERAS pathways	
Fast track	
Fast-track	
Fast track surgery	
Fast track program	
Fast track protocol	
Fast track recovery	
Fast track rehabilitation	
Fast track treatment program	
Accelerated recovery	
Rapid recovery	

Example database search strategy

Database	Host	Date searched	Strategy	Hits
MEDLINE	Ovid	12/02/16	1. enhanced recovery.ti,ab 2. enhanced recovery program*.ti,ab 3. enhanced recovery pathway*.ti,ab 4. enhanced recovery after surgery.ti,ab 5. ERAS.ti,ab **6. ERP.ti,ab** 7. fast track.ti,ab 8. fast track program*.ti,ab 9. fast track pathway*.ti,ab 10. fast track rehabilitation.ti,ab 11. accelerated recovery.ti,ab	1469

			12. rapid recovery program*.ti,ab 13. surgery.ti,ab 14. surgical.ti,ab 15. perioperative care.ti,ab 16. exp perioperative care/ 17. exp general surgery/ 18. 13 or 14 or 15 or 16 or 17 19. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 20. 18 and 19 21. Limit 20 to English 22. Limit 20 to human Limit 22 to yr=”1997-current”	
CINAHL	EBSCO	10/02/16	1. TI enhanced recovery or AB enhanced recovery 2. TI enhanced recovery program* or AB enhanced recovery program* 3. TI enhanced recovery pathway or AB enhanced recovery pathway 4. TI enhanced recovery after surgery or AB enhanced recovery after surgery 5. TI ERAS or AB ERAS 6. TI fast track or AB fast track 7. TI fast track protocol or AB fast track protocol 8. TI fast track recovery or AB fast track recovery 9. TI accelerated recovery or AB accelerated recovery 10. TI rapid recovery program* or AB rapid recovery program* 11. TI fast track program* or AB fast track program* 12. S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S8 or S10 or S11 13. TI surgery or AB surgery 14. TI perioperative care or AB perioperative care 15. TI surgical or AB surgical 16. (MH “perioperative care”)	736

			17. S13 or S14 or S15 or S16 18. S16 and S17 19. Narrowed by English language	
CDSR/ CENTRAL/ DARE	Cochrane Collaboration	11/02/16	1. “enhanced recovery” 2. “enhanced recovery program*” 3. “enhanced recovery pathway” 4. “Enhanced recovery after surgery” 5. “ERAS” 6. “fast track” 7. “fast track program*” 8. “fast track pathway” 9. “fast track rehabilitation” 10. “accelerated recovery” 11. “rapid recovery program*” 12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 13. “surgery” 14. “surgical” 15. “perioperative care” 16. MeSH descriptor: [surgery] explode all trees 17. MeSH descriptor: [perioperative care] explode all trees 18. #13 or #14 or #15 or #16 or #17 19. #12 and #18 Publication year from 1997 - 2016	621
EMBASE	Elsevier	12.02.16	1. enhanced recovery.ti,ab 2. enhanced recovery program*.ti,ab 3. enhanced recovery pathway*.ti,ab 4. enhanced recovery after surgery.ti,ab 5. ERAS.ti,ab 6. fast track.ti,ab 7. fast track program*.ti,ab 8. fast track pathway*.ti,ab 9. fast track rehabilitation.ti,ab 10. accelerated recovery.ti,ab 11. rapid recovery program*.ti,ab 12. surgery.ti,ab 13. surgical.ti,ab	1866

			14. perioperative care.ti,ab 15. exp perioperative care/ 16. exp general surgery/ 17. 12 or 13 or 14 or 15 or 16 18. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 19. 17 and 18 20. Limit 19 to English 21. Limit 19 to human Limit 22 to yr=”1997-current”	
Total				4692

Journal	Issues searched
British Journal of Anaesthesia	Jan 2013 – March 2016
British Journal of Surgery	Jan 2013 – March 2016

APPENDIX 5: Evidence used to support development of surgical theories

Source (year)	Explanation/page no.	ID No.
Aasa et al., (2013)	A face-to-face consultation before surgery enables questions to be asked. Having family members present was valuable because the information could be discussed afterwards. This improved patient outlook, they felt cared for and acknowledged, a sense of control, and were more confident in the staff and the system. Too much information given at the same time can make remembering everything difficult for some people. Providing information prior to operations and getting acquainted with the ward increased understanding of what would happen postoperatively and why, gave reassurance and a sense of security and calm, and reduced anxiety about the hospital admission. Explanations increased patients' confidence in the staff and motivated them to do things. Information from several staff about the whole process, increased the sense of security. If there were contradictions between written and verbal information, this could lead to feelings of insecurity. One patient preferred not to take responsibility and preferred staff to advise when activities should be undertaken, which inhibited participation. P1607-9.	1.
Abreu (2011)	If pre-warming heat is applied to patients' limbs for 30 minutes prior to the operation, followed by intraoperative warming blankets, then temperature loss during the operation was reversed. P44.	2.
	The anaesthetic dampens the effects of the thermoregulatory system and its ability to generate and retain heat, leading to anaesthetic impaired thermoregulation. The anaesthetics prevent the brain from regulating body temperature effectively and the body initiating its usual behavioural responses to the cold (e.g., shivering, and peripheral vasoconstriction). Continuous temperature monitoring before surgery enables adjustment of warming to maintain normothermia. P44.	3.
Ahmed et al., (2012)	If a dedicated multidisciplinary team with members willing to accept new ideas and overcome any barriers, then implementation of ERAS protocols and adherence. P1046.	4.
	If conventional care practices have been used for a prolonged period and are ingrained, then ERAS practices may be viewed as controversial and postoperative compliance declines. P1050.	5.
	If surgery is learnt through conventional mentorship, outdated and non-evidence-based practices can be	6.

	acquired by the next generation of surgeons, then implementation of ERP may be difficult. P1050.	
	If training is given for junior staff (medics and nurses) when they rotate and to on call medics, who provide out of hours care, then implementation of ERP is facilitated. P1050.	7.
	Implementation of ERAS is difficult to accomplish and needs extra resources to make it more attractive. P1050.	8.
	Successful implementation of ERP needs a leader responsible for coordinating the various interventions from before surgery until discharge. This could be any experienced member of the MDT. P1050.	9.
	ERAS is challenging because it requires the participation of multiple professions (physiotherapists, nurses, dieticians). Protocol adherence postoperatively is reduced because it requires close cooperation between staff which may be difficult. P1049/1050.	10.
Anderson & Spencer (2003)	VTE is a complication of major surgery, end-stage terminal illness and many acute medical illnesses. RCTs involving general surgical patients suggest that adequate prophylaxis in high-risk patients can prevent VTE in 10% of patients and save the life of 0.5% of patients. PI-14	11.
Apfel et al., (2012)	Postoperative nausea and vomiting (PONV) affect 20–30% of surgical patients following general anaesthesia. PONV reduces patient comfort and satisfaction, may occasionally cause dehydration and electrolyte imbalances, aspiration of stomach contents, throat rupture, wound separation, bleeding, and increase costs for the healthcare system. P742. Patient characteristics and anaesthesia related characteristics, (volatile anaesthetics, duration, use of opioids and nitrous oxide postoperatively, patient susceptibility i.e., females, younger patients, non-smokers, history of PONV and/ or motion sickness) are independent predictors likely to have a causative relationship. P743.	12.
Archer et al., (2014)	If introductory information is provided to patients, then their knowledge increases, leading to a greater understanding of why they are being asked to comply with elements of the programme and helps set their expectations about what is required from them following surgery. P3/5. Getting active is important to patients. Receiving information and gaining knowledge enables them to achieve this more quickly because they know what to expect and why. P3. Physiotherapists are essential to getting patients out of bed postoperatively because encouragement and	13.

	giving permission to mobilise builds confidence that no ill effects will occur. P3. Getting out of bed and mobilising enables patients to complete every day normal activities (getting dressed, washing, and brushing their teeth), which builds confidence and helps them to take some control of their own care. P3/4. Preoperative Instruction and supporting information before surgery may improve patients’ self-efficacy in getting out of bed and beginning to mobilise. P6.	
	Not all patients want to return home more quickly. If they did not feel fully recovered, then home can be less appealing. P4.	14.
	Being informed maintains a sense of autonomy, which in turn increases patient’s motivation to actively participate in and stick to the programme. P3. If the patient gets out of bed, then this enables patients to move towards completing normal activities (getting dressed, brushing their teeth, taking a bath), builds confidence and helps them take some control of their own care. P3/4.	15.
	If a follow-up phone call after discharge to discuss difficulties or ask questions is promised but not made, it can lead to a negative experience for patients and result in district nurses or GPs having to see patients. P5.	16.
Arroyo et al., (2012)	If a larger hospital, then implementation is slower and more difficult to achieve because of rigid organisational structures and a larger number of professionals (particularly postoperative routines). P9/10.	17.
Awad et al., (2013)	If CHO drinks are given before major abdominal surgery, then Preoperative LOS is decreased, and insulin resistance is attenuated. P1.	18.
Bernard (2013)	If minimally invasive techniques (i.e., laparoscopy or small incisions), then normothermia is maintained because the loss of body heat is reduced because internal body structures are not exposed to the dry, cool, operating theatre air. Heating and humidifying surgical gases, protects internal organs by keeping them warm and moist, reduces shivering, and the need for opioids postoperatively. P100	19.
Berthelsen et al., (2014)	Relatives supported older patients by keeping them company, remembering information, attending meetings, and contributing knowledge. They took on nursing tasks such as helping with toileting and getting drinks. P2752-2754.	20.
Blazeby et al., (2010)	If discharged early patients are pleased because they feel that recovery can be achieved better at home. They can relax in a familiar environment, eat and drink whatever and whenever they please, and they are removed from the risk of hospital infection. Carers	21.

	appreciated having patients home earlier as it removed the need for hospital visits. P238. Some patients felt they were discharged too soon after major surgery and they were rushed out. They lacked confidence and felt vulnerable. If complications were experienced, they felt nervous and were worried about how they would cope or access information and care if required. They felt this put an undue strain on their caregiver. P239.	
Boudas (2014)	Families may feel that the patient has a right to convalesce in hospital, and that a short hospital stay represents inadequate care for older people. P90.	22.
Bratzler & Houck (2004)	If antimicrobial prophylaxis, then wound infection is prevented because enough antimicrobial agent is in the serum, tissues, and wound and is active against bacterial contamination during the entire duration of the incision being open. P396-404.	23.
Brieger (1983)	A change towards the use of early ambulation may be inhibited by medical tradition and practices that have been continued because this is the way that things have always been done. P448.	24.
Carli & Zavorsky (2005)	Prehabilitation before cardiac or abdominal surgery is beneficial in older people and results in fewer postoperative complications, shorter LOS, improved quality of life, and reduced functional disability. P23 & 30.	25.
Carli et al., (2010)	Anxiety may affect patient’s ability to engage in the prehabilitation programme. Low belief, a feeling of intimidation (particularly for those with poor physical reserve) and lack of support from friends and family may result in poor participation and a lack of benefit in intense programmes. P1189.	26.
Carr & Goudas (1999)	Tissue damage activates sensory receptors and initiates a local inflammatory response, sustained by multiple mediators and immune cells. These mediators sensitise sensory receptors or activate dormant ones. At the site of injury, inflammatory mediators, neurotransmitters, and growth factors bathe sensitised nociceptors. Nerve fibres convey sensory information to the spinal cord and then the brain structures responsible for sensory responses. P2052	27.
Coulter (1999)	Paternalism is widespread in the NHS and the assumption that professionals know best and can make decisions on behalf of a patient creates and sustains a detrimental reliance out of line with modern society. P719.	28.
Coulter & Collins (2011)	Routinely placing patients’ needs, wishes and preferences at the heart of clinical decision-making by making shared decision-making in the NHS is a government policy objective. P1.	29.

Creditor (1993)	Hospitalisation can result in permanent functional decline for older people, irrespective of resolution of the condition they were admitted for. P219.	30.
Cuthbertson (1930)	In animals, injury typically leads to reduced activity and a reduced food supply. This is an urgent need and therefore catabolism of body reserves may be necessary for repair and maintenance. P1261.	31.
Davies & Wilson (2004)	If patients are older and have cardiovascular disease, then they are at higher risk of complications and death because they have lower preoperative aerobic fitness and are unable to meet oxygen demands from the inflammatory response to surgical trauma. P128	32.
Desborough (2000)	The surgical stress response increases secretion of catabolic hormones and activates the sympathetic nervous system. Glucagon is released from the pancreas, and insulin secretion may be reduced. Hormonal changes increase catabolism which mobilises substrates to provide energy. P109. It is likely that the stress response evolved as a survival mechanism allowing injured animals to survive without food until their injuries healed. It is unlikely that the stress response is necessary in modern surgical practice. P111. After major surgical trauma, increased cortisol concentrations stimulate protein catabolism, breaking down muscle to release amino acids. Resulting in weight loss and muscle wasting. P112. The endocrine response is activated by afferent neuronal impulses from the injury site, which travel along sensory nerve roots through the spinal cord to the brain. P112.	33.
Devine (1992)	Significant beneficial effects on recovery, postoperative pain, emotional distress, and LOS. P135.	34.
Edis (2015)	Preventing inadvertent perioperative hypothermia is an integral element of the ERAS because this it promotes physical well-being throughout a patient’s surgical journey. P358. Patients can become cold prior to arriving in the operating theatre because of wearing thin, exposing hospital gowns and being inactive while waiting, leading to increased risk of developing hypothermia later. Additionally, they are fasted from midnight, which reduces metabolism and body heat produced. The cool temperature of the anaesthetic room, skin exposure in preparation for cannulas, arterial lines and the blood pressure cuff leads to further cooling. P360.	35.
	Because of altered thermoregulation, patients should be actively heated before the point of induction so that their bodies do not cool too dramatically after induction. This would place patients in a more advantageous physical position prior to surgery. P362.	36.

Egbert et al., (1964)	Positive effects from providing information about treatment and postoperative pain severity were found. P825.	37.
El-Gamel et al., (2000)	Increasing operating room temperature to 26°C (79°F), reduces the incidence of hypothermia in patients (both young and old). P694.	38.
Fearon et al., (2005)	Mechanical bowel preparation is stressful for the patient and can result in dehydration and electrolyte abnormalities (particularly in the older people). P468.	39.
	Opioids with long-lasting effect should be avoided. Short acting anaesthesia with short acting effects allow pro-active recovery to start on the day of surgery. P469.	40.
	Information in advance of admission, including an explanation of what is going to happen during hospitalisation, and what their role is can facilitate adherence to the pathway and early discharge. P468.	41.
Fearon & Luff (2003)	If conventional preoperative medication and anaesthesia, then the patient is left sedated following surgery for several hours and is unable to sit up and take fluids or eat. Optimisation of postoperative pain relief with epidural anaesthesia for 48-72 hours allows patients to be almost pain free during this period. Epidural anaesthesia and analgesia reduce postoperative ileus and the metabolic response to injury by blocking visceral and sympathetic and parasympathetic pathways. Patients can be mobilised early on with sufficient pain relief. P809.	42.
	If opioid analgesia is used, then this can lead to postoperative sedation and increase PONV. P809.	43.
	Postoperative information can facilitate postoperative recovery and pain relief. A clear explanation of what is going to happen during hospitalisation facilitates adherence to the ERP and reduces LOS. P468.	44.
	Patients undergo enforced bed rest as part of conventional postoperative care, but also because of the presence of catheters, drips and drains. Immobilisation may last for over a week. P809.	45.
Galli (2015)	The preadmission meeting is an opportunity for staff to develop a trusting relationship with the patient and increase their perception of safety, feelings of calm, connection, and ability to cope with stress. P155.	46.
	In ERAS, preoperative information and counselling can improve physical and psychological well-being of patients and carers. ERAS requires an active patient and carer role, preoperative information and counselling, and prepares them for early discharge. P157.	47.
Gillis et al., (2014)	Exercise training (prehabilitation) undertaken while waiting for surgery improves functional capacity. P439.	48.

Gotlib Conn et al., (2015)	The programme was accepted by staff, but there was resistance from some older staff. P5.	49.
	If performance data is available, then implementation is effective. Reporting data to hospital stakeholders can help reduce scepticism, resistance, and allows staff to see the impact of their efforts, which helps make programmes sustainable. P8.	50.
Grocott et al., (2017)	Preoperative assessment ensures patients are as prepared as possible to maximise their resilience to the physiological stress of surgery. P1225.	51.
Guenaga et al., (2011)	The belief that mechanical bowel preparation (MBP) is an important factor in preventing infectious complications and splitting open the wound after colorectal surgery is dogma. P3.	52.
Gustafsson et al., (2013)	Alcohol abusers have an increased risk of postoperative morbidity, such wound, heart and lung complications and bleeding. Abstinence reduces postoperative morbidity by improving organ function. P261.	53.
	Smoking has a negative influence on recovery by increasing the risk of postoperative lung and wound complications. Abstinence reduces the incidence of complications. P261.	54.
	Fasting from midnight has been standard practice because it is thought that an empty stomach reduces the risk of pulmonary aspiration. There is no research evidence behind this dogma. National and European Anaesthesia Society guidance now recommends intake of clear fluids until two hours before anaesthesia and a six hour fast from solid food. P262.	55.
	Preoperative information about care procedures, reduces fear and anxiety, enhances postoperative recovery, and reduces LOS. P261.	56.
	The use of thromboprophylaxis with compression stockings should be used for all colorectal patients because they significantly reduce the prevalence of DVT in hospitalised patients. The use of intermittent pneumatic compression should also be considered. P263.	57.
	The use of antibiotic prophylaxis (against aerobic and anaerobic bacteria) for patients undergoing colorectal surgery reduces the risk of surgical-site infections. P263.	58.
	MBP causes dehydration, increases the rate of complications and is distressing for patients. P263.	59.
	Cardiac output monitors target fluid on an individual basis and demonstrated faster return of bowl function and fewer complications. P267.	60.
	Minimal preoperative fasting, carbohydrate loading, and sufficient hydration can have a beneficial effect. p265	61.

	Postoperative nasogastric tubes should not be used routinely because fever atelectasis and pneumonia are reduced. P265.	62.
	Patients becoming hypothermic (<36°) have higher rates of wound infection, serious or fatal heart complications, and bleeding. There is a higher risk of shivering in hypothermic patients, which increases oxygen consumption at a critical time. Pain scores are also better in patients who are not hypothermic. Pre-warming patients with a warm air blanket before coming to the operating theatre has been shown to improve core temperature before surgery. This may be more important for patients who are exposed while having prolonged anaesthetic procedures (e.g., monitoring catheters and epidural insertion). Maintaining temperature during the procedure can be achieved by using forced-air warming blankets, heating mattresses under the patient, or circulating-water garment systems. P265-6.	63.
	Intravascular volume is one of the key determinants of cardiac output and therefore oxygen delivery to the tissues. Intravascular hypovolaemia can lead to hypoperfusion of vital organs and the bowel, which can lead to complications. However, administering too much fluid can lead to bowel oedema and increased interstitial lung water, which can lead to complications. Fluid shift should be minimised if possible. That is avoiding bowel preparation, maintaining hydration up to 2h before surgery as well as minimising bowel handling outside the abdominal cavity and avoiding blood loss. P266.	64.
	Increasing exercise (pre-habilitation) before surgery may improve physiological function and recovery. P261. Early mobilisation reduces chest complications and insulin resistance. P273.	65.
Harper & Lyles (1988)	Prolonged bed rest causes major physiological changes in most organ systems (cardiovascular, respiratory, musculoskeletal), that often result in significant complications. Older people are especially susceptible to the consequences of bed rest due to decreased physiological reserve. P1052/1054.	66.
Harries (2013)	If patients have childcare issues, care for a dependent, work, dislike hospitals, or are younger, they want to spend less time in hospital and prefer to be admitted on the morning of the surgery (rather than the day before). They then experience less anxiety. P57. If older patients are admitted to hospital on the day before surgery, they have time to settle into hospital and familiarise themselves with their surroundings, then anxiety is reduced. P58.	67.

	If patients are older or anxious, visiting the admission ward as part of the pre-admission process, reduces anxiety. P58.	68.
Hausel et al., (2001)	CHO loading improves preoperative well-being, relieves thirst, hunger, anxiety, malaise, unfitness, and effects the experience of anxiety by making patients feel more at ease. P1349.	69.
Hunt et al., (2009)	Patients may be concerned about the consequences of early discharge for themselves and their family, particularly managing pain and mobility problems at home, and needing more support. P130. Short hospital stay reduces the time available to staff for management of pain relief, PONV prevention and treatment, management of continence, rehabilitation, and physiotherapy, that are likely to be important to patients. P131.	70.
Jeff & Taylor (2014)	If nurses feel comfortable in processes that are familiar, then they may resist change. Particularly experienced nurses who may adhere to old fashioned practices. Newer nurses adjusted to and believed in the programme quicker than experienced nurses. P26/28.	71.
	Rather than have one protocol for all patients, participants felt that care needed to be individualised. P28. Participants described how it was necessary to adapt ERAS at times. Not all patients were able to meet the standards of the protocol, which meant reassessing them and delivering individualised care. P30.	72.
	To achieve cultural change, support from a designated ward-based ERAS nurse was necessary. P29.	73.
	If patients make a positive attempt to achieve set goals, but experience nausea, lack of appetite and poor pain control, then they may be unable to achieve set goals within the expected time frame. P29.	74.
Jin & Chung (2001)	The functional capacity of organs reduces with aging, resulting in decreased reserve and ability to endure stress. If older individuals with pre-existing conditions, such as heart, lung disease, diabetes, or hypertension undergo surgery, co-existing disease further depresses organ function and/or reserve leading to higher risk of adverse outcomes and mortality. Good levels of hydration and energy prior to surgery are of particular importance in older patients as both poor nutritional status and impaired renal function are common. P608.	75.
Jorgensen & Fridlund (2016)	Identified different types of coping behaviour, including ‘exceeding the boundaries of capability, protecting the boundaries of capability, challenging the boundaries of capability, and accepting the boundaries of capability’. P6.	76.

	Patients may be nervous about not living up to expectations. Staff may need to correct overexertion if patients are not careful enough regarding risk to their new hip. P9.	
Jung et al., (2007)	MBP is unpleasant for patients and delays the return of normal bowel movements after colon surgery. P5.	77.
Kaka et al., (2017)	A period of abstinence from alcohol in head and neck cancer patients, reduced surgical site infection (due to improved immune function and tissue healing), complications, and length of stay. Empowering patients through education promoted this. The protocol was facilitated by patient education. P1186.	78.
Kehlet (1997)	Although the surgical stress response may be a defence mechanism, the stress induced changes in postoperative organ function may also be responsible for the development of complications after surgery. P607.	79.
	Major surgery results in, pain, brain dysfunction, PONV and ileus, fatigue, prolonged convalescence, and heart, lung, infective, and thromboembolic complications. Widespread changes in organ function, (the surgical stress response) are brought about by trauma induced endocrine metabolic changes and activation of several biological cascade systems. Although likely to have evolved to confer an advantage for survival, if heightened and prolonged, these responses can also lead to reduction of body cell mass and physiological reserve capacity. P607.	80.
	If organ function is optimised preoperatively and prophylactics are used, then a high-risk patient is reclassified into a lower-risk group and postoperative morbidity is reduced. P607.	81.
	If a patient is malnourished and the assessed perioperative risk score is high, giving preoperative and postoperative nutritional support can reduce morbidity. P607.	82.
	Blocking the afferent neural stimulus by various neural block techniques with local anaesthetics reduces the catabolic response to surgery. The usual increase in cortisol, catecholamines and glucose concentrations can be prevented, insulin resistance reduced, glucose tolerance and nitrogen economy improved. P608.	83.
	The surgical stress response is related to the magnitude of surgical injury. Morbidity rates are lower after minor surgery and minimally invasive surgery. P608.	84.
	Unintended Intraoperative heat loss increases the stress response and cardiovascular complications. If heat loss is minimised and body heat conserved, then intraoperative hypothermia is prevented, resulting in reduced wound infection rates and reduced LOS. P608.	85.

	If intra-operative normothermia is maintained, then intraoperative blood loss, postoperative cardiac morbidity, catabolism, and surgical infections are decreased. P610.	
	If increased blood loss and use of perioperative blood transfusion, then increased risk of infective complications. Perioperative blood transfusion enhances postoperative immunosuppression. P608-9.	86.
	Postoperative pain may intensify endocrine, metabolic responses, autonomic reflexes, nausea, ileus, and muscle spasm, and thereby delay restoration of function. If optimal treatment of postoperative pain following surgery, then morbidity is reduced. P608.	87.
	Smaller operations, including minimally invasive surgery may result in a reduction in trauma, immunosuppression, and risk of infection. P609.	88.
	Organ dysfunction and comorbidity can lead to postoperative complications and increased LOS. Assessment of heart and lung and blood clotting risk quantifies surgical risk, but is only useful when risk can be addressed by optimisation of organ function prior to surgery P607.	89.
Kehlet (2011)	PONV and ileus delay recovery and are a significant challenge for patients. P587.	90.
Kehlet & Dahl (2003)	In major surgery, blockade of afferent neural stimuli from the surgical site by infiltration anaesthesia, peripheral nerve blocks, and spinal or epidural anaesthesia reduces endocrine-metabolic responses but not inflammation. P1922.	91.
	Effective pain control reduces anxiety, increases comfort, and reduces autonomic and somatic reflex responses. Therefore, organ function is restored, enabling eating and mobilisation, and improving recovery after surgery. P1922.	92.
	Use of opioids should be limited to circumstances in which suitable substitutes are not possible. P1923.	93.
	Pain occurs through nociceptive mechanisms, trauma-induced inflammation, and loss of neuron inhibition in the brainstem and spinal cord. P1923.	94.
	Pain treatment postoperatively combines different treatment methods operating through different pain mechanisms, to improve pain control and reduce side-effects. P1924.	95.
Kehlet & Wilmore (2008)	Thromboprophylaxis is a well-established component of care to reduce morbidity. P190.	96.
Kehlet & Wilmore (2002)	Evaluation and optimisation before surgery reduces morbidity and mortality. Alcohol misusers have an increased risk of morbidity and protracted recovery after surgery. P631.	97.

	Thromboprophylaxis is a long-standing care component which reduces morbidity. P190.	
	‘Preoperative intake of CHO drink may reduce postoperative endocrine catabolic responses and improve insulin resistance.’ P631.	98.
	Selection of anaesthetic technique depends on comorbidities and type of surgery. Utilising regional anaesthetic techniques using local anaesthetics reduces endocrine-metabolic responses (i.e., increase in glucagon, catecholamines, cortisol, hyperglycaemia, insulin resistance and negative nitrogen balance). P631.	99.
	Minimally invasive surgical techniques reduce immune dysfunctions and inflammatory responses, resulting in improved lung function, increased oxygen levels, shorter LOS, less pain, and reduced morbidity. P612.	100.
Keller et al., (2014)	Individuals with more comorbidities and extended operation times are more likely to fail early discharge. If discharge planning is proactive, then resources and support can be better apportioned and healthcare costs reduced. P74/78.	101.
Kiecolt-Glaser et al., (1998)	Surgery is stressful and evokes intense emotional reactions. Patients may be anxious about painful procedures, surviving, and being apart from their family. P1209.	102.
Kiyohara (2004)	State-anxiety levels may be reduced by increasing patient knowledge about their operation. P51. Providing the correct amount of information in the right form is important. P54.	103.
Kruzik (2009)	If preoperative information is available in many forms (e.g., leaflets demonstrations, website programmes) and different amounts, then anxiety and distress are reduced because it matches patients’ different learning styles and different coping styles. P385.	104.
Kurz et al., (1996)	Hypothermia results from anaesthetic-induced impairment of thermoregulation, exposure to cold, and altered distribution of body heat. Vasoconstriction triggered by hypothermia may impair immune function, slow healing, increase the risk of wound infections and lower subcutaneous oxygen levels. Lower tissue oxygen destroys neutrophils and decreases and weakens wound healing by decreasing collagen deposition. Mild hypothermia (approximately 2°C below the normal core body temperature) is common during major surgery and can increase blood loss and the need for transfusion during surgery. Maintaining normothermia intraoperatively may reduce infectious complications and shorten LOS. P1209/1214.	105.
Lassen et al., (2009)	Mobilisation is hindered by urinary catheters and abdominal drains, and when feasible should be avoided. P266.	106.

Lawton & Parker (1999)	If a balance is achieved between professionals exercising their own clinical judgement and standardised practice, then successful protocol implementation in the NHS. P353.	107.
Lemanu (2012)	To reduce the risk of aspiration, conventional practice involves fasting patients up to 6 hours before the operation. However, evidence suggests that prolonged fasting is not necessary and is detrimental for postoperative recovery. P983.	108.
Ljungqvist & Soreide (2003)	Overnight fasting is traditional practice, but recent research has not supported this. For most patients a two-hour preoperative fast for clear fluids is now recommended and a 6 hour fast for solids. If preoperative fluid intake, then increased feelings of well-being, less anxiety and decreased thirst and dry mouth. If habitual coffee drinkers are allowed their morning coffee, headache from caffeine withdrawal may be reduced after surgery. Strict preoperative fasting is still recommended for gastrointestinal obstruction or upper gastrointestinal tract cancer and emergency operations P402. A CHO drink prior to surgery changes metabolism from the overnight fasted to the fed state, which attenuates the catabolic response and insulin resistance. P406.	109.
Ljungqvist, Soop & Hedström (2007)	If metabolic response to surgical procedure, resistance to insulin and hyperglycaemia, then postoperative complications and delayed recovery. P610. Post-traumatic insulin resistance leads to an increase in glucose production (from the liver) and a reduction in glucose uptake in peripheral tissues (skeletal muscle). Both these changes in glucose metabolism cause hyperglycaemia. P610.	110.
	If newer recommendations (clear fluids up until 2-3 hours before anaesthesia) are followed, instead of overnight fasting, then discomfort of thirst is avoided. P613.	111.
	The body responds to surgical trauma by releasing stress hormones (catecholamines, cortisol and glucagon), which cause major alterations in metabolism by mobilising substrates from all energy stores (including glucose from glycogen, fat from fat deposits, and protein from muscle). They also counteract the actions of insulin, causing insulin resistance. P612.	112.
Ljungqvist et al., (2007)	MBP results in dehydration, discomfort from PONV and bowel distension. It also interferes with food intake (which is concerning for patients with cancer who have already lost weight loss). Therefore, MBP should not be used routinely before colonic surgery P46.	113.
	Surgical care is shared between specialities and patients pass through different hospital departments.	114.

	They may be unaware of what happens in other areas, therefore, there is a risk of unsynchronised care. P46.	
	Patients can safely drink clear fluids up until 2 hours before surgery. This decreases discomfort from thirst and minimises the risk of withdrawal symptoms from no tea or coffee intake. P46	115.
	If the stress of surgery is reduced, this allows fewer catabolic developments and a faster return to anabolism. Then patient recovery is improved. P46.	116.
	Patients and relatives may have beliefs about recovery times which are based on knowledge from friends and relatives who have undergone conventional care. Providing information in different formats and on a separate occasion from diagnosis and need for surgery are first announced (which may be emotional) is less difficult to deliver or absorb. P46.	117.
Ljungqvist (2001)	If a CHO drink is given 2-3 hours before elective surgery, then postoperative insulin resistance is reduced, and preoperative and postoperative wellbeing is improved. P167.	118.
Ljungqvist (2014)	Programmes comprise evidence-based elements used together in a protocol. P1. To overcome traditional hospital silo working, ERPs involve everyone in the entire patient journey as a team. Regular meetings and teamwork are key in dealing with problems, supporting one another, and planning changes to old practices. Alongside working in their own role, it can be difficult for staff to find time for these meetings but prioritising them is important for successful implementation. P3.	119.
Lyon et al., (2014)	If a patient is unable to meet requests to change lifestyle behaviours before surgery (e.g., lose weight or stop smoking), then the postoperative course may be more complex as a result, making the ERAS pathway more difficult to follow. P4.	120.
	If patients forget what has been said to them before surgery or do not take heed of what healthcare professionals say, then this can be a barrier to the effective programme functioning. P4. If clinical staff are more experienced, then changing traditional practice is more difficult. If there is a programme coordinator available for patient education, then this enables staff to follow the programme. P5.	121.
	individualisation of care and modification of the protocol was needed was needed for some patients to provide optimal care. Modification of the protocol could cause confusion for the staff if communication within the team was ineffective. P5.	122.
	Patients who had colorectal surgery on a Friday missed out on a prompt start to their stoma education because	123.

	of a lack of weekend staffing and earlier discharge was hindered. P5. Discharge planning carried out before admission ensures that good care continues after discharge on return to the community. This is especially important for frail older patients who may require additional support. P6. If patients come from rural areas where discharge resources are difficult to arrange e.g., stoma therapy nurse, distances between hospital and home are large, or staff providing community healthcare have neither the facilities nor the specialist experience to care for the more complex patient. Then this is a barrier to timely discharge. P5.	
	Patient self-limiting expectations and beliefs regarding their hospitalisation could be a barrier to effective ERAS. A patient may think that they are sick so they should go to bed. P4/6.	124.
	Staff education programs initiated before implementation of the ERP facilitate the initiation of change and aid in the transition of practice. If staff education is ongoing, then compliance with ERP elements remains high. P6.	125.
Maessen et al., (2007)	If operations are performed early in the day and early in the week, then postoperative protocol adherence may improve. P230.	126.
Maltby (2006)	Conventional fasting from midnight (6 hr for solids and 4 hr for liquids) is based on the false idea that patients who ingest food or clear liquid on the day of surgery are at risk of pulmonary aspiration because their stomach is full. Large-scale studies showed the risk to be minimal. P363.	127.
Marik & Flemmer (2012)	Alterations in the immune system are responsible for increased risk of infection after surgical tissue injury. P808.	128.
Miller et al., (2014)	Administering excess fluid is harmful and results in too much fluid in the body, vessel lining damage, leakage causing gut wall oedema, and prolonged ileus (lack of normal muscle contractions of the intestines).	129.
Moller et al., (2002)	Smokers are at increased risk of heart, lung, and wound-related complications after surgery than nonsmokers. This is because of smoking induced chronic lung changes, such as reduced clearance of secretions, chronic obstructive lung disease, impaired collagen production, cardiovascular function, and immune function. Smokers have an increased frequency of pulmonary, circulatory, and infectious complications, impaired wound healing, and postoperative admission to intensive care. Studies have shown that most smoking induced changes are reversible to some degree. A smoking cessation programme 6–8 weeks before surgery reduces	130.

	postoperative morbidity (particularly wound-related and cardiovascular complications). Cessation of smoking for 3 weeks improves wound healing, probably because of recovery of the amount or structure of collagen and immune capacity. P114 -117.	
Mythen et al., (2012)	Intraoperative fluid management technology and perioperative fluid management are central to ERPs. P1.	131.
National Audit Office (2000)	Patients typically prefer a shorter LOS, which increases patient satisfaction and effective hospital bed management, lowers the risk of hospital acquired infection, and reduces hospital costs. P47.	132.
Nadler et al., (2014)	A lack clinical experience compared with senior colleagues may make junior doctors hesitant to progress patients quickly. P5. Junior doctors may seek approval and take a slower more conservative approach to progressing or changing postoperative interventions, if senior surgeons are very involved in postoperative decision making and direct junior doctors. P5. Adoption of ERAS is strongly influenced by surgeon practices and hospital policies. Senior residents act as role models encouraging junior residents to utilise ERAS. If education for residents regarding and role modelling of practices by surgical mentors, then adherence to ERAS. P6.	133.
NHS Improving Quality (2013)	Enhanced recovery improves patient experience, patient safety, and outcomes by ensuring that equality of care standards across a seven-day service. P14.	134.
NHS Improvement (2012)	If pre-existing anaemia is identified earlier, there is a greater opportunity to treat and raise haemoglobin and reduce symptoms of anaemia at surgery. Then the need blood transfusion is reduced. P20.	135.
	Individual goal setting is an important part of ERPs because it encourages and motivates patients and helps them gain confidence in their progress. P36.	136.
	Careful scheduling of preoperative assessment clinics enables timely assessment of the patients’ fitness for surgery. This helps to reduce operation cancellations, repeated tests, unnecessary procedures, and provides timely informed consent. P22. Preoperative assessment tools identify the potential risk of mortality and morbidity following surgery and help to stratify patients into ward, high dependency, or intensive care settings. Knowing the potential outcome ahead of time can help families and carers prepare for the patient’s care. P25.	137.
	If physical, psychological, and social risks of recovery are identified early, then this can lead to earlier referral to social care and charities for support. P21.	138.

	ERPs require MDTs that work across organisational boundaries throughout the entire care pathway. SDM is essential to ERPs. P20.	139.
NICE (2008)	Guideline 65 on inadvertent perioperative hypothermia recommends that the patients are encouraged to walk to the operating theatre to help generate body heat. If patients express that they feel cold practitioners can immediately start preoperative warming.	140.
Noblett et al., (2006)	Compared with fasting or supplementary water, preoperative oral carbohydrate leads to reduced length of hospital stay and earlier return of gut function. P563.	141.
Norlyk & Harder (2009)	The structured programme and awareness of the staff expectations gave patients a sense of security and control over their vulnerable situation. P173. If living up to the demands of regimen was difficult to manage, then this could lead to resignation for some patients. P175.	142.
	Discomfort, fatigue, nausea, and pain following surgery made patients feel weak and unable to do as recommended. This created a dilemma for patients between following the advice of staff or their own intuition about what could also contribute to their health and wellbeing. P173. Feelings of discomfort, weakness and loss of control could cause resignation and inactivity. A positive relationship with staff could help them to overcome passivity. P176. Patients felt pressure from their own and the professionals’ expectations to live up to the regimen. P175.	143.
	Patients tried to take on the regimen unreservedly and be good, cooperative patients. They were motivated by the idea of being able to do something themselves to speed up their recovery. P173.	144.
	Early discharge motivated patients to take an active part in the programme but could also cause worry. Patients who were not discharged on schedule felt they were getting more from the staff and hospital than they were entitled to. P174.	145.
	Patient participation in care is undermined if staff do not attend to their individual circumstances or lack insight into the insecurity and vulnerability of ill patients. P174.	146.
	After the surgery, patients felt fragile and in need of rest and passivity, but the staff recommended activity. P174.	147.
Norlyk & Martinsen (2013)	If discharge is early, then patients need to deal with much of the postoperative recovery process on their own. The need for support and the care responsibilities of family members may increase. P1738.	148.

Nygren et al., (2013)	MBP causes dehydration and altered electrolyte balance, particularly in older people. P289.	149.
Oppedal et al., (2012)	Alcohol misuse increases postoperative complications, including infections, bleeding and heart and lung complications. Abstinence before surgery may reverse alcohol-induced pathophysiological processes to some degree. Therefore, preventing postoperative complications. P2.	150.
Pape et al., (2013)	Interprofessional collaboration is essential and can be improved by daily meeting where surgeons, nurses, and therapists focus on discharging patients and making joint decisions. This may reduce LOS for total hip replacement patients. P496.	151.
Pearsall et al., (2015)	Different culture and values may affect acceptance of the ERP. P94.	152.
	If there is communication and collaboration among surgeons and nurses, then effective implementation. P95.	153.
	If interventions are supported by evidence-based guidelines, then surgeons feel that they are easier to implement. If surgeons do not like change, or do not believe that changing practice would not make any difference for their patients, then they may be hesitant to change their practices. P94. Surgeons may resist setting a discharge date with patients as they feel that it might discourage them if they do not achieve the goal. P94.	154.
	Some surgeons were resistant to a shorter preoperative fast due to concerns that cases might be cancelled if a patient is moved forward on the operative schedule. Some anaesthesiologists feel that a shorter preoperative fast might cause cancellations because patients may not comply with new recommendations. P95.	155.
	Staff felt that ongoing education, audit, and feedback are essential to maintain ERPs. P95	156.
Phillips & Horgan (2014)	Teaching skills that patients may be required after surgery, e.g., exercises that will assist rehabilitation and mobility, and managing stomas. P84 Discharge planning should begin in advance of admission as this helps guide patient expectations. P87.	157.
Polle et al., (2007)	ERPs change policy and practice e.g., delayed mobilisation to early mobilisation, prolonged fasting to preoperative feeding, the introduction of epidural analgesia in laparoscopic surgery. Repeated training is necessary to change long-standing traditional practices and achieve high adherence to components. Protocolised perioperative treatment enhances	158.

	recovery rather than the combined effects of the individual modalities. P447.	
Read et al., (2018)	Some intraoperative hypothermia relates to aesthetic-induced impairment of normal thermoregulatory control, with redistribution of body heat from the core to the periphery. Exposure of the organs to room temperature gases can result in cooling of the patient. Attention to patient hypothermia before the operation is lacking. Some cooling can occur due to exposure and lack of insulation provided to patients in the preoperative area and operating theatre. Operating theatre temperatures are often adjusted to the comfort of staff who are often wearing layered gowns, physically active or standing near hot lights. P343.	159.
Rogers et al., (2000)	Neuraxial blockade may be beneficial through various mechanisms, including altered coagulation, increased blood flow, pain-free breathing, and reduced surgical stress response. P7. Neuraxial blockade reduces major postoperative complications, including mortality, DVT, PE, transfusion requirements, respiratory depression, pneumonia, heart attack and renal failure. P8.	160.
Rycroft-Malone (2018)	'From a policy perspective protocol-based care is a mechanism for facilitating the standardisation of practice based on best available evidence.' Individual and contextual factors influenced whether protocols were used, such as experience, culture scope and accessibility. Practitioners used standardised care approaches flexibly. P1490.	161.
Schwarzbach et al., (2011)	Nurses may be reluctant to remove catheters because they anticipated higher workload from patients who call repeatedly for help with toileting. P1567.	162.
Scott et al., (2013)	The use of drip stands in surgical wards should be avoided as they are intimidating for older arthritic patients trying to get out of bed after major joint surgery. Because they are heavy and difficult to steer, patients may choose to remain in bed. P122.	163.
	There is variation in the types and combinations of analgesia being prescribed and administered across hospitals. In part, this reflects staff attitudes, patient expectations, the availability of PCA machines, and the presence of acute pain services. P123.	164.
Sessler (2001)	Many surgical patients are hypothermic due to the combination of exposure to a cool operating room environment and anaesthetic-induced impairment of thermoregulatory control. Hypothermia increases the incidence of cardiac complications, blood loss, wound infection, and LOS. P531/540.	165.
Shay & Lafata (2015)	There are strong relational and ethical reasons to recommend SDM, but the link between SDM and	166.

	patient outcomes has not been completely established. P11.	
Sherren & Hall (1997)	Activation of cytokines in response to surgical trauma has a local and systemic affect, limiting tissue damage and the spread of infection by destroying infective organisms and activating tissue repair processes. P204/209.	167.
Short et al., (2015)	Older adults found the amount of information hard to handle. It was not always consistent or relevant and was repetitive. P76/77.	168.
Simini (1999)	Fasting times remain prolonged despite new guidelines because operating theatres are organised like assembly lines which makes individualised fasting times impracticable, litigation fears, difficulty in changing old habits, and anaesthetists' concerns over the safety of airways. P'862. If clear liquids are allowed up to two hours before surgery, then preoperative thirst, headache, irritation, discomfort, and postoperative nausea and vomiting may be reduced. P862.	169.
Sjetne et al., (2009)	If the introduction of new routines is perceived as bureaucratisation and detracts from professional autonomy, then implementation of ERP is slow. P236 A good climate of cooperation between professions supports ERP implementation. P239 A reduction in nursing time per stay was found when implementing the ERP because patients have assumed tasks that were previously performed by nurses. P239.	170.
Slim (2013)	An MDT approach means that surgeons are not solely responsible for care. P1.	171.
	Providing CHO drinks preoperatively results in decreased insulin resistance, improved patient comfort and shorter LOS. P1-2. When patients are allowed to continue to drink, anxiety and thirst are reduced. P1.	172.
Smith et al., (2011)	Drinking clear fluids should be encouraged up to two hours before elective surgery. Food should not be allowed for 6 hours before elective surgery. P558/560.	173.
Starks et al., (2015)	If older patients (85 and over with decreased physiological reserves and increased pre-existing medical conditions) undergo surgery, then increased mortality and morbidity, LOS, rehabilitation needs and discharge to care facilities.	174.
	There is an increase prevalence of anaemia in older patients. If preoperative anaemia, then postoperative mortality is increased, and transfusion requirements are increased. If anaemia is identified and treated preoperatively, then the risk of postoperative blood transfusion is reduced, which is linked to increased LOS and infection risk. P4.	175.

	If pre-existing correctable medial conditions are identified and treated preoperatively (e.g., anaemia, ischemic health disease), then reduced chance of cancellation on the day of surgery. P5.	176.
	If patient and their relatives' expectations are managed through preoperative education, then inpatient stay may be reduced, outcomes improved, and patient anxiety reduced. P5.	177.
	If same day admission with staggered admission times, this enables optimum management of patient fasting times, ensuring patients have good levels of hydration and energy before surgery. This is particularly important in older patients as both poor nutritional status and impaired renal function are common. P5-6.	178.
	If regional anaesthesia, then reduced risk of DVT, PE, heart attack, pneumonia, and delirium. P6.	179.
	If good pain control, then reduced heart and lung complications and early mobilisation is supported. P6.	180.
Stevenson et al., (1990)	Many immune system functions are depressed after anaesthesia and surgery because of surgical trauma (cauterising and tissue/organ manipulation), endocrine responses (increased catecholamines and corticosteroids) and ancillary drug effects rather than the result of anaesthetic itself. The greater the surgical trauma the more severe the immuno-depression. However, the exact mechanism is not yet understood. P545.	181.
Taylor & Burcher (2011)	Patients and carers formed realistic expectations because of the detailed information they were given about the ERP at the pre-assessment meeting. This encouraged them to take more personal responsibility for their recovery and comply with the programme. P287.	182.
	Patients welcomed the daily contact with the MDT as per the ERP care protocol. This level of support improved participants' confidence in the rehabilitation process and helped them to regain independence quickly. P287.	183.
	Patients felt phoning the hospital (the ward or the consultant's secretary) was more appropriate than asking their GP, as recommended by the hospital team. P289. When patients are feeling vulnerable after early discharge, if there is a clear process for obtaining postoperative support, then patients can gain reassurance and pertinent information. P289.	184.
Tønnesen et al., (2009)	Impaired wound healing, wound infection, and heart and lung complications are the most common complications related to smoking. The immune system	185.

	recovers after 4-6 weeks of smoking abstinence. Lung changes improve over 6-8 weeks. P298.	
Tønnesen & Kehlet (1999)	Alcohol misuse increases postoperative morbidity, prolongs LOS, and increases the need for further surgery. P1106.	186.
Traynor & Hall (1981)	Surgical procedures evoke an endocrine response which results in substrate mobilisation, a change in metabolism towards catabolism, with a negative nitrogen balance and retention of salt and water. The size of this response is proportional to the severity of the operative trauma. P153.	187.
	In response to surgical trauma there is an increase in the circulating concentrations of the catabolic hormones (catecholamines, glucagon and cortisol), and a concomitant decrease in the anabolic hormones (insulin and testosterone). P153.	188.
	Increased protein breakdown is a major part of the body's response to surgical trauma. An initial decrease in protein synthesis (in muscle), is followed by increased protein catabolism. The main effect of protein breakdown is the release of certain amino acids for transport to the liver for gluconeogenesis. Thus, in the period following the operation when liver glycogen stores have been depleted; muscle protein breakdown maintains the supply of glucose. P155/156.	189.
	The increase in blood glucose levels during surgery is in rough proportion to the severity of the surgical injury. The hyperglycaemic response is complex as the normal neurohormonal regulation of blood glucose is not effective. Thus, surgical hyperglycaemia is the result of increased glucose production compared with the rate of utilisation. P156.	190.
Varadhan et al., (2010)	Over administration of fluid and sodium delays return of gastrointestinal function, increases LOS, complications, and side effects. P532.	191.
Veziant & Slim (2014)	Some staff are resistant to implementing CHO loading because they believe that patients are reluctant to drink them. However, most patients drank it all, thought it was easy to drink, and tasted good. Therefore, lack of implementation was related to staff attitudes rather than the attitude of patients. CHO loading was found to improve well-being before and after surgery, with less hunger thirst and anxiety.	192.
Volicer (1978)	Hospitalisation for surgery is stressful due to the unfamiliarity of surroundings, loss of independence and threat of severe illness. P28. Patients were concerned about meeting the information needs of their relatives' and carers'. Some spouses felt that education sessions helped prepare them for the care-giver role and reduced their need for information. P92/93.	193.

Walter et al., (2008)	Some participants found that there was too much information. Others found the level of detail reassuring. P85.	194.
Warner (2009)	Surgery is an example of a ‘teachable moment’ for smoking cessation and other health behaviours, such as substance abuse, physical activity, and obesity. Up to half of smokers will successfully quit after undergoing major surgery for a disease related to smoking. P1106. Even brief abstinence from smoking may improve surgical outcomes such as reducing the risk of wound infections. P1106. Clinicians may lack confidence in their ability to effectively intervene, think patients are too stressed to deal with their smoking, think patients will be offended if they discuss it, that nicotine replacement therapy will interfere with wound and bone healing, or may find it difficult to provide the required extended counselling and follow-up. P1107.	195.
Watcha & White (1992)	Nausea and vomiting are a common after anaesthesia. P162. Persistent PONV may cause dehydration, electrolyte imbalance, delayed discharge, tension on stitches, bleeding, and aspiration of vomit. P163. The vomiting centre of the brain receives input from various receptors. Antagonism of any one of these will reduce vomiting. P173.	196.
Wilmore & Kehlet (2001)	Afferent nerve impulses from the operation initiate neurohormonal responses, increase energy demands, and accelerate net protein breakdown, resulting in increased organ demands and dysfunction. However, because of the reduced stress response and inhibition of autonomic reflexes that occur after an operation, postoperative organ dysfunctions may be diminished. This includes reduced impairment in pulmonary function and decreased cardiac demands. P476.	197.
	Use of minimally invasive surgical techniques decreases various inflammatory responses and immune dysfunctions, improves lung function, reduces PONV, reduces pain, shortens LOS, and reduces morbidity. The basis of these effects is not completely understood. P476. Patients undergoing surgery lasting over two hours often become hypothermic as operating theatres are cold and patients are inadequately clothed. P476.	198.
	Fatigue in the early postoperative period is related to altered sleep because of the noisy hospital setting, environmental disturbances, drugs, and possible inflammatory factors. P475.	199.
Wilmore (2002)	The stress response in surgical patients relates to tissue catabolism, organ failure, and prolonged recovery. P643.	200.

	Extreme hormonal and metabolic responses to stress are associated with increased morbidity and mortality. P646.	
	Stress reduction contributes to improved operative outcomes, reduced complications, and shortened length of convalescence. P643.	201.
	Organ function should be optimised before surgery for patients with heart disease, diabetes, or chronic obstructive lung disease. P473.	202.
Yim et al., (2000)	Video-assisted thoracic chest surgery is associated with decreased inflammation and may lead to less pain after surgery and faster recovery P246.	203.
Yuill et al., 2004	CHO drinks before surgery are well tolerated by patients, acceptable to staff, and may reduce loss of muscle mass after surgery. P36.	204.
Zonca (2008)	Drains hinder mobilisation and are a psychological barrier. P61.	205.

APPENDIX 6: Search strategy used in medical review

Searching process

For each database, broad search terms describing the intervention were combined with the OR Boolean operator. These were then combined with specialty descriptions using the AND Boolean operator. Subject headings were used where possible and related free text terms (where possible with truncations and proximity operators).

Search Table

Concept	who
Enhanced recovery	Medicine
Enhanced recovery program	acute medicine
Enhanced recovery pathways	Acute care
Fast track	Acute admission
Fast track program	Hospital medicine
Fast track protocol	Medical emergenc*
Fast track recovery	Medical inpatient*
Fast track rehabilitation	Internal medicine
Fast track treatment program	Emergency medical admission*
Accelerated recovery	Acute medical care
Rapid recovery	

Example database search strategy

Database	Host	Date searched	Strategy	Hits
MEDLINE	Ovid	11/03/16	23. enhanced recovery.ti,ab 24. enhanced recovery program*.ti,ab 25. enhanced recovery pathway*.ti,ab 26. fast track.ti,ab 27. fast track program*.ti,ab 28. fast track pathway*.ti,ab 29. fast track rehabilitation.ti,ab 30. accelerated recovery.ti,ab 31. rapid recovery program*.ti,ab 32. urgent medical care.ti,ab 33. acute medicine.ti,ab	2

			34. acute medical admission*.ti,ab 35. Hospital medicine.ti,ab 36. Medical inpatient*.ti,ab 37. Emergency medical admission*.ti,ab 38. Acute medical care.ti,ab 39. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 40. 10 or 11 or 12 or 13 or 14 or 15 or 16 41. 17 and 18	
CINAHL	EBSCO	11/03/16	20. TI enhanced recovery or AB enhanced recovery 21. TI enhanced recovery program* or AB enhanced recovery program* 22. TI enhanced recovery pathway or AB enhanced recovery pathway 23. TI enhanced recovery after surgery or AB enhanced recovery after surgery 24. TI fast track surgery or AB fast track surgery 25. TI fast track protocol or AB fast track protocol 26. TI fast track program* or AB fast track program* 27. TI fast track recovery or AB fast track recovery 28. TI accelerated recovery or AB accelerated recovery 29. TI rapid recovery program* or AB rapid recovery program* 30. TI fast track program* or AB fast track program* 31. S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S8 or S10 or S11	2

			32. TI acute medicine or AB acute medicine 33. TI acute medical admission* or AB acute medical admission* 34. TI Hospital medicine AB Hospital medicine 35. TI Medical inpatient* AB Medical inpatient* 36. TI Emergency medical admission* AB Emergency medical admission* 37. TI Acute medical care AB Acute medical care 38. Acute medical 39. (MH “hospital medicine”) 40. (MH “internal medicine”) 41. S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 42. 12 and 21	
CDSR/ CENTRAL/DARE	Cochrane Collaboration	11/03/16	20. “enhanced recovery” 21. “enhanced recovery program*” 22. “enhanced recovery pathway” 23. “Enhanced recovery after surgery” 24. “fast track program*” 25. “fast track pathway” 26. “fast track rehabilitation” 27. “accelerated recovery” 28. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 29. urgent medical care.ti,ab 30. acute medicine.ti,ab 31. acute medical admission*.ti,ab 32. Hospital medicine.ti,ab 33. Medical inpatient*.ti,ab 34. Emergency medical admission*.ti,ab 35. Acute medical care.ti,ab	0

			36. MeSH descriptor: [hospital medicine] explode all trees 37. #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 38. #9 and #18	
EMBASE		27/1/16	1. enhanced recovery.ti,ab 2. enhanced recovery program*.ti,ab 3. enhanced recovery pathway*.ti,ab 4. fast track.ti,ab 5. fast track program*.ti,ab 6. fast track pathway*.ti,ab 7. fast track rehabilitation.ti,ab 8. accelerated recovery.ti,ab 9. rapid recovery program*.ti,ab 10. urgent medical care.ti,ab 11. acute medicine.ti,ab 12. acute medical admission*.ti,ab 13. Hospital medicine.ti,ab 14. Medical inpatient*.ti,ab 15. Emergency medical admission*.ti,ab 16. Acute medical care.ti,ab 17. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 18. 10 or 11 or 12 or 13 or 14 or 15 or 16 19. 17 and 18	2

Other data base searches

Data base /host	Date searched	Search terms used	Hits
OpenGrey	18/02/16	Enhanced recovery and acute medicine	1
Health Management Information Consortium (HMIC)	12/03/16	“Enhanced recovery” and “acute medicine”	1

TRIP	12/03/16	Enhanced recovery and acute medical care	0
PEDro	12/03/16	Enhanced recovery and acute medicine Rapid recovery and acute medical care Fast track rehabilitation and acute medicine Rapid recovery and medical inpatien*	1
OTseeker	12/03/16	[Title/Abstract] Enhanced recovery or [Title/Abstract] Fast track program*or [Title/Abstract] Accelerated recovery and [Title/Abstract] Acute medicine	0
ISI Web of Science	12/03/16	Enhanced recovery and acute medicine	0
ProQuest	12/03/16	“Enhanced recovery” and “acute medicine”	3
Scopus	12/03/16	“Enhanced recovery” and “acute medicine”	0

Other searches

Website name	Web address	Date accessed	Search terms used	Sources
NHS Improving Quality	www.nhsiq.nhs.uk	19/02/16	Enhanced recovery and acute medicine	7
Enhanced Recovery After Surgery Society (UK)	www.erasuk.net	14/03/16	n/a	1
The King’s fund	www.Kingsfund.org.uk	14/03/16	Enhanced recovery and acute medicine	0
NHS Institute for Innovation and Improvement	www.institute.nhs.uk	14/03/16	Enhanced recovery and acute medicine	0
NICE	www.evidence.nhs.uk	14/03/16	“Enhanced recovery “and “acute medical illness”	2
Department of Health	www.gov.uk/government/organisations/department-of-health		Enhanced recovery	3
Royal college of physicians	www.rcplondon.ac.uk	14/03/16	Enhanced recovery	1
British society of rehabilitation medicine	www.bsrm.org.uk	14/03/16	Enhanced recovery	1
Society for Acute Medicine (SAM)	www.acutemedicine.org.uk	14/03/16	Enhanced recovery	0

Search engine	Web address	Date searched	Search terms used
Google		18/02/16 17/03/17 02/02/18	Enhanced recovery and acute medical illness Enhanced recovery and acute medicine

Journal title	Issues searched by hand
British Journal of Hospital Medicine	Jan 2013 – March 2016
Journal of Hospital Medicine	Jan 2013 – March 2016
Journal of Acute Medicine	Jan 2013 – March 2016

APPENDIX 7: Explanatory text used to support initial medical theories

Source (year)	Explanation	ID No.
Benjamin (2013)	There is only 20% agreement between doctor, nurse, and patient, regarding the reason why the patient is in hospital today (slide 2).	1.
	If more information about the expected process of recovery is given to patients and they are involved in the decision-making, then faster recovery, greater satisfaction, and shorter LOS (slide 3).	2.
	Consideration is given to whether a monitor is necessary, or a drip is really needed. Drip free mornings assist mobilisation (slide 11).	3.
	Patients are encouraged to bring in their own supply of outdoor clothes and get dressed (the EAU is not a bedroom). Then no pyjamas or flappy gowns (slides 12 -13).	4.
	Families and carers are encouraged to get involved, but there may be problems with visiting hours (slide 16).	5.
	The ERP approach improves patients' experience of being in hospital, the time it takes them to recovery, and ensures they leave hospital safely at the right time (slide 20).	6.
	Things patients can do: - Get out of bed and stretch legs. - Get dressed in day clothes. - Drink plenty of fluids to keep hydrated. Use the drinks trolley at any time. - Be involved in decisions about your care. - Have an energy drink each day to build up your strength. - Book a lift with a family member/friend when you know what day you will be leaving hospital. Then they leave hospital safely and at the right time (slide 20).	7.
	Benefits of ERPs include improved patient and carer experience, reduced readmission rates and length of stay (slide 20).	8.
	'We have developed a multidisciplinary approach, based on enhanced recovery principles, which encourages patients to achieve the goals necessary to get home more quickly and safely. Patient involvement in the recovery process from acute medical illness will result in more rapid recovery, earlier discharge, and greater patient satisfaction.' (slide 24).	9.
Kehlet (2013)	Iatrogenic complications occur due to prolonged bed rest, overuse of monitors, urinary catheters and IV lines, and poor nutrition (slide 14).	10.
	'Hospital associated disability develops between the onset of the acute illness and discharge from hospital.' (slide 15).	11.

	A third of older patients (over 70 years) hospitalised with an acute medical illness leave hospital with an ADL disability which they did not have prior to becoming ill (slide 15).	12.
Kuper (2013)	Maximal implementation depends on close integration with local primary care and community services (slide 38).	13.
	Common components of Enhanced recovery from acute illness includes clothes, nutrition, hydration, involvement, mobilisation, sleep, pain and discharge planning (slide 26).	14.
NHS Improvement (2012)	‘Enhanced recovery has produced such dramatic improvements in surgery … would all inpatients, including acute medicine benefit from a similar approach? Some clinicians have now started to consider the above question as any acute illness can trigger a reduction in functional capacity similar to that following surgery.’ P10.	15.
	Strategies could include high value nutrition prescribed from admission; exercise programmes to prevent muscle wastage; improved fluid management; patient and carer engagement; information about managing the acute episode and about actions to prevent a further admission; discharge planning from admission. Both the service and patients would benefit from less debilitation following discharge; fewer dependent patients needing primary and social care; reduced LOS and subsequent reduced demand for beds. ‘Some patients could avoid the tipping point into temporary or permanent dependency.’ P10.	16.
	Cultural and behavioural changed in all staff will be needed to increase engagement with patients and carers as active participants. Then improvements in care quality. P10	17.
RCP (2013)	Planning the transition from hospital to the community (home or residential) from admission, including setting a date when the patient is scheduled to leave hospital, ensures patients receive care in the right place at the right time, ongoing care needs (clinical, social, and psychological) are identified early on; patients and carers are involved in a multidisciplinary discussion and planning for return home or to a supportive setting outside the hospital; providing agreed ongoing care plans including management of complications and deterioration from an acute condition. P54.	18.
	If there is a constant flow of activity, then weekly meetings to plan transitions of care cannot meet the needs of either the patient or the system. Therefore, transition of care planning should be incorporated into daily review processes and ward rounds. P54.	19.
	A longer hospital stay leads to greater fragility for patients after they leave hospital. Increasing expertise in applying enhanced recovery principles	20.

	after admission for acute illness could save beds days. P55.	
	'Where possible patients must take an active role and take responsibility for enhancing their recovery, which includes paying attention to nutrition, hydration and mobility from the start of an inpatient journey. Staff need to be proactive in reviewing nil-by-mouth instructions, ceasing intravenous therapy once alternative routes are appropriate, and avoiding techniques that enforce bed rest (such as catheters, 24-hour intravenous fluids) as soon as possible.' P55.	21.
	Planning for recovery should happen from admission. Enhanced recovery will require proactive review and communication with patients to encourage effective self-management. P55.	22.
Torbay and South Devon NHS Foundation Trust (2013)	Involving patients, families and carers in decisions about their care ensures patients leave hospital safely and at the right time. Key to enhanced recovery in medicine is that patients are partners in their own care. This enables patients to choose what is best for them throughout the course of their treatment with help and advice from healthcare professionals. The patient, carers, and multidisciplinary team (MDT) work together to agree a plan for recovery (no decision about me, without me). Benefits of enhanced recovery in medicine include improved patient, family and carer experience, patients gain early independence and mobilisation is improved, they get better sooner and the time some patients are in hospital is reduced. P1.	23.
	ERM principles can be adopted to help patients recover sooner including: - Early mobilisation (getting out of bed and stretching your legs). - Getting dressed into day clothes, washing and showering (privacy and dignity). - Drinking plenty of fluids to keep hydrated by using the ward drinks trolley at any time. - Bing involved in decisions about your care throughout your stay in hospital (no decision about me, without me). - Carers and family members can come to the ward round, support you and discuss the care plan with you and the consultant. - Take an energy drink each day to boost calorie intake. - When you know which day you are going to leave hospital, plan how you will be getting home as early as possible. P1.	24.
	'Our aim is to improve our patients' experience of being in hospital and the time it takes to recovery. ERM means involving patients and their families and carers in decisions made about them during their hospital stay. It's important that people get involved	25.

	in choosing what is the right thing for them to help get them better more quickly and safely using a whole range of healthcare professionals to help them make those decisions.’ (0 minutes).	
	Simple things patients can do while in hospital to help them to leave safely and at the right time include drinking plenty of water and energy drinks to stay hydrated, which means they may not need an IV drip; getting up, dressed, and moving around; and using the drink station at any time. (1.12 minutes).	26.
	‘The difference enhanced recovery has made to my team is that it actually changed the focus of the nursing staff. It promotes much more independence for the patients and actually enables them to participate more in their own care.’ (1.37 minutes).	27.
	‘A good example of patient and carer participation was just last week. We had an elderly lady admitted from a care home with confusion. She had a daughter who we invited to the ward round, firstly to allow the doctors to gain more information about the patient, but more importantly to allow the family to become more engaged with the care and decision making that the patient was going to receive.’ (1.48 minutes).	28.
	‘It is important when people come into hospital to maintain their independence. We like to get people up and walking within 24 hours, which helps them to do everyday activities of daily living and stops them from getting muscle weakness.’ (2.26 minutes).	29.
	‘When it comes to going home, we want to ensure what day you’re leaving and how you’re getting there. We will help you to organise this with your family or carer. My role as discharge coordinator is to gather as much information as I can at the beginning of the patient’s stay from the patient and possible their carers to ensure that on the discharge day everything runs smoothly. I feed this back into the wider multidisciplinary team. Things that can go wrong on the day of discharge are transport, the patient worries about how they’re going to get home or if they’ve got keys to get into their property. I can make sure this is all sorted before the discharge day, so that on the day everything runs smoothly.’ (2.39 minutes).	30.
	If patients are given medicine to take home with them, an opportunity is provided to speak to a member of the pharmacy team before leaving hospital. *‘The reason why I come to talk to patients before they leave is that it is really important to explain to them what their medicines are for. For example, how long a course is, and the importance of taking the medicine. This helps to prevent the patient from being readmitted to hospital and having any problems.’* (3.19 mins).	31.

	Enhanced recovery in medicine offers benefits for unpaid carers. Carers are more involved in decision making about the patient’s care. Gaps can be identified, and support offered on a continuing basis for carers after the patient is discharged home. 3.55mins.	32.
	Enhanced recovery is seen as a partnership between staff, patients, and their carers’. It enables them to be involved in decisions about their care, gain early independence, improve their experience, and reduce LOS. (4.27 minutes).	33.
Healthwatch Devon (2013)	Patients and their families or unpaid carers are involved in decisions about their care while they are in hospital, which lets patients choose what is best for them throughout the course of their treatment, supported by advice from healthcare professionals. P1.	34.
	Simple things patients can do while in hospital to help them leave safely at the right time include: • drinking plenty of fluids and energy drinks to keep hydrated and boost calorie intake. • getting dressed in day clothes rather than nightwear to maintain dignity and regain independence. • moving around to prevent muscles weakening through lack of use. • being involved in plans to ensure everything is in place for going home. • discussing prescribed medication with the pharmacy team to ensure they get the optimum benefit from the drugs. P1	35.
	‘Carers benefit enormously from ERM as it involves them more at every step, including at ward rounds and discharge planning. The trust recognises how important carers are to a patient’s recovery and also acknowledges that carers provide valuable information about a patient’s home situation and physical condition. The trust can also arrange support for the carer after the patient has been discharged.’ P1.	36.
	‘This approach has helped us to change the way we look after patients, so that the inevitable anxiety and stress of an emergency admission is reduced as much as possible.’ P1.	37.
	‘The whole care team, including doctors, nurses, and therapists, are enthusiastic about the project, which promises to change our values to embrace a more patient-centred approach.’ P1.	38.
	As well as practical advice to help speed recovery, Enhanced Recovery in Medicine puts the patient at the centre of decisions about their care and treatment, involving carers at every stage, so patients can leave hospital safely and at the right time. P1.	39.
South Devon NHS Foundation	Involving patients and carers as partners in the care process is a key aspect of Enhanced Recovery in	40.

Healthcare Trust (2012)	Medicine. Daily patient goals are set in collaboration with patients to speed up recovery from acute medical illness. Patients are a partner in their own care. They can choose what is best for them throughout the course of their treatment with help and advice from staff. Patients, carers, nurses, therapists, and doctors all work together to agree a plan for recovery (Slide 1).	
	'We want to improve the patient and carer experience. It works in surgery, and we believe it can work in medicine. It is our experience that patients want to go home as soon as they can, and as soon as it is safe, and clearly, we want to save money by having fewer bed days, reduced LOS, and readmission.' (Slide 2).	41.
	'The key thing is daily target setting. Mobilising within 24 hours, getting dressed, no PJs or flappy nighties. It really is difficult getting patients own clothes in and that's something that were really trying to address. How can we make sure that patients have got clothes to get dressed into in the morning if they come in in the evening? Oral fluids, do they really need a drip? Can we take the drips down and get patients drinking. That obviously helps to get them mobilising if they are not tied to a drip. They sleep better if the drip machine is not beeping all night. As part of that we have had to redesign our whole fluid prescription chart. We need to give nurses permission to give oral rather than IV fluids and were working through that process now.' (Slide 10).	42.
	'Having patients in nighties all day is not the way in hospital to get people home quickly. On each day we actually set them a goal to say we hope by today you'll be able to be able to do these things and get the patient to agree to it and be involved in that.' (Slide 11).	43.
Restrick (2017)	Multidisciplinary board rounds review patients' progress against their care plan, involving the consultant, medical team, ward manager, therapists, and a going home set of standards to ensure a smooth journey and improved experience for patients from admission through to discharge from hospital.	44.
	Principles include structured and co-ordinated MDT working with patients and their families; 'get better' as effectively as possible; what matters to patients, right diagnoses and right treatment; every inpatient day counts (green days not red days); plan ahead with patients, families and teams; safe transitions in and out of hospital and between wards; live better with illnesses at home; prevent the next admission.	45.
Torbay and South Devon NHS Foundation Trust (2015)	This evaluation was commissioned to explore carers' experiences of Enhanced Recovery in Medicine (ERM). Whether the principles of increasing carer involvement in a patient's stay had been put into	46.

	practice, and whether this had made a difference to carers' experiences is investigated. P1.	
	Carers are generally unaware of the principles of Enhanced Recovery in Medicine. Patients are slightly more aware, but only small numbers notice the promotional material. P1.	47.
	ERM does not seem to be benefit carers whilst the patient is on EAU. Fewer than 10% were invited to a ward round, only 13% received information or support for them in their caring role, 29% said that their views were not respected or only slightly respected if they were asked for their views at all. P1	48.
	Communication with, and involvement of carers of people with a learning disability in the EAU was significantly better than with other carers. Invitation to the EAU ward round on was better for carers of people with dementia and Alzheimer's than other carers. P1.	49.
	EAU patients and carers felt that ERM had only made a very slight impact on their stay and only a very slight improvement in their experience compared to previous admissions. P1.	50.
	The ERM benefits carers when the patient has moved on from EAU. There are distinct differences between ERM and non-ERM wards in terms of carers being invited to ward rounds, being involved in the patient's care, being engaged as partners, being clear who to communicate with and being communicated in a way that they understood. P1.	51.
	'There are two main areas that are lacking across all wards – the offering of support to carers in their own right and of asking for their views, then treating them with respect.' P2.	52.
	Only 9% of carers were invited to the ward round, including carers of people with dementia, Alzheimer's, and a cardiac condition. The carer of the person with a cardiac condition said that the patient did not need them there, so did not attend. The other two carers did attend and found it useful. P2.	53.
	Half of the carers who were not invited to the ward round would have liked to have been. Reasons for wanting to attend were to gain information (because after medication the patient was not always able to gather information), 'to get at truth.' Another carer did not want to get involved unless it was serious. Other carers stated that *'It would have been over my head', 'my son did not need me there'; 'I don't agree with it';* One carer said that the timing was a potential problem. P2.	54.
	There were several incidents of confusion around this: *'I rang to ask to see consultant, but the ward clerk said they would be in later'; 'I found out later that they were expecting me at a meeting that I wasn't told about'; 'I was told I could join the ward visit but wasn't told when it was'; I work, so I couldn't*	55.

	wait all day'. Other carers said that did not want to be invited because they felt they did not need to attend, preferred to leave it to the professionals, or that the timing of buses would have made it difficult.	
	79% of those that commented said that they would have appreciated a phone call for feedback or to understand what was happening. There was a lack of clarity so cares preferred face to face interactions with doctors. One carer stated, '*If I had not been there, I would want to know what was happening'.* P2.	56.
	Others did not want a phone call because they felt the patient did not need them to be present, they knew enough about the situation already, they were too busy, or it would have been useful if the patient's illness was a new condition. P2.	57.
	Only a few people noticed the ERM posters, and nobody saw any information about the carer support worker. However, over half noticed the information about visiting times. One carer commented, '*I was told you are not supposed to be here outside visiting hours, but you can if you want.'* Another said, *'I didn't know that I was carer so could go in anytime'.* P3.	58.
	Carers of people with learning disability felt the most involved (score 4.7 where 5 was fully involved) and felt that was just right: 'perfect'. This was followed by Carer of people with mental health issues (score 3.3 where 3 was moderately involved), but they felt that they were involved slightly more than they would like. Those caring for someone with a temporary confusion were least involved (score 2.0), which was slightly less than they would like, but although general carers were more involved than them (score 2.6) they would like to have been involved even more. 'I can help with my wife & take pressure off the staff' 'I didn't feel welcome. I felt I was imposing' 'I felt invisible' 'was left in dark about what's happening'. P3.	59.
	Carers of people with learning disabilities felt treated like an equal partner, others did not and felt that they 'relied on patient for info' or were 'intruding'. P3.	60.
	Carers generally felt that ERM slightly improved their experience as a carer or a patient over previous admission. Comments were generally positive including: 'totally different; 'Hugely improved'; 'The care seemed better than on her previous visit'; 'My daughters are both nurses and remarked how much better the care of my wife was this time to previous visit.' P4.	61.
	Carers have different experiences of ERM programme on the EAUs and the ERM wards. Despite the obvious commitment of EAU staff, carers are more likely to be actively engaged by EAU staff if the patient has a communication difficulty such as dementia or learning disability, which necessitates their involvement. This may be due to the pressures	62.

	of emergency assessment that limit communication time. It may also be that these carers are more likely to be used to advocating for the person or more accepting of their role as carer. P6.	
	Engagement of carers may be assisted by the presence of ‘Carer Support Volunteers’ who have time to engage with patients and carers about what they can expect, how they can be involved, and the support that they can receive. P6.	63.
South Devon NHS Foundation Healthcare Trust (2014)	A nurse commented, *‘Enhanced recovery in medicine is having some structure around getting people well and out of hospital quickly. It’s based on the premise of getting people moving, getting them up and eating and drinking, and involving their carers at an early stage, especially when you have got people with cognitive impairment. Having that input from the carers at the early stage is vital to discharging. It’s about keeping them well and engaging patients in activities rather than staying in bed.’* 00.35 minutes.	64.
	A nurse commented, *‘I think the point about engaging with the carers is really key. When we put the patient and their loved ones and families back in the driving seat, I think the engagement we get and the interactions we have with them is so important. In fact so key as they are the people who know them best, better than we can from a personal and social side, so if we add that in to the medical care were going to get a much smoother, more facilitated, more appropriate and individualised care to speed up the patients journey.’* 1.06 minutes.	65.
	A nurse commented, *‘I think it engages all the staff on the ward. Having that structure about getting people up early makes everyone have a focus. It gives the whole team a focus, everyone’s working for one purpose.’* 1.34 minutes.	66.
	A therapist commented, *‘I agree, I think the main principle is to get the patient taking part in their recovery because if they’re on board they’re going to recover quicker. We need to look at what their goals are and look at how we can help them to achieve their goals that are individual and personal to them. I think that getting people up and moving and making sure that when they’re ready to go home and they’re medically fit that they’re physically fit as well. Patients can lose muscle mass and get quite weakness from not doing much in hospital, so we try to promote patients getting up and looking after themselves. Rather than us doing things to them, we do things to help them.’* 1.48 minutes.	67.
	A discharge coordinator commented, *‘It helps to identify any possible delays to the patient getting home. So, as soon as they get into hospital, we need to find out some background information from carers family and friends and see what the patient*	68.

	wants as well to get them home and back to normal again.' 2.32 minutes.	
	A consultant commented, *'When we first started this there was a lot of doubt as to how this could actually improve things. What I've noticed is that the team actually communicates much better and not only does the team communicate better, but there is also more communication with the patients as well. This increased communication and understanding of what we all do, and the patients understanding what is expected of them and as part of that being expected to be mobilised and up and dressed in the morning, has made a huge difference. So, there was a lot of scientism. But my feeling is that there is a different attitude and different values. The fact that we are talking to patients more, helping them understand, talking to their carers' and involving them as part of the team, makes it feel like a better place and that were providing better care.'* 3.10 minutes.	69.
	A nurse commented, *'I would agree, especially elderly care. I know that is only just one small part of it, but people were coming into hospital because they are old and not well and they stay in bed. Promoting getting up has made a huge difference to the environment on the wards that were working on. I think it's just enthused everybody.'* 3.55 minutes.	70.
	An occupational therapist *'I think it helps with patient's confidence. Coming into hospital is a frightening experience and if they are maintaining their usual everyday routines, it helps them to feel confident and feel a bit safer when they are going home.'* A nurse commented, *'Promoting that independence is absolutely key when you're engaging with patients and their families. When they feel more in charge of their care, they feel there is more structure, and they have more control, and actually that will facilitate them getting better quicker.'* 4.14 minutes.	71.
	A nurse commented, *'When ERM was initially introduced the nurses thought it was one more thing to do until we actually put down what it was going to mean to us, and actually it's what we should have been doing anyway. It's the best way to look after patients. Why would you want to leave somebody in bed when they can get up? It's made a huge difference to pressure ulcers. You're now on top of things first thing in the morning, you're not leaving people in bed to be washed later on. So, I think once we started to do it, seeing the engagement from the patients back to the staff, I think it's a two-way thing because they enjoy getting up as well. Once we started to do it, we realised it wasn't any more work, it's what we should of being doing, just doing things in a different order.'* A consultant stated, *'Similar to that, when I first spoke to other consultants about having carers*	72.

	coming into the ward round they were really sceptical saying that it was going to hold them up. But our experience is, the information you get from that interaction having the patient there with their carer, especially if they've got cognitive impairment, you can actually make a plan that actually includes what the patient and their carer want, and that's a plan we can actually take forwards, and all agree on. If you don't have that information, then it's a much less valuable interaction with the patients. I think that's the experience they've had. It doesn't actually take longer, and you get a better outcome from that consultation.' A nurse replied, *'I think that's definitely so, and I think it gives the carers confidence to have their loved ones back as well. They've spoken to somebody; they know what the plan is. I think that's a huge part of it.'* An OT stated, *'They can come in and actually see the therapist and other members of staff with the patient and actually see for themselves how well they are doing, which gives them a bit more confidence when it comes to going home.*' 4.56 minutes.	
	[How do we know this is a better way?] A Nurse answered, *'I think from the feedback we get from the patients and carers about their experience, it's one of the best measures. I've certainly noticed having principal carers come onto the ward first thing in the morning especially in the emergency environment where I work just alleviates so much stress because it's a frightening experience. They quite often don't know what's going on medically, so to have someone that's close to them be able to come in and be with them, it's made a really, really big difference.'* Another nurse stated, *'I would agree. They have that loved one to relate back to afterwards because sometimes they feel afraid to ask somebody what they said. If it's somebody they know very well, they can do that with ease. I think it gives them confidence at a very early stage that they're going to get better and get out of hospital more quickly.'* A discharge coordinator replied 'It's definitely made a difference to the length of stay as well because you're identifying any problems that could be slowing down the discharge rate. So, interacting with the family and carers would help to overcome any problems at an early stage". A nurse stated, '*Before, we used to wait for the carers to contact us. I think the big change around is that we are contacting them now. So, we are not having people in hospital whose carers haven't come in for five days and then we find out there's a problem. So, I think it's that turn around, that we are actually going to contact the carers rather than waiting for them to contact us…I think on the whole*	73.

	it's been really positive. *Carers want to be involved, as I say, they know their loved one better than we ever do. I think they want to be involved. The confidence this system builds is really key…because carers and loved ones can be nervous about facilitating that person back at home because they're worried about their nutrition, how they're mobilising. In fact, if they are invited in to look, to see how they are working with the therapist, join them for lunch, sit with them, to do the bits they would do with them at home, I think that's where you get a more positive outcome because your taking away the fear, you are taking away the lack of control and giving it back.* *It's about giving people the option to be involved, but if they don't want to that's O.K. too.'* 7.04mins	
	[Is there general agreement that LOS is shortened by this way of working?] A nurse answered, *'Yes, without a doubt because we are not losing time in hospital when no one knows what's actually going on, what's the plan for the future, and how are we going to overcome any difficulties. It aids the discharge coordinator by finding out a patient's base line early on and any hurdles that need to be overcome. It gives us a goal to work towards to facilitate someone getting well and out of hospital.'* A discharge coordinator stated, *'While they're getting better, we've got that time to speak with the family, carers, or the care homes especially, and to see if the managers need to come in and asses the patient to see if they can take them back. If not, we can start looking at other plans.'* The nurse replied, *'I think it's given us a better relationship with the care homes as well by involving them. You have only got to see the interactions on the ward. When you've seen that patients have a better experience, yes, obviously if its quicker it should be better because arguable they are getting back to the place where they want to be faster, but actually having that engagement, speaking to carers, speaking to patients and actually seeing how much happier they are being involved, that is a good enough reason to try it anyway.'* 9.41 minutes.	74.
Healthwatch Devon (2014)	Single use clothing will help improve patients' independence, enhance their recovery and their experience of being in hospital. P1.	75.
	Getting patients into day clothes rather than nightwear enhances the patients' experience of being in hospital. P1.	76.
	Regaining independence and dignity are key to recovering from a medical emergency. P1.	77.
	The ERM approach includes lots of simple things that patients can do while in hospital to help them leave hospital safely at the right time. P1.	78.
	Supporting patients to get out of bed, get dressed and mobilise early improves muscle strength and independence. P1.	79.

	Encouraging patients to bring in day clothes isn’t usually possible when the patient is admitted as a medical emergency. Although many patients have family and friends who can take clothes into them while they are in hospital, there are many more who unfortunately do not have loved ones nearby. P1/P2.	80.
	By wearing the single use clothing patients feel more dignified and comfortable whilst staying in hospital. P2.	81.
	‘Single use clothing has proved to be very popular and beneficial for patients on our wards where the ERP approach has been trailed. Our patients really value this service, and we would like to continue it in future, so we are looking for sponsorship from local people and businesses.’ P2	82.
	Ensuring patients keep themselves hydrated prevents the need for an intravenous drip. P2.	83.
	Keeping patients mobile avoids muscles becoming weaker. P2.	84.
	Patients and carers are kept involved about every aspect of their care and treatment, including discharge planning and providing medication information. P2.	85.
Northern Devon Healthcare NHS Trust (2018)	It is important to get out of bed, stretch your legs, sit out of bed, and walk to the toilet. P1	86.
	We expect all patients to get dressed into their day clothes each morning. Please ask a friend or family member to bring in some clothes for your hospital stay. P1.	87.
	If you would like a family member or carer present when the doctor sees you, please speak to a member of staff to arrange this for you.’ P2.	88.
	We encourage you and your family members to be actively involved in decision making about your care and discharge plans. P2.	89.

APPENDIX 8: Invitation to participate in realist interviews sent to staff.

UNIVERSITY OF EXETER | BUSINESS SCHOOL

6th April 2015

Dear potential participant,

Invitation to be interviewed as part of a research study looking at ‘Enhanced Recovery in Medicine’

I would like to invite you to take part in the above study. The study aims to learn more about an improvement programme in use at Torbay Hospital to enhance recovery for patients admitted as medical emergencies. The purpose of this study is to improve understanding of how and why the ‘Enhanced Recovery Programme’ is thought to work, for whom and under what circumstances. The study is part of my PhD funded by the Torbay Hospital Medical Research Fund.

An information sheet is attached about the research project. Please read this carefully before deciding whether or not you are willing to be interviewed as part of the study.

You have been invited to take part in this study because your role and experience will provide helpful insight. It is your choice whether or not to take part. Should you choose to participate, you will be asked take part in a one-to-one interview in the hospital at a time and place to suit you. The interview will be conducted by myself and last approximately an hour. The purpose of the interview is to explore and exchange ideas about decisions and choices on offer in the programme. If you agree the interview will be recorded and later transcribed into text form. You will be offered the opportunity to review and comment on the transcription from your interview and to comment on any conclusions later in the research if you wish. Please note that any information you provide will be kept confidential and anonymised.

I will be in touch with you again within the next week to see if you are willing to take part. In the meantime, if you have any questions, please feel free to contact me (see below for contact information).

Thank you very much for taking the time to consider this invitation.

Yours sincerely

Helen Newman-Allen

Postgraduate researcher

Email: hn236@exeter.ac.uk Tel: 01392 722557

APPENDIX 9: Staff information sheet

[redacted]
NHS Foundation Trust

18th August 2015

INFORMATION ABOUT THE RESEARCH

Enhanced Recovery in Acute Medicine

We would like to invite you to take part in this research study. Before you decide whether you would like to take part, please take time to read the following information about why the research is being done and what it would involve for you.

What is the purpose of this study?

The purpose of this study is to develop an explanatory theory as to how and why the ‘Enhanced Recovery in Medicine’ programme in use at Torbay Hospital, is thought to work, for whom, and under what circumstances. The ideas or theories generated will be used to improve the programme here at Torbay and to inform future programmes by other care providers.

Who is organising and funding the research?

The study is being conducted by a student (Helen Newman-Allen) from the University of Exeter Business School as part of her PhD. Torbay Hospital Medical Research Fund is funding the research. The researcher will not be paid to conduct the research.

Who has reviewed this study?

This study has been reviewed and received favourable opinion by South-West Exeter Research Ethics Committee.

Why have I been chosen?

You are being invited to take part because you have particular insight and experience of the area being studied through the job you do in the hospital. You have been chosen after discussion and agreement with the Director with lead responsibility for the study within the hospital trust. 20 hospital staff, and 20 patients and their friends, relatives and carers will be recruited into the study.

Do I have to take part?

It is up to you to decide whether or not to participate. If you would like to take part, you will be asked to sign a consent form and will be given a copy of this information sheet and the signed consent form to keep as a record. You are free to withdraw from the study at any time and do not need to give a reason. Any information collected from you before you withdraw will not be used in the study unless you give permission otherwise.

What will happen to me if I take part?

You will be interviewed for approximately hour and/or observed and informally interviewed doing your job on the ward.

Interviews

The researcher will visit you at a place and time of your convenience. You will be asked about your views and experience of the enhanced recovery programme. Your comments will be written down as notes, or digitally recorded with your permission, and later transcribed into text form. Recordings of interviews will be destroyed once transcribed. You can decide to stop the interview at any point, and you need not answer questions that you do not wish to. You will have the opportunity to see and comment on the transcription of the interview.

Observations & Informal Interviews

The researcher will observe day-to-day care and activities on the ward of patients who have consented to participate in the study. For example, mealtimes, ward rounds, patient admission, and discharge and staff handovers. The researcher will try to minimise any disturbance to you. Your consent will be requested by the researcher before any period of observation, and you may ask the researcher to leave at any point without giving an explanation. After some periods of observation, if you are willing and it is convenient to you, it would be helpful to chat informally for 5 – 10 minutes to gain an understanding of the reasoning behind your choices and decisions. To ensure privacy and to prevent sensitive information being overheard, conversations can take place in a separate side room when necessary. Where it is relevant to patients taking part in study and consent has been given, relevant sections of patients' medical notes may be looked at by the researcher.

Will the information I provide be kept confidential?

Yes, your name will be removed from the information and anonymised. Interview details will not be fed back to the organisation directly. Your personal information will not be identifiable in any report or publication generated from this study. All the study data will be kept in a secure location at the University of Exeter for 10 years. Any personal data will be destroyed after 1 year.

Researcher's duty of care to patients

The researcher has a duty of care to patients. Should the researcher discover issues that raise concerns about the immediate safety of patients, the researcher will discuss with you the need to break confidentiality and report the matter to an appropriate senior member of the hospital staff. If the research reveals something about a health condition which was previously unknown, this will be feedback to the patient by their clinical care team.

What if there is a problem?

If you have any concerns about any aspect of the study, please contact Professor Andi Smart (P.A.Smart@exeter.ac.uk or 01392 722557) or Mrs Gail Seymour (g.m.seymour@exeter.ac.uk or 01392 726621).

What will happen to the results of the study?

The results of the study will form part of a PhD thesis, which will be stored electronically by the University of Exeter. The results of the study will also be published in academic journals and presented at professional meetings. You are most welcome to a copy of the final report - please let me know if you would like a copy by 31st October 2019.

What do I do next?

If after reading this information sheet you would like to take part in the study, please let me know.

Source for more information:

If anything is unclear, if you have any questions or would like more information – please contact the researcher on the details below.

Helen Newman-Allen
Email: hn236@exeter.ac.uk   Telephone: 01392 722557

Thank you for reading this information.

APPENDIX 10: Staff consent form

UNIVERSITY OF EXETER | BUSINESS SCHOOL

PARTICIPANT CONSENT FORM - STAFF

Study Title: Enhanced Recovery in Medicine

Name of Researcher: Helen Newman-Allen Please tick box

1. I have read and understand the information sheet dated 18th August 2015 (version 1.2) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that taking part is voluntary and that I can decide not to continue at any time without giving a reason and without my patients' routine medical care being affected. ☐
3. I understand that my personal information will be kept confidential and that it will not be possible to identify me in any written materials or publications. ☐
4. I agree that my interviews may be audiotaped. ☐
5. I understand that relevant sections of my patients' medical notes may be looked at by the researcher, where it is relevant to them taking part in this study. ☐
6. I understand that the study findings will be available for scholarly and educational proposes. ☐
7. I agree to take part in the above study ☐

Signature……………………………………………Date …………………………..…

Participant ID number……………………………. (To be entered by researcher)

Name of researcher…………………………………………………………….……………….

Signature……………………………………………Date ……..…………………….

APPENDIX 11: Topic guide for realist interviews

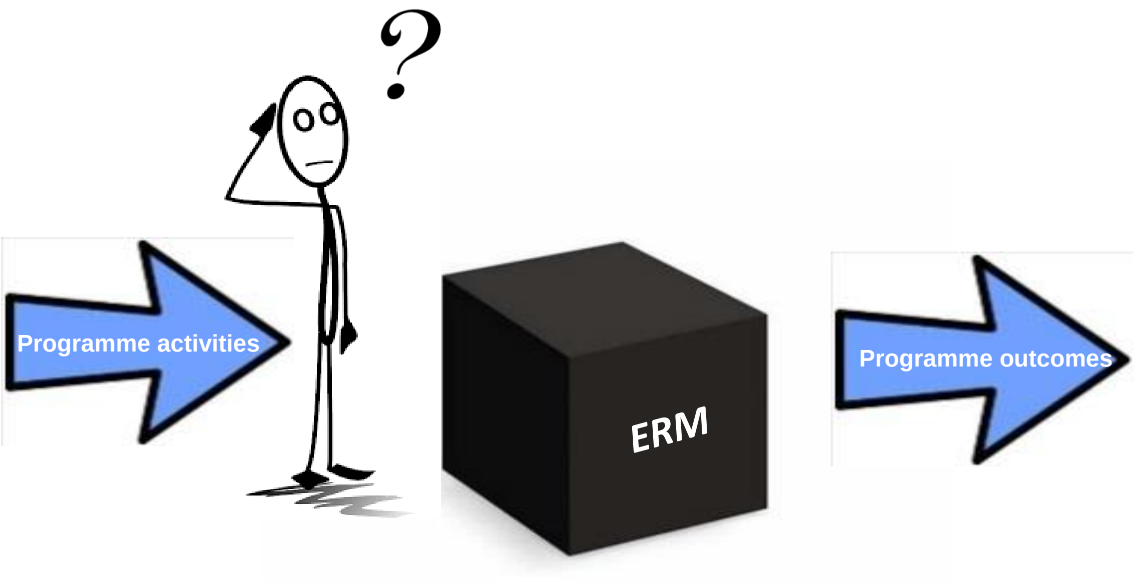
Introductions:

The Interview begins with introductions and the interviewee is thanked for attending. Assurances are given that their responses to the questions will remain anonymous, and that they are free to refuse to answer any question. They are advised of the anticipated duration of the discussions (approximately an hour). Once the consent form is signed, they are asked if they have any further questions.

Active teaching of structure of the study

Thank you for coming to talk to me today. I am doing some research about the ERM programme at the hospital. I am interested in theory and my aim is to explain how and why the programme works, for whom, under which circumstances? My approach is different from conventional evaluations, which usually focus on whether programme outcomes are achieved. The illustration below is then shared (Wong et al, 2012). I am attempting to delve into the ‘black box’ of the ERM programme to find out what goes on that connects its various inputs and outputs. A key idea is that it is not programme activities themselves that ‘work’ but rather the way people reason and respond (in different ways) to the resources, ideas, and practices that a programme introduces, which changes behaviour of recipients and generates outcomes.

Theory building approach



The interviewee is then asked if they have any questions before the interview begins. Then permission is sought to start recording the conversation.

Questioning

The following questions will guide the interview and ensure that the discussions cover all relevant areas. Questions begin with a general discussion about the topic area then focused down on different aspects of the initial programme theories. These questions will be refined as appropriate in the light of developing theory and emerging ideas.

QUESTION	LOGIC
1. Can you tell me how you have been involved with the ERM programme?	To get the interviewee talking and encourage them to tell me about their involvement in the programme. This will help me to work out which aspects of the programme theory they know about and what to focus on in the interview with them.
2. What do you think are the important things that have changed since the ERM programme was introduced?	Open-ended question exploring intended and unintended outcomes of the programme for different groups.
3. Does the ERM programme work for everyone? *Prompt: In what ways is it different?* *Can you give an example?*	Specific question looking to explore outcomes for group(s) identified in question 2.
4. What were the outcomes for [patients, carers, staff, and the organisation]?	Specific questions to focus on the extent of outcomes and greater detail for different groups. Repeated as necessary.
5. Is there anything about the way that the programme is delivered here that makes it work well or not? *Probe for positive and negatives, such as lack of time, training, polices which might have an effect.*	Open-ended question exploring possible contexts which may have affected implementation and impacted on outcomes.
6. I am wondering whether the ERM programme has affected [X]?	Specific question looking to explore outcomes identified in the reviews or by others.

Selected conceptual diagrams (see Appendix 14) are then shared, and then the interviewee is asked to reflect on them and provide comments.

I am going to share with you some of my ideas and those of other staff and from a literature search about how and why the ERM might work. I would like you to look at this diagram that shows some potential explanations. These are just ideas and there are no right or wrong answers. I am just interested in what you think.

QUESTION	**LOGIC**
7. Is this diagram accurate? *Probe:* Do you agree with or disagree with the diagram? *if so, why?* *Probe: is this consistent with your own experience of the programme?*	The interviewee is asked to look at a selected theory diagram. I articulate the current state of the initial theory and provide thoughts and examples that have emerged in earlier interviews. Repeated for other theories as relevant.
8. When I have spoken to other people, they have told me that [X] could help/make it difficult for them do [Y] what do you think? Why?	More specific question which are grounded in the programme theory that I am trying to develop. Prompting for further details of contextual factors or mechanisms impacting on each specific outcome of ERM programme.
9. Is there anything else about how the ERM programme works that we haven't discussed that you think I should know about?	Open-ended closing question to identify other theory not covered.

The interview concludes by thanking the interviewee for their time and offering a transcript of the interview within two weeks if desired. Contact details are given out in case of any further questions. The date, location, setting, and duration of the interview were recorded alongside the interviewees ID no.

END OF INTERVIEW

APPENDIX 12: Sample participant debrief letter following realist interview

22nd April 2016

Study title: Enhanced recovery in medicine

Chief Investigator: Mrs Helen Newman-Allen

Dear participant,

Thank you for participating in my study about enhancing recovery for patients admitted as medical emergencies. The study aims to improve understanding of how and why a care model in use at Torbay Hospital is thought to work, for whom, and under what circumstances.

I very much appreciate your assistance with this research and the time and effort taken to meet with me on two separate occasions for one-to-one interviews. Your contributions were extremely informative and helpful.

I have attached a summary of the key ideas described, based on your interview transcript. Please feel free to respond with any necessary corrections or additions.

I greatly value your participation in this research study and your honesty and willingness to share your thoughts and experiences of the programme. If you have any questions or concerns, please feel free to contact me.

Thank you again for participating in the study.

Kind regards

Helen Newman-Allen

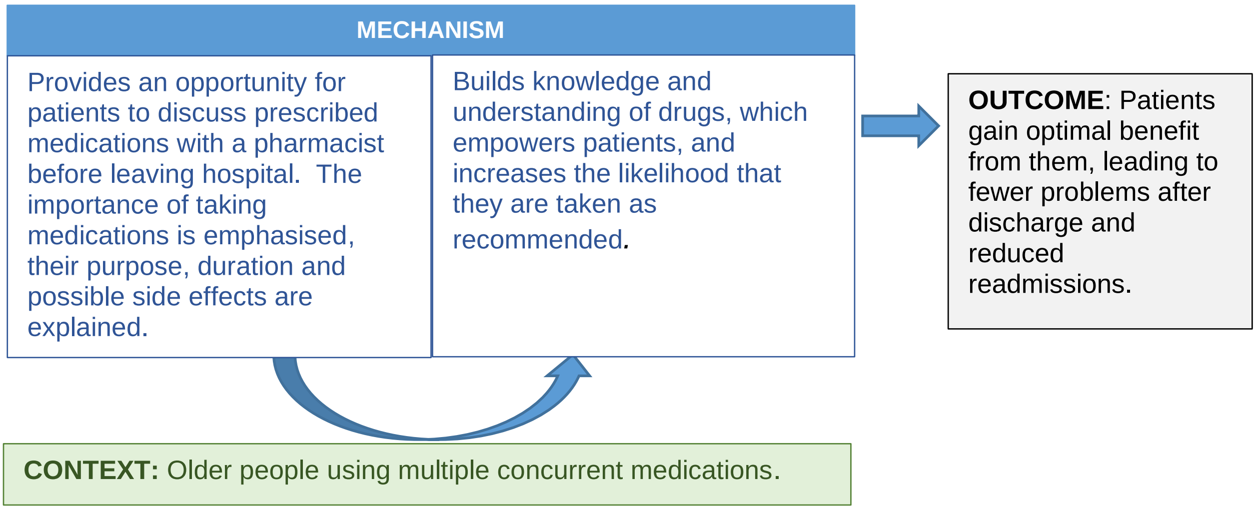
Doctoral Researcher
University of Exeter Business School

Tel: 01392 722557

Email: hn236@exeter.ac.uk

APPENDIX 13: Conceptual diagrams used in realist interviews

Theory 1: Discussing medicines before leaving hospital



MECHANISM

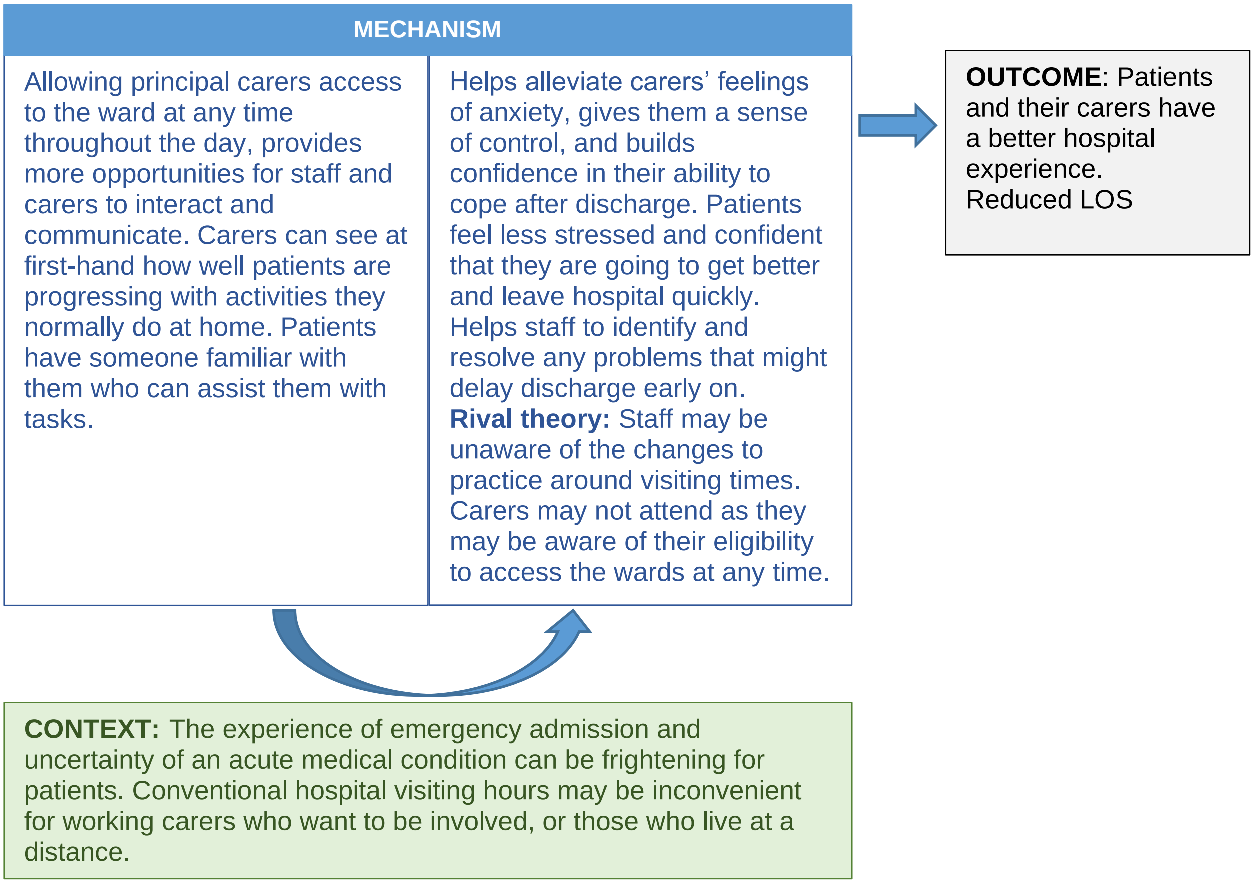
Provides an opportunity for patients to discuss prescribed medications with a pharmacist before leaving hospital. The importance of taking medications is emphasised, their purpose, duration and possible side effects are explained.

Builds knowledge and understanding of drugs, which empowers patients, and increases the likelihood that they are taken as recommended.

OUTCOME: Patients gain optimal benefit from them, leading to fewer problems after discharge and reduced readmissions.

CONTEXT: Older people using multiple concurrent medications.

Theory 2: Open access for principal carers



MECHANISM

Allowing principal carers access to the ward at any time throughout the day, provides more opportunities for staff and carers to interact and communicate. Carers can see at first-hand how well patients are progressing with activities they normally do at home. Patients have someone familiar with them who can assist them with tasks.

Helps alleviate carers' feelings of anxiety, gives them a sense of control, and builds confidence in their ability to cope after discharge. Patients feel less stressed and confident that they are going to get better and leave hospital quickly. Helps staff to identify and resolve any problems that might delay discharge early on. **Rival theory:** Staff may be unaware of the changes to practice around visiting times. Carers may not attend as they may be aware of their eligibility to access the wards at any time.

OUTCOME: Patients and their carers have a better hospital experience.
Reduced LOS

CONTEXT: The experience of emergency admission and uncertainty of an acute medical condition can be frightening for patients. Conventional hospital visiting hours may be inconvenient for working carers who want to be involved, or those who live at a distance.

Theory 3: Principal carers are invited to attend the ward round

MECHANISM	
The patient’s principal carer is invited to attend the doctor’s morning ward round. This provides an opportunity for them to discuss the patient’s management plan with the consultant, and for staff to gain relevant information about the patient from their carer.	Patients have someone to support them during the consultation. Carers want to attend to get accurate information. They prefer to speak to the doctor ‘face to face’ and find it helpful to know what is happening and what is planned. Consultants feel that the interaction is more valuable because additional relevant information about the patient can be gained from the carer. **Rival theory**: Poor staff communication skills may mean that carers may not receive an invitation. Some carers feel that the patient does not need them to attend the ward round. When a patient has had multiple admissions, the carer may feel that they already know enough about the situation, or only want to attend if it is serious. Other carers may be too busy; feel that they would not understand what was being said or prefer to leave it to staff.

OUTCOME: The length of consultation is unchanged. Carers are more engaged with, and influence decision making about the patients care. A personalised care plan can be agreed (that includes what the patient and their carer want) and taken forwards.

CONTEXT: Carers of patients with dementia, cognitive impairment, patient’s ability to gather information is affected by medication communications difficulties from medication.

Theory 5: Proactive discharge planning

MECHANISM

RESOURCES: As soon as possible after admission, the patient’s relatives/carers are contacted and their return home, or transition to a supportive setting outside the hospital is discussed and planned, including scheduling a discharge date. As much background information as possible is gathered about the patient’s base-line function and is fed back to the MDT.

Problems or practical issues that could delay discharge are identified and sorted out before the discharge day. The patient’s on-going care needs are identified early on, and care plans can be agreed. While the patient is getting better, staff have a goal to work towards. Everyone knows what is happening and planned, which saves time being wasted. While the patient is getting better, staff have time to speak to care home managers about coming in to assess the patient to see if they can take them back or start looking at other plans. Patients’ anxiety is alleviated because they know when they are going to leave hospital and can plan how they will get there early on during their stay. Patients don’t enjoy being in the hospital environment and are pleased to be discharged quickly.

Rival theory: Much of the recovery process must be handled by patients on their own, supported by family and carers. Shorter LOS reduces time available to for managing other important aspects of recovery such as rehabilitation.

OUTCOME: Everything is in place for going home, resulting in a simplified and smoother discharge process on the day. Unnecessary delays are reduced, LOS is shortened with associated cost savings. Patients and their carers have a better hospital experience. Better relationships are established with care homes and there is good continuity of care on return to the community (as a care package is already set up). Time away from family and disruption to patients’ lives is minimised. Risk of hospital acquired infection is reduced.

CONTEXT: Early discharge may be affected by the level of integration with social care, primary care and community services, the availability of resources or specialist skills in the community and logistical issues. Patients may be anxious about the practicalities of leaving hospital and going home on discharge day.

Theory 6: Sharing responsibility

MECHANISM

From the onset of contact expectations of patients are set out and they are encouraged and supported to actively participate in their own recovery by being active independent, self-sufficient, and meeting goals.

Raises awareness of patients' personal responsibility to take an active role in their recovery. They feel a sense of empowerment and control over their health. They are motivated by the idea of contributing to their own recovery and are keen to meet the explicit role responsibilities and tasks of the ERP.

Rival theory: Patients may prefer to take a passive role, or follow their own intuition, regardless of professional advice. They may feel a sense of pressure to meet expectations. Patients may interpret participation as a need to follow strict rules and consequently feel that their autonomy is inhibited and disempowered.

OUTCOME: Alters traditional roles and relationships, and Responsibility is shared.

Greater self-care and taking on tasks previously performed by-nurses, reduces nursing workload and LOS.

CONTEXT: Patients' individual coping preferences and bodily experience. Expectations of the patient role and bodily experience. Availability of support from carers. Provision of an information session before admission.

Theory 7: Swift resumption of normal activities

MECHANISM

Patients are encouraged and assisted to get out of bed, dress and walk around (within 24 hours of admission). Nursing tasks are carried out in a different order and focus on encouraging independence and helping patients to look after themselves.

Patients enjoy getting up first thing in the morning. This reduces feelings of resignation, facilitates self-efficacy by enabling them to complete everyday tasks such as, washing and getting dressed. This return to normal activities gives patients a sense of control and builds confidence in their abilities. Maintaining usual everyday routines whilst in hospital helps them to feel confident and safer going home. Nurses experience positive interactions and increased engagement from patients. Everyone is enthused, interactions are positive, and the ward atmosphere is better. Swift resumption of normal activities brings relief and reduces convalescent demands on their families after discharge.

Rival theory: Nurses may perceive ERM as extra work. Patients' ideas about what will contribute to their recovery may feel conflict with the advice and expectations of staff regarding physical activity. Patients experiencing pain, and fatigue may feel weak and incompetent regarding actively doing as recommended.

OUTCOME: Minimising periods of inactivity, preserves muscle strength and functional capacity. Recovery is faster, complications and LOS are reduced Patients maintain their independence whilst in hospital and the ability to perform activities of daily living, leaving hospital less debilitated. Primary and social care services have fewer dependent patients to provide services for. If patients take on tasks previously performed by nurses, then nursing care time per stay is reduced and there is a shift from nurses attending to physical needs to information and advice.

CONTEXT: Inpatient care is bed focussed and conventional nursing involves doing things to and for passive and dependent patients. Older people are at risk of becoming weak and losing functional abilities from inactivity in hospital. Expectations about hospital bed rest. Sleep, rest and removal of lines and monitors. Positive and trusting relationships between patients and staff.

Theory 8: Getting dressed into day clothes

MECHANISM

Patients are encouraged to get dressed every morning into their own day clothes. Relatives/carers are asked to bring these in for the patient, but when this isn't possible, single use tracksuits are provided by the hospital.

Tracksuits are popular and valued by patients, who feel more dignified and comfortable whilst in hospital. Wearing day clothes rather than pyjamas or flappy hospital gowns encourages and enables patients to move around and engage in normal everyday activities with dignity and privacy.

OUTCOME: Patients have better hospital experience. Their mobility is increased, and they regain their independence sooner.

CONTEXT: Patients admitted as medical emergencies often arrive without their own day clothes and it can be difficult to get them brought in (e.g., those who live alone or do not have loved ones nearby). Older patients come into hospital and stay in bed.

Theory 9: Energy drinks and drinks station

MECHANISM

From admission, energy drinks are provided daily, and patients are encouraged to drink plenty of fluids. A drink station is provided on the ward for ambulant patients to use at any time.

Patients pay attention to their nutrition and hydration, drinking the fluids and energy drinks offered and use the drink station. They find them energy drinks easy to drink and like the taste. They stay hydrated and their calorie intake is boosted.

OUTCOME: Patients may not need an intravenous (IV) drip, and Iatrogenic complications and LOS are reduced.

CONTEXT: Older people have an increased tendency to develop dehydration and are at risk of developing iatrogenic complications and being discharged with an ADL disability they did not have before becoming acutely ill.

Theory 10: Information and communication

MECHANISM	
Time is devoted to communicating directly with patients and carers, providing information and practical advice about the expected process of recovery, managing the acute episode, and actions that could prevent a repeat admission. ERP interventions are emphasised, such as mobilisation, early discharge, and active patient and carer participation in the recovery process.	Patients have a better understanding of what is expected of them, the care process, and the different staff roles, which promotes positive and realistic expectations. Anxiety is alleviated, and a sense of control and autonomy is increase which motivates them to take personal responsibility for their recovery and actively participate in the programme. Carers find it helpful for planning care after discharge and are clear about whom to communicate with. Staff feel they are providing better care, and the ward atmosphere is better. **Rival theory:** Patients and carers do not notice posters or read other promotional material.

OUTCOME: Removes the communication burden from patients, improves morale. Patients recover more rapidly, go home earlier and are more satisfied with the care they receive.

CONTEXT: Emergency admission can be a frightening experience. Patients and their relatives/carers are unsure of what is happening and desire information about the rationale for treatment and care process. Effective communication skills of staff. Pressures of emergency assessment limit time available for communication. Format, amount, and timing of information provided.

Theory 11: Individualising care

MECHANISM	
Standardised ERP protocol.	Practitioners are responsive to individual patient’s needs and preferences, using their clinical judgement to adapt their actions to the specific circumstances. **Rival theory:** Changes to the protocol may cause confusion for other practitioners.

OUTCOME: Increased patient participation.

CONTEXT: Situations that conflict with the protocol. Effectiveness of team communication

Theory 12: Involving patients and their carers’

MECHANISM

Staff encourage patients and their carers to get involved in the care process and practical help and advice is provided to assist them to make care decisions.

Being involved in the care process, makes carers and patients feel happy. Patients feel happy and safer because they can choose what is best for them throughout the course of their treatment. Carers feel that they are treated as equal partners. Staff feel it is a better place and that they are providing better care.

Rival theory: Carers may feel unwelcome, ignored, or that they are intruding. Their views may not be requested or respected. They may not be offered any information or support in their caring role.

CONTEXT: An organisation where there is recognition that carers are important to patient recovery and support is available for them. Carers desire for involvement. Communication time may be limited by the pressures of emergency assessment.

OUTCOME: Staff attitudes and values change, and a more patient-centred approach is embraced. Care is more appropriate, individualised, and better-quality. Faster recovery, the patient’s hospital journey is smoother, and LOS is reduced. Patients and carers have a better hospital experience. Gaps in care provision can be identified and support provided for carers on a continuing basis after the patient has been discharged home if needed.

Theory 13: Structuring care and goal setting

MECHANISM

A structured approach is taken to care delivery. Patients and carers are involved in helping to set individual daily goals for the patient to aim for and are supported to achieve them (including getting up dressed into day clothes, mobilising, eating, and drinking).

Engages all the staff on the ward, gives everyone a shared focus and they work together with a common purpose. Patients are energised, have something to strive for and focus on and take an active role, doing simple things to enhance their recovery, such as paying attention to their nutrition, hydration, and mobility from the start of their inpatient journey and organising their journey home.

Rival theory: Focus on tasks may get in the way of nurses responding to patients' personal and emotion needs. Processes may conflict with patient preferences.

OUTCOME: Faster recovery, shorter LOS, and associated cost savings.

CONTEXT: Staff engagement. Patient characteristics and recovery trajectory. Positive feedback on progress from staff can enhance patients' efforts to achieve goals. Implementations of ERP may be perceived as difficult.

Theory 14: Untethering

MECHANISM

Considering whether an IV drip is really needed, being proactive taking down IV drips when oral fluids are appropriate, and avoiding techniques that enforce bed rest (such as catheters, 24-hour IV fluids). Patients are taken off monitors as soon as possible, aiming for a drip free morning.

Not being tied to a drip or monitor removes physical and psychological barriers to mobilisation and makes it easier for patients to get up dressed and move around. Patients do not feel medicalised, upset and discomfort are minimised. They sleep better without drip machines beeping through the night.

OUTCOME: Improves patient wellbeing and functional status is maintained. Faster recovery and shorter LOS.

CONTEXT: Older people are at risk of developing iatrogenic complications and being discharged with an ADL disability they did not have before becoming acutely ill.

APPENDIX 14: List of documents collected

Ref no:	Document Description	Date of publication
DS-01	Patient information leaflet for specialist elderly care ward for patients, carers, and relatives	25.10.13
DS-02	Patient information leaflet for the EAU	Undated
DS-03	Door Poster welcoming carers to ward/unit	25.10.13
DS-04	Patient leaflet 'Your Hospital Stay'	05.10.13
DS-05	ERM Project leader presentation	13.01.13
DS-06	EAU poster for staff regarding SBAR-P	25.10.13
DS-07	ERM Health Foundation funding bid. Scaling up improvement outline application form	13.06.14
DS-08	ERM Health Foundation funding bid	15.09.14
DS-09	ERM Health Foundation funding bid	17.03.15
DS-10	Health Foundation Innovating for improvement round two application form and presentation	16.10.15
DS-11	Lunch club comment book	Undated
DS-12	Minutes from ERM Huddle meetings	21.10.13 - 14.11.14
DS-13	Carer experience questionnaire and Evaluation report	Undated
DS-14	Enhanced recovery in medicine draft paper for the British Journal of Nursing (version 0.10).	16.04.15
DS-15	Poster promoting free parking pilot for carers supporting patients at the hospital	Undated
DS-16	ERM ward poster	Undated
DS-17	Hospital Carers Pass	Undated
DS-18	Enhance recovery in medicine Round, daily data collection sheet for EAUs	Undated
DS-20	Enhanced Recovery in Medicine conference presentation ERAS.	20.11.14
DS-23	ERM run charts.	28.05.13-16.10.13
DS-24	Press release for ERM launch	03.10.13
DS-25	ERM patient information poster	Undated
DS-26	ER in medicine project proposal	3.07.14

APPENDIX 15: Invitation to participate in card-sorting exercise

UNIVERSITY OF EXETER | BUSINESS SCHOOL

27th February 2019

Dear potential participant,

Invitation to participate in a card-sort as part of a study exploring 'Enhanced Recovery in Medicine'.

As you may remember, I am conducting a study to improve understanding of Enhanced Recovery in acute medicine' (ERM), as part of my PhD at the University of Exeter – you may have met me previously on the hospital wards, at huddle meetings or during interviews. As part of my continuing work, I am carrying out a simple card-sort task and would like to invite you to take part.

The purpose of the card-sort is to get stakeholder views on the relative importance of the theories that I have developed about why and how ERM is thought to work in an acute medical setting. You are being invited to take part because your previous experience of ERM will provide helpful insight.

The card-sort will be conducted by me and should take roughly 30 minutes. It can be completed at the hospital at a time and place that is convenient for you. Your participation is completely voluntary. If you do not wish to participate, please let me know.

If you agree to take part, you will be asked to read 14 theories concerning the ERM programme at Torbay (approx. 300 words each) in advance. During a one-to-one meeting you will be asked to **sort into rank order the three most important theories from your point of view,** using the cards. There are no right or wrong answers because I am only interested in what you think personally. No one else will see your answers except me, and they will be kept confidential and anonymised.

I will share the findings with you once I have finished compiling the results. If you wish, I can also provide evidence of your participation for continuous professional development (CPD) purposes.

I will be in touch with you again within the next week to see if you are willing to take part. In the meantime, if you would like to ask any questions or discuss the research, please contact me by email hn236@exeter.ac.uk

Thank you very much for taking the time to consider this invitation.

Yours sincerely,

Helen Newman-Allen

Postgraduate researcher (Email: hn236@exeter.ac.uk)

APPENDIX 16: Theories sent to participants in advance of card-sorting exercise

1. Discussing medicines before leaving hospital

Context:

Patients given medicines to take home with them may not take them as intended (especially those with complicated regimens and those using multiple concurrent medications).

ERM resource:

Patients can discuss prescribed medications with a pharmacist before leaving hospital.

Participants reasoning and response (ideal):

Leads to a better understanding of their purpose, duration, and possible side effects, which in turn increases the likelihood that drugs are taken as recommended and they gain optimal benefit from them.

Outcome (ideal):

As a result, patients have fewer problems after discharge and reduced readmissions. The priority of preventing medication errors is raised within the organisation.

2. Open access for principal carers

Context:

Uncertainty of an acute medical condition can be a frightening and isolating experience. Carers may be nervous about facilitating recovery at home after discharge. Convenience of hospital visiting hours for working carers, those living at a distance or relying of public transport. Carers willingness to be involved.

ERM resource:

When patients are medically stable, allowing principal carers access to the ward at any time throughout the day increases opportunities for staff and carers to interact and communicate. A three-way conversation can take place between the carer, staff, and the patient about routines and preferences. Provides carers with direct and timely information, an opportunity to assist with care, and to see at first-hand how well patients are progressing with activities they normally do at home. Patients have someone familiar with them who can assist with tasks.

Participants reasoning and response (ideal):

Patients feel comfortable and supported, which relieves stress and isolation and helps develop a positive mind set. Confidence is boosted that they will get better and leave hospital quickly. Especially patients with cognitive impairment or who would otherwise be 'specialled'. Helps alleviate carers’ feelings of anxiety, gives them a sense of control, and builds confidence in their ability to cope after discharge. They feel welcome and valued and are therefore more likely to contribute to the care process and decision making. Staff feel it is ethically right for carers to be present. Conversations are perceived to be more realistic, which helps staff to identify and resolve any problems that might delay discharge early on.

Outcome (ideal):

Separation from loved ones is minimised and familiar routines are maintained. Morale is high, patients and carers have a better hospital experience and LOS is shorter. Timesaving for staff as they are often trying to contact carers by phone (especially if a patient is confused). Help from carers is an additional resource for staff.

3. Principal carers are invited to attend the ward round.

Context:

Hospital policy limits the amount of information that can be given over the telephone. Carers may have difficulty getting through to the ward or speaking to the right person. Typically, little information about the process or rationale of in-patient care is provided to carers. Medical focus of doctors and workload pressures.

ERM resource:

The patient's principal carer is invited to attend the doctor's morning ward round visit. This provides an opportunity for carers to speak directly with the doctor, ask questions, hear about the patient's condition, discuss the management plan, and raise important practical and social issues.

Participants reasoning and response (ideal):

Patients feel less anxious, dependent, and more confident having someone to support and advocate for them during the consultation. Carers prefer to speak to the doctor 'face to face' because they get accurate information. Knowing what is happening and planned is reassuring and relieves anxiety. Doctors feel that the interaction is more valuable because they get a better sense of the patient as a person, a 'truer picture' of the patient's social circumstances and gain additional information (especially if the patient has a cognitive impairment).

Outcome (ideal):

There is a change in organisational culture and relationships are more equal. The consultation does not take any longer. Carers are more engaged and influence decisions made about patient care. Better and more personalised care plans can be agreed and taken forward that include patient and carer preferences. Patients have a better hospital experience.

4. Free parking for principal carers

Context:

Parking at the hospital site is limited, expensive and is a major frustration for carers visiting the hospital frequently. Willingness of people to identify themselves as carers (typically, men may be reluctant).

ERM resource:

Free parking at the hospital site is offered to principal carers registered with the hospital. This demonstrates recognition of the valuable role carers play in supporting the recovery of patients and reduces the financial burden of visiting the hospital.

Participants reasoning and response (ideal):

Carers feel supported and valued. Free parking acts as an incentive for them to attend ward rounds. Eliminates stress and frustration for carers because they no longer arrive on the ward in a tense state or 'clock watch' whilst visiting.

Outcome (ideal):

Carers are present more often and are more involved in decision making, resulting in better quality decisions being made. It also helps to identify carers and promotes 'carer registration', which gives carers access to support from the hospital, such as peers network and resources.

5. Proactive discharge planning

Context:

Discharge is a complex process involving complicated interactions, multiple handovers between many health and social care professionals working in silos across different organisations. Internal discharge processes subject to organisational change. Early discharge may be affected by the level of integration with social care, primary care and community services, the availability of resources, specialist skills in the community, and logistical issues. Patients may be anxious about the practicalities of leaving hospital and going home on discharge day. Typically, staff wait for carers to contact the ward, which means that problems often come to light at a late stage in the patient's hospital stay. Discharge coordinators are often unable to see all patients, so prioritise those leaving hospital that day (rather than those leaving later)**.** Organisational strategies and unpredictability of recovery trajectories. Skill and commitment of individual discharge coordinators.

ERM resource:

As soon as possible after admission, carers are contacted and the patient's return home or transition to a supportive setting outside the hospital is discussed and planned, including scheduling a discharge date. Time is spent gathering as much background information as possible about the patient's needs, practical issues and base-line function, which is fed back to the MDT. This allows discharge planning to occur alongside treatment. Communication is maintained regarding discharge planning throughout the patient's hospital stay. If a patient is being moved from the EAU to a specialist ward, there is still a plan of action and an estimated transfer date.

Participants reasoning and response (ideal):

Problems and practical issues that could delay discharge can be identified and overcome before the discharge day. The patient's on-going care needs (clinical, social, and psychological) are identified early on, and care plans can be agreed that are appropriated to their needs, which can then lead to earlier referral to supporting agencies. Everyone knows what is happening and planned, and how problems will be overcome, which saves time being wasted. Staff work together towards a shared goal. While the patient is recovering, they have time to speak to care/residential homes about assessing whether they can take patients or start looking at other plans. Patients are pleased to be discharged quickly. They know which day they are going to leave hospital, and can plan how they will get home, which alleviates anxiety. Carers are pleased to be involved and appreciate having their relatives at home earlier, as this removes the need for hospital visits, which can be time-consuming, disruptive, expensive, and stressful.

Outcome (ideal):

Uncertainly is reduced and everything is in place for going home, which leads to a simplified discharge process with fewer problems on the day. Unnecessary delays are reduced, LOS is shortened with associated cost savings from reduced bed occupancy. Patients and their carers have a better hospital experience. Better relationships are established with care homes and there is good continuity of care on return to the community (as a care package is already set up). Time away from and disruption to family life is minimised. Risk of hospital acquired infection is reduced. Staff workload is shifted from the end to the beginning of the patients stay.

6. Encouraging patients to take an active role in their own recovery

Context:

Patients’ individual coping preferences, condition, capability, behavioural norms, expectations of the patient role, and bodily experience of illness. Availability of support from carers.

ERM resource:

From admission or soon thereafter, expectations of patients to actively participate in their own recovery are set out and they are encouraged and supported to do simple things to help themselves to recovery whilst in hospital (i.e., pay attention to nutrition, drink plenty of fluids, get up and dressed in day clothes, visit the drinks trolley, and organise their journey home).

Participants reasoning and response (ideal):

Raises awareness of patients’ personal responsibility to take an active role in their recovery. They feel positive, confident, and a sense of control over their health. They are motivated and empowered by the idea of contributing to their own recovery and are keen to meet the explicit role responsibilities and tasks of the ERP and get home quickly.

Outcome (ideal):

Alters traditional roles and relationships between staff and patients and responsibility for recovery is shared. Greater self-care and taking on tasks previously performed by nursing reduces nursing workload and LOS.

7. Swift resumption of normal activities

Context:

Hospital inpatient care is bed-focussed and traditionally nurses see patients as passive and dependent recipients of care, doing things to and for them. Older people are at risk of becoming weak and loosing functional abilities from prolonged periods of inactivity. Expectations about hospital bed rest. Patient characteristics such as age, condition, normal level of activity and circumstances of admission and condition. Personal preferences and motivation for physical activity. Positive and trusting relationships between patients and staff. Sleep, lines, and monitors. Wards with a proactive multidisciplinary approach, a strong therapy presence and experienced staff. Competition between nurses and social conformity. Time pressures.

ERM resource:

The importance of avoiding unnecessary bed rest is emphasised and patients are encouraged and assisted (if necessary) to mobilise (within 24 hours of admission). Nursing tasks are carried out in a different order, focus on encouraging independence, self-care and helping patients to follow their normal personal routines.

Participants reasoning and response (ideal):

Patients enjoy getting up and mobilising first thing in the morning. This alters their perspective, reduces feelings of resignation, and they feel physically and psychologically better in themselves, 'less sick'. Facilitates self-efficacy and independence by enabling them to complete everyday tasks, such as washing and getting dressed, walking to the toilet, getting their own drinks, and helping other patients. Nurses experience positive interactions and increased engagement from patients. Everyone is enthused, especially those who want to leave hospital as soon as possible. When patients are up and dressed, there is a noticeable difference in morale, the ward atmosphere feels better, and rehabilitation is facilitated. Maintaining usual everyday routines while in hospital helps patients to feel confident and safer going home. Returning to normal activities gives them a sense of control, builds confidence in their abilities, and reduces convalescent demands on them after discharge.

Outcome (ideal):

Minimising periods of inactivity preserves muscle strength and functional capacity. Recovery is faster, complications and LOS are reduced. Patients maintain their independence while in hospital and the ability to perform activities of daily living, leaving hospital less debilitated. Primary and social care services have fewer dependent patients to provide services for. If patients take on tasks previously performed by nurses, then nursing care time per stay is reduced and there is a shift from nurses attending to physical needs to information and advice. Older patients benefit most.

8. Getting dressed into day clothes

Context:

Patients admitted as medical emergencies often arrive at hospital without their own day clothes (e.g., evening admissions) and it can be difficult to get them brought in (e.g., those who live alone or do not have friends or relatives nearby).

Conventional hospital care is bed focused. Hospitalised patients may expect to rest when they are ill and stay in bed for prolonged periods until they are discharged. The patient’s medical condition may affect their ability to get dressed. Availability of sponsorship affects the supply of tracksuits.

ERM resource:

Patients are encouraged to get dressed every morning into their own day clothes. Carers are asked to bring these in, but when this is not possible single use tracksuits are provided.

Participants reasoning and response (ideal):

Tracksuits are popular and valued by patients. They feel better, more ‘normal’ and comfortable wearing day clothes rather than pyjamas or flappy hospital gowns. Changes expectations of having to stay in bed, encourages and enables them to move around and engage in normal everyday activities with dignity and privacy from early on in their hospital stay. Older patients have more social interactions. Seeing patients dressed boosts staff morale and is an incentive to give them more support and encouragement.

Outcome (ideal):

As a result, the patient’s experience of being in hospital is improved. Mobility is increased, and patients regain their independence sooner. Older patients benefit most and get home quicker. Patients’ privacy and dignity is maintained. The risk of bodily exposure from wearing hospital gowns and is reduced.

9. Energy drinks round and ward drink-station

Context:

Nutritional deficiencies are common in hospitalised people of all ages and can delay recovery from illness. Acute medical illness can predispose patients to dehydration. Older patients hospitalised with an acute medical illness are at risk of being discharged with an ADL disability they did not have before becoming acutely ill. Long waits between hot drinks being offered and unpleasant tasing hospital water.

ERM resource:

From admission, energy drinks are provided daily during an additional morning ‘drink round’. Patients are encouraged to drink plenty of fluids, and staff explain why this is important. A drink station is provided on the ward for ambulant patients to use at any time.

Participants reasoning and response:

Patients like the energy drinks which are easier to tolerate than hospital food when feeling unwell. They may also stimulate appetite. They feel physically better and more inclined to get out of bed and do things because they are hydrated, and additional calories give them energy. The drink station provides an incentive for patients to get up and walk regularly. Access to drinks whenever they want them, without having to ask staff for them, or wait for staff to bring them, supports patient autonomy.

Outcome (ideal):

Patients may not need an intravenous (IV) drip, and Iatrogenic complications and LOS are reduced. Physical activity is increased, patients recover more rapidly, which facilitates earlier departure from hospital and associated cost savings.

10. Communication and sharing information

Context:

Patient anxiety and need for information about treatment and care process. Availability, knowledge, willingness, and communication skills of staff. Serious and time-dependent medical assessment and treatment. Format, method, frequency, amount, and timing of information provision. The patients' knowledge, beliefs, expectations, illness severity, and time course. Lack of staff training.

ERM resource:

As soon as possible after admission, time is spent talking and listening to patients and carers in a positive adult-to-adult way using everyday language. Information (written and verbal) and practical advice is provided about the expected process of recovery, treatment, diagnosis and managing the acute episode. Simple things patients can do to help themselves to recover are emphasised, such as paying attention to nutrition and hydration, getting up and dressed, visiting the drink station, and participating in the decision making.

Participants reasoning and response (ideal):

Enables patients to ask questions, express their feelings and discuss important issues. They feel well-informed, have a better understanding of what is expected of them, staff roles, treatment, and the care process. Promotes positive and realistic expectations, confidence, autonomy, a sense of control and safety, and reduces uncertainty and anxiety. This motivates and empowers them to take personal responsibility for their recovery and actively participate in the programme. Carers appreciate being told what is happening, are clear who to communicate with, and find the information helpful for planning care after discharge. Staff feel they are providing better care, and the ward atmosphere is better. Written information can be referred to when needed.

Outcome (ideal):

Trusting and equal relationship are built between staff, patients, and carers. Individual information needs are appropriately addressed. Removes some of the communication burden from patients. The hospital journey is smoother, patients recover more rapidly, and go home sooner. Improves morale and the ward culture is more positive. Patients and their carers have a better hospital experience.

11. What matters to you? SBAR-P

Context:

Heterogeneity of patients, high patient through-put, staff turnover, and rotational roles. Prioritisation of clinical aspects of care and siloed working. Congruence with national policy priorities and role modelling by senior staff. Effectiveness of team communication.

ERM resource:

From admission, staff communicate more with patients as equals in a positive way and encourage them to raise concerns and personal preferences by asking ‘what matters to you?’ The SBAR model, with the addition of ‘P’ is used at the daily MDT ‘board round’ and on handover sheets, to communicate the patient’s perspective. Provides an opportunity for patients to express their individual needs and priorities. Brings them to the attention of all staff.

Participants reasoning and response (ideal):

Staff develop an understanding of the important issues in patient’s lives and their wider social circumstances. They value the patient perspective and are responsive to their individual needs and preferences. Care is tailored to address psychological and social issues as well their medical needs.

Outcome (ideal):

There is better coordination and improved, timelier communication between staff. Better quality care and improved discharge planning. The patient’s hospital journey is less problematic, and they have a better hospital experience.

12. Involving patients and carers in decision making (SDM) and the care process

Context:

An organisation where there is recognition that carers are important to patient recovery and support is available for them. Hospital admission is often the result of carer’s difficulties in coping with patient’s needs reaching crisis point. Willingness of carers to be involved. Pressures of emergency assessment and treatment limit communication time.

ERM resource:

Following immediate medical treatment, patients and carers are encouraged and supported to get involved in SDM and the care process. Provides an opportunity for them to suggest changes to planned care and choose what is best for them.

Participants reasoning and response (ideal):

Patients feel happy and safe because they are involved and empowered to make autonomous decisions. Carers want to be involved in decisions about the person they are caring for and are grateful for the opportunity to express their wishes. They feel empowered and treated as equal partners. Their knowledge of carer support staff and services increases. Key stakeholders perceive value in and are supportive of the idea of getting carers involved and utilise their professional relationships to influence their peers. There is more discussion and decision making is a collaborative process with all parties working together, sharing their preferences and expertise, contributing actively, and taking responsibility for reaching mutually agreed decisions.

Outcome (ideal):

There is a change in attitudes and values of staff and a more patient-centred approach is embraced. Better decisions are made, and care is more appropriate and individualised. There is greater adherence to planned treatment. The patient's hospital journey is less problematic, and they leave hospital safely and earlier. Gaps in care provision can be identified and support provided for carers on a continuing basis after the patient has been discharged, if needed. Patients and carers have a better hospital experience. There are fewer complaints about communication issues.

13. Organising care and goal setting

Context:

Engagement of individual members of staff and their professional role. Patient condition and recovery trajectory. Leadership. Positive feedback on progress from staff can enhance patients' efforts to achieve goals.

ERM resource:

From admission, bundles of interventions are implemented daily which may change long-standing practices (e.g., welcome to ward, reminder that principal carers can come in at any time, drinks trolley, taking drips down, getting dressed into day clothes, mobilisation, daily energy drinks round and drink station). A standardised approach is taken to gathering and sharing information, explaining how patients can help themselves recover, and including patients and carers in decision making and care processes. Staff work with patients and carers to create an individual daily routine (tailored to the patient's particular condition, needs, values, and wants) and set personal realistic daily goals to aim for. The patient is reminded of these goals daily and is encouraged and supported to achieve them.

Participants reasoning and response (ideal):

Engages all staff on the ward, gives everyone a shared focus and they work together with a common purpose. Patients feel energised, have something to strive for and focus on, and take an active role. Having some structure and clear and realistic shared goals, quickly engages all the staff on the ward, gives them a purpose to work towards and helps them to prioritise tasks. Nurses have more input into the care provided and more control over their routines. They work flexibly around established ward processes (e.g., the drugs round), but are not restrained by them. Knowledge of the patient and professional judgement are used to adjust the plan and progress goals throughout the patient's hospital stay.

Outcome (ideal):

Successful programme implementation and faster recovery, shorter LOS, and associated cost savings. Quality of care is improved as it is flexible, personalised, and considers the patient's individual condition and preferences.

14. Untethering from drips and monitors

Context:

Routine overuse of monitors and IV lines is detrimental to recovery as it enforces immobilisation. Especially older patients at risk of developing iatrogenic complications and being discharged with an ADL disability they did not have before becoming acutely ill. Role and experience of staff.

ERM resource:

Staff are proactive in reviewing nil-by-mouth instructions, taking patients off monitors as soon as possible, and questioning the need for IV drips. They aim to untether patients for a few hours daily or a ‘drip free morning’. Techniques that enforce bed rest, such as catheters and 24-hour IV fluids are avoided if possible.

Participants reasoning and response (ideal):

Untethering patients removes physical and psychological barriers to mobilisation, which makes it easier for them to get up, dress, and do normal everyday tasks. Upset and discomfort are minimised. Patients feel more comfortable and less medicalised. Creates a more peaceful environment improving patients’ sleep, which ensures they have enough energy to cope with rehabilitation tasks.

Outcome (ideal):

Results in improved wellbeing and physical abilities are maintained (especially older patients). Leading to faster recovery and shorter LOS.

APPENDIX 17: Cards used as ‘aide memoir’ in sorting exercise

Discussing medicines before leaving hospital

Ideal reasoning and response:

- Patients have a better understanding of their medicines so are more likely to take them as recommended and gain optimal benefit from them.

Ideal outcome:

- Patients have fewer problems after discharge and reduced readmissions.

Open access to the ward for the patient’s principal carer

Ideal reasoning and response:

- Patients feel comfortable and supported having someone familiar with them. It relieves anxiety, boosts confidence, and puts them in a more positive frame of mind.
- Carers receive timely information and see at first-hand how well the patient is doing, which alleviates anxiety, gives them a sense of control, and builds confidence in their ability to cope after discharge.
- Opportunities for consultants and carers to interact on the ward are increased.
- A three-way conversation can take place, which may be more realistic.
- Time is saved as staff are often trying to get hold of carers by phone.

Ideal outcome:

- Carers are more likely to contribute to the care process and decision making.
- Morale is higher and patients and their carers’ have a better experience.
- Recovery is better and length of hospital stay is reduced.

Welcome to
EAU3

If you are a carer, please
feel free to visit EAU3 at
any time.

General visiting hours:
Afternoon - 2.00pm to 4.30pm
Evening - 6.30pm to 8.00pm

Principal carers are invited to attend the doctor’s ward round visit

Ideal reasoning and response:

- Carers get accurate information and can raise important practical and social issues. They feel reassured, less anxious, a sense of control, and are confident to have their loved on back home after discharge.
- Patients feel comfortable, safe, and more in control. They feel reassured that they are getting the right care, which gives them a positive outlook and confidence that they’re going to get better quickly.
- Consultants gain a better sense of the patient as a person and their background circumstances.
- A plan can be made and taken forwards that all agree upon (which includes what the patient wants and their carer’s perspective).

Ideal outcome:

- Carers are more likely to be involved in the decisions made about the person they are caring for, which leads to a better more relevant diagnosis and treatment plan.
- Length of the patient’s hospital stay is shortened.
- Better hospital experience for patients and their carers’.

Free parking for principal carers

Ideal reasoning and response:

- Seen as a tangible gain by carers and an incentive to visit hospital and attend ward rounds.
- Eliminates stress as they no longer arrive on the ward in a tense state or ‘clock watch’ while visiting.
- They feel supported by the organisation and valued for the part they play in the patients’ recovery.

Ideal outcome:

- Carers are more involved in the decisions made about the person they are caring for, which leads to better decisions being made.

Proactive discharge planning

Ideal reasoning and response:

- Alleviates patient anxiety and motivates them to take an active part in their recovery.
- Carers are pleased to have their relatives at home earlier as this removes the need for hospital visits.
- Staff work together towards a shared goal. Any problems that could delay discharge are overcome early on and they have time to contact care and residential homes about taking patients back.
- The patient's on-going care needs are identified early on, and care plans agreed, which can lead to earlier referral to supporting agencies.
- Builds rapport. Everyone knows what's going on and what is planned, which saves time being wasted.

Ideal outcome:

- Everything is in place for going home, which leads to a simplified discharge process, fewer problems on the day and a better experience for patients and their carers'.
- The length of the patient's hospital stay is shortened and time away from family is minimised.
- Better relationships are established with care homes and good care continues on return to the community, as the care package is already set up.

Encouraging patients to take an active role in their own recovery

Ideal reasoning and response:

- Patients form positive and realistic expectations of what is expected of them and why, early on.
- They are motivated by the idea of being able to do something themselves to contribute to their own recovery and getting home quickly.
- They feel confident and empowered to undertake some self-led rehabilitation, without seeking approval from clinicians.

Ideal outcome:

- Greater level of patient self-care and reduced nursing workload.
- Patients recover more rapidly and leave hospital sooner.

These are the things you can do, so you can leave hospital safely, and at the right time:

Get out of bed and stretch your legs. *For help, contact a member of staff.*

Get dressed in day clothes. *Shower/washing facilities are available to use.*

Drink plenty of fluids to keep hydrated. *Use the drinks station at any time.*

Be involved in decisions about your care. *Please ask a member of staff if you want your family/carer involved in decisions about your care.*

Have an energy drink each day to build up your strength. *You will be offered an energy drink each day.*

How are you getting home? *Book a lift with a family member/friend when you know what day you will be leaving hospital.*

Encouraging swift resumption of normal activities

Ideal reasoning and response:

- Patients enjoy getting up and mobilising and this enables them to make small progressive steps towards returning to normal activities, builds confidence in their abilities, and gives them a sense of normality.
- They feel physically and psychologically better in themselves, ‘less sick’.
- There is more interaction and positive discussion between patients and staff. Everyone is enthused and the ward atmosphere and morale feel better.
- Nursing workload is greater early on but reduces as patients start to look after themselves. There is a shift from attending to physical needs towards giving information and advice.

Ideal outcome:

- Preserves muscle mass and strength thereby attenuating deterioration in physical function and reducing complications.
- Patients recover more rapidly. When medically fit to go home, they are physically fit as well, which speeds up the discharge rate and reduces the length of hospital stay.

Getting dressed into day clothes/single use tracksuits

Ideal reasoning and response:

- Patients feel better because they feel normal/less ‘hospitalised’.
- It stops patients thinking they must stay in bed and encourages and enables them to move around, engage in normal everyday activities and interact socially, with dignity and privacy, from early on.
- Boosts staff morale and gives them an incentive to give patients more support/encouragement.

Ideal outcome:

- Better patient experience.
- Physical activity is increased, and independence is regained sooner, which facilitates earlier departure from hospital (especially older patients).

Energy drinks and ward drink-station

Ideal reasoning and response:

- Additional calories give patients energy, so they feel more inclined to get up and do things.
- The ward drink station provides an incentive for patients to get up and walk regularly and enables them to access drinks whenever they want them, without having to ask, or wait for staff to bring them.

Ideal outcome:

- Patients are hydrated and their nutritional status is improved, which means they feel better physically.
- Physical activity is increased, and patients recover more rapidly, which facilitates earlier departure from hospital.

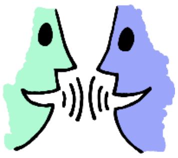
Communication and sharing information

Ideal reasoning and response:

- Patients have a better understanding of the care process and treatment, which relieves anxiety and increases their sense of safety and control.
- Carers are clear about who to contact and communicate with.
- Patients and their carers' ask questions, raise problems and input into the care process.
- Trusting relationships are built between healthcare professionals, patients, and their carers'.

Ideal outcome:

- Information and advice is appropriate to the individual and responsive to their changing needs.
- Things run a lot smoother.
- Patients and carers have a better experience.
- The culture of the ward is more positive.



Asking ‘What matters to you?’ SBAR-P

Ideal reasoning and response:

- Patients feel listened to, which relieves anxiety, and builds relationships early on.
- Clinicians are more aware of patients’ psychological and social issues as well as their clinical needs.
- Clinicians work with the patient to agree an individualised recovery plan that considers their wishes as well as their medical needs.
- Awareness of what is happening and what the plan is raised for everyone involved and they work together towards shared goals.

Ideal outcome:

- There is better coordination and better and timelier communication between MDT members.
- The patients’ preferences are integrated into subsequent actions, resulting in more effective and better quality of care.
- The patient’s hospital journey is shorter, and they have a better experience.

Involving patients and carers in shared decision making (SDM) and the care process

Ideal reasoning and response:

- Patients can suggest changes to planned care and choose what is best for them, which leads to a sense of control and ownership of the care process.
- Carers can express their wishes, feel empowered and treated as equal partners.
- Staff feel they are providing better care (especially for older patients).
- There is more discussion and better relationships are built based on equality and trust.

Ideal outcome:

- Decision making is a collaborative process, leading to more appropriate and individualised care.
- There is greater patient adherence to planned treatment.
- Patients have a better experience.
- Gaps in care provision can be identified and support for carers provided after discharged.

Organising care and goal setting

Ideal reasoning and response:

- Patients have a better understanding of what is happening and what they can do to make themselves better, which gives them a feeling of security and a sense of control.
- Setting clear daily goals energises patients, gives them something to strive for, and promotes participation.
- Having some structure and clear and realistic shared goals, engages all the staff on the ward, gives them a purpose to work towards and helps them to prioritise tasks.
- Nurses have more input into the care provided and more control over their routines.

Ideal outcome:

- Care is flexible, personalised, considers the patient's individual condition and what is important to them.
- Unnecessary delays are avoided, which facilitates more rapid patient recovery and shorter hospital stay.
- Patients have a better experience.

Untethering from drips and monitors

Ideal reasoning and response:

- Physical and psychological barriers to ambulation are removed making it is easier for patients to get up, dress, and do normal everyday activities.
- Upset and discomfort is minimised, and sleep is less disturbed.

Ideal outcome:

- Improved functional status and wellbeing (especially older patients), leading to more rapid recovery and earlier departure from hospital.

APPENDIX 18: Card-sorting session, set up and execution

Session set up:

1. The participant was allocated 30 minutes to complete the card-sorting exercise.
2. The space was arranged so that the participant had enough room to spread the cards out on a table. Where possible the tabletop was kept completely clear, apart from the cards.
3. The researcher shuffled the cards to randomize the order of presentation to avoid bias.

Session execution:

1. The participant was brought into the room and thanked for attending.
2. The researcher explained the purpose of the card-sort and asked the participant to fill in the consent form. They were reminded that any information provided would be kept confidential and all results anonymised.
3. The participant was asked whether they had read the full theories in advance. To prepare for the circumstance in which a participant wasn’t familiar with the theories on the cards, a full description could be provided by the researcher if necessary.
4. The participant was given a pack of 14 cards and was asked to sort them into two groups, according to their perceived importance in improving ERM programme outcomes. The first group was identified as ‘more important' to the success of the ERM programme. A card labelled ‘more important’ was placed on the table to designate the placement for this group. The second group was identified as ‘less’ important’ to the success of the ERM programme, and a card labelled ‘less important’ was placed on the table to designate the placement for this group.
5. The participant was asked to ‘talk out loud’ about the choices they made whilst working so the researcher could understand why they had placed the theories in these positions. They were invited to ask questions during the exercise if they felt the need, or to add their own ideas.
6. The participant then completed the sorting into the two groups. They were allowed time to work with minimal interruptions and were encouraged to ‘try to say everything that goes through your mind’. The researcher listened and observed and took notes to keep track of insightful comments made by participants. Any questions that came up were answered without leading the participant or appearing critical of their decisions.

7. Once this had been done, other materials were removed from the table, leaving only those cards in the ‘more important’ group.
8. The participant was asked to rank order their top three theories from their personal point of view, in order of importance in relation to improving outcomes. Using 1 for the most important, 2 for the next most important and 3 for the next most important (moving the numbers 1, 2, 3, next to the appropriate cards). Tied ranks were allowed if necessary.
9. The respondent was asked for details of their professional group, job title, work location and years of professional service.

Conclusion: & closing comments:

1. The participant was thanked for taking the time to complete the card-sort and offered the results within 2 weeks together with evidence of their participation, for continuous professional development (CPD) purposes.

2. The researcher’s contact details were given out in case of any further questions.

3. The date, location, and duration of the interview was recorded.

4. A written record of the results of each card-sort were made for analysis later, and a photograph was taken as a back-up.

APPENDIX 19: Letter recording participation in card-sorting exercise

6th March 2019

Study Title: Enhanced Recovery in Acute Medicine

Chief Investigator: Mrs Helen Newman-Allen

Dear participant,

Thank you for participating in my study about enhancing recovery for patients admitted as medical emergencies. The study aims to improve understanding of how and why a care model in use at Torbay Hospital is thought to work, for whom, and under what circumstances.

I very much appreciate your assistance with this research and the time and effort taken to meet with me for a card-sorting exercise. Your contributions were extremely informative and helpful.

I greatly value your participation in this research and your honesty and willingness to share your thoughts and experiences of the programme.

Thank you again for participating in the study.

Kind regards

Helen Newman-Allen

Doctoral Researcher
University of Exeter Business School

Tel: 01392 722557

Email: hn236@exeter.ac.uk

APPENDIX 20: Think aloud data supporting theory refinements

Theory	Explanation	Card sort (CS)
1.Discussing medicines before discharge.	*'Pharmacists give an accurate explanation about the patients' medicines, and they have an opportunity to ask questions.'*	CS-03
	'People have no idea about their medicines and a dangerous ability to take things. There's a time element with multi-pharmacy. Care of elderly patients and families are reviewed as well as dementia patients.'	CS-04
	'Drugs were less important as it didn't happen.'	CS-05
	'Open access is very good for very confused and very unwell patients.'	CS-06
	'Even if you explain medication, it doesn't make a difference because they don't remember anything about it when they go home. Pharmacists come on the wards during and at the end of the stay.'	CS-07
	'This still happens. A pharmacist goes through drugs reconciliation the day after admission, asks patients and GPs and lets the doctors know about any changes. Nurses go through meds at discharge with patients when the discharge summary comes up, so patients do understand.'	CS-08
	'If pharmacists discuss medications, it frees doctors' time, as they spend less time with drug charts.'	CS-10
2. Open access for principal carers.	*'Open access takes pressure off carers.'*	CS-02
	'More people recognise what carers are now. The poster I printed is still on the door of [EAU ward name]. Carers can come in anytime. It wasn't flexible before ERM, they had a Visitors Charter, but that was all about abuse of staff which gave a bad impression.'	CS-05
	'Open access is about communication.'	CS-07
	'Open access for carers came from ERM. Visiting times for relatives are timed on [non-ERM ward name], this is unusual for a hospital now and has been mentioned at senior nursing meetings.'	CS-08
	'…encourages them to feel part of things and enables a more candid conversation.'	CS-09

3. Principal carers are invited to the ward round.	*‘They* [carers] *liked being invited to the ward round and want to be there to get first-hand information.’*	CS-04
	‘It’s the right thing to do, but people didn’t come.’	CS-05
	‘They feel better with someone with them. It’s about communication.’	CS-07
	‘Not huge numbers, but they are contacted or called and involved. Consultants will see them at a different time anyhow…Involving carers can be done without them coming to the ward round.’	CS-08
	‘We didn’t get uptake in the ward round. They don’t want to encroach on the consultant’s time. Also, the timing didn’t suit.’	CS-09
4.Free parking for principal cares.	*‘…removes barrier for carers… better emotional well-being and better decision-making with carers.’*	CS-01
	‘Free parking was going to non-valid people, so they now need to state the patient’s name, and which ward they’re on. There are systems being brought in to make sure the right type of support and concessions are granted.’	CS-03
	‘Struggling with this one [pause]. We should offer a reduced rate. It should be the same as staff.’	CS-09
	‘Parking is still a big problem. It causes lots of stress for carers, so it’s important, but not to improved recovery.’	CS-02
	‘Cares will come anyway. They are well supported.’	CS-04
	‘It is still operating. Carer supporters are currently going round the wards and encouraging carers to go on the register.’	CS-07
5. Proactive discharge planning.	*‘The culture has changed. Relatives are good at contacting us and patients are given leaflets and can ring anytime.’*	CS-02
	‘ERM helped with carer support by embedding good practice. ERM was high profile. There have been lots of organisational initiatives buying into ERM ideas, it’s integrated into discharge planning, which is more inclusive now.’	CS-03
	‘The families’ perception of them [patient] being unwell can lead to us keeping them for longer because of pressures from relatives.’	CS-04

	‘Setting a date for discharge is happening more now, it didn’t happen when we began the ERM.’	CS-05
	‘Contacting cares is important for preplanning. Allows us to plan properly. They’re not left hanging around.’	CS-06
	‘…understanding what patients and carers are expecting, and patient understanding when they’re going home, and what they can do.’	CS-07
	“We keep in regular contact with cares and keep them updated about where we are up to. We set goals but state the options and it would get adjusted.’	CS-08
	‘Communication with people is the most important. Not everyone will need access.’	CS-09
6. Patients take an active role in their recovery.	*‘Encouraging people to take an active role lapsed.’*	CS-02
	‘We pushed them. It was very nurse led.’	CS-04
	‘Encouraging an active role was about getting home quicker and normalising.’	CS-05
	‘They [patients] feel more in control, more able to have a say. If they don’t understand, they mentally revert into saying they’re poorly, but it needs to be done at the right time when they’re feeling better. It’s a really important message.’	CS-07
	‘This links with what’s expected for discharge.’	CS-08
	‘We hospitalise patients so quickly, we make them into patients.’	CS-09
7. Swift resumption of normal activities.	*‘It’s also about mental improvement.’*	CS-01
	‘We’re O.K at getting people moving physically on EAUs now.’	CS-02
	‘They don’t continue being active when they get home. We don’t have a joined-up approach. Local authority gyms should be free. It’s all about people taking responsibility for their health early on. So, it’s important but is it doable? Our ward is extreme with lots frail patients. It’s only less important because it’s so difficult to do. It’s a generational thing, good principle, but it’s too late for our group, they’re not imbued with it.’	CS-04
	‘Treat the illness and if knocked off feet use the ERM structure. It’s important for the elderly, but not for the younger patients. Heart, liver, or OA acute	CS-07

	episodes knock them back and they don't get back to where they were, and they want to be independent.'	
	'Mobilising can be done without clothes, it's more important that they get up.'	CS-08
	'Much easier for the elderly, they care about getting up. They young ones are lazy.'	CS-09
	'Swift return to ADLs, the 64-million-dollar question. The OTs and Physios are good. Some of the physios are ageist.'	CS-10
8. Getting dressed into day clothes.	*'I felt the tracksuits were the right thing to do.'*	
	'They looked like prisoners in the tracksuits. A lot got lost. A variety of clothing would have been better.'	CS-04
	'Time pressure in the acute inhibits getting dressed. They did look like prisoner! Great for those who haven't got their own clothes. They have to wear gowns, but we do put another gown around them reversed, so there's no bums on show.'	CS-06
	'Getting dress is about the elderly patients only. But 80-year-olds don't look good in a tracksuit. Nurses encourage them to get in them, but it's easier for a nurse to keep them in PJs.'	CS-07
	'There was another initiative since the tracksuits called PJ paralysis which has come and gone…We are doing a lot of sitting out now.'	CS-08
	'We do encourage getting up, but not dressed. You still see flappy gowns.'	CS-09
	'The tracksuits were very useful. Some HCAs are very good at it. We harness their power. Some are not so good, so training is very important and can make a difference. Personal care is very important on [medical ward name]. They get relatives to bring in clothes, but many of the patients are in a chaotic situation, for example alcohol misuse. Many retire down here, so have no relatives nearby and loneliness is a big factor. Patients look better, so they are treated better with more respect. It's assumed they can mobilise so it's more likely that they're taken to the loo rather	CS-10

	than given a commode. There are lots of dressed patients at the moment on [medical ward name]. I don't know why? It's not like London, a lot of relatives really care.'	
9. Energy drinks and drink-station	*'Old people didn't go to the drinks station. The family might have.'*	CS-04
	'No drinks trolley anymore. They gave patients' permission to not ask a nurse, it gives independence which is important … We don't do energy drinks now; they have to be prescribed.'	CS-09
	'Energy drinks, I have to think of it, but don't expect to. Doctors shouldn't be doing this; it should be the nurses. It's important to avoid decline in muscle mass with illness and energy. There are lots of people offering drinks, they go round 5-6 times a day so there's lots of opportunities.'	CS-10
	'It [drink-trolley] *gives patients' permission to not ask a nurse, which gives independence. which is important.'*	CS-09
10. Communication and sharing information.	*'Leaflets weren't effective.'*	CS-03
	'This was very good when the discharge coordinator was talking to patients and feeding back to the lunchtime MDT.'	CS-04
	'It was paternalist and hierarchical, no listening just telling... It's about interactions. It doesn't work if you force something on someone. If you are already sick it adds another stress. A patient's mental state can tip them.'	CS-07
	'…understanding what patients and carers are expecting, and patient understanding when they're going home about what they can do.'	CS-08
	'No leaflets now. Patients are knowledgeable.'	CS-09
11. What matters to you? SBAR-P.	*'Continuity of staff is now lost. One patient told me they had been seen by thirteen different members of staff.'*	CS-10
12. Involving patients and carers in SDM and the care process.	*'Involving patients is day to day practice but it's ad hoc.'*	CS-02
	'Involving patients is part of daily rounds and assessment. We talk about what the patients wants. Patients on [ward name] are in and out of hospital, so they are well known to the team and have a good rapport.'	CS-08

	'I've ranked involving carers one as it can be done without them coming to the ward round. Hence attending ward round ranked two.'	CS-08
	'Elderly people have been through it time and time again or know their bodies. They know best, we don't know them. They know their limits. It stops the cycle of readmissions and can support family with caring needs. Failure or breakdown in caring can impact on the patient. It's all about patients' ownership and having a voice whilst in hospital. As people get older their independence is taken away. Involving them drives this away and they are listened too. If they stop feeling listened to, they go downhill.'	CS-07
13. Organising care and goal setting.	*'It's about how the ward runs followed up with action, a practical framework.'*	CS-05
	'The goals that are important to the service are pushed and pressured.'	CS-07
14. Untethering.	*'Untethering was to enable mobility; it was about changing mindsets. Making it business as usual.'*	CS-05
	'Some patients would be sitting drinking with a drip in…There's less risk of infection if they're taken out when they're not needed.'	CS-07
	'Tethering leads to deconditioning because it decreases confidence for mobility.'	CS-08
	'Otherwise, they feel contained and it's difficult to move, especially for the elderly because the wheels on the trollies don't work. It helps with getting dressed, otherwise you have to thread the thing through their sleeves, and they get in a right mess…. Drips, there's a bloody racket from the bleeps!'	CS-09
	'The new things were the drips, it made you think a bit. We will put drips up overnight instead of during the day…. The drip free morning has gone.'	CS-10

APPENDIX 21: Invitation to participate in observations and interviews for staff

UNIVERSITY OF EXETER | BUSINESS SCHOOL

10th July 2019

Dear potential participant,

Invitation to be observed and interviewed as part of a research study looking at Enhanced recovery in Medicine

I would like to invite you to take part in the above study. The study aims to learn more about an improvement programme in use at Torbay Hospital to enhance recovery for patients admitted as medical emergencies. The purpose of this study is to improve understanding of how and why the 'Enhanced Recovery Programme' is thought to work, for whom, and under what circumstances. The study is part of my PhD funded by the Torbay Hospital Medical Research Fund.

An information sheet is attached about the research project. Please read this carefully before deciding whether or not you are willing to be observed and informally interviewed as part of the study.

You have been invited to take part in this study because the ward on which you are working operates an 'Enhanced Recovery Programme' and your role and experience will provide helpful insight. It is your choice whether take part. Should you choose to participate, the observation would be undertaken during the normal course of your day-to-day work, or meetings that you attend, and will be conducted by myself. Your permission will be sought at the beginning of any period of observation, and you may ask me to leave at any point without giving any reason for your decision. At various times during or after observation periods it may be helpful to chat informally to explore aspects of care, choices, and decisions. These informal interviews will take approximately 5 - 10 minutes and if you agree, will be recorded, and later transcribed into text form. Please note that any information you provide will be kept confidential and anonymised in any subsequent written material.

I will be in touch with you again within the next two weeks to see if you are willing to take part. In the meantime, if you have any questions, please feel free to contact me (see below for contact information).

Thank you very much for taking the time to consider this invitation.

Yours sincerely

Helen Allen

Postgraduate researcher

Email: hn236@exeter.ac.uk Tel: 01392 722557

[redacted]

NHS Foundation Trust

10th July 2019

INFORMATION ABOUT THE RESEARCH

Enhanced Recovery in Acute Medicine

We would like to invite you to take part in this research study. Before you decide whether you would like to participate, please take time to read the following information about why the research is being done and what it would involve for you.

About the study

A small number of National Health Service (NHS) hospital trusts in England have very recently introduced ‘Enhanced Recovery Programmes’, which are a new way of organising care for patients admitted to hospital suffering from acute (sudden and severe) medical illness. These programmes are designed to get patients better sooner and improve the experience of being in hospital. But, to date little is known about how and why these programmes work.

What is the purpose of this study?

This study is trying to improve our understanding of what is it about the ‘Enhanced Recovery Programme’ at Torbay Hospital that works, for whom, in what circumstances and why? The ideas generated will be used to improve the programme here at Torbay and to inform future programmes by other hospitals.

Who is organising and funding the research?

The study is being conducted by a student (Helen Newman-Allen) from the University of Exeter Business School as part of her PhD (doctorate degree). The researcher will not be paid to conduct the research. Torbay Hospital Medical Research Foundation is funding the research.

Who has reviewed this study?

This study has been reviewed and received favourable opinion by South-West Exeter Research Ethics Committee.

Why have I been chosen?

You are being invited to take part as you will be able to tell us about your experience during your hospital stay on a ward which uses the enhanced recovery programme as routine care. 20 hospital staff, 20 patients, and their friends, relatives, and carers will take part in the study.

What are the benefits and risks of taking part?

A benefit of taking part in this study is that you will get to voice your opinions and experience of the way your recovery was managed, ensuring that issues of concern to patients are included in the study. Some people get satisfaction from feeling that what they have to say could help to improve future services.

Do I have to take part?

It is up to you to decide whether or not to take part. If you would like to take part, you will be asked to sign a consent form and will be given a copy of this information sheet and the signed consent form to keep as a record. You are free to withdraw from the study at any time and do not need to give a reason. Any information collected from you before you withdraw will not be used in the study unless you give permission otherwise. In the event of a loss of capacity to consent, the researcher would retain and use confidentially any information collected. If you decide not to take part, your routine care will not be affected in any way.

What will happen to me if I take part?

You will be interviewed and observed during your hospital stay. If you are visited by family, friends and/or carers during your stay, they will also be invited to take part. If they decide not to participate, this will not prevent you from taking part. If you agree to take part in the study, relevant sections of your medical notes may be looked at by the researcher.

Interviews

The researcher will visit you at various times during your stay on the ward (at your convenience) to chat informally for 5 – 10 minutes. You will be asked about your experience of the Enhanced Recovery Programme and the reasoning behind your choices and decisions in response to the programme. To ensure your privacy and to prevent sensitive information being overheard, conversations can take place in a separate side room when necessary. Your comments will be written down as notes or digitally recorded with your permission. You can decide to stop the interview at any point, and you need not answer questions that you do not wish to. Recording will be transcribed into text as soon as possible and then destroyed.

Observations

The researcher will observe day-to-day care and activities on the ward. For example, ward rounds, mealtimes, patient admission and discharge, and staff handovers. The researcher will try to minimise any disturbance to you. Your consent will be requested by the researcher or a member of your care team before any period of observation. You may ask the researcher to leave or ask a member of your care team to ask the researcher to leave, at any point without giving an explanation.

Will the information I provide be kept confidential?

Yes, your name will be removed from the information and anonymised. Your personal information will not be identifiable in any report or publication generated from this study. Your permission will also be sort before looking at your medical records and any relevant information will be transferred into note form. Your medical records will not be photocopied or removed from the ward at any time.

All the study data will be kept in a secure location at the University of Exeter for 10 years. Any personal data will be destroyed after 1 year.

Researcher's duty of care to patients

Should the researcher discover issues that raise concerns about the immediate safety of patients, such as poor practice, she will discuss with you the need to break confidentiality and report the matter to an appropriate senior member of hospital staff.

If the research reveals something about a health condition which was previously unknown, this will be fed back to you by your clinical care team.

What if there is a problem?

If you have any concerns about any aspect of the study, please contact Professor Andi Smart (P.A.Smart@exeter.ac.uk or 01392 722557) or Mrs Gail Seymour (g.m.seymour@exeter.ac.uk or 01392 726621).

If you wish to raise a complaint about members of staff or events resulting from your participation in the research, please contact The Patient Advice and Liaison Service (PALS) 0800 032 7657.

What will happen to the results of the study?

The results of the study will form part of a PhD which will be stored electronically by the University of Exeter. The results of the study will also be published in academic journals and presented at professional meetings. You are most welcome to receive a copy of the final report - please let me know if you would like a copy by 31st October 2016.

What do I do next?

If after reading this information sheet you would like to take part in the study, please let one of your care team know.

Source for more information:

If anything is unclear, if you have any questions or would like more information – please ask if you see the researcher on the ward or on the contact details below.

Helen Newman-Allen
Email: hn236@exeter.ac.uk
Telephone: 01392 722557

Thank you for reading this information.

APPENDIX 23: Invitation to participate for patients

UNIVERSITY OF EXETER | BUSINESS SCHOOL

10th July 2019

Dear potential participant,

Invitation to be observed and interviewed as part of a research study looking at 'Enhanced Recovery in Medicine'

I would like to invite you to take part in the above study. The study aims to learn more about a programme in use at Torbay Hospital, to improve recovery for patients admitted as medical emergencies. The purpose of this study is to improve understanding of how and why the 'Enhanced Recovery Programme' is thought to work, for whom and under what circumstances. The study is part of my PhD funded by the Torbay Hospital Medical Research Foundation.

An information sheet is attached about the research project. Please read this carefully before deciding whether or not you are willing to be observed and interviewed as part of the study.

You have been invited to take part in this study because this ward uses an 'Enhanced Recovery Programme' and your views and experience as an inpatient will provide helpful insight. It is your choice whether or not to take part. Should you choose to participate, the observation will take place on the ward during your day-to-day care and will be conducted by myself. Your permission will be sought at the beginning of any period of observation, and you may ask me to leave at any point without giving any reason for your decision. At various times during or after observation periods, it may be helpful to chat informally about your care, choices, and decisions. These interviews will take approximately 5 - 10 minutes and if you agree, will be recorded, and later transcribed into text form. Any information you provide will be kept confidential and anonymised. If you decide not to participate, your care will not be affected in any way.

If you are willing to take part, please let one of the nurses know. In the meantime, if you have any questions, please feel free to contact me (see below).

Thank you very much for taking the time to consider this invitation.

Yours sincerely

Helen Newman-Allen

Postgraduate researcher

Email: hn236@exeter.ac.uk Tel: 01392 722557

APPENDIX 24: Patient consent form

UNIVERSITY OF EXETER | BUSINESS SCHOOL

PARTICIPANT CONSENT FORM

Study Title: Enhanced Recovery in Medicine

Name of Researcher: Helen Newman-Allen Please tick box

1. I have read and understand the information sheet dated 10th July 2019 (version 1.2) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that taking part is voluntary and that I can decide not to continue at any time without giving a reason and without my routine medical care being affected. ☐
3. I understand that my personal information will be kept confidential and that it will not be possible to identify me in any written materials or publications. ☐
4. I agree that my interviews may be audiotaped. ☐
5. I understand that the study findings will be available for scholarly and educational proposes. ☐
6. I understand that relevant sections of my medical notes may be looked at by the researcher, where it is relevant to my taking part in this study. I give permission for the researcher to have access to my records. ☐
7. I agree to take part in the above study. ☐

Signature……………………………………………Date ……………………………

Participant ID number……………………………. (to be entered by researcher)

Name of researcher……………………………………………………………………….

Signature……………………………………………Date ……………………………

[redacted]

NHS Foundation Trust

10th July 2019

INFORMATION ABOUT THE RESEARCH

Enhanced Recovery in Acute Medicine

We would like to invite you to take part in this research study. Before you decide whether you would like to participate, please take time to read the following information about why the research is being done and what it would involve for you.

About the study

A small number of National Health Service (NHS) hospital trusts in England have very recently introduced 'Enhanced Recovery Programmes', which are a new way of organising care for patients admitted to hospital suffering from acute (sudden and severe) medical illness. These programmes are designed to get patients better, sooner and improve the experience of being in hospital. But, to date little is known about how and why these programmes work.

What is the purpose of this study?

This study is trying to improve our understanding of what is it about the 'Enhanced Recovery Programme' at Torbay Hospital that works for whom and in which circumstances and why? The ideas generated will be used to improve the programme here at Torbay and to inform future programmes by other hospitals.

Who is organising and funding the research?

Torbay Hospital Medical Research Foundation is funding the research. The study is being conducted by a student (Helen Newman-Allen) from the University of Exeter Business School as part of her PhD (doctorate degree). The researcher will not be paid to conduct the research.

Who has reviewed this study?

This study has been reviewed and received favourable opinion by South-West Exeter Research Ethics Committee.

Why have I been chosen?

You are being invited to take part as you will be able to tell us about your experience as a friend, relative or carer of a patient staying on a hospital ward which uses the Enhanced Recovery Programme as routine care. 20 hospital staff, and 20 patients and their friends, relatives and carers will take part in the study.

What are the benefits of taking part?

A benefit of taking part in this study is that you will get to voice your opinions and experience of the way the recovery of your friend or relative was managed, ensuring that these issues are included. Some people get satisfaction from feeling that what they have to say could help to improve future services.

Do I have to take part?

It is up to you to decide whether or not to take part. If you would like to take part, you will be asked to sign a consent form and will be given a copy of this information sheet and the signed consent form to keep as a record. You are free to withdraw from the study at any time and do not need to give a reason. Any information collected from you before you withdraw, will not be used in the study unless you give permission otherwise. If you decide not to take part, the routine care of your friend or relative will not be affected in any way.

What will happen to me if I take part?

You will be interviewed and observed during your visits to the hospital. Your relative or friend will also be invited to take part in the research. If they agree to take part relevant sections of their medical notes will be looked at by the researcher.

Interviews

The researcher will visit you at several times during your visits to the ward (at your convenience) to chat informally for 10 to 15 minutes. You will be asked about your views and experience of the Enhanced Recovery Programme. To ensure your privacy and to prevent sensitive information being overheard, conversations can take place in a separate side room when necessary. Your comments will be written down as notes, or digitally recorded with your permission. You can decide to stop the interview at any point, and you need not answer questions that you do not wish to. Recording will be transcribed into text as soon as possible and then destroyed.

Observations

The researcher will observe day to day care and activities on the ward. For example, staff ward rounds, mealtimes, patient admission and discharge. The researcher will try to minimise any disturbance to you. Your consent will be requested by the researcher or a member of your care team before any period of observation and you may ask the researcher to leave or ask a member of your care team to ask the researcher to leave, at any point without giving an explanation.

Will the information I provide be kept confidential?

Yes, your name will be removed from the information and anonymised. Your personal information will not be identifiable in any report or publication generated from this study. All the study data will be kept in a secure location at the University of Exeter for 10 years. Any personal data will be destroyed after 1 year.

Researcher's duty of care to patients

Should the researcher discover a previously unknown condition, poor practice or issues that raise concerns about the immediate safety of patients, she will discuss with you the need to break confidentiality and report the matter to an appropriate senior member of hospital staff.

If the research reveals something about a health condition which was previously unknown, this will be feedback to the patient by their clinical care team.

What if there is a problem?

If you have any concerns about any aspect of the study, please contact Professor Andi Smart (P.A.Smart@exeter.ac.uk or 01392 722557) or Mrs Gail Seymour (g.m.seymour@exeter.ac.uk or 01392 726621).

If you wish to raise a complaint about members of staff or events resulting from your participation in the research, please contact The patient Advice and Liaison Service (PALS) 0800 032 7657

What will happen to the results of the study?

The results of the study will form part of a PhD which will be stored electronically by the University of Exeter. The results of the study will also be published in academic journals and presented at professional meetings. You are most welcome to a copy of the final report - please let us know if you would like a copy by 31st October 2016.

What do I do next?

If after reading this information sheet you would like to take part in the study, please let one of your friend or relative's care team know.

Source for more information:

If anything is unclear, if you have any questions or would like more information – please ask if you see the researcher on the ward or on the contact details below.

Helen Newman-Allen
Email: hn236@exeter.ac.uk
Telephone: 01392 722557

Thank you for reading this information.

APPENDIX 26: Invitation to participate for family, friend and carers

10th July 2019

Dear potential participant,

Invitation to be interviewed and observed as part of a research study looking at 'Enhanced Recovery in Medicine'

I would like to invite you to take part in the above study. The study aims to learn more about a programme in use at Torbay Hospital to improve recovery for patients admitted as medical emergencies. The purpose of this study is to improve understanding of how and why this 'Enhanced recovery programme' is thought to work, for whom, and under what circumstances. The study is part of my PhD funded by the Torbay Hospital Medical Research Foundation.

An information sheet about the research project is attached. Please read this carefully before deciding whether or not you are willing to be interviewed and observed as part of the study.

You have been invited to take part in this study because your role and experience as a relative or friend of an inpatient on this ward (which uses the 'Enhanced Recovery Programme') will provide helpful insight. It is your choice whether or not to take part. Should you choose to participate, you will be asked to take part in several informal chats during your visits to the hospital. These interviews will last approximately 5 – 15 minutes and will be conducted by myself on the ward during your visits or at another time that is convenient to you. If you agree, the interviews will be recorded and later transcribed into text form. Any information you provide will be kept confidential and anonymised. If you decide not to participate the care of your relative/friend will not be affected in any way.

Observation of the day-to-day care of your relative/friend may be taking place during your visits to the ward. Your permission will be sought for this observation to continue during any of your visits. The observation will be conducted by me, and you may ask me to leave at any point without giving any reason for your decision.

If you are willing to take part, please let one of the nurses know. In the meantime, if you have any questions, please feel free to contact me (see below).

Thank you very much for taking the time to consider this invitation.

Yours sincerely

Helen Newman-Allen

Postgraduate researcher

Email: hn236@exeter.ac.uk Tel: 01392 722557

APPENDIX 27: Consent form for family, friends, and carers

UNIVERSITY OF EXETER | BUSINESS SCHOOL

PARTICIPANT CONSENT FORM – FAMILY, FRIENDS & CARERS

Study Title: Enhanced Recovery in Medicine

Name of Researcher: Helen Newman-Allen Please tick box

1. I have read and understand the information sheet dated 10th July 2019 (version 1.2) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that taking part is voluntary and that I can decide not to continue at any time without giving a reason and without my relative's/friend's routine medical care being affected. ☐
3. I understand that my personal information will be kept confidential and that it will not be possible to identify me in any written materials or publications. ☐
4. I agree that my interviews may be audiotaped. ☐
5. I understand that the study findings will be available for scholarly and educational proposes. ☐
6. I understand that relevant sections of my relative's/friend's medical notes may be looked at by the researcher, where it is relevant to them taking part in this study. ☐
7. I agree to take part in the above study. ☐

Signature……………………………………………Date ……………………………

Participant ID number……………………………. (To be entered by researcher)

Name of researcher……………………………………………………………………….

Signature……………………………………………Date ……………………………

APPENDIX 28: Fieldwork briefing for hospital directors and senior leaders

Date: 25th January 2019

Completion of PhD fieldwork – Helen Newman-Allen

PHD Title: Enhanced Recovery in Medicine: A realist evaluation

Access to the hospital is required for 3 months for a final period of fieldwork to complete a PhD commenced in 2013, funded by the TMRF and the University of Exeter (see below for details).

Background:

- Due to lack of funding, the PhD was previously interrupted; however, funding is now in place until September 2019.
- Progress to date includes a synthesis of extant surgical literature, medical literature, practitioner interviews (at hospital site), and trust documentation to develop programme theories about why and how the ERM programme improves recovery for patients admitted with acute medical illness.
- A final period of fieldwork at the hospital is needed to complete the research, which will involve 2 stages:
    1. Card-sorting exercise with approximately 15 staff previously involved in ERM programme. An email invitation will be sent out to request a 30-minute one-to-one meeting in which participants will be asked to rank order the developed theories.
    2. Observations and informal interviews with staff, selected patients and their carers on EAU and specialist medical wards, to test theories prioritised in stage 1.
- Ethics approval from the University and IRAS are in place for this fieldwork.

Next steps:

- Appointment of a local collaborator to replace [redacted] (2-3 meetings to support Helen on-site during fieldwork).
- Issue of Research Passport/honorary contract, so that fieldwork can begin. *I am currently awaiting a response to my application for a research passport, from the R&D Office at the hospital.*
- A meeting with senior acute medical staff/matron. There has been considerable change at the hospital and the current status of the ERM programme, linked initiatives, and departmental research priorities need to be determined. *18th March meeting with* [redacted], [redacted] *and* [redacted] *to be rearranged at an earlier date.*
- Permission to email staff to invite them to participate in the card-sorting exercise. List of potential participants will need updating.
- Access to EAU and specialist wards for a period of 2 months for real-time observations and informal interviews of staff, patients and their carers' during day-to-day routines, interactions, and care processes.

- Planning visit to relevant wards in advance to raise staff awareness, answer questions and gain consent for participation.
- During the fieldwork –
    - Access to approximately 15 selected acute medical patients throughout their hospital stay, and access to related ward meetings, handovers, and patient notes.
    - Input from a senior clinician to select patients according to specified criteria, and to assess capacity. Input from a member of the patient’s clinical care team to provide information about the study (to patients and their carers’) and gain consent.
- Access to relevant routine hospital statistical data.

APPENDIX 29: Proposed fieldwork methods and procedures, for senior clinical leaders

Date: 27th February 2019

Completion of PhD fieldwork – Helen Newman-Allen

PHD Title: Enhanced Recovery in Medicine: A realist evaluation

Proposed fieldwork methods and procedures

Aim

The aim of the fieldwork is to understand how ERM is actually carried out in daily life, through gathering first-hand information about ERM processes and the behaviour and interactions of patients' carers and staff, as they occur in the natural working environments of an Emergency Assessment Unit (EAU) and a specialist medical ward.

Preparations and staff participation

- Planning visits will be made to the selected wards in advance of data collection, to build trust and rapport with staff, to ensure that they are aware of what the study is about and why it is being undertaken, and how findings will be disseminated and used.
- Invitations to participate will be given out to staff, including nurses, physicians, therapists, and therapy assistants, discharge coordinators, health care assistants.
- Signed consent will be gained by the researcher from those willing to participate.
- Every observation session will be preannounced to staff at the start of every nursing shift.

Recruitment of patient participants

- Patients will be selected on admission and will be followed throughout their hospital stay.
- Selection of patient participants will be on-going throughout the 3-month fieldwork period. They will be purposively selected to best address the ERM theories and diversity of relevant characteristics will be sort e.g., age, comorbidities, level of support from carer.
- Potential participants will be identified via screening of their medical notes by a senior member of their clinical care team, to ensure that no one is approached who is suffering from cognitive deficit, is less than 18 years old, is terminally ill, or is unable to speak and understand English.
- A member of the nursing staff working with the patient will make an initial approach in person on their first day of admission, providing them with information about the study and an invitation to participate.

- Interested patients will then be contacted by the researcher who will provide further study details and make them aware of the study objective and answer any questions they may have. They will be reminded that they can withdraw from the study at any time by telling the researcher or a member of their care team.
- Informed consent will be gained by the researcher from those patients willing to participate within 24 hours.

Recruitment of carer participants

- When present, family members, partners, friends, or others who have an active role in caring (formally or informally) for the patient participant, will also be invited to participate.
- A member of the nursing staff working with their relative will approach them, provide information about the study and an invitation to participate.
- Interested patients will then be contacted by the researcher, who will provide further study details, make them aware of the study objective, and answer any questions they may have. They will be reminded that they can withdraw from the study at any time by telling the researcher or a member of their care team.
- Informed consent will be gained by the researcher from those patients willing to participate within 24 hours.

Observation sessions

- Multiple observation sessions will take place over a 3-month period (March to May 2019). Approximately 120 hours.
- Observations will be made daily across morning and afternoon shifts, throughout the whole working week, and a 7-day service.
- Interactions between staff members, patients and their carers' will be the focus of the observations. Decision making during everyday routines, procedures, care processes, key events and incidents, and how routine actions on the ward/unit are organised and take place, will also be observed.
- The researcher will observe everyday activities such as:
    - assisting patients getting in and out of bed
    - staff handovers
    - ward round visits to selected patients
    - board rounds
    - mealtimes
    - patient admission and discharge
    - Multidisciplinary team and management meetings relating to the ERM programme
- The exact focus of the observations will be determined in advance according to the researcher's interpretation of the results of a card-sort with staff and today's meeting.
- The researcher will wear lay clothes with a nametag with the wording 'Researcher'.
- The researcher will discuss where to sit with the staff who are to be observed, aiming to be as unobtrusive as possible.
- Care will be taken by the researcher to minimise any disturbance to ward processes.

- Although participants will be aware of the researcher's presence and the reasons for this, participants will be encouraged to ignore the researcher's presence.
- While on the hospital wards and as events are occurring, brief field notes will be written on a smart phone notes app. If it is considered inappropriate to get out a phone, a pocket notebook will be used instead, or notes will be written afterwards away from participants in quiet area of the ward or in the day room.
- Individuals allowing observation will be thanked for participating.

In-depth conversations (informal interviews)

- In the early stages of the fieldwork, the researcher will aim to merge into the background just listening and engaging within everyday conversations and asking brief questions pertinent to the research as and when possible.
- As the research progresses, time will be spent with participants and rapport established. Some more in-depth conversations (informal interviews) will take place at the bedside or ward side room with some staff members, patients, and carers (as appropriate, convenient, and comfortable for participants). These conversations will generally last a few minutes. The researcher will ask participants to elaborate, explain, or reflect on what they are doing, or describe how they think and feel about things.
- There may also be several occasions when longer more in-depth discussion/exchange of views (about an hour) is needed to explore beliefs, express feelings, and reflect on events. These will be relaxed, informal and unstructured, taking place at the bedside, ward corridor, or in the day room. Participants perceptions, feelings, reasoning and reactions with respect to ERM will be explored. On these occasions permission will be sort in advance from any staff participants and from their line manager. When possible in-depth conversations will be digitally recorded.

Dissemination of findings

- At the end of the day the researcher will use these notes to write detailed descriptions of the field experience off site.
- Participants will be given the option to receive a copy of the initial analysis if desired and will be encouraged to provide feedback and reflection.
- The results of the fieldwork will form part of my PhD thesis and will be disseminated to the department, organisation, and Torbay Medical Research Fund as a report and/or presentation.

APPENDIX 30: Ethnographic data supporting theory refinements

Theory 1: Discussing medicines before leaving hospital

Explanation	Source code
'We now have electronic prescribing and medicines reconciliation, which is a work in progress. Pharmacists are not involved currently. The discharge summary says what medicines the patient is on.'	STC-01
'We have our own pharmacist who is elderly specific. Lots of patients have blister packs so it's a big effort to change medicines.'	STC-05
'A meds reconciliation is done by the pharmacist who phones the GP to check if the patient still needs them. We're hot on this, but it didn't come out of ERM. The electronic drug system is everything right now. It gets reviewed a bit more.'	STC-09
'Pharmacists come onto the ward, but it's more about meds reconciliation now. Nurses should go through the discharge summary. Before ERM lots of places didn't have a dedicated pharmacist, they now do.'	STC-11
'The organisation is trying to push this, and there's a focus on EPMA electronic system. The Health Information Lead [name] is coming to the ward regularly.'	STC-12

Theory 2: Open access for principal carers

Explanation	Source code
'Open access, no we don't do it.'	STC-01
'There are four and a half thousand carers on the register. Hospital is a good place to pick them up, but the geography of the site means people come in and out all over the place… When the patient is hospitalised, when they stop, they realise how much they are doing. It takes pressure off carers, which is really important for the elderly, but they don't want to come in… It is the right thing, but people don't come… The registration card goes in an orange lanyard if a registered carer is actively caring for someone on the wards. It is visible for staff and staff should be talking to them. They recognised that there is a lot of pressure on staff and staff turnover is high, so they launched a video about giving carer's a say, which had good feedback. There's also the National Carers Passport Scheme that the trust is a model of good practice for. They are trying to get it rolled out across the patch.'	STC-04
'There is no open access now because of the protected am. Principal cares are encouraged to come in, especially if they are going to help with feeding and general care.'	STC-10

‘Open access is not widely recognised on the EAU. Carers are there anyway, but I don’t know if they get invited. They’re not allowed during the 30 minutes of the board round, but otherwise they are free to come in. On the medical ward they can come if they are there to help. We’re flexible but try to avoid washing and dressing. On the medical wards carers will request to come in if they can.’	STC-12
‘As we only have curtains, so having someone’s carer there is inappropriate for other patients.’	INV-MW-S-02
‘Patients are more comfortable spending time here at the hospital now.’	INV-MW-S-05
‘Visiting hours are 2 to 4.30pm and again at 6pm. Relatives are asked not to come in during the ward round as it gets busy, unless they’re not local or the patient is dying. Cares are allowed in at any time. It can cause an issue. I can issue a carer pass… At one time security came and took them all away, they say one thing, and the carer support workers says another.’	INT-MW-S-07
‘Open access is variable. On the [EAU ward name] *we have protected mealtimes, but carers can stay. It saves staff time and keeps people from being readmitted… There were problems with two particular staff who thought the carer registration cards were being handed out willy-nilly, so they were telling people the wrong thing.’*	INV-EAU-S-03
I notice that the sign on the [EAU ward name] door says visiting 2 to 4.30pm and 6.30 to 8pm.	FN-EAU-78
He [carer] tells me he has come into the Day Room because they are washing and dressing the patient in the bay.	FN-EAU-12
I ask the pharmacist about the three sets of visitors that are on the ward outside of visiting hours. She does not know why they are here and tells me that the nurses decide what is appropriate.	FN-MW-76

Theory 3: Principal carers are invited to the ward round

Explanation	**Source code**
‘Carers are invited and welcome on the ward round.’	STC-01
‘They [carers] *want to go to the ward round as they know the consultants will be there. They need to know what’s going on… it helps involvement.’*	STC-04
‘Carers could get info from phoning care database, those with capacity. If not, carer could be contacted. They didn’t take it up.’	STC-08
‘Carers could get information from phoning or the care database, those with capacity. If not, carers could be contacted, but they didn’t take it up.’	STC-09
‘Doctors are really flexible on [EAU ward name], *two on in the morning and one on in the pm.’*	STC-11

‘It’s not so high profile now because there are other carer inclusion initiatives, and information is easier to get now. LOS is reduced, there are different types of ward round, and the care of the elderly consultants are there all day.’	STC-12
‘It’s not universal as there is a high turnover of staff and it’s hard to identify the principal carer. It happens only with the agreement of the ward sister. It’s not for everyone as there are implications for data protection, it gets busy, and they wander around and get in the way. If there’s several family members caring it’s difficult to know who to speak to, and how do you make sure communication is shared with all of them?” There are orange lanyards now for cares which they get if on the carer’s register. If they’re not, they can still get a card from the ward manager.’	INV-MW-S-07
‘The EPMA is no help to doctors because it takes more time to use it and increases the time it takes to do the ward rounds, which makes them even less involved with patient care. It slows the ward round down. The ward round takes a long time because of the demographic of the patients who are older and have complex conditions. Patients experience and independence are very important outcomes on [medical ward name].’	INV-MW-S-10
‘It did bring more relatives in. It was very useful. Continuity of staff is now lost one patient told me they had been seen by thirteen different members of staff. Some carers can be horrid, and some are really pleasant, some are using note pads, perhaps they’re anticipating bad care. We get a lot of carers coming in from care homes and they will occasionally come in to do care as it’s been paid for.’	INV-MW-S-11
‘Having cares on ward round is really important. You don’t always get the truth. They [patients] want to tell us it is better than it is. It’s important in maintaining quality and safety measures… It’s very useful for background information.	INV-EAU-S-01
‘It takes time to do the round. You pick up lots of things. For example, the GP stopped anticoagulants because the patient has had falls, but the PE risk was high.’	INV-EAU-S-04

Theory 4: Free parking for principal carers

Explanation	**Source code**
‘Not many people took it up.’	STC-07
‘Prices are disgusting, I believe they shouldn’t have to pay. Some patients might be dying. I don’t agree with it.’	STC-08
‘It didn’t make any difference to attendance, but it’s hard for carers.’	STC-09
‘Free parking is still happening.’	STC-12

Theory 5: Proactive discharge planning

Explanation	**Source code**
‘Relatives are part of the process now. This is a changed phenomenon with support from intermediate care services and In Reach from the community.’	STC-01
‘We are doing SAFER instead of the board round. Half an hour in the morning and a quicker catch up in the afternoon. It’s a nationwide initiative that’s been proven to work. It links with ERM, very similar principles. It’s about patient flow and discharge and what’s required to get patients home, contacting carers, very MDT… There are several bits to the bundle and the four questions link to ERM…there’s an organisational assumption that it’s all working perfectly, but we’re now just getting traction. A lot of it is embedded, but quite a lot of it we could make better.’	STC-03
‘Some wards are better than others, it depends on how busy and who the discharge coordinator is… They ignore those without a package of care, but it’s often those people who can’t cope.’	STC-04
‘Discharge is nurse led, but it’s really a team discussion. Ward nurses and key physicians are trying to do a piece of work moving forwards called Criteria Led Discharge, we are meeting with the Board…’	STC-05
‘Proactive discussion with relatives about discharge.’	STC-06
‘They contact carers. There’s a rough estimate of the discharge date at the board rounds and patients know.’	STC-12
‘Readmissions figures are up. The trust gets penalised for it. There are a lot of pressure to reduce LOS and failed discharges because patients are shoved out too fast.’	INV-MW-S-04
‘I believe patients are better in their own homes. We can refer to the Discharge to Access Team if they’re [patients] not good at discharge. Knowing that an OT is going in that day encourages them [MDT] to take risks with discharge.’	INV-EAU-S-01
‘The service wants a discharge date set on day of admission because hospitals are unhealthy places and because of loss of role, weakness, and deconditioning, but this is mental. If you set the scene for patients, then they don’t freak when you say they’re going home…communication is a two-way process.’	INV-MW-S-02
‘Contacting carers depends on wellness of the patient. For example, if a patient has sepsis, it’s not appropriate. It must be the right time.’	INV-MW-S-005
‘SAFER does contacting cares (usually the discharge coordinator or OT). The OT is involved with the majority of patients on [ward name], except for those going to care homes. It’s common for the care homes to come in to reassess patients as things can change. They won’t have them back is there are behavioural issues and the	INV-MW-S-12

community hospitals refuse to have them, so they have to stay here. Although a bed crisis might change that. We have patients who stay for weeks. We had a patient with delirium who we couldn't place. Few delirium patients stay static, it usually lasts 6-8 weeks, but there's a lot of misunderstanding about it. No one would have her, she became part of the team, taking tea round to other patients. She stayed 8 weeks. It resolved and she eventually went back home, but she could have gone sooner with the right support. Challenging, disruptive behaviour happens mostly at night. We see the stuff that happens in the day and can involve the mental health team. We can't make the right decision without this, but diaries and charts are all extra work and to get the nurses/night staff they have to be directed to do sleep diaries. SAFER has improved discharge. Decision making happens early…Increasing packages of care therefore need a discharge date planned in advance as well as our ward discharge coordinator, who used to do everything, there is also a complex discharge coordinator hub centrally who fast track end of life care. Quite a lot of cases. It changed with ICO. It is community based so we have no control over it.'	

Theory 6: Patients take an active role in their recovery

Explanation	Source code
'A nice way to get to know your fellow patients and bring you and them back to the outside world.' (patient). 'Really nice and interesting place. Shame more people don't seem to realise it's here.' (patient).	DS-11
'It's busy so we're not doing it, which is a shame.'	STC-06
'GPs are still saying you can come to hospital to convalesce.'	STC-09
Two group of ten kids and five adults walk into the Day Room while I am talking to one of the nurses. I ask who they are, and she tells me that they are mealtime companions. She goes on to say that the project started ten years ago across all wards, but that it is erratic, and they would like more volunteers as many of the patients are on supplements and mealtimes are challenging.	FN-MW-04

Theory 7: Swift resumption of normal activities

Explanation	Source code
'Resumption of activities, we became more aware of this because of ERM."	STC-03

‘We didn’t name it, like PJ paralysis, but they’re all good things to do and pulled together, as long as the patient gets a better deal. The PJ paralysis website had some vile thing about only having so many days left. That wasn’t what we were promoting, it was much more positive.’	STC-08
‘There is still work to do on preventing inappropriate admissions. Staff are now less risk adverse and there is more support in the community. They would have admitted a patient before just to be on the safe side. We are aware of this, but changing staff and patient culture is difficult. There are new initiatives such as ‘Use your Pharmacy’ and ‘NHS Quicker’ which redirect patients from hospital.’	STC-11
‘We now have Discharge to Access and therapy led home assessment. PTs and OTs work closely and there is a general emphasis on this, but culture is driven by the ward manager.’	STC-12
‘When ERM originated there were a lot of patients in the ward that shouldn’t have been there, fewer are ambulant now as they’re sent off sooner. The type of patient on the wards has changed. These patients aren’t there anymore as there is more therapy available in the community.”	INV-EAU-S-01
“Getting going works best for all elderly patients. Those in pain or have fallen need encouraging. Young patients get up and out anyway.”	INV-MW-S-05

Theory 8: Getting dressed into day clothes

Explanation	**Source code**
We’re still keen on getting patients dressed, but there are no tracksuits.’	STC-05
‘People wouldn’t sit in PJs at home all day!’	STC-08
‘Clothes? No, we don’t do them anymore.’	STC-09
‘If patients are dressed, they look healthier. HCAs are eager to get patients dressed in the morning. On the EAUs it depends on how sick the rest of the bay are and how sick they are.’	STC-11
‘Getting dressed is pushed better than on the EAUs as patients are more stable. The HCAs work really hard, and they feel better with no flappy gowns. It’s a mind-set thing with the older ones. Doctors see the patient is switched on to getting out if they’re dressed.’	STC-12
‘If patients have their own clothes, it’s great, but I don’t have time. The HCAs are good at this, but it’s dependent on pressures and staffing.’	INV-MW-S-04

Theory 9: Energy drinks and drink-station

Explanation	**Source code**
I notice one of the HCAs topping up a patient's cup of water, so I ask her if they still do the energy drinks round? She says*, 'No, we don't do the build-up drinks unless they're prescribed.'*	FN-EAU-113
Today, I saw an HCA moving a teacup nearer to a patient without being asked.	FN-MW-52
An HCA tells me *'I've got biscuits tea and coffee, but I can't give energy drinks off the tea trolley. They're in the fridge, but the nurses have to prescribe them.'*	FN-MW-6
I notice all five patients in Bay A are sitting out. They all have water jugs and cups; one has a straw another has a beaker.	FN-MW-71
'We are not using the buildup drinks any, which is a shame. They do take time, but they're cheap and quick. I don't understand why the HCAs couldn't do this alongside tea trolley, and the fridges are big enough. Energy drinks now need to be prescribed. …The drinks trolley is gone, but relatives bring in drinks and there's always a jug of water.'	INV-EAU-S-02
'They got enough fluids… Energy drinks were prescribed before ERM.'	STC-07
"There's no drinks trolley because of changes to the ward and Bay 5…We give out energy drinks but only if needed'.	STC-11
'[ward name] and [ward name] are doing the drinks trolley. It has variable use on [ward name] …They're not using the trolley in [EAU name] as the use of the unit is changing. It's used more for assessment now.'	STC-09
'The drinks trolley went on [EAU name] because of logistics. The long ward was a nightmare with patients walking down with hot drinks. The drinks trolley's gone on [EAU name] too. I'm not sure why, I think it just lapsed, and there was talk about it being an infection control risk. We only recently stopped the energy drinks on the [EAU name]. They were more about tolerating food than the energy boost.'	INV-EAU-S-01
"Energy drinks are not on the EAUs anymore."	STC-01
"The specialist wards don't give out energy drinks anymore…regular water top-ups though.'	STC-12
'The patients don't like the energy drinks. The uptake is less than 50% when they're given out.'	INV-EAU-S-05
An HCA tells me that there were so many energy drinks that were barely touch or half drunk and that it was frustrating clearing up and seeing so much waste.	FN-EAU-48

Theory 10: Communication and sharing information

Explanation	**Source code**
‘Communication is better...they feel better because we are talking and listening to them… essential it’s a two- way street.”	STC-06
‘Trust is important, they related to [name of discharge coordinator].’	STC-07
‘Written information was important as they have it to refer to, especially those going to intermediate care. It enables patients to help themselves and signposts other agencies that can help them.’	STC-08
‘It feels like communication is happening, but we are well aware that patients and carers want more information.’	STC-11
‘After the ward round, patients don’t have a clue what’s going on or what’s been said.’	STC-12

Theory 11: What matters to you? SBAR-P

Explanation	**Source code**
‘What matters to you? is being pushed out across the whole trust in all documents. The P is still recognised. I remember [name] coming up with it in the meeting...’	STC-06
‘We are using SBAR at handover, but P is being missed out.’	INV-EAU-S-06
‘Asking what matters to you? happens on EAU. Patients will tell the nurses and they feed back to the doctor. They don’t always want to tell you… It happens on [ward name] when HCAs and nurses have time, but not if through-put is high. The P should be used, but we’re not necessarily remembering to do it.’	STC-12
‘What matters to you? was led by consultants. Some consultants are very good at it.’	STC-02
‘This is from ERM. Consultants ask what matters to patients’ day to day, they still do it.’	STC-07
‘SBAR-P is embedded now. It ties in with patient goals and it can affect the patient’s motivation.’	STC-03
‘They are not mentioning the P always. The big drivers gone, but this is always important and if you don’t ask it’s not holistic. But patients will be vocal anyway.’	STC-05
‘[Consultant name] *never asked for the P, had to be reminded.* [consultant name] *and* [consultant names] *were better. It may have got embedded… Some junior doctors like to talk jargon, not the consultants or acute physicians. Consultants and juniors have a conversation between themselves not including the patients.’*	INV-MW-S-05
‘What matters to you is about listening to the whole, being holistic. There are people with no-one. Social interaction	STC-08

might be all it takes sometimes. It may not be a physical need. If you're going to get sick you will. Because health is about more than physical. If you're feeling low this could lead to drinking with an impact on your health.'	
'… because it encourages better communication between team members, and between the team and patients, we get better buy in from patients.'	STC-09
'We were never very good SBAR-P. Nurses are not aware of patients at the morning handover if they came in overnight, so don't know what's going on. Ward rounds take all morning as they try to do things thoroughly. We have to find out what's going on to be able to treat them. But SBAR-P is going on. It uncovers things. The other day we had a lady in with encephalitis, but when we asked her, she said what bothered here was her OA... [Consultant name*] was very good at SBAR-P.'*	INV-MW-S-12
'The patient is the centre of discussions. Knowing what the patient wants is national stuff…about emotions and processes. They feel listened to which leads to better relationships with staff.'	STC-11

Theory 12: Involving patients and cares in SDM and the care process

Explanation	**Source code**
'Cares may not realise they can make a difference. A big part of ERM is encouraging and educating them.'	INV-MW-S-12
A therapist tells me that involving patients and carers leads to better compliance, but that she has not seen the nurses doing this. She goes on to say that she still does this for therapy patients as its part of gaining consent.	FN-MW-65
'Involving patients and carers, we do this now, they are involved in decisions. Before ERM the doctors and nurses discussed patients and made decisions between themselves without involving either. There is greater awareness now and the culture has changed.'	*STC-09*
'Involving patients and carers is especially important for older patients. The families' perception of them being unwell can lead to us keeping them for longer because of pressures from relatives. Clinicians take the lead. We tried, but older patients, eighty plus, and confused people don't want to do it. Too many choices. They think the doctor knows best… It can be a respite for carers.'	INV-MW-S-04
'The Triangle of care came from mental health. We're pushing this for Carers Week in June. Carer awareness is now part of the trust induction programme. The registration card goes in an orange lanyard if a registered carer is actively caring for someone on the wards. It is visible for staff, and staff should be talking to them. We recognise that there's a lot of pressure on staff and staff turnover is high, so they launched a video in	*STC-04*

November 2018 which had good feedback. We also have the National Carers Passport Scheme. The trust is a model of good practice. They are trying to get it rolled out across the patch. ED is patient focused, so carers feel like a spare part. The layout makes it difficult to have carers there to support patients. They are there for a while, but there are only three chairs for everyone to sit on. [Matron name] doesn't want them there as it's not always appropriate. They need to be stable. We can't get carer support staff in ED… Carers don't want to bother staff. It is stressful for patients and cares on ED, especially those with mental health conditions. Sitting there thinking they're dying! We did an evaluation in 2015 which shows they feel treated as a partner. SDM needs work. Carers are picked up on the wards but not on ED.'	
'Health and social care are coming together. Previously there was a lot of fighting between them about budgets, but there are organisational initiatives buying into the ideas now. Integration is now part of discharge planning. It is more inclusive. The definition of carer is clearer politically.'	*STC-03*
'It's a strong culture. It links with prehabilitation from surgical ERPs.'	*STC-01*
'Involving patients and carers, yes, I would hope so, but there are lots of issues with this. A patient might want to go home but the relatives don't want them to. OTs are heavily involved, but they don't always take into account other issues. There was a patient that was going home, their mobility was good, but they were doubly incontinent. Their care was working before they came in, but it had stopped then, and there was an agreement with a new company to take it over. We weren't convinced it would actually happen. We had to overrule the OT because I felt there was too much of a risk because the patient was getting up in the night and falling. We had some misgivings, we thought are we getting this right? Is it too risky? We chatted to the patient's son. He was taking notes, but he did agree to take responsibility. Some patients are much better in their own environment… We do a lot of this already; we are good at this… relatives may not share. The ones who complain tend to be the ones who feel guilty.'	*STC-10*

Theory 13: Organising care and goal setting

Explanation	Source code
‘We still set goals if the patient isn’t going home. Daily intervention? Patients aren’t here long enough.’	STC-03
‘Structure, absolutely! You need a structure; the explanation is spot on. When we are all doing the same thing, you can see the benefits.’	STC-05
‘Some Nurses thought it was a load of twaddle, but others were receptive, and these were relied on to teach their colleagues.’	STC-08
‘No programme, it’s gone now.’	STC-10

Theory 14: Untethering

Explanation	Source code
‘We do untethering anyway on the EAUs.’	STC-09
“Untethering, we did it anyway as it’s good practice.”	STC-11
‘We’ve got better at untethering, but you still see it with fluid drips … We’re not doing drip-free mornings anymore.’	STC-12
I notice that the IV fluids have come down for [patient name] as he wants to go to the bathroom.	FN-EAU-34
[patient name] was on a fluid drip when I met him because he was dehydrated. Later that morning, I noticed the doctor has written ‘encourage oral intake’ in his notes. In the afternoon I observed that the drip wasn’t on while he was resting in bed.	FN-MW-70
I notice a patient walking down the ward with a frame accompanied by a nurse pushing drip stand.	FN-MW-81
A lady walks by me with ‘tote socks’ and a catheter bag hooked onto her frame.	FN-MW-31

Key:

FN = fieldnote observation, DS = document source, INV = ethnographic fieldwork interview, STC = stakeholder consultation.

P = patient, S = staff member, C = carer.

EAU = emergency medical unit, MW = medical ward.