

**EXPLORING THE ACCEPTABILITY AND
CLINICAL USEFULNESS OF
THE IMPACT OF SYMPTOMS
QUESTIONNAIRE (IoSQ)**

Submitted by Linda Knott, to the University of Exeter as a thesis for
the degree of Doctorate in Clinical Research August 2013

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Acknowledgements

Helen: an inspiration

Philippa, Jess and Andy:

You provided unconditional humour, support and love in the tough *and* the buoyant times and were always 'light at the end of the tunnel': thank you.

Grateful thanks to my supervisors Prof David Richards and Dr Janet Smithson. Endless words of wisdom and reassurance.

Thanks too to all staff and peers; Dr Becky Chasey, my field supervisor; John, Frances, Chris, friends and colleagues. A wonderful support team: great to know you were all 'out there'!

Grateful thanks to the South West Area Health Authority for substantial funding assistance and to the Chartered Society of Physiotherapy for a study grant.

And most of important of all, the clinical and research patients, without whom this project would never have happened.

Abstract

Background

Clinical and physiotherapy professional guidelines advocate enquiry into, and documentation of the impact of musculoskeletal pain on a range of psychosocial and functional aspects of life. However, there is no clinical tool to assist this process. The Impact of Symptoms Questionnaire (IoSQ) is patient-completed and was developed to meet the needs of outpatient physiotherapists. It explores the impact of health conditions on patients' beliefs/concerns and their ability to undertake work/caring responsibilities and activities of daily living; and to enjoy their usual hobbies or activities. It also enquires into the impact on mood and relationships. It comprises a "Yes" or "No" response for each of the five domains with the option of providing written comments. There are also four numerical rating scales. A discharge version determines if patients' needs and expectations have been addressed. However, the acceptability and usefulness of the IoSQ has not been explored in a department naive to its development.

Project purpose

Two studies were undertaken, to explore: the role of the IoSQ for enhancing documentation of psychosocial and functional assessment; and the perceptions of staff and patients regarding the acceptability and clinical value of the IoSQ

Research questions

Enquiry into the primary research question, "Is the introduction of the Impact of Symptoms Questionnaire to a physiotherapy outpatient department acceptable and clinically useful for patients and staff?" was undertaken through secondary questions which explored: patients' experiences of psychosocial and functional assessment before and after the introduction of the IoSQ; the role of the IoSQ for the provision of documentation; evidence for staff and patients engaging with the IoSQ; and staff and patients' experiences of using the IoSQ.

Project design and methods

A pragmatic mixed model project was undertaken in a department comprising predominantly post-surgical orthopaedic patients. Study 1 explored current practice; study 2 explored the impact of introducing the IoSQ, with minimal

training as to its role or use. Methods for both studies comprised sequential audits of patients' notes, and surveys and focus groups for patients and staff.

Results

The audits (study 1, n=60; study 2, n=55) highlighted that documentation by physiotherapists for assessing the impact across all five domains remained low at about 20%, with 40% of the notes in both studies not providing evidence of enquiry into any of the domains. Only one set of notes provided physiotherapist evidence that a domain was still affected at discharge. Study 2 showed that patients consistently completed the IoSQ with 62.6% of the domains being affected at assessment and 19% of the domains being unresolved at discharge, affecting 64.1% of the patients.

Survey feedback (study 1, n=19/60; study 2, n=33/55) identified that patients felt it was important to assess the broader impact of a health problem and staff and patients indicated that the IoSQ was relevant to the presenting conditions and was easy to use.

This was further explored in the three focus groups (patients, n=3 studies 1 and 2; physiotherapists n=8, study 2) where frustration with validated outcome questionnaires in current use was expressed. However, patients felt they took responsibility for raising issues, even when the IoSQ was provided. Patients and staff felt that if physiotherapists were able to engage with the IoSQ better, it could help to provide structure and prompts to identify patients' questions or concerns about their condition and the functional impact. The potential for patients to describe the impact in their own words was particularly valued as well as its potential, to improve rapport and more effectively match expectations. It was also demonstrated that the IoSQ can enhance documentation of the impact of health problem - from the patient's perspective.

Conclusion

Patients engaged well with the IoSQ and it has potential to be a useful tool to facilitate identification and discussion of the broader psychological, social and functional impact of a health problem. However, staff would need additional training to facilitate discussion with the completed forms and patients, and further research would be required to determine its impact on patient outcomes.

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ABBREVIATIONS

ADL:	activities of daily living
ALBPSQ:	Acute Low Back Pain Screening Questionnaire (Linton & Hallden, 1996)
EQ5 or EQ5D-5L:	EuroQol 5 questionnaire (EuroQol Group, 2011)
GCP:	Good Clinical Practice
GP:	General Practitioner
IoSQ:	Impact of Symptoms Questionnaire
LBP:	low back pain
MYMOP:	Measure Yourself Outcome Profile (Paterson, 1996)
NRS:	numerical rating scale
OMSQ:	Örebro Musculoskeletal Screening Questionnaire (Gabel et al, 2011)
PREM:	patient reported experience measure
PROM:	patient reported outcome measure
RGF:	Research Governance Framework
RMDQ:	Roland and Morris Disability Questionnaire (Roland & Morris, 1983)
SBST:	STarTBack Screening Tool (Hill, et al., 2008)
UK:	United Kingdom

CHAPTER ONE BACKGROUND

1.1 Introduction

There has been an increasing awareness of the need for physiotherapists to consider not only the biological, but the psychological, social, vocational, environmental, cultural and ethnic variables and impact of a health problem (French & Sim, 2004; World Health Organisation [WHO], 2002). Indeed for spinal pain, the severity and chronicity has been shown to be more closely linked to psychological and social factors than tissue pathology (Waddell & Waddell, 2000). In addition to this, musculoskeletal disorders provide the greatest contribution to work absence (Office for National Statistics [ONS], 2012; Shaw, Haslam & Haslam, 2007) and are the most common conditions that physiotherapists treat (Chartered Society of Physiotherapy [CSP], 2011). It is therefore important that therapists routinely and effectively explore the impact of a patient's presenting health problem on their quality of life, including their chosen and required activities. However, despite a number of guidelines and questionnaires to help direct physiotherapists' engagement with these functional and psychosocial aspects (for example, Gabel, Melloh, Yelland, Burkett & Roiko, 2011; Linton & Hallden, 1998; Main, Wood, Hollis, Spanswick, & Waddell, 1992; WHO, 2002) there has been no tool published that provides a simple framework to facilitate an individualised exploration, across all potential areas, and is practical for routine use in a busy outpatient physiotherapy clinic.

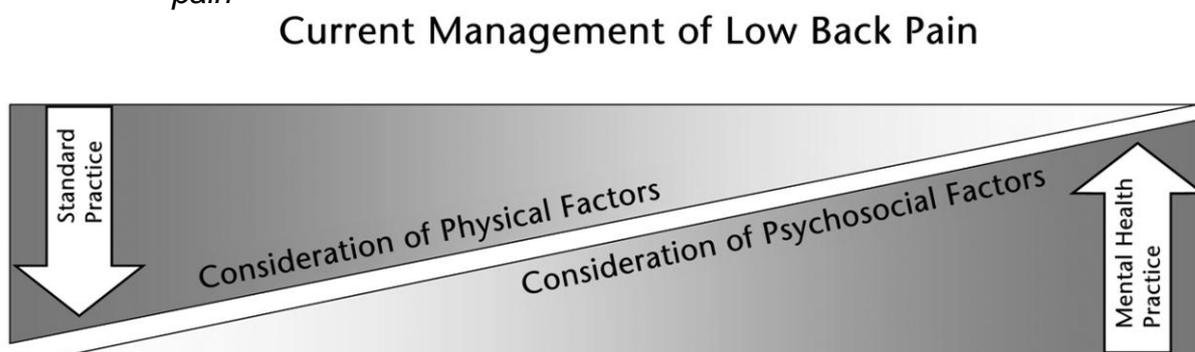
Psychosocial factors can be defined as "*the interaction between the person and their social environment and the influence on their behaviour*" (Kendall, Linton & Main, 1997, Appendix 1). There is growing evidence that psychosocial factors predict the outcome from conservative (Haldorsen et al., 2002; Hill & Fritz, 2011; Hockings, McAuley, & Maher, 2008) and surgical management of back pain (Gatchel, 2011), are clinically useful (Keefe, Scipio, & Perri, 2006) and that their timely management can be cost effective (Hill et al., 2011; Lamb et al., 2010). It is therefore important that physiotherapists not only assess for and treat pathology and movement dysfunction, but also give consideration to the

Chapter 1. Background

psychosocial, functional and human impact of living with a health problem (Bergbom, Boersma, Overmeer, & Linton, 2011; French & Sim, 2004; WHO, 2014). However, even in conditions where there is a profound physical or cognitive impact, the screening or addressing of the social and psychological consequence is not routinely undertaken (The Stroke Association, 2013).

Main & George (2011b) have proposed a theoretical framework (figure 1.1) that graphically depicts the continuum of biomedical and psychosocial approaches in the management of back pain (Craik, 2011). They also propose that condition management tends to be at either end of this spectrum (physical modality versus psychology or psychiatric interventions), with inadequate attention given to screening for and delivery of appropriate biopsychosocial interventions at intermediate points. A lack of structured and routine training to enhance physiotherapists' skills and confidence in undertaking psychosocial assessment within their professional boundaries has been identified (Knott, 2005; Sanders, Foster, Bishop & Ong, 2013). Additionally, at the time of the development of this project, there were no published clinical tools to facilitate an individualised, but structured assessment of the functional, psychological and social impact of musculoskeletal conditions.

Figure 1.1: *Theoretical framework for the psychosocial influence of low back pain*



Reprinted from Main C., and George, S., Psychosocial Influences on Low Back Pain: Why Should You Care? *Physical Therapy*, May 2011, 91(5), 609-613, with permission of the American Physical Therapy Association. This material is copyrighted, and any further reproduction or distribution requires written permission from APTA.

The remainder of this chapter describes the clinical context which resulted in the development of a clinical tool, the Impact of Symptoms Questionnaire (IoSQ) (Knott & Frampton, 2013) (appendix 1), designed to facilitate the process of physiotherapists exploring the broader impact of a health problem. It

will also discuss the published literature pertaining to: models of illness and disability and the evidence for the value of exploring the psychosocial and functional impact of a health problem; physiotherapists' engagement with the assessment of the psychosocial and functional impact; and factors influencing clinical behaviour change for physiotherapists assessing the broader impact of a health problem. The chapter concludes with the development of the research questions and rationale for the research methods used to explore the acceptability and clinical usefulness of the IoSQ in a physiotherapy department naive to its development.

1.2 Clinical rationale for the development of the Impact of Symptoms Questionnaire (IoSQ)

It is recommended in physiotherapy professional and musculoskeletal clinical guidelines (CSP, 2005, 2012; Savigny et al., 2009; van Tulder et al., 2006) that the functional impact and psychosocial factors should be explored, and outcome measures used with all patients. To determine if local physiotherapy staff were making appropriate use of a pathway for patients failing to make the expected recovery, an audit of 82 sets of patients notes was undertaken (Knott & Francis, 2009). This explored the level of documentation for physiotherapists having enquired into and addressed (if indicated) the psychosocial and functional impact of the presenting health problem. The presence of service-required screening and outcome questionnaires was also recorded. Results showed that there was poor compliance in the use of both the psychosocial screening (Linton & Hallden, 1998) and outcome questionnaires (Roland & Morris, 1983). There was also poor documentation by physiotherapists for having explored the impact of the patients symptoms across five service-agreed areas: questions or concerns patients' had about their symptoms; and their ability to engage in work/caring roles, activities of daily living, preferred hobbies and social life, mood, and relationships.

Following a discussion with staff, validated questionnaires were changed with the aim of improving compliance. However on re-audit, there was little improvement in their use or for the process of documentation (Knott &

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Frampton, 2013) (appendix 1). Staff were further consulted regarding the ongoing poor compliance. Barriers to using validated questionnaires included their lack of clinical usefulness or relevance for the face-to-face consultation. Interestingly, Sigl et al., (2006) compared the content covered by three validated outcome questionnaires with the categories that the International Classification of Functioning, Disability and Health (ICF) had specified as being important to assess. Sigl et al., (2006) identified that the common focus of these questionnaires was on the physical aspects of body functions, activities and participation, with no consideration for the psychological, social or environmental factors. Therefore, although these are validated tools for measuring outcome, they do not explore the individualised human impact of a health problem. This was relevant as Sigl et al's., (2006) study included the Roland-Morris Disability Questionnaire (RMDQ) (Roland & Morris, 1983), which had been used within the department described, thereby further highlighting the importance of physiotherapists documenting their exploration of the broader impact.

Ong, Hooper, Jinks, Dunn and Croft (2006) summarised that although questionnaires may be shown to be valid and reliable across large populations, they make assumptions that the questions are meaningful at an individual level. There may also be a

“divergence between the researchers’ [or clinicians’] intentions and respondents interpretations, difficulty in understanding question wording, or questions not adequately covering people’s experiences”

(Ong et al., 2006, p82)

In their study, researchers undertook an analysis of 22 unsolicited letters received during a large study on knee pain (n=8995). These participants had written to express their frustrations or reflections on the limitations of fixed-response questionnaires. Ong et al., (2006) also analysed general comments written on the study questionnaires and assimilated the results of these and the received letters with the findings from interviews with 20 patients. The interviews explored the thoughts and reasoning of LBP and knee pain patients, when completing quality of life questionnaires. They concluded that *“the accounts of pain sufferers are highly complex and variable”* (Ong et al., 2006,

p81) and cannot be captured at a personal level by fixed-response questionnaires. An example given was a patient's reflection on the completion of a validated depression and anxiety questionnaire (Zigmond & Snaith, 1983): the patient was aware that a recent bereavement had resulted in them having a clinically high score. Clearly, this would not necessarily be relevant to their condition but could have resulted in the treating clinician imposing a negative interpretation regarding the patient's potential to recover (MacNeela, Gibbons, McGuire & Murphy, 2010). This is an interesting concept as fixed-response questionnaires are being promoted to identify the level or type of treatment required (Hill, Dunn, Main, & Hay, 2010), potentially disempowering physiotherapists from developing their skills at identifying and addressing issues themselves.

These research findings were in concordance with the local staff's own experience and discussions following the audit feedback resulted in the collaborative development and introduction of the Impact of Symptoms Questionnaire (IoSQ) (appendix 2a). In accordance with their identified needs, the IoSQ comprised two sections. The first provided the opportunity for the patient to not only indicate whether or not any of the five aspects of life were affected, but also to write a comment, question or concern. The second section comprised four numerical rating scales: to rate the intensity of pain and any other symptom which may be present; and the impact of the health problem on any activities that the patient may wish to undertake and on their mood. The aim was to develop a simple, brief, generic tool which would enhance clinical practice for the exploration and documentation of the psychosocial and functional impact. The physiotherapy staff also wanted the tool to include numerical rating scales which could have the potential to record change.

The IoSQ was introduced across eight community departments with the eventual discontinuation of previously used validated questionnaires and screening tools. A final audit of 167 sets of notes was undertaken in 2010 to explore compliance with using the IoSQ. This demonstrated an improved use of a questionnaire at first contact from 22% and 27.5% (previous two audits) to 52.7% (Knott & Frampton, 2013) (appendix 1). Discussions and a survey of 34 staff indicated that reducing the number of questionnaires and introducing one

that they felt was relevant to their, and their patients' needs improved compliance. The IoSQ was most endorsed for: helping to set goals; saving time in the identification of affected areas of life affected; and being appropriate for all patients. Although new staff had joined the service and others had left between the time of the IoSQ being developed and evaluated, the positive feedback may well have been related to local 'ownership' of the questionnaire as well as a desire to 'please' the researcher, who was well known to staff (Kitzinger, 2005). The next step would therefore be to explore the feasibility of introducing the IoSQ into a department naive to its development and to evaluate the perceptions of patients and staff regarding its acceptability and clinical usefulness.

1.3 Literature review

The following literature review starts with a discussion of the models of health, illness and disability to set the context for exploring the wider impact of presenting symptoms. There will then be a review of the evidence for physiotherapists undertaking psychosocial or functional assessment and finally an overview of the processes required to enhance behaviour changes in clinical practice.

1.3.1 *Models of health, illness and disability*

This section summarises models that have been advocated for the assessment of musculoskeletal difficulties and current evidence for the value of adopting a 'whole person' approach.

1.3.1.1 *The biopsychosocial model and 'yellow flags'*

Engel (1977) was the first to formally challenge the established medical model, which had stated that biological or physiological process were solely responsible for explaining disease and directing treatment. In 1978, Engel published what he had called the biopsychosocial model. In this, he proposed that a health problem, which can be diagnosed by the interpretation of signs (swelling, fever, blood test changes) and symptoms (pain, dizziness, altered sensation), does not occur in isolation: there is an inevitable impact on the

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thoughts, emotions and actions of the individual, each of which takes place within a social, cultural and family context (Linton & Shaw, 2011; Reynolds, 2004). As part of a bi-directional process, the beliefs, attitudes or emotional state of the individual will have an influence on their experience of their condition or musculoskeletal pain (WHO, 2002).

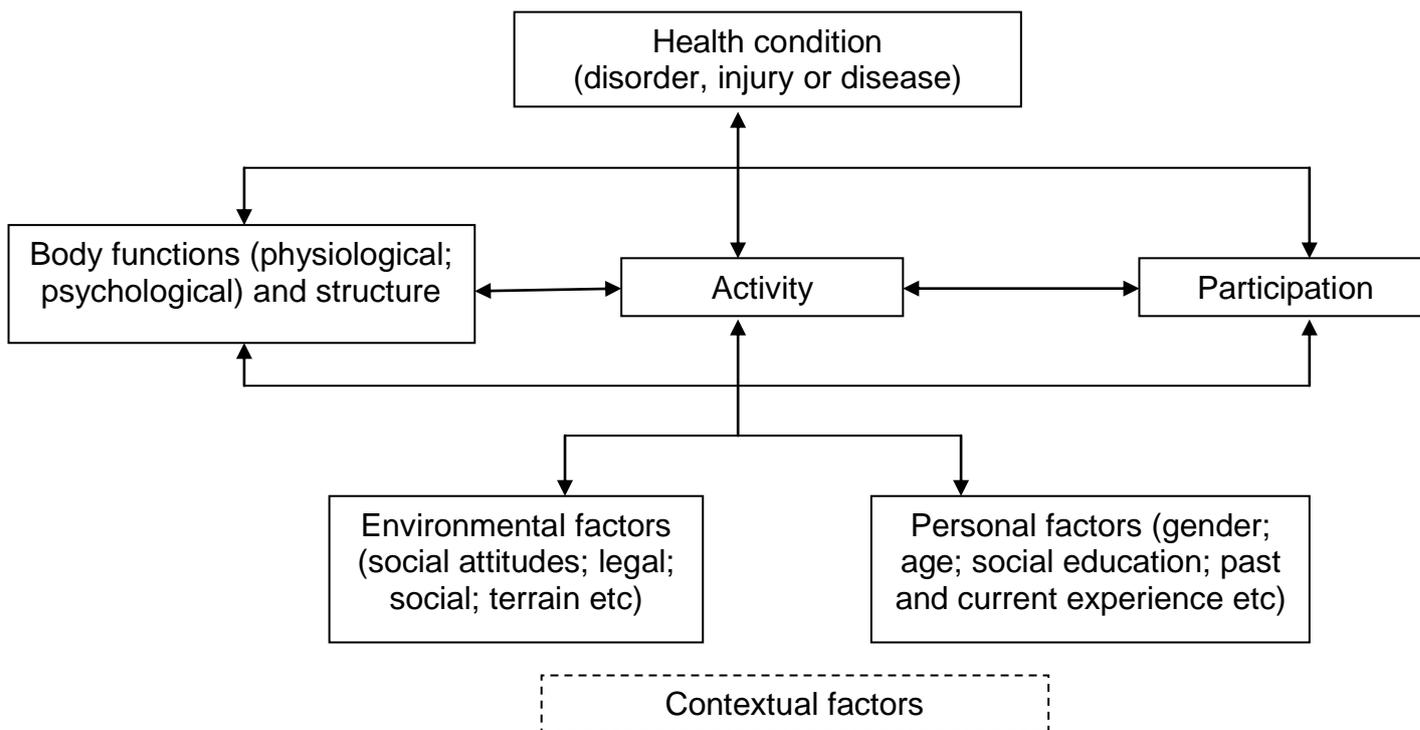
The World Health Organisation (WHO) updated the International Classification of Functioning, Disability, and Health (ICF): a framework to describe health and disability (WHO, 2002). They developed two lists (body structure and functions; and domains of activity and participation) which can be used to define an individual's level of function and disability. Function is described as "*all body functions, activity and participation*" whilst disability is "*an umbrella term for activity limitations and participation restrictions*" (WHO, 2002, p2). The framework also includes a system to embrace the environmental and personal context which could impact on the illness experience: figure 1.2 is one representation of their model of disability. The authors state that it is their intention to shift the focus from disability (where good health ends) to that of health and functioning. Not only is this entirely congruent with the biopsychosocial model, but it also adopts a more pragmatic approach to health and the process of the matching of expectations, for both clinician and patient. In other words, although it is important to deliver the best 'biomedical' care to maximise the resolution of underlying pathology, stakeholders need to acknowledge "*that every human being can experience a decrement in health*" - which may include physical or psychological symptoms (WHO, 2002, p3). With this shift of emphasis from 'cause' to 'impact', it is essential for physiotherapists to consider the broader *human* experience of a presenting health problem for all of their patients (French & Sim, 2004).

Kendall, Linton & Main (1997) proposed best practice for the management of acute LBP, aiming to minimise patients' risk of developing chronic pain, disability or risk of failure to return to work. They proceeded to state that

"the social environment includes family members, friends, people at work, employers, the compensation system and health professionals"

all have the potential to influence the patient (Kendall et al., (1997), page 49).

Figure 1.2: A representation of the model of disability that provides the basis for the ICF (WHO, 2002, p9)



These social interactions in turn can affect patients' attitudes, beliefs, behaviour, distress and even their subjective experience of pain. Their document included a screening questionnaire, along with guidelines for interview strategies, to help the clinician identify 'yellow flags' (psychosocial factors) which, if affected, should be addressed to maximise the likelihood of a favourable outcome. More recently, Nicholas, Linton, Watson and Main (2011) have shifted the emphasis to screening for psychological factors as opposed to social or environmental variables. Although they justify this by proposing that a clinician may have limited capacity to influence social or environmental factors, arguably, if it is these issues that are key to an individual regaining a sense of control or improved quality of life, it is critical that they should be identified and referral recommendations made. Factors relating to psychopathology (post-traumatic stress, or life-related major depression or anxiety) are coined as "orange flags" and would need to be addressed within mental health or pain psychology services (Nicholas et al., 2011). To add to the complexity of the screening process, 'blue' (perceptions about work, where work is the intended outcome measure) and 'black' (issues pertaining to the patient's social and

environmental factors) flags have been categorised separately (Kendall, Burton, Main, & Watson, 2009).

In summary, it is now accepted that the biopsychosocial model needs to be embraced by clinicians. However, as indicated by the breadth and depth of the 'flag' system (Kendall et al., 2009), this could seem a daunting prospect for physiotherapists: not only with respect to their confidence in identifying the range and relevance of any potential factors, but also their perception of their skills or remit for undertaking such assessments.

1.3.1.2 Psychosocial and functional domains that should be considered during the management of musculoskeletal pain.

The 'yellow flag' domains for LBP were originally summarised as (Kendall, et al., 1997):

- The attitudes and beliefs that a patient may have about their back pain
- Resulting negative behaviours (lying down to rest; limping; avoiding specific movements or activities)
- Ongoing litigation or compensation issues
- Concerns about diagnosis or seeking further treatment
- Associated anxiety, depression or anger (*in what context is not specified*)
- Difficulties associated with family relationships
- Difficulties with returning or staying in work.

Although these domains were originally associated with poor outcome for returning to work regarding patients with LBP, it has been recommended by the Initiative on Methods, Measurement and Pain Assessment in Clinical Trials (IMMPACT) team (Dworkin et al., 2005) that outcome measures for all chronic pain studies should cover pain intensity, and impairment in physical and emotional functioning. It is therefore perfectly reasonable that even if a service should decide, for pragmatic reasons, that they are unable to apply validated questionnaires across these domains, they should still be explored during the clinical intervention. During Nicholas, Asghari and Blyth's (2008) work on normative values for commonly used outcome measures (across pain intensity, disability and mood), they determined that there was no significant difference

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across these variables for pain experienced across different body pain sites. This indicates the importance of assessing the impact on these areas of life for all sites of musculoskeletal pain, not just back pain. The relevance for these psychosocial domains for generalised musculoskeletal pain, as well as LBP has also been argued by Overmeer, Boersma, Denison and Linton (2011).

Although there has been some debate as to which domains are the most useful for predicting outcome (Croft, Dunn, & Raspe, 2006; Foster, Thomas, Bishop, Dunn, & Main, 2010; Kent & Keating, 2008; Watson, 2011), there is consistent evidence for the influence of patients' beliefs or concerns about their condition. Foster et al.,(2008) looked illness perceptions within the 'common-sense' or self-regulation model (Leventhal, Meyer & Nerenz, 1980);

“patients develop their own ideas about their back pain, what it means for them, these ideas determines behaviour, which affects outcome.”

Foster et al., 2008, p178

They undertook a prospective cohort study of 3097 consecutive patients, with an initial response rate of 51% (1591) and 810 (64.6%) agreeing to further contact. The authors explored the correlation between patients beliefs about their illness across the five dimensions of the Revised Illness Perceptions Questionnaire (IPQ-R) (Moss-Morris et al., 2002) and the participants outcomes as measured on the RMDQ (Roland & Morris, 1983). The dimensions of the IPQ-R were: identity, consequences, timeline, control/cure and cause. Beliefs about pain in the whole group remained stable over a six-month period but there were differences when stratified for outcome at 6 months. Good outcome was associated with: perceived less serious consequences; anticipated shorter duration; fewer emotional responses (fear or anger); fewer symptoms that they attributed to their LBP; and stronger perceptions of controllability. Poor outcome was associated with: expecting their symptoms to last a long time or to have severe consequences on their lives; and poor beliefs regarding self-control or cure. The authors' recommendations were to improve patients' perceptions of personal control and restructure negative thoughts about their condition. However, they also stated that it remained to be seen if targeting specific patients' specific concerns or beliefs can improve clinical outcomes.

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When facing new or ongoing health challenges, people may also face changes in self-perception or self-esteem, difficulties with litigation or financial circumstances or in their ability to cope with work or home responsibilities. Any of these in themselves will potentially affect an individual's mood (anger, depression, or anxiety), relationships and/or their willingness to participate in preferred social activities and lifestyle (Reynolds, 2004; Turk & Robinson, 2011). Linton & Shaw (2011) have since provided an overview and description of the current evidence-based psychosocial prognostic risk factors in low back (and potentially other musculoskeletal) pain. They summarise them as:

- The degree and type of attention given to the condition
- Associated negative thoughts and thinking patterns
- Negative emotions that may be triggered (fear, anxiety, depression, distress, hopelessness)
- Negative coping strategies (increased reliance on medication; avoiding specific movements or activities; tending to 'overdo' things when frustrated or on 'good' days)
- "Pain behaviour" (altered patterns of movement which may evoke protective or dismissive responses from significant others).

Watson (2011) also summarised the core psychosocial domains and although very similar, between them they require a broad remit for physiotherapists to screen for. However, these authors omit another important concept: 'core values' (McCracken, 1998).

Core values can underpin any of these key domains and may also influence patients' expectations of outcome from treatment. For example: a core value may be to be a 'good partner', which is then perceived as a need to contribute equally to family income. If their health problem affects their ability to perform at work, this could have a profound impact on outcome, especially if it is beyond the ability of the physiotherapist to improve this. Similarly, if the value is to be a 'good father', the patient's mood could be significantly affected if they were unable to play football with their children in the way that they used to. A physiotherapist may be able to help with the rehabilitation to play football, but if this was an unrealistic goal, a specialist pain management physiotherapist or psychologist may be required to facilitate 'acceptance' (McCracken, 1998) or

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adjustment to living with a long-term change in health. Unravelling these complexities can be difficult and could contribute to physiotherapists' concerns about exploring the psychological or social impact (Hill, Vohora, Dunn, Main & Hay, 2010; Knott, 2005).

It is important to screen for prognostic factors that predict chronicity from an acute episode, as well as those that maintain chronicity. Grotle, Foster, Dunn, and Croft (2010) explored two large datasets (258 patients with acute and 668 patients with chronic LBP) from a primary care setting, to see if there were differences in the psychosocial factors between the two timescales. A wide range of variables were considered: duration; age; educational level; social class; work absence related to pain; work dissatisfaction; presence and location of other pain; pain intensity; bothersomeness of pain; and scores from a number of validated questionnaires. They concluded that the same prognostic indicators influenced disability at 12 months for both acute and chronic LBP indicating the importance to screen for psychosocial factors as well as the functional impact, regardless of whether the condition is acute or chronic.

Psychosocial factors also influence the relationship between a specific intervention and the outcome (treatment modifiers) and have an intermediary role between treatment and outcome (treatment mediators) (Hill & Fritz, 2011). An example of treatment modifiers given by Hill and Fritz (2011) is of spinal manipulation: it may be less effective for people who avoid specific movement(s) due to fear of pain or damage. A treatment mediator is the psychosocial factor that is being specifically targeted by an intervention. For example, a graded exercise programme may be given to improve fitness or function, but if it is delivered effectively to overcome a fear of movement, it is being applied as a treatment mediator. Treatment mediators can change during, or as a consequence of treatment and can be different from the prognostic indicators within an individual. Key mediators have been identified as: self-efficacy (or *confidence* to engage in activities) (Nicholas, 1989), perceived self-control over pain and overly negative thoughts about the pain or their prognosis (catastrophising) (Sullivan, Stanish, Waite, Sullivan, & Tripp, 1998). These findings add further weight not only to the importance of identifying the

psychosocial impact, but to continue to monitor the clinician's effectiveness at addressing them.

The literature is consistent in its focus on patients' beliefs or attitudes about their pain (Foster et al., 2008), their confidence to engage in work or employment (Gabel et al., 2011), their confidence to engage in everyday and social activities (Foster et al., 2010), and the impact of the condition on their mood (Main & Waddell, 1998) and relationships (Romano, Cano, & Schmaling, 2011). These are the key domains and whether they relate to concepts such as coping (Rosenstiel & Keefe, 1983), self-efficacy (Nicholas, 1989) or acceptance (McCracken, 1998) remains a matter of further debate and research: in the meantime, physiotherapists need to be able to engage with the patient in front of them to consistently and confidently screen for and address factors which may limit recovery (Hill & Fritz, 2011; Nicholas et al., 2011; Stewart, Kempenaar, & Lauchlan, 2011). After all, if the expectation of recovery is not attained, the patient can end up blaming themselves, their healthcare provider or looking for accountability instead of developing ways of understanding their situation and living with it more effectively (Murdoch, Poland, & Salter, 2010). Application of the term 'recovery' is in itself, worthy of consideration. The concept of the recovery model was developed in 1988 in mental health services (Deegan, 1988) to describe the development of new meaning and purpose in life, despite the consequences of developing a health problem which may not have a 'cure'. This is not dissimilar to the previously described concept of 'acceptance' (McCracken, 1998).

In summary, exploring psychosocial and functional issues are clearly important in the management of a health problem, but screening for every potential domain would require a battery of questionnaires, or an extensive, but clinically unwieldy tool (WHO, 2002). Even then, these fixed-response questionnaires would not be adequately individualised or be able to reflect the complexity of interaction of each domain at inter- and intra personal, societal, environmental or cultural levels (Stewart et al., 2011). Watson (2011, p303) states:

"We are still in the early stages of recommending specific questionnaires for use in clinical practice"

1.3.2 Evidence for musculoskeletal physiotherapists undertaking exploration of the impact of a presenting health problem

Physiotherapy professional guidelines (CSP, 2005) clearly state that at all times, the therapist should consider the individual impact of a health problem, including their social, occupational, recreational and economic needs, as well as recording their expectations from physiotherapy (standards 1 and 5). Recently published Quality Assurance Standards (CSP, 2012) recommend the use of one patient specific reported outcome measure (PROM), one disease specific performance measure (clinical outcome measure) and one patient reported experience measure (PREM) (standard 8.3.6). It is also states that “*subjective markers are agreed with the service user*” (standard 8.4.5), that “*all relevant changes, subjective and objective, are documented*” (standard 8.6.4) and “*outcome is measured as appropriate to each indicator to assess the benefit of intervention*” (standard 8.6.5). However, although there is considerable literature that describes how this assessment process could be undertaken (Accident Compensation Corporation [ACC], 2004; French & Sim, 2004; Feuerstein & Beattie, 1995; Gifford, 2000; Harding & Williams, 1995; Harland & Lavalley, 2001; Kendall et al., 1997; Main & Watson, 2001; Turk & Melzack, 2011; Watson, 1999), professional and evidence-based guidelines are not automatically translated into appropriate clinical practice (Bishop & Foster, 2005; Overmeer, Boersma, Main, & Linton, 2009; Sanders, et al., 2013; van Tulder, Tuut, Pennick, Bombardier, & Assendelft, 2004) or indeed applied in a consistent fashion (Hill, Vohora, et al., 2010).

The published literature explores other healthcare professionals' engagement in the adoption of an individualised approach for exploring the impact of musculoskeletal pain. For example, a mixed methods qualitative study of general practitioners (GPs) undertaken by MacNeela et al., (2010). They examined the medical records of 75 patients with LBP and undertook 'critical incident' interviews and 'think aloud problem-solving' tasks with 12 GPs from the same seven practices pertaining to the patients' notes. Although there was *reference* to psychosocial perspectives (“non-verbal cues”; “he looks...like a man who is under a bit of pressure”) during the two interview/discussion phases, there was a more biomedical emphasis in the written records (“nerve pressure”; “muscle tenderness++”). There was also some limited reference to

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the impact of the symptoms, namely mobility, functional ability and the characterisation of pain. Kent, Keeting and Taylor (2009) undertook a survey of 651 primary care clinicians, across six professional groups in Australia. They identified that even though experienced clinicians made 'informal' judgements about the psychosocial status of their patients, only 7% (95%CI 3-11%) of respondents formally explored the impact of pain on psychosocial function. The authors called for a greater standardisation of psychosocial assessment, especially as these 'informal judgements' are deemed to be less accurate.

Even amongst experienced pain management clinicians, where there would be an expectation of thorough assessment and screening of all evidence-based psychosocial risk factors, this is not a given. Harding, Campbell, Parsons, Rahman and Underwood (2010) undertook semi-structured interviews of 25 pain management clinicians, from seven different clinics in the UK, and identified that there was a lack of focus on social factors which could affect the patient in terms of: support from family or friends, involvement with local community and social activities or, most importantly, return to, or retention in work. Semi-structured interviews were also undertaken with 25 patients, awaiting multidisciplinary LBP rehabilitation, to explore their concerns about their ability to remain at work (Coole, Drummond, Watson, & Radford, 2010). They validated previous research (Corbett, Foster, & Ong, 2007; Lillrank, 2003) showing that despite patients having seen GPs and/or clinical specialists, their concerns regarding the nature of their pain persisted which impacted on their confidence and ability to work.

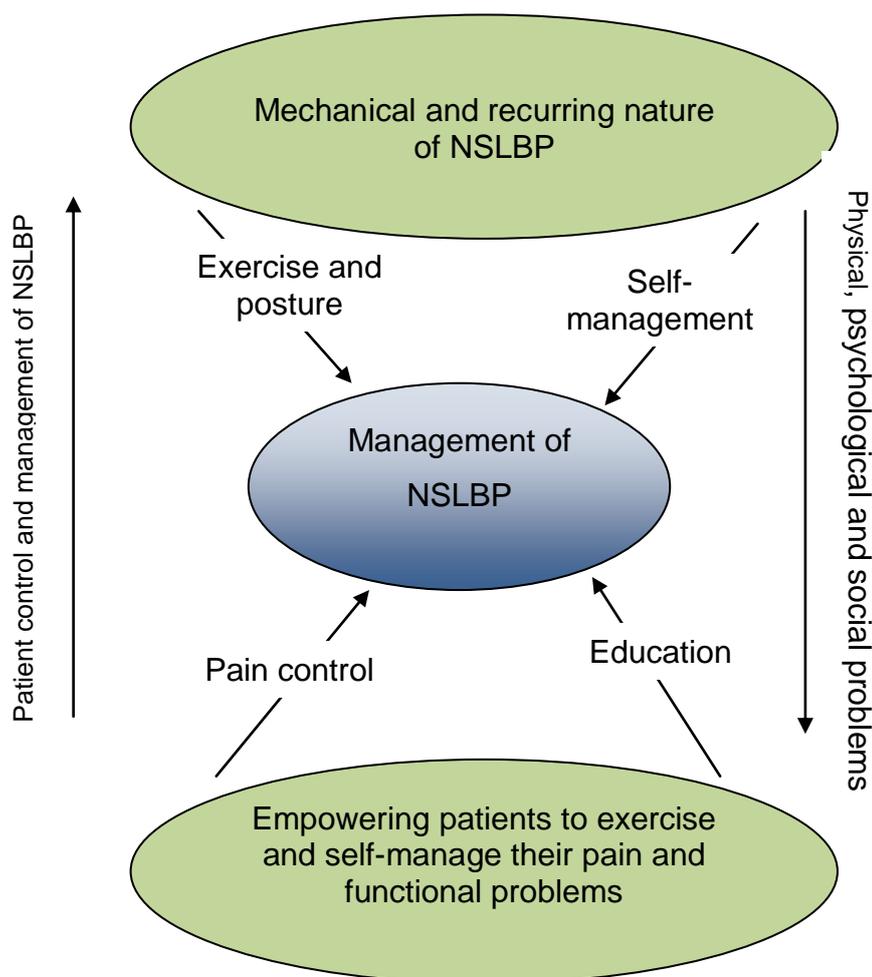
With respect to physiotherapists specifically, Overmeer, Linton and Boersma, (2004) showed that although therapists were able to identify some evidence-based risk factors, other domains perceived as risk factors were not evidence-based and indeed, were not amenable to intervention by clinicians (financial or marital issues). However, it could be argued that although it may not be possible or appropriate for the therapist to address such issues, if they are affecting recovery, it is important that they are identified and signposting or referral to an appropriate service undertaken.

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In line with Main and George's model (2011b) (figure 1.1) there is evidence to show that physiotherapists tend to make a distinction "*between mechanically focussed and psychosocial care*" (Sanders et al., 2013, p4) and that physiotherapists' stated views about psychosocial issues are not necessarily reflected in their clinical practice (as also shown by MacNeela et al., (2010)). Jeffrey and Foster (2012) chose not to explore if or how physiotherapists adopt a biopsychosocial approach in a clinical setting, but instead focussed on the experiences and feelings that might influence their clinical reasoning and treatment interventions for LBP. They undertook semi-structured interviews with 11 physiotherapists, with a mean of 20 years post-qualification experience. In conclusion, they developed a model of the interrelationship of physiotherapists' beliefs and attitudes and how this influenced the prescribed physiotherapy (figure 1.3). Physiotherapists determine a mechanical (biomedical) diagnosis, resulting in them imparting specific reassurance, education and therapeutic exercise, in the anticipation of a resolution of pain and prevention of recurrence. Therapists saw understanding of this information by patients, and compliance with an exercise programme, as fundamental to the development of a '*working partnership*'. However, there was no reference to the role of any of the psychosocial or 'yellow flag' domains: only that 'depression' was seen as a barrier to recovery. A dissonance between patients' and physiotherapists' expectations of treatment was felt to underpin the adherence by physiotherapists' to a biomedical paradigm. The authors advocated training to enhance communication skills to improve rapport and matching of expectations. This could be a costly and time-hungry process: if there could be a process to effectively identify patients' questions or concerns, it may enable a more time-efficient matching of expectations.

Rundell, Davenport and Wagner (2009) undertook a case study of two patients: one with acute and one with chronic back pain, using the ICF (WHO, 2001) to provide a framework for the treating therapist's clinical reasoning. The authors applied the scores and subscales analysis of three questionnaires (exploring function, fear of movement and confidence in activity) as part of their process of applying their treatment rationale to the ICF framework. However, although these tools were seen as valuable for facilitating and justifying different focuses

Figure 1.3: *The interrelationship of physiotherapists' beliefs and attitudes and their influence on the management of patients with non-specific low back pain*



“Reprinted from Jeffrey, J., Foster, N. A qualitative investigation of physical therapists’ experiences and feelings of managing patients with nonspecific low back pain (NSLBP). *Physical Therapy* (2012), 92;2:266-278, with permission of the American Physical Therapy Association. This material is copyrighted, and any further reproduction or distribution requires written permission from APTA”

within a bio-psychosocial approach (Rundell et al., 2009), the application and scoring of three questionnaires, consideration of the results in the context of the fifteen-paged ICF document (WHO, 2002) and the need to undertake a full physical examination, would not be practicable in busy clinics within a National Health Service setting. Even though there have also been core sets published for different conditions (for example, low back pain; chronic widespread pain; osteoarthritis), these would still be time-consuming to complete, would not necessarily cover the range of musculoskeletal conditions seen in physiotherapy outpatients, and being fixed-response questions, would be unlikely to capture the individualised experience of the impact.

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Physiotherapists are in a prime position to identify and address patients' beliefs, concerns and expectations regarding their health problem, but like the GPs described earlier, it is questionable that an 'intuitive' approach is either adequate or reliable (Hill, Vohora et al., 2010). Psychosocial assessment is a skills-based process requiring discrimination between condition-relevant psychosocial factors versus life-related distress (Hill, Vohora et al., 2010) and is not routinely or uniformly taught at undergraduate level (Overmeer et al., 2011). It demands the application of a patient-centred approach using active listening skills (Cooper, Smith, & Hancock, 2008) and Socratic questioning techniques (Overholser, 1993). This could be a challenging prospect for some physiotherapists due to concern that personal issues may be opened up that the therapist feels neither competent nor confident to address (Knott, 2005; Sanders et al., 2013; Watson 1999), so making it less likely that such assessment be undertaken consistently or effectively (Linton & Shaw, 2011). Of more concern, it has been shown that clinicians' attitudes and beliefs regarding the importance of psychosocial factors in the management of musculoskeletal pain not only affect their clinical reasoning and interventions with patients (Coudeyre et al., 2006; Jeffrey & Foster, 2012), they can contribute to the development or worsening of a chronic pain problem (Pincus et al., 2007).

1.3.3 *Implementing behaviour change in clinical practice to enhance the adoption of a biopsychosocial paradigm*

The call for physiotherapists to more fully adopt a patient-centred approach continues. In 2011, the Journal of the American Physical Therapy Association dedicated a whole volume to a series of seven research based articles and two editorials focussed on the need for physiotherapists to embrace "psychologically informed" practice (Main & George, 2011a, 2011b). In the same series, Linton & Shaw (2011) called for better methods for screening psychological factors that could affect outcome and the importance of a brief assessment of mood. To enable this, they advocated a "patient-centred approach" that

"takes into account individual differences in lifestyle, occupational demands, social support, health habits, personal coping skills, and other

contextual factors that may dramatically affect goals and expectations for treatment".

Linton & Shaw, 2011, p709

Although this research project is not developing a theoretical model or strategy for the application or implementation of the IoSQ, it is useful to consider models of behaviour change as it not only explains the context of the development of the IoSQ, it will help to provide a framework for discussing the findings of the enquiry into the acceptability and clinical usefulness of the questionnaire. As previously discussed, there is a wealth of published literature to validate the practice of physiotherapists in exploring the psychosocial and functional impact of a health problem. However, applying this knowledge and skill in clinical practice is usually challenging, especially if it requires complex behavioural change (Grol, Wensing, Hulscher & Eccles, 2005) above and beyond what is taught routinely in professional training (Main & George, 2011a; Overmeer et al., 2010). Implementation of a patient-centred approach will be affected by: the credibility of the intervention, features of the clinicians and patients (knowledge, expectations, skills, attitudes etc.), social and organisational pressures, and the methods and strategies for implementation (Grol et al., 2005). As described by these authors, there is an abundance of theories on the implementation of change, but in summary, there are some common shared principles: one of these is the social learning theory of Bandura (1986). This relates to the contextual influences on individuals who are undergoing or experiencing change. Physiotherapists' tendency to undertake a more patient-centred approach would also be affected by both their peers (for example their modelled behaviour and positive or negative feedback) and their patients (for example, their expectations) (Grol et al., 2005). These authors also discuss the relevance of complexity theory as individual behaviour change can only take part within the setting of a complex healthcare system, with the boundaries between individual, societal and organisational interactions and responsibilities for change inevitably being blurred.

At an individual level, behaviour change models relate to cognitive, educational (including problem-base learning and the desire to be professionally 'more competent'), attitude (theory of planned behaviour) and motivational (stages of

change) theories (Grol et al., 2005). The authors' chapter used the need to implement a behaviour change of hand-washing to provide examples across the different models of change theory. Within this, they cited a systematic review of the most effective strategies for enhancing behaviour change (Naikoba & Hayward, 2001, cited in Grol et al., 2005, p35) which showed that education and/or information provision had only short-term effects with the provision of reminders having the most sustained benefit. Providing feedback was effective, but only beneficial for as long as it was given. Multi-faceted interventions are required to affect the most comprehensive change implementation.

A behaviour change model that is employed in some of the health studies to improve guideline adherence, is that of intervention mapping, as developed by van Bokhoven, Kok and van der Weijden (2003). They advocated a scientific approach to designing and evaluating not only the intervention to promote change, but also the level of change in the desired behaviour. As described by Grol et al., (2005), this requires the identification of and working with barriers to, and facilitators of change. The key stages van Bokhoven et al., (2003) identified are: problem analysis; design of intervention; pretest; adaptation and implementation; evaluation; and adjustment.

This literature discusses the complexity of behaviour change, but researchers also need to specifically reflect on the clinical value of implementing change. For example, a randomised controlled trial (RCT) was undertaken where information packs were sent out by post to chiropractors, osteopaths and physiotherapists (n=1758) informing them of three key advice strategies for the management of LBP (Evans et al., 2010). This identified a moderate shift in beliefs and behaviours related to giving advice about activity, bed rest and work. However, although there was a self-report of practice being more in line with published guidelines, there was no enquiry into any change in clinical practice, patient-outcome benefits or sustainability of changes in belief. It is also important to consider that due to depression or anxiety (either life- or condition-related) simple advice giving may be inadequate for enhancing recovery, especially if that advice is not provided in the context of the patient's individual needs.

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Subsequently, Breen, Carr, Langworthy, Osmond and Worswick's paper (2011) summarised how education alone has done little to improve General Practitioners' (GP) compliance in the United Kingdom for following published guidelines. These authors therefore undertook an RCT that included more intensive, interdisciplinary training, comprising 8 half-day workshops, over 9 months, facilitated by a range of expert clinicians and patients. Although there was improvement in guideline consistent behaviour, there was little benefit for improving GPs' outcomes for patients with LBP with respect to symptoms, disability or satisfaction with care. In line with previous studies, it was also acknowledged that there is difficulty in GPs documenting all of the advice provided as well as the interaction that occurs during a consultation.

Bekkering et al., (2003) undertook a study in the Netherlands to improve the implementation of LBP guidelines in physiotherapy. Acknowledging that guideline adoption is normally a passive process, they undertook a survey of 100 practices to identify barriers to implementation, as well as the greatest discrepancies between recommendations and clinical delivery. This information was then used to develop a specific implementation strategy. Their findings related to a lack of knowledge or skills (barriers) and also the clinical focus being on: diagnosis and impairment; the application of passive modalities; adopting a pain-contingent approach; and physiotherapists' perceptions of patients' expectations (discrepancies). The emphasis on a biomechanical approach was further characterised by little focus on disabilities or problems with participation; lack of use of a questionnaire to assess function; and lack of knowledge regarding the application of behavioural principles. Interestingly, a requirement for more time to enable physiotherapists to adopt more of a biopsychosocial approach did not feature highly. The training strategy targeted personal, social and organisational contexts. Their work was based on Grol, van Everdingen and Casparie's (1994) model of changing clinical practice using "*strategies closely linked to the level of clinical decision making*" (cited in Bekkering, et al., 2003, p208). This model has been developed further and is summarised as five stages comprising: orientation, insight, acceptance, change and maintenance in the behaviour of the targeted individuals (Grol et al., 2005).

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Based on their findings, a multifaceted training strategy was developed by Bekkering et al., (2003): two training sessions (2.5 hours), four weeks apart for small groups of ten physiotherapists, with two out of three facilitators/educators for each session. The facilitators were all highly experienced in other domains (research, epidemiology, psychology and education). The programme included education, role play (involving actors), submitted case studies with feedback, question and answer discussions and follow up reminders to implement change of practice. Although the training was described as being appropriate to improve the implementation of guidelines, there was no record for change in patient health outcomes, no reporting on observation or maintenance of change in clinical behaviour and the training was demanding on clinicians' time: its 'real world' value would therefore remain in question.

Stevenson, Lewis and Hay (2006) adopted a different strategy for measuring behaviour change by physiotherapists: identifying shifts in their ranking of which treatment technique they used most frequently, and which technique they perceived to be the most valuable. Pre- and post-training, both clusters of therapists chose their top five techniques from a list of 20, six of these being evidence based (advice giving to patients or encouragement regarding their attitudes and beliefs about pain, work, activity levels and resuming usual activities). The change strategy for the two randomised groups comprised one five-hour education session: the intervention group related to delivering advice and information regarding the evidence-based strategies described above; the control group related to the management of knee dysfunction and pathology. Stevenson et al's (2006) findings showed that despite some previous awareness of psychosocial issues for both groups, there was no significant improvement in attitudes or practice of the physiotherapists in the intervention group. Interestingly, vocational/return to work advice was one of the lowest endorsed interventions, but conversely, there was no information provided as to whether or not the patients' health problem was having an impact on this domain. The same argument would apply to the limited advice given for return to usual activities or activity levels. There was no enquiry into the impact on patients' mood or evaluation of the patients' experience. The authors acknowledged that the study numbers were small: fourteen in the intervention group and eleven in the control.

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Stevens and Beurskens (2010) published a case report describing the development and evaluation of a process for the systematic implementation of the use of two outcome measures in private physiotherapy clinics in the Netherlands. They applied Grol et al's., (2005) implementation model starting with the identification for barriers for therapists engaging in the use of outcome measures by undertaking a literature review, followed by eleven semi-structured interviews with practising physiotherapists. This enquiry informed the development and piloting of implementation strategies, which were then evaluated by exploring changes in therapists' knowledge, attitude and use of outcome measures. The proposal to enhance change of practice was focussed on successive small-group training sessions to enhance knowledge and awareness, which included role-play and open discussion. Although this study was focussed on the employment of outcome tools, it is relevant to this project in that one of these was a patient-centred questionnaire, exploring the functional impact of the presenting condition. The study showed that by employing a multifaceted approach, behaviour change could be effected in clinicians, but a significant training component was required. Again, there was no direct evaluation of the experience of patients or the sustainability of change.

Overmeer et al., (2011) evaluated the impact of a 64-hour (over eight weeks) training programme for 22 physiotherapists. In this RCT (with 20 therapists in the control group), they explored changes in therapists' attitudes, beliefs, and knowledge about psychosocial factors, and changes in patients' pain intensity, disability, catastrophising, anxiety and depression. Analysis showed that there was a non-statistically significant improvement in disability only for patients who had higher levels of catastrophising or depression, and were treated by physiotherapists who had attended the training programme *and* who had demonstrated improvement in their attitudes and beliefs. They conjectured that this limited benefit of the training may have been due to: lack of direct feedback regarding clinical behaviour; underestimation of the level of training required to promote change in clinical behaviour; a ceiling level of clinical practice already attained by some physiotherapists; or that it is unrealistic to expect primary care physiotherapists to facilitate change in more complex patients. However, it is useful to note that there was no *observation* of clinical practice and their training programme had not been developed through an understanding of therapists'

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needs for, or specific barriers to addressing psychosocial issues (Grol et al., 2005).

Rutten et al., (2013) revisited the development of an effective implementation strategy to improve adherence for physiotherapists assessing and managing psychosocial factors and documenting outcome measurement. They firstly identified difficulties with implementing the guidelines (skills to improve clinical reasoning; application of the categories of the ICF (WHO, 2002), managing psychosocial difficulties, documentation and using outcome measures), and then developed a systematic strategy to address the difficulties for individual therapists and practice managers, followed by a pilot programme of delivery. They undertook a pre-test, post-test study, employing four validated clinical vignettes to explore clinical reasoning associated with 12 quality indicators from the guideline recommendations. Comprehensive qualitative and quantitative methods were used to evaluate the components, delivery and participants' perceptions of the training programme. The programme resulted in changes, both at organisational level (support for patients to complete questionnaires; use of electronic systems) and for therapists (better use of outcome measures and handling of psychosocial factors). However, as discussed earlier in other study results, the authors raised concerns about the intensity of the training required and variability due to different abilities of attending staff. One participant also proposed monitoring of clinical performance rather than simply in vitro assessment.

A study adopting a cognitive-educational strategy to enhance a more patient-centred approach, rather than focussing primarily on the adherence to guidelines, was published by Green, Jackson and Moffett (2008). They undertook an observational study of ten physiotherapists and explored the value of 1.5 days training in Solution Finding Approach (SFA) versus a control group (therapists trained in a protocolised manual therapy approach). The aim was to improve the eliciting of reasons for attending treatment, and to explore the impact on recreational activities, concerns about damage and to identify the expectations of treatment. However, although there was a statistically significant difference between the two groups, the frequency of exploring these domains remained low and the efficacy for exploring the impact on family, work

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and emotional well-being remained very poor. No power calculation had been undertaken prior to this study and interestingly, they classed one of the manual therapy clinicians as 'an outlier' as they had focussed more on the concerns of the patient and minimised their use of 'medical jargon' with the patient. The authors concluded that 1.5 days training in SFA was insufficient to effect useful behaviour change for the adoption of a more patient-centred approach, and acknowledged the lack of validation of the tool assessing the therapists' application of patient-centred approaches.

This final section of the literature review has highlighted the complexity of developing and implementing a process to encourage behavioural change for physiotherapists undertaking the assessment and addressing the psychosocial and functional impact of a health problem, especially at a level to improve patient outcomes. Studies have broadly focussed on measuring changes in the attitudes and beliefs of clinicians, or using in vitro designs to explore uptake in adherence to LBP guidelines. Only three cluster-randomised trials aimed at multifaceted strategies have been undertaken to improve the implementation of physiotherapy specific guidelines. A review of these studies indicates that educational meetings may improve clinical adherence to the guidelines, but there is no evidence for improved patient outcomes or reduced cost (van der Wees et al., 2008). Although Bishop and Foster (2005) identified that physiotherapists had difficulty in embracing the biopsychosocial model, there have been few studies based on a behaviour change model, to explore the value of strategies to enhance a clinically-observed patient-centred approach. As described above, Foster et al., (2008) and subsequently Foster & Delitto (2011) identified that there are significant training implications for empowering physiotherapists to effectively identify and address patients health beliefs or concerns: and yet these studies did not additionally consider difficulties patients may have relating to mood, self-efficacy, relationships, or other domains that may be important to them. The development of effective and financially viable, clinically appropriate training schemes still has a long way to go (Foster & Delitto, 2011) and as stated by Grol and Wensing (2005, p122) any

“proposal for change must be well supported, preferably developed with those involved, and must be presented in an accessible, clear and attractive form”.

1.3.4 Summary of the literature review

This section has considered the psychosocial domains that can be affected by musculoskeletal health problems and the importance of screening for these as well as the functional impact. Although these have been shown to predict outcome, there is little evidence to show that physiotherapists screen for these either routinely or effectively. This has been attributed to a biomechanical bias to undergraduate physiotherapy training, poor access to and implementation of evidence based guidelines and lack of evidence or consensus for appropriate multifaceted training programmes to enhance or develop psychologically enhanced practice (Main & George, 2011a).

In addition to this, there is a paucity of published tools that enable a musculoskeletal physiotherapist to undertake psychosocial assessment in a structured fashion, empowering them to address the identified issues (Main & George, 2011a). Audits of patients' notes in an outpatient physiotherapy service identified a lack of documentation of such screening which resulted in the development of the Impact of Symptoms Questionnaire to address the needs identified by the staff in the service. This drive to develop the IoSQ can be seen as being the problem analysis phase of van Bokhoven et al's (2003) intervention mapping for implementing clinical change, or a 'bottom up' identification of problem identification (Grol & Wensing, 2005). The development and initial audit for physiotherapists' compliance and satisfaction with the IoSQ correlates with the phase of developing a concrete proposal or tool for change within both models. However, there is no evidence that the screening tool would be perceived as being clinically useful by patients or physiotherapists in a department outside that of its development. How this is defined is explored further in the next section.

1.4 Development of the research aims, objectives and questions

Physiotherapists involved in the development of the IoSQ identified that for it to be clinically useful it needed to fulfil the following criteria:

- To be relevant to all musculoskeletal outpatients and conditions

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- To have an ability to facilitate assessment for the psychosocial and functional impact
- To not seem 'too psychological' in a physiotherapy setting
- To allow for comments to be written to enable individualisation
- To have generic symptom and psychosocially and functionally relevant change indicators incorporated into the tool, so reducing the number of questionnaires that would need to be used
- To have an easy scoring process
- To be easy to interpret in a clinical setting
- To be on one side of A4 paper with a discharge version on the back
- To be quick and easy for patients to complete

However, these criteria, or indicators of clinical usefulness would not necessarily be valued by a different cohort of physiotherapists. It was therefore considered important to not only explore if these indicators were raised as being important, but also to see if user groups considered other advantages, or indeed disadvantages of introducing the IoSQ into clinical practice. The remainder of this section describes how this project sits within the Complex Interventions Framework (Craig et al., 2008) and the process of development of the research questions

1.4.1 *The Complex Interventions Framework*

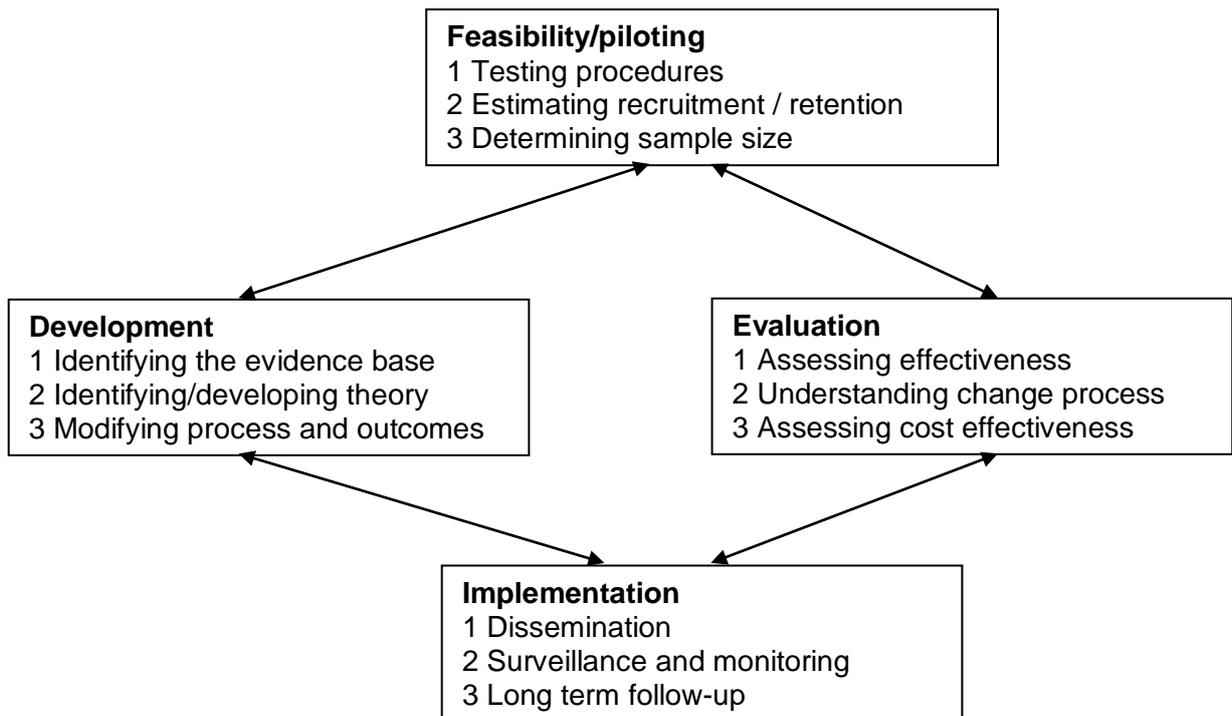
The impact and implementation of any healthcare intervention can be influenced by a number of wide-ranging factors (Craig et al., 2008; Grol & Wensing, 2005). For example, in the context of this project, the evaluation of the clinical benefits of the IoSQ could potentially be affected by the consistency and mode of application of the questionnaire; local political and logistical issues; expectations of users; beliefs and behaviours of clinicians and patients; and their understanding of the value of psychosocial screening itself. It is therefore imperative to understand: the nature of the research site; the process of psychosocial and functional assessment (section 1.3.2; page 30); the process of implementing change in clinical practice (section 1.3.3; page 34); and to ensure that appropriate methods for enquiry and interpretation are used to enable exploration of these issues.

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Part of the Complex Interventions Framework acknowledges the pragmatic aspect of evaluating new interventions: do they work in everyday practice and if so, how? (Craig et al., 2008). To establish baseline data for current practice and to evaluate the impact of a 'real world' introduction of the IoSQ to a physiotherapy service (Rowbotham et al., 2013), the research design of this project needed to minimise any influence on staff's pre-existing knowledge or values regarding psychosocial and functional assessment. For this reason, a minimal amount of information was provided regarding the research question during the introduction of the project and through the data collection methods. The theoretical modelling and initial development phases of this study (see figure 1.4) had been undertaken in the researcher's place of work: identifying the need for a new questionnaire and its subsequent development. A service evaluation of compliance in the use of the IoSQ (notes audit) and a survey of the physiotherapists had also provided an opportunity to pilot some aspects of the proposed research methods for this study (Knott & Frampton, 2013) (appendix 1) and progressed the IoSQ to the point that it was '*reasonably expected to have a worthwhile*' acceptability (Craig et al., 2008, p9) prior to trialling it in a department naive to its development. As this project is still exploring the acceptability and potential usefulness of the IoSQ, as opposed to exploring its effectiveness as a clinical tool, this project remains within the development phase of the complex interventions framework.

As discussed, the IoSQ was developed as a result of a physiotherapy service audit which identified poor compliance in the use of standardised questionnaires and poor documentation of any psychosocial and functional assessment. Following development and implementation of the IoSQ, feedback via an online survey indicated that clinicians who had been involved in its development felt that it fulfilled its objectives (Knott & Frampton, 2013) (appendix 1). However, as this evaluation had not included the opinions of patients or staff naive to its development, the current research project was developed with the aim of exploring the acceptability and clinical usefulness of the IoSQ after being introduced into a physiotherapy department.

Figure 1.4: Key elements of the development and evaluation process (Craig, et al., 2008, p8)



1.4.2 Developing the research objectives

As described in section 1.4 (page 42), the concept of being ‘clinically useful’ was framed within the indicators contributing to the development of the IoSQ and any additional concepts as identified by participants. The objectives of the research project were therefore to identify:

- The role of the IoSQ for enhancing documentation of psychosocial and functional assessment
- The perceptions of staff and patients regarding the acceptability and clinical value of the IoSQ in a physiotherapy department naive to its development

1.4.3 Research questions

Primary research question:

- Is the introduction of the Impact of Symptoms Questionnaire to a physiotherapy outpatient department acceptable and clinically useful for patients and staff?

Secondary research questions:

- What are patients' experiences of psychosocial and functional assessment before and after the introduction of the IoSQ?
- How does the Impact of Symptoms Questionnaire affect the provision of documentation for the assessment and addressing of the psychosocial and functional impact of a health problem?
- What evidence is there for patients engaging with the IoSQ?
- What evidence is there for physiotherapists engaging with the IoSQ?
- What are patients' experiences of using the IoSQ?
- What are physiotherapists' experiences of using the IoSQ?

To address these questions, an initial service evaluation of current practice would need to be undertaken to explore current practice of documentation and patients experiences of the assessment and addressing of identified issues. A second study would employ the same methods to evaluate any change in documentation provision and as well as exploring participants' experiences of the assessment process in the context of the IoSQ. This could be investigated further by enquiry into the level of engagement with the IoSQ by participants. Identifying clinicians' perceptions of the IoSQ would only be undertaken at the end of the research project to minimise any change in practice of the physiotherapists prior to the second study.

1.4.4 Research titles

Study one: An exploration of the evidence for documentation of psychosocial and functional assessment by outpatient musculoskeletal physiotherapists, and patients' experiences of this assessment. A mixed model approach.

Study two: A mixed model approach exploring the acceptability and clinical value of a psychosocial and functional engagement tool: the Impact of Symptoms Questionnaire (IoSQ).

1.4.5 Summary of the research project

The project comprised two studies and was undertaken in an outpatient physiotherapy department which was naive to the development of the IoSQ. It

was a pragmatic mixed model design integrating data from a range of sources to enhance the richness of the findings to explore the acceptability and clinical usefulness of the IoSQ.

1.5 Theoretical and methodological issues

This section starts with a description of the philosophical perspectives that influenced the selection of the research methods. These are driven by the ontological and epistemological assumptions underpinning the researcher's frame of reference (Brannen, 2005). Whilst ontology is concerned with the nature of reality and *what* it is that can be known, epistemology is concerned with *how* knowledge about that reality can be formed (Lincoln & Guba, 1985, p37). This section then discusses mixed methods and mixed model approaches to research which can be used instead of a single method qualitative or quantitative approach and the section finishes with a justification of the chosen research methods.

1.5.1 Epistemology

1.5.1.1 Positivism

Seeking to explore the change of documentation of psychosocial and functional assessment in patients' notes requires the adoption of a positivist (realist) paradigm employing quantitative methods: it is exploring a theory of variance and testing a hypothesis that introducing a new clinical tool would change practice (Maxwell & Loomis, 2003). However, endeavouring to understand the *context* in which psychosocial assessment does, or does not occur, which would inevitably influence the process of documentation, would be subscribing to a constructivist paradigm.

1.5.1.2 Social constructionism.

Social constructionism proposes that an individual's worldview (perspective, meaning and experience) is shaped from social experiences rather than being something that is inherent within an individual (Burr, 2003). Physiotherapists will operate within a socially constructed paradigm that has been developed from their values, training and clinical experiences. These could relate to many

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factors: what motivated them to become physiotherapists; undergraduate syllabus; areas of clinical interest; service delivery needs; clinical setting; awareness of research findings; national and local guidelines and targets; media reports; peer pressure or their understanding of their patients' expectations; and ultimately, their experience of working with the current patient. This list is by no means exhaustive but all have the potential to influence any individual's learning, interpretation and application of models of health care. It may also affect how they react to the introduction of a new clinical tool that may or may not fit with their world view of the role of physiotherapists.

1.5.1.3 Pragmatism

Pragmatism is a “*deconstructive paradigm that debunks concepts such as “truth” or “reality” and focuses instead on “what works”*” (Tashakkori & Teddlie, 2003, p713). It supports the employment of different research methods to answer a research question (‘mixed methods’) and acknowledges the role and values of the researcher in the interpretation of the findings. This project seeks to introduce a new clinical tool and to explore its acceptability and usefulness in a physiotherapy setting. This requires a process of systematic collection of data exploring if the tool is engaged with, the context in which it is engaged with, and enquiry into whether the user groups to whom it is introduced feel that it helps to enhance clinical practice (Rallis & Rossman, 2003). With respect to identifying methods to undertake this evaluation, it is not about a researcher choosing “*methods to collect and analyse data according to a qualitative and quantitative distinction; rather, they do so according to the questions being asked*” (Rallis & Rossman, 2003, p501). Words and numbers can therefore be used to “*draw a picture*” so providing the reader with detailed descriptions of the findings so that they can judge for themselves if the tool indeed upholds the proposed function and usefulness.

1.5.2 Mixed model research

With respect to the process of documentation, a notes audit would provide a quantifiable measure of change before and after the introduction of the IoSQ. This could have been explored using the ‘gold standard’ of quantitative research, a randomised controlled trial (Craig et al., 2008) but as the IoSQ is

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still in the development phase, this would not be appropriate at this time. It would also require an initial pilot study to undertake power calculations to determine sample sizes and explore recruitment issues (Craig et al., 2008). Direct video or audio recording of therapist and patient appointments were also considered, but a number of difficulties were identified (Bowling, 2001; Brannen, 2005; Wallace, 2005): there would have been inadequate financial resources; recording and equipment logistics would have been too complex; it would have been more difficult to gain consent; the level of systematic analysis would be pragmatically and resource inhibitive; and it would have been more likely to result in a change in usual practice, especially as the researcher was known to be a pain management specialist (the “Hawthorne” effect).

Exploring the mere presence or absence of documentation is arguably, also too simplistic: just because an intervention is not documented, it cannot be assumed that it did not happen. Also, if patients or physiotherapists do not perceive that it is important to explore psychosocial or functional domains, it is unlikely that there would be willingness from either party to engage in the process – so negating an expectation of documentation or the acceptance of the IoSQ as a clinical tool. For these reasons, it was deemed important to incorporate a qualitative component to the study to explore these issues.

This integration of qualitative and quantitative data collection methods in many stages of the project (the research questions, methods, data analysis and the integration of the results in the inference process) has been defined by Teddlie and Tashakkori as *mixed model* research (2003). They adopt an assumption that it is “*possible to have two paradigms, or two worldviews, mixed throughout a single research project*” (Teddlie & Tashakkori, 2003, p11). The design of this project therefore enables a contextualised representation of reductionist information. For example, results from the notes audit, can be placed in the context of findings from the focus groups. In summary, although a pragmatic approach is being taken for the project, it sits within a social constructivist paradigm. The research methods are discussed further in the next sections.

1.5.3 Justification of specific methods

1.5.3.1 Audit of patients' notes

The IoSQ was initially developed as the result of a realisation the physiotherapists were providing documentation to evidence that they had explored the wider impact of a presenting health problem, and that they had addressed any issues to the patients' satisfaction. This was driven partly as this is a legal requirement but also to provide an audit trail that no further pain condition management approach or other referral is required. It was therefore deemed that an audit of patients' notes was an essential part of the process. An audit tool was developed and piloted to maximise the likelihood of it appropriately identifying the presence of the documentation of psychosocial and functional assessment and the addressing of identified issues.

1.5.3.2 Gaining the participants' perspective: surveys

Although the written documentation is the only clinical record of 'what happened' it doesn't necessarily capture what *did* happen and certainly not what was the patient's experience of the consultation. As the IoSQ is designed as a patient-centred tool, it would be important to obtain the perspective of the patients regarding the value and the process of psychosocial and functional assessment and the IoSQ's potential role in the process.

The main advantages of surveys are that they can be quick to complete, economical to administer and relatively straightforward to analyse (Bowling, 2001). In addition to this, larger numbers of opinions can be sought, over a wider geographical area rather than for example, undertaking interviews. However, there are also disadvantages: there is an assumption that the respondent interprets the questions in the same context as the enquirer; closed questions can 'force' responses, which a participant may disagree with and will limit the depth of opinion obtained; even though free text provision may be offered, information received will be limited to the questions asked so limiting the feedback that can be received; poor literacy will reduce response rates. Indeed, they are best suited for the collection of factual data (for example: In which hospital did you see your physiotherapist?) as opposed to seeking opinions or enquiring into attitudes (for example: Was your physiotherapy helpful?) (Bowling, 2001). Bias in response can be as a consequence of

altered recall of the event under enquiry, and the way in which the questions are framed, so influencing the direct of response of the participant.

For these reasons, care has to be taken to ensure that (Johns, 2010; Oppenheim, 1992; Rattray & Jones, 2007):

- Questions are simple, clear and unambiguous
- Double-barrelled questions are avoided
- Statements including a quantitative component are avoided as this can cause confusion on interpreting the question
- Questions that could be considered as controversial or emotive are not placed near the beginning, as this can affect response rates
- Where possible, leading questions are avoided although by the nature of attitude or belief measurement, this can be difficult. For example, specific enquiry into the appropriateness of the IoSQ across different health conditions could be considered to be a leading question depending on the precise wording of the enquiry. Ideally, this would need to be addressed through adequate piloting of the surveys.
- There is consideration given to the advantages of free text responses (which can provide more rich data, but which is more complex to analyse) or Likert response or visual analogue scales

A visual analogue scale is a continuous line, with two end points, but no demarcation along it to indicate relative scale. In Stevens and Beurskens' study (2010) to improve the compliance with using outcome questionnaires, they replaced their visual analogue scales with numerical rating, or Likert scales. This was as a direct consequence of participant feedback and validation from research findings. Likert, or frequency scales are recognised as a way of measuring attitudes and beliefs, by using fixed choice response formats (Rattray & Jones, 2007) with the option of representing strength of opinion along a continuum from positive to negative (Johns, 2010). The advantages of the Likert scale are that any attitude or belief can be measured, and the wording on the scale can be modified to suit the needs of the researcher. As there is an assumption of linearity, multiple items across a topic can be summed or averaged to give an overall rating (Rattray & Jones, 2007). There is debate as

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to whether a neutral point should be included, or to force the respondent to choose one direction; the latter could lead to frustration or non-response (Rattray & Jones, 2007).

As mentioned above, the development of the stem questions can be time consuming and require considerable piloting to minimise potential ambiguity (Johns, 2010). In addition to this, labelling the intermediary points can be difficult owing to the need to identify appropriate wording to reflect the numerical differences. Although a strategy can be to only use anchors at each extreme of the scale, evidence is that respondents find it easier to grade their answer with verbal prompts and full labelling provides better data (Johns, 2010). Finally, it is also important to have a strategy for dealing with missing data, especially if questions are grouped into themes or topics. Having multiple-item questions for each construct will provide better data than single item questions, but inevitably, this will also require greater complexity in the development of the survey or questionnaire as it will also require considerable piloting and psychometric testing (Rattray & Jones, 2010). For numerical data from surveys to be statistically valid, power calculations and appropriate numbers of forms would have to be completed. However, as the surveys are being undertaken with small numbers and in the context of a mixed methods design, data will be presented descriptively and missing data reported.

Despite the limitations of survey development and application, it was felt that there would be enough potential benefit to undertake a survey of patients pertaining to each set of audited notes. Further depth of information or clarity of understanding would be explored through inviting respondents to attend a focus group to discuss specific aspects in more detail. The IoSQ was also developed to address the needs of physiotherapists within a specific service. However, the criteria identified by staff in the development of the IoSQ are not necessarily representative of all clinicians. It was therefore deemed important to explore how useful the physiotherapy participants felt the IoSQ was for addressing these criteria. This was undertaken by closed questions on the survey followed by a deeper exploration in the physiotherapy participant focus groups.

1.5.3.3 Gaining the participants' perspective: focus groups

Focus groups are an interaction that helps people explore and clarify their views in ways that would be less easily accessible in a one-on-one interview. Their aim is to generate discussion between people “*with the emphasis being on interaction between participants*” (Kitzinger, 1994, p103). They occur within a given cultural context and so are highly appropriate for exploring individual's experiences of their social roles and expectations of healthcare delivery. They also potentially allow for deeper exploration of professional expectations and identities in the context of psychosocial and functional assessment. Although one of the reasons for employing a mixed model approach is to enable corroboration of the results, the focus groups can also facilitate elaboration or expansion of the quantitative data or to provide an opportunity to explore any contradictions between the data (Brannen, 2005).

Introduction of the IoSQ has the potential to change a clinician's perceptions of the patient's attributes and preferences which, in effect, could influence the physiotherapist's professional judgement and decisions regarding effective healthcare (Kent & Keating, 2004). In other words, the IoSQ could impact on therapists' clinical reasoning. The introduction of vignettes has been used to good effect in research to explore clinical reasoning processes (Jeffrey & Foster, 2012; MacNeela et al., 2010) and for the purposes of this study, appropriately patient-completed IoSQs will be introduced to the physiotherapy focus groups (section 2.5.5.2, page 81).

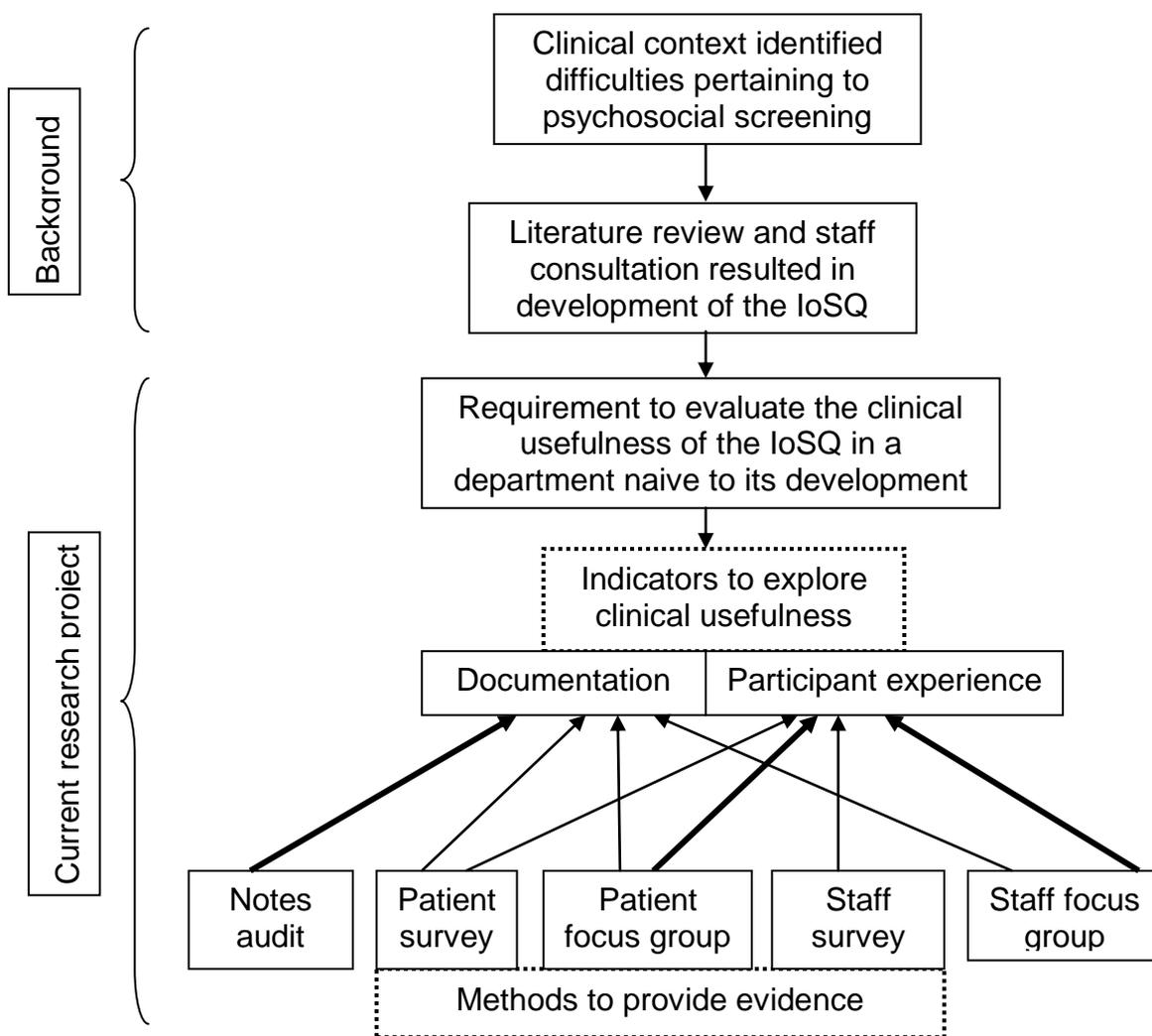
The research process is summarised in figure 1.5 and table 1.1 provides a summary of the contribution of the research methods for exploring the research questions.

1.5.4 Issues relating to data analysis

1.5.4.1 Integrating the results

This project adopted a 'sequential mixed model approach' (Onwuegbuzie & Teddlie, 2003) with the data collection, and analysis and interpretation occurring sequentially, with the potential to inform the next round of data collection and

Figure 1.5: Flow chart summarising the research process (Bold arrow indicates primary source of evidence)



analysis. This process enables the researcher to '*understand the data better*' and to '*get more out of the data*' (p353). For example, reference to the frequency or dominance of a theme within a focus group analysis, as well as the context in which this may have occurred, integrates both a positivist and constructionist component to the interpretation of the data. Although the researcher is providing a judgement on the importance of a topic, as it is presented within a context of the development of the discussion, the researcher's position, previous research and the data from the other methods used, the reader is provided with an 'audit trail' to determine the appropriateness of the interpretation (Onwuegbuzie & Teddlie, 2003). The same authors go on to describe that due to the exploratory (rather than confirmatory) nature of the project, it is appropriate to undertake a descriptive

Table 1.2: Summary of the contribution of the research methods for exploring the research questions

Question	Audit	Survey	FGs
What are patients' experiences of psychosocial and functional assessment?	Presence / absence of screening questionnaires	Closed questions (numerical response) and opportunity for comments (thematic analysis)	Emergent themes or subthemes
How does IoSQ influence level of documentation of assessment and addressing of issues raised?	Descriptive statistics of presence of evidence for assessment as identified by audit tool	Not directly explored: potential to write comments (thematic analysis)	Emergent themes or subthemes
What evidence is there for patients engaging with IoSQ?	Descriptive statistics of presence of evidence for assessment as identified by level of completion of IoSQ	Closed questions (numerical response) and opportunity for comments (thematic analysis)	Emergent themes or subthemes
What evidence is there for physiotherapists engaging with IoSQ?	Descriptive statistics of presence / absence of IoSQ in the notes	Closed questions (numerical response) and opportunity for comments (thematic analysis)	Emergent themes or subthemes
What are participants' experiences of using IoSQ?	Level of completion of the IoSQ	Closed questions (numerical response) and opportunity for comments (thematic analysis)	Emergent themes or subthemes

statistics analysis of the numerical data. The data for each method will be presented individually (chapters 3, 4 and 5) but will then be integrated in chapter 6 in preparation for discussing the findings in the context of the literature, in chapter 7.

As described above, this study draws on both positivist and constructionist paradigms (Teddlie & Tashakkori, 2003). With respect to the analysis of the focus groups, the epistemological principles of social constructionism (Berger & Luckmann, 1967) and discourse analysis (Potter & Wetherell, 1987) are observed. It is not a specific *method* that makes an analysis discursive but the application of an interpretive process with the intention of understanding the discourse (what people say or write) within a social context. Indeed,

“Without discourse, there is no social reality, and without understanding discourse, we cannot understand our reality, our experiences, or ourselves”.

(Phillips & Hardy, 2002, p2)

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Duggleby (2005) summarises different ways that group interaction can be considered: analysis of the individual and group data using selected approaches and then the interaction described and included in the interpretation of the group data; incorporating group processes into the transcript and thereby the analysis; or by posing questions regarding the group interaction and process of topic discussion and then using these answers to describe the group interaction. Duggleby (2005) advocated the first approach as it minimised the loss of data as a consequence of simply describing interactions. She also felt that asking questions of the data did not enable consistency in the analysis. To enable adherence to a social constructionist paradigm, incorporation of discursive aspects during the analytic process (Marlow, 2009; Moen, Antonov, Nilsson, & Ring, 2010; Salmon & Faris, 2006) would be particularly valuable. This would also enable the keeping of a critical eye to the position and influence not only of the participants but also of the researcher (Braun & Clarke, 2006; Burr, 2003; Phillips & Hardy, 2002).

1.5.4.2 *Enhancing rigour in qualitative research*

Lincoln and Guba (1985) proposed alternative criteria for assessing rigour to that used in quantitative research: this broadly clusters around the concept of 'trustworthiness'. The criteria comprise credibility (internal validity), transferability (external validity), dependability (reliability) and confirmability (objectivity).

Credibility relates to the findings of the analysis holding validity with the participants of the study. Transferability pertains to how far the findings can be generalised to other contexts and is dependent on clarifying underpinning assumptions and providing a detailed description of the context of the research. The responsibility for the 'transfer' of findings is held by the subsequent researcher or reader.

Dependability requires the provision of as much detail as possible about the setting and context of the study and any changes that may occur throughout the project along with report of the impact these changes may have on the participants and / or the researcher.

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Confirmability relates to providing evidence of other people 'confirming' the findings of the researcher. This is important as qualitative analysis is a subjective process which, despite the best of intentions and practice of remaining 'close to the data', the development and analysis of themes will inevitably be influenced by the knowledge, values and experience of the researcher (Moen et al., 2010). The professional roles and experience of individuals contributing to the analysis would also need to be identified: for example, if they were pain management clinicians. In this case, their experience or world view would hold the same bias as the primary researcher (Tobin & Begley 2004). Reflexivity is the process whereby researchers reflect on their values and actions whilst undertaking their research project (Seale, 1999). This allows the reader to have greater insight to the researcher's decision making processes, including their ontological and epistemological positions, with which the reader may choose to agree or disagree.

1.6 Participant involvement

The IoSQ was developed as a consequence of issues identified with physiotherapists using questionnaires and undertaking psychosocial and functional assessment. As described earlier, all local staff were invited to be involved in the development of the IoSQ. With respect to the development and delivery of this project, there was no clinician or patient involvement. As part of the consent process, patients in study 2 were asked if they would like a summary of the research findings. This was disseminated on completion of the research project.

1.7 Ethical issues

1.7.1 Good Clinical Practice

It is essential to guard against the fabrication or falsification of data or undertaking any form of plagiarism or deception in the presentation of evidence or results and to ensure "*that all reasonable steps to protect the dignity, rights safety and well-being of participants*" are undertaken (Department of Health

[DOH], 2005). Prior to engaging in medical research, all researchers are required to undertake Good Clinical Practice (GCP) training. This includes familiarisation with the Research Governance Framework (RGF) (DOH, 2005) which describes guidelines on improving ethical standards, safeguarding the public, improving research quality and preventing poor performance and misconduct (Medicines and Healthcare Products Regulatory Agency, 2013).

Not only is there a research and clinical mandate to 'do no harm' it is important to strive to 'do some good'. It may seem intuitive that by striving to develop a tool designed to enhance patient-centred care, the research should be perceived as 'doing good', however this may not be the experience of a potential participant. Patients attend physiotherapy with the expectation of receiving input designed to maximise their recovery: not to be observed, complete non-clinically relevant questionnaires or have their opinions or feelings explored in the name of research (Iphofen, 2005). For these reasons, a number of issues were considered in this project and in the development of the participant information leaflets, as outlined by RGF: protocol adherence, informed consent, the right to withdraw from the study, confidentiality, anonymising data and establishing processes in the event of disclosure of distressing or medically relevant information. "*Informed consent is at the heart of ethical research*" (DOH, 2005, p7) and care was taken that study literature was piloted for readability and appropriateness with adequate time being provided prior to consent being taken.

With respect to data protection, all databases were held on a password protected NHS computer system. Databases containing personal details of participants were stored on the same system within the personal drive of the administration assistant and were deleted once all data had been analysed and the research summary disseminated to the participants who requested it. All paperwork containing personal details were stored in a locked filing cabinet in a locked office and destroyed as soon as details had been entered on to the appropriate databases. To ensure adherence to GCP code of practice both the lead researcher and the clinical manager at the study site ensured that they had recently attended approved training.

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1.7.2 Ethical approval

The chair of the Royal Devon and Exeter Research and Development Directorate deemed that study 1 was a service evaluation so approval from the Integrated Research Approval System was not required (appendix 3) and ethical approval was granted by the University of Exeter, School of Psychology (reference number 2011/589) (appendix 4).

However, due to the introduction and evaluation of a novel clinical tool to a service, ethical approval was required for study 2 and was obtained from the Proportionate Review Sub-committee of the National Research Ethics Service Committee East of England, Hertfordshire, reference number 12/EE/0076 (appendix 5) and subsequently by Royal Devon and Exeter NHS Foundation Trust (reference 1211715) (appendix 6). The University of Exeter agreed to sponsor the study (appendix 7) and site specific approval was granted by the local Foundation Trust (appendix 8).

1.8 Summary

This chapter has summarised the context for the development of a condition-generic tool for use in musculoskeletal physiotherapy departments, designed to prompt assessment and documentation of the psychosocial and functional impact of a health problem. There is a need for therapists to routinely undertake such assessment, but current practice is for this to be undertaken in an 'informal' way. Barriers to such assessment are reported as including: inconsistent and inadequate undergraduate training for the development of appropriate assessment skills being, qualified staff feeling that it is 'not their remit' or 'beyond their professional boundaries'. The Impact of Symptoms Questionnaire was developed in response to a local service need following an audit that had highlighted poor written evidence of physiotherapists undertaking psychosocial and functional assessment, and addressing issues to patients' satisfaction. A subsequent service evaluation had shown that the IoSQ was valued, but this was undertaken in the localities in which it had been developed. In the context of the Complex Interventions Framework (Craig et al., 2008) and the phase of developing concrete proposals for change (Grol & Wensing, 2005),

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it was decided that a mixed methods approach would be valuable for exploring the acceptability and clinical value of the IoSQ in a department naive to its development.

CHAPTER TWO

THE RESEARCH METHODS

2.1 Introduction

This chapter describes the research steps and processes in detail. The research site and population is described, followed by the each of the methods for study 1 (pre-introduction of the IoSQ) and then study 2 (post-introduction of the IoSQ). The project process is depicted graphically in figure 2.1.

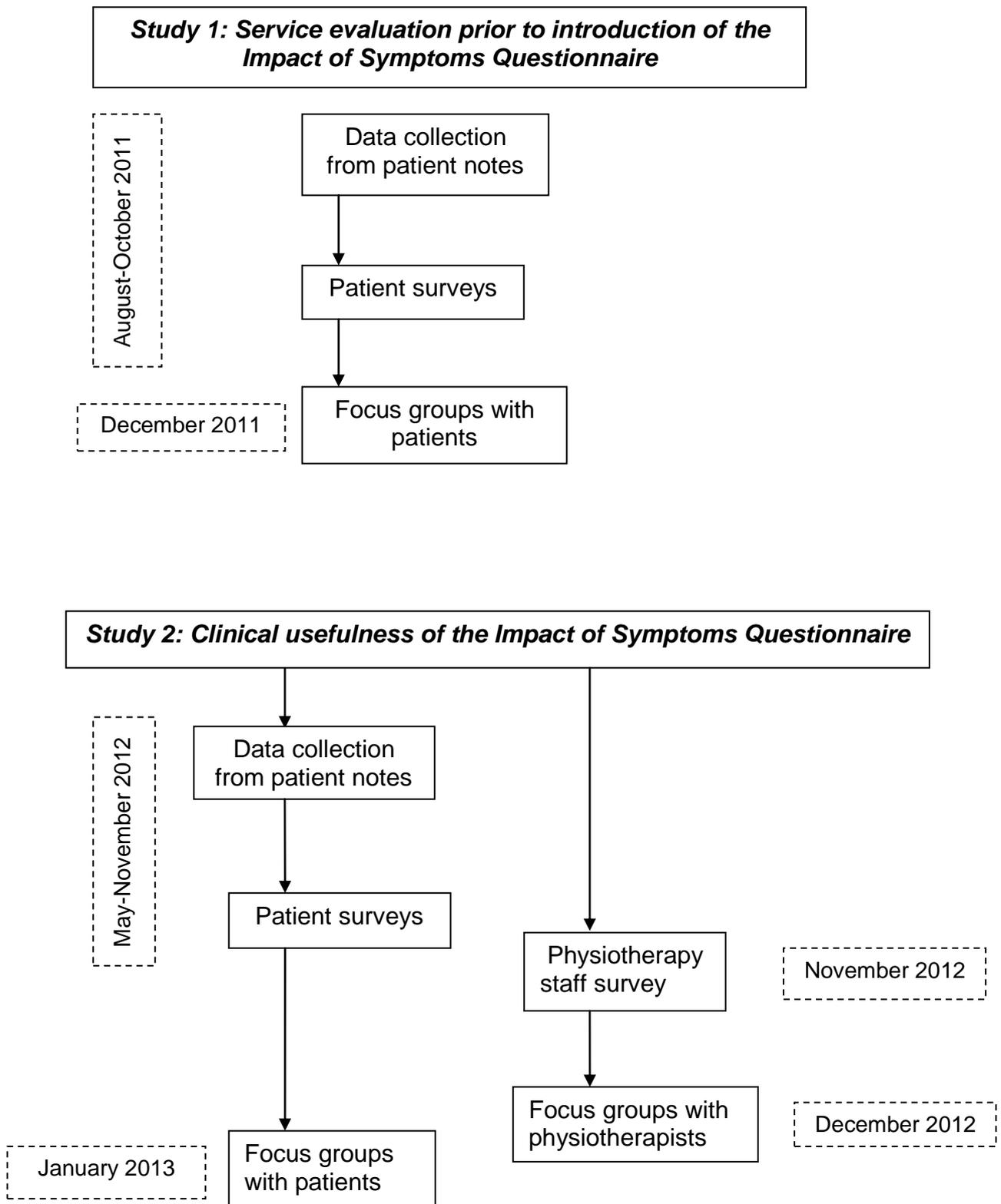
2.2 Research site

The initial aim was to approach physiotherapy departments with a minimum of five staff, outside the Trust where the IoSQ had been developed. There were only three within a 25-mile radius: one was a community department and two were hospital based. Two responded expressing interest but only one remained in contact and agreed to be involved. There were no pre-existing clinical or professional links between the researcher and the research site with the staff having no known awareness of the development or use of the IoSQ.

The physiotherapy service was affiliated to a Foundation Trust providing care to a resident and visitor population of about 350,000. Any population increase tends to be as a consequence of migration within the UK rather than internationally (ONS, 2011). It covers a mixed urban and rural community, and across the region there is an older age structure than the UK average. There is a non-white ethnicity of about 5 percent.

The hospital-based physiotherapy department had a caseload described by the lead physiotherapist as predominantly post-surgery elective and trauma patients with 6.7 whole time equivalent staff and a new patient capacity of approximately 55 per week. There were also some secondary care complex (chronic pain) referrals.

Figure 2.1 Flow chart representing time scales and research process



2.3 Patient participant sample

2.3.1 Inclusion criteria

All new patients, aged 16 and over, with no upper age limit, attending the outpatient physiotherapy department.

2.3.2 Exclusion criteria

Both studies: all new patients aged 15 and under

Study 2: any patients with significant language or learning difficulties which would affect their ability to use the IoSQ.

2.4. Study 1: An exploration of the evidence for documentation of psychosocial and functional assessment by outpatient musculoskeletal physiotherapists, and patients' experiences of this assessment. A mixed model approach.

This section describes the participants, the three methods used, and the development of the tools for each method.

2.4.1 Method A: Audit of patients' notes

To identify the current level of documentation of psychosocial and functional assessment in physiotherapy notes.

2.4.1.1 Population sample

Physiotherapists All staff, pertaining to six posts in musculoskeletal physiotherapy outpatient department. Some of these posts were rotational and so more than one member of staff may be involved

Patients Ten sets of notes pertaining to discharged patients, relating to each physiotherapy post.

2.4.1.2 Development of the audit tool

The audit collection tool had previously been developed as part of a service evaluation project (Knott & Frampton, 2013) (appendix 1). Five diagnostic

categories as identified by the treating physiotherapist were similarly applied to this study:

1. *Trauma and surgery.* Trauma included fractures (treated by immobilisation or surgery) and significant ligament, tendon or muscle injury, managed conservatively or surgically. 'Surgery' included elective procedures such as joint replacements, ligament reconstruction, shoulder decompression, etc.
2. *Osteoarthritis or soft tissue problems.* Physiotherapists specifically diagnosed single joint arthritis through history and examination and/or radiographic findings. Soft tissue diagnoses included minor muscle, tendon or ligament strains, without significant trauma, swelling or bruising and also conditions such Achilles tendinosis, 'Tennis elbow', plantar fasciitis, shoulder impingement, non-surgical femoroacetabular impingement, etc.
3. *Spinal pain and whiplash.* This category was identified by the spine being indicated as the primary source of pain and would be accompanied by a specific (nerve root impingement; sacro-iliac pain; facet joint) or non-specific (postural; muscle imbalance) description / diagnosis
4. *Myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS), fibromyalgia syndrome (FMS) and multi-joint (chronic) pain.* These conditions were either defined as a specific syndrome or were identified by widespread pain distributions on the body chart without a specific diagnosis
5. *Other.* This included non-specific problems requiring reassurance and requests for orthotics or walking aids.

To determine a time point for evaluating if any psychosocial or functional issues had been addressed to the patients' satisfaction, and for the presence of discharge questionnaires, written evidence was sought for agreement of discharge. Four discharge categories were identified for the tool (appendix 9b):

1. Discharge agreed: no further appointment expected
2. Discharge agreed but patient offered a further appointment should they feel it is necessary

3. No discharge agreed and clear written evidence that a future appointment is expected
4. No discharge agreed and no clear evidence that a future appointment is expected

2.4.1.3 Domains of the audit tool

The data collection tool (appendix 10) enabled the recording of the following 18 domains:

- Patient's gender and age
- Diagnosis and duration of symptoms
- Number of appointments
- Presence/absence and name of questionnaires at assessment and discharge
- Presence/absence of documentation of impact of the presenting health problem on the following domains:
 - Questions or concerns the patient may have about their condition
 - Patients' confidence to remain in or return to work or training, or to care for dependents
 - Patients' confidence to engage in their usual daily activities
 - Patients' confidence to engage in their hobbies / social activities of their choice
 - Patients' mood and / or relationships
- Presence/absence of documentation of the same domains being addressed to the patient's satisfaction

2.4.1.4 Testing and refinement of the audit tool

Due to the subjective nature of interpreting written notes a guidance document with explanatory notes and codes was developed alongside the audit tool (appendix 9a). To enhance rigour, the researcher and a research assistant jointly reviewed physiotherapy notes at the place of their work prior to undertaking the audit for study 1. Appropriate amendments were made to the data collection tool and guidance notes until there was agreement in appropriateness and clarity of wording (appendix 9b). For example, it was agreed during the pilot phase that written statements such as "*patient still at*

work” or “*all activities have improved*” would not be interpreted as adequate screening: the patient could still have difficulties or concerns about the impact that their condition was having. If there was information on a referral letter regarding the psychosocial or functional impact, but not referred to or no additional documentation by the physiotherapist, this was not considered to have been screened for.

Notes for 15 physiotherapy patients discharged from the auditors’ department were then independently examined the level of agreement checked, and disagreements in data collection discussed. Full agreement in the presence or absence of all psychosocial and functional domains was reached for only four sets of notes which led to further refinement of the guidance notes.

Discrepancies mainly related to whether or not the physiotherapist had fully screened for the impact of symptoms on the domains of work/training and usual daily activities (also see section 3.5, page 89).

2.4.1.5 Audit procedure

Staff at the study site were informed that a service evaluation was to be undertaken looking at physiotherapy assessments. The exact study topic and nature of the audit was not disclosed to minimise change in behaviour. Ten sets of notes were collected for each ‘clinical post’.

The researcher and research assistant independently audited four sets of notes at a time. Data extraction was compared and discrepancies discussed until agreement was reached. Reasons for discrepancy were noted and categorised as: information missed; difference in interpretation of information; carelessness or mistake; misunderstanding of information. The auditor that the agreed decision was attributed to was noted. The next four sets of patients’ notes were then examined. The therapists’ and patients’ names were added to a tear-off section of the data collection form which were later removed and replaced by identity codes by the administration assistant. This was undertaken prior to the researcher entering the data onto an Excel spreadsheet (2007). Three site visits were required to complete the audit.

2.4.1.6 Addressing legibility and discrepancy issues

In study 1, four sets of notes (all for the same therapist) were deemed too difficult to audit independently due to illegibility: these were audited together. Where there were discrepancies between the auditors these were recorded and reported (section 3.5, page 89). Where discrepancy occurred for one of the psychosocial or functional domains at assessment, this usually meant that owing to the coding process, there would be discordance for the discharge domain. This would occur even if there was agreement for evidence of the domain being addressed at discharge. Below is an example of different codings that may be used (appendix 10):

Interpretation: information in the notes was interpreted differently but discussion resulted in agreement

Code 1 at discharge: question or concern / domain screened and identified initially; evidence of being addressed to the patient's satisfaction

Code 3 at discharge: question or concern / domain not screened or identified initially, but evidence of being addressed to the patient's satisfaction

Categories for reasons for discrepancies were developed during the pilot phase of the audit tool development and comprised:

- *Missed:* one member missed the information that had been written in the notes
- *Legibility:* notes were difficult to read and either patients' notes were examined by both members together, or there was agreement after discussion
- *Knowledge:* there was a shortfall in medical knowledge which resulted in misinterpretation of information
- *Incorrect:* information was interpreted incorrectly or information was missed

2.4.1.7 Analysis of audit data

Data was entered on an Excel (2007) spreadsheet and summarised using descriptive statistics. The mean, range and standard deviation was determined for each value. Data entry was checked for a 10% sample by the research assistant who had helped with the data extraction. No errors were found.

2.4.2 Method B: Patient participant survey

2.4.2.1 Sample

Convenience sample of all patients whose notes had been audited

2.4.2.2 Survey development

The principles pertaining to survey development are discussed in section 1.5.3.2, page 50). There is debate over the most appropriate range for Likert scales; the most favoured being either 5 or 7. For the purposes of this study, five was chosen to allow for clarity in directional preference to either anchor, with some scope for indication of strength of opinion whilst facilitating decision-making process due to difficulty in discriminating between different scores. A mid-point option was given to allow for neutrality of opinion (Johns, 2010).

The patient survey was developed to explore *the patient's* experience of psychosocial and functional assessment (appendix 11), for the same notes audit domains:

- Questions or concerns they may have had about their condition
- The impact of the symptoms on their confidence to undertake their usual paid work or their caring responsibilities
- The impact of the symptoms on their confidence to undertake their required activities of everyday living, hobbies / social activities
- The impact of the symptoms on their mood

The patients were asked if:

- If their symptoms had impacted on each these domains
- If their physiotherapist had fully addressed any question or concern they may have had about their condition
- If the physiotherapist had provided all the support or advice required to improve their confidence in any of the domains affected.

These questions were bidirectional ('Yes' or 'No' answers or tick box if the domain was affected) with an invitation to write down the question or concern that they may have had.

Chapter 2. The Research Methods

The survey also enquired as to how useful people felt it was for these domains to be screened, rating 1-5 with anchors of 'Not at all useful' and 'Extremely useful'. Space was provided for any additional comments.

Questions were developed by the researcher and feedback was gained from local patients and staff and amendments made to minimise ambiguity and improve readability.

2.4.2.3 *Patient survey procedure*

At the time of anonymising the audit data sheets, an administration assistant transferred the unique patient identity code to each survey. An introductory letter and information leaflet (appendix 12), the survey and stamped-addressed return envelopes to the administration assistant were enclosed and posted to each patient. Non-responders were sent reminders at two weeks. The administration assistant passed returned surveys to the researcher for data extraction.

2.4.2.4 *Analysis of patients' surveys*

Data was entered, checked and summarised as in section 2.4.1.5, page 66. Any qualitative comments were recorded and summarised thematically.

2.4.3 *Method C: Patient focus group (patFG1)*

2.4.3.1 *Sample*

All patients who received a survey form.

2.4.3.2 *Participant recruitment*

All respondents were asked on the survey to indicate preferred method of communication: telephone, e-mail or letter. All potential participants agreed to e-mail contact, so this was undertaken using "blind cc's". Those who had expressed an interest but did not respond to the first contact were approached once more. If there was no subsequent response, contact was ended. Mutually convenient dates for the discussion group were agreed by e-mail. No financial incentive or reimbursement was offered.

2.4.3.3 *Topic guide development*

Key questions and prompts were developed in the context of the research question, and then piloted, discussed and refined with colleagues. The opening 'warm-up' question was intended to promote relaxed discussion (Kitzinger, 2005): "I would like you to introduce yourselves and give a brief account as to what prompted you to attend this focus group". The topic guide included the following questions (appendix 13):

- You all indicated on your survey forms that you thought it was important for physiotherapists to explore the impact that your symptoms or health problem can have on different aspects of your life. Can you tell me more about that?
- How did it come about that these issues relating to the impact of your symptoms were explored?
- What could help to improve this process?
- How did your physiotherapist make sure that any concerns had been fully addressed?
- I would like to show you a questionnaire that has been developed. What are your thoughts about the value of this for trying to identify the impact of your health problem?
- Summarise key points: is there anything that you would like to change or add?

2.4.3.4 *Focus group procedure*

Information about the focus group (appendix 14) was sent by e-mail, and a paper copy made available if required at the beginning of the focus group. Informed written consent was gained, anonymity assured, reminder of right to withdraw given and ground rules regarding mutual respect and confidentiality agreed before digital audio recording began.

The discussion was held in a private meeting room in the research site department and refreshments provided. Consent was obtained on arrival (appendix 15). The discussion was facilitated by the researcher who set the context prior to asking the questions outlined above. Demographic data was

identified for each participant by the research administrator from the notes audit database.

2.4.3.5 Analysis of patient focus group data

As indicated in figure 1.5 (page 54), the aims of the focus group were: to specifically explore patients' experience of enquiry into the psychological, social and functional impact of a health problem, with and without the IoSQ; to develop a deeper insight regarding participants' level of engagement with the IoSQ (thereby enriching the data from the notes audit); and to explore physiotherapists' experiences of using, and levels of engagement with the IoSQ. Although there was no direct enquiry into the process of documentation, any reference within the either of the focus group transcripts were coded. The addressing of these secondary research questions would help to identify the acceptability and perceptions of clinical usefulness of the IoSQ.

The rationale for the analytic approach was discussed in section 1.5, page 47. Recordings were transcribed verbatim by the researcher using pseudonyms to ensure anonymity. No formal convention was used for the full transcript, although time points were added to facilitate identification of coded sections later on. Transcripts were e-mailed to relevant participants for content checking with the option for making additional comments or amendments. A thematic analysis (Boyatzis, 1998) was undertaken drawing on methodology described by Braun and Clarke (2006) and Richards et al., (2006). An inductive approach was undertaken with the intention of condensing the raw data into a summary format; to create links between the research questions and the themes developed from the raw data; and to develop a theory for the underlying context for the experiences and process of using the IoSQ (Thomas, 2003). In sections where a discursive analytic consideration was taken (section 1.5.4.1, page 53), Jefferson's convention was applied (1984): an example of this transcription style is given in appendix 16. Although a full discourse analysis was not undertaken, this mode of transcription allows for some consideration to be given to the context and interaction in which points are raised (Duggleby, 2005) as well as considering the role of the facilitator in shaping the discussion (Salmon & Faris, 2006) (sections 1.5.4.2 and 5.2.5.3, pages 56 and 143).

Familiarisation with the data: As the researcher had facilitated and transcribed group discussion, the process of coding was undertaken concurrently with the first reading of the transcripts (Boyatzis, 1998). Participants' real names were replaced with pseudonyms to ensure anonymity. As described in Braun and Clarke (2006, p84), a researcher "*cannot free themselves of their theoretical and epistemological commitments*" and so the process for coding and thematic development is described in the following sections.

Generating initial codes: When statements that were deemed relevant to one of the research questions were identified, they were then copied and pasted into a new Word reference document (Jeffrey & Foster, 2012). Each of these units of data was then summarised into a descriptive statement (initial code) (Richards et al., 2006). Level of incidence of a code does not provide weight or validity to the code, especially in the context of a pilot or feasibility study where numbers in the discussion groups are low (Braun & Clarke, 2006). There were occasions where a "*given quotation could be classified under more than one code*" (Attride-Stirling, 2001; Braun & Clarke, 2006) and this is highlighted in the results section.

Searching for themes: A theme can be defined as something important in the data set that is relevant to the research question(s) and can be recognised as occurring at some level of a 'patterned response' (Braun & Clarke, 2006). An inductive approach (Boyatzis, 1998) to theme development was undertaken as research into the stakeholders' experience of undertaking psychosocial or functional screening had not been previously undertaken. This means that themes identified were strongly linked to the data itself but will subsequently be related to any relevant aspects from the literature review in the discussion.

Initial codes were copied into text boxes in a separate document with overlapping codes being grouped together: these were then given an overarching descriptor (theme) (Richards, et al., 2006). These theme labels were then written in the analysis table colour coding also being used to clarify the analysis process (see examples in table 5.1, page 134). As theme identification can also be influenced by a researcher's clinical experience selectively noting topics that may otherwise have been overlooked (Braun &

Clarke, 2006) every effort was made to 'stay close to the data' when identifying and developing codes and themes, especially when analysing the later focus groups, so that they were not overly influenced by theme development within previous groups.

Reviewing themes: As the themes were developed, there was constant checking and moving "*back and forward between the entire data set*" (Braun & Clarke, 2006 p86) and the initial codes. Reliability of coding was assessed through:

- feedback from two independent, experienced qualitative researchers
- presentation of two 4-page extracts at a qualitative researchers' discussion forum
- and through feedback from two academic supervisors

Throughout this and the following processes, thematic 'maps' of analysis were developed and modified until the final version was developed (Attride-Stirling, 2001) (figures 5.1, 5.2, 5.3, pages 133, 152 and 164). This process helped to keep the different themes distinct and sometimes resulted in the reorganisation of codes and themes.

Defining and naming themes Once the themes had been developed for each group, they were described and summarised and sent by e-mail to the members of the group, with feedback invited (for an example, see appendix 17). Themes were summarised at the beginning of each relevant section in the report drawing on examples from the sub-themes to illustrate the overall definition of the theme.

Enhancing trustworthiness This concept pertains to how the researcher demonstrates that findings are "*worth paying attention to, worth taking account of*" (Lincoln & Guba, 1985, p290). Research needs to be judged to have been 'well done' and trustworthiness applies across the processes of design, measurement, data collection, analysis, interpretation and writing (Johnson & Turner, 2003, p300). The processes employed to enhance trustworthiness are described in the sections above.

Producing the report The table that had been used to collate the coded text, sub themes and themes was referred to throughout the process of the report writing. This ensured that coded units could be considered systematically for representation: this again resulted in some final revision of the themes. The analytic process continues within the report writing, and includes a reflection on the underlying ideas and assumptions that are considered to have “*shap(ed) or inform(ed) the semantic content of the data*” (Braun & Clarke, 2006, p84). This is a ‘latent’ approach to analysis and is discussed further in the next section.

Consideration of discursive aspects of the focus groups Whilst reading the transcript and undertaking the thematic analysis, notes were taken regarding the context, tone and communication style of participants. Where this was to be specifically considered in a discursive context, the transcribing style of Jefferson was used (1984). Consideration to the discursive context was also undertaken by a qualitative support group, comprising three additional members, who independently read, marked and discussed two sections of the transcript of 15 and 10-minutes respectively (Murdoch, Poland, & Salter, 2010).

2.5 Study Two: Evaluation of the clinical usefulness of the Impact of Symptoms Questionnaire (IoSQ)

The research study title was: A mixed model approach exploring the acceptability and clinical value of a psychosocial and functional engagement tool: the Impact of Symptoms Questionnaire.

2.5.1 Method A: Audit of patients’ notes

2.5.1.1 Sample

Physiotherapists All staff, pertaining to six posts in a musculoskeletal physiotherapy outpatient department. Some of these posts were rotational and so more than one member of staff may be involved

Patients All new patients aged 16 and over attending a musculoskeletal physiotherapy outpatient department.

2.5.1.2 Recruitment:

Physiotherapists All staff attended a 45-minute meeting to introduce the IoSQ, explain its purpose, and to provide information about the research project. Written information about the study (appendix 18) and use of the IoSQ was provided (appendix 19) but to minimise change in practice, no specific feedback about the service evaluation was given. Staff were invited to complete consent forms which were collected at the end of the meeting (appendix 20).

Patients Reception staff sent patients their first appointments in the post (usual practice) and included a copy of the IoSQ, the research information leaflet (appendix 21) and consent form (appendix 22). Physiotherapy staff discussed consent with patients at their first appointment with the option of gaining consent by the second. Staff were also requested to record the number of patients who did not consent. Signed consent forms were kept in patients' notes, the front of the notes being marked to aid identification on discharge. Usual treatment was provided.

Staff were asked to monitor how many patients were invited to participate, consented and declined to consent.

2.5.1.3 Procedure for audit and analysis

See study 1, sections 2.4.1.5 and 2.4.1.7 (pages 66 and 67). In this study, a total of 33 domains were audited across assessment and discharge and are summarised in table 2.1.

Owing to a period of time between the auditing process for study 1 and 2, a 'reorientation process' was undertaken and the first two sets of notes were audited together. A further eight sets of notes were audited jointly due to illegibility and the potential time that would be required to audit these independently.

Table 2.1 Summary of notes audit domains for study 2

Generic domains	Gender; age; diagnosis code
Assessment	Duration since onset; questionnaire present at assessment (not loSQ); written evidence of question or concern about condition; written evidence of impact of condition on a) work/caring b) activities of daily living c) hobbies d) mood; loSQ present at assessment; number of domains ticked; which domains ticked; number of domains comment added; question written for the therapist; numerical rating scores (NRA); average NRS
Discharge	Number of appointments; duration of treatment; written evidence of planned discharge; questionnaire present at discharge (not loSQ); written evidence of satisfactorily addressing identified question or concern; written evidence of satisfactorily addressing impact of condition on a) work/caring b) activities of daily living c) hobbies d) mood; loSQ present at discharge; number of domains ticked; which domains ticked; number of domains comment added; was any question/concern answered appropriately; NRS scores; average NRS scores

2.5.2 Method B: Patient survey

2.5.2.1 Survey development

The first question was the same as for the service evaluation: Did the patient have a question or concern about their condition, what was it, and if so, did their physiotherapist address this to the patient's satisfaction. Question two was also the same: did their condition have an impact on specific psychosocial or functional domains, and if so, did the therapist provide all the support/advice needed.

The next question aimed to explore if the patient primarily raised issues themselves, the therapist did, or if issues were raised primarily through reference to questionnaires that had been used during treatment. This question was not used in the service evaluation but was added as a result of the focus group discussion which had questioned the frequency of questionnaires being used or referred to in a clinical setting. Question four related to the loSQ specifically: ease of completion and relevance to their condition, with the option of ticking a box if they had no recollection of completing the loSQ, Questions three and four were scored on a 1-5 Likert scale. The 1-5 scale was chosen to avoid a 'neutral' answer and to keep the range of scale smaller as the key interest was the positive or negative bias as opposed to the potential range or response. Question five, the perceived value of physiotherapists undertaking assessment for the impact on their quality of life (that is, the impact on all

psychological, social and functional aspects of their lives) was the same as question three for the service evaluation.

Initial drafts were developed and then feedback for readability and appropriateness was sought from a clinical psychologist and three physiotherapy colleagues. Minor changes were made to minimise ambiguity.

2.5.2.2 Sample

All patients who had provided consent, been discharged from treatment and the notes had been audited. Any patients who had failed to attend at their last appointment were included in the study.

2.5.2.3 Recruitment

See section 2.5.1.2 (page 75)

2.5.2.4 Patient survey procedure

Due to the low patient participant return rate for the service evaluation (31.7%) the research site was contacted weekly for this second study, ensuring that surveys were sent out in a timelier manner. The site was visited fortnightly and the names and addresses of recently discharged patients were collected along with a photocopy of their consent forms. These were then passed to the administration assistant. Personal data was entered onto a secure database, a unique identity code allocated, and a copy of the patient's signed consent form (appendix 22), the survey (appendix 23), focus group information (appendix 14), and a copy of the IoSQ (appendix 2a) were sent with a stamped, addressed reply envelope to each participant. The remainder of the procedure was undertaken as for study 1 (section 2.4.2.3, page 69).

2.5.2.5 Analysis of patients' surveys

See study 1, section 2.4.2.4 (page 69).

2.5.3 Method C: Patient focus group (patFG2)

2.5.3.1 Sample

As for Study 1, see section 2.4.3.1 (page 69)

2.5.3.2 Participant recruitment

As for Study 1, see section 2.4.3.2 (page 69). Although the IoSQ had been introduced in a 45-minute discussion at the beginning of the study, staff had moved in and out of the department throughout the eight month period. Where possible, the researcher identified new staff when visiting the department to collect data. Otherwise it was left to departmental staff to explain the study, provide the leaflet about the IoSQ and to obtain consent.

2.5.3.3 Topic guide development

Questions were developed in the context of the research aims and discussed with the field supervisor, and a clinical psychologist experienced in working with chronic pain patients. This was to maximise openness of questions and to minimise the likelihood of the questions being too leading. However, it was also important to include appropriate prompts should participants not understand the concepts that were being explored. Questions were piloted with local staff but no modifications were required. The full topic guide is provided in appendix 24 but the key questions were:

- What did you perceive the role of the IoSQ to be?
- How was it used by your physiotherapist:
 - Timing?
 - Refer to it?
 - Did it affect your rapport with your physiotherapist?
- Can you describe to me what it felt like to use it:
 - Advantages or disadvantages; real or potential – for patient or therapist
- Overall, what are your thoughts about the usefulness of the IoSQ as part of your physiotherapy treatment?
 - Would you change anything?

The prompt pertaining to rapport was included as it had been raised in the first focus group as being an important aspect for facilitating disclosure of sensitive information (section 5.2.5.2, page 141). Enquiry was also made into their experience of the research process.

2.5.3.4 Focus group procedure

Introductions and consent processes were similar to study 1 (section 2.4.3.4, page 70) with participants introducing themselves prior to beginning the recording.

2.5.3.5 Analysis of focus group data

As for Study 1, see section 2.4.3.5 (page 71).

2.5.4 Method D: Physiotherapists participant survey

2.5.4.1 Physiotherapists survey question development

As the research site had not been involved in the development of the IoSQ, or the circumstances leading up to its development, the department had no 'ownership' or insight to its clinical intentions. It was important therefore to explore the value of the information leaflet for using the IoSQ in the first question. Subsequent questions were modified from a previous local service evaluation (Knott & Frampton, 2013) (appendix 1) and related to the identified limitations of validated questionnaires:

- The need of one questionnaire being appropriate for all patients
- Including a qualitative aspect to enable the questionnaire to be uniquely specific to the patient's needs
- Easy for patients to complete
- Easy for physiotherapists to score
- Facilitate the impact of symptoms on the psychosocial and functional domains
- Be time-efficient
- Help identify patient-centred goals
- Help to monitor progress in returning to desired levels of function

Questions 2 and 3 (appendix 25) related to two of these issues: relevance of the questionnaire to their patients and any time impact. Questions 4-7 explored the clinical value of the IoSQ for identifying difficulties and for monitoring progress in the specific psychosocial and functional domains. Questions 8-9 explored physiotherapists' perception of patients' experience of using the IoSQ. The first draft of the evaluation survey was constructed with 'Yes/No' questions exploring

the topics of interest. On review by a clinical psychologist, these were considered to be too restricting and so were modified to a 0-5 Likert scale (Johns, 2010).

After the initial service evaluation (Study 1), the research site staff were required to use the EQ5D-5L quality of life questionnaire (EuroQol Group, 2011) and so question 10 was a free text open question about other recent issues that may have affected their awareness for exploring psychosocial issues. Questions 12-13 provided the opportunity for staff to state why they may not have used the IoSQ at discharge and anything else that would help to facilitate psychosocial screening. Questions 14-15 provided additional demographic data as this could be useful in a later study for correlating perceived value of the IoSQ and clinicians' postgraduate training and experience.

Local staff were consulted for relevance, readability and ambiguity of the questions but no amendments were suggested.

2.5.4.2 Recruitment

Once the identification of patients' notes had been completed, each member of staff (10 people across 6 clinical posts) who had used the IoSQ was given the survey (appendix 24) by the service manager.

2.5.4.3 Physiotherapists survey procedure

The administration assistant had previously identified the names of staff from the notes audit data capture sheets, assigning each a unique identity code. These identity codes were written on each physiotherapist's survey form before placing them into personally identified envelopes. These were distributed by the research site's clinical manager. Forms were returned directly to the clinical manager and then to the researcher.

2.5.4.4 Analysis of physiotherapists' survey

See Study 1, section 2.4.2.4 (page 69). The combined mean (range and SD) was applied across questions 1-9 as they all pertained to the issues raised prior to the development of the IoSQ and the scoring system was consistent in its relation to the attitude measurement (Johns, 2010, p8-9).

2.5.5 Method E: Physiotherapy focus group

2.5.5.1 Recruitment

All participants were invited to indicate on the survey if they would be willing to attend the focus group.

2.5.5.2 Topic guide development

As the IoSQ had been introduced to the department in a pragmatic way, without significant guidance on how to use it, the first question pertained to the physiotherapists' perception of the role of the IoSQ. The next question was developed to explore how they had chosen to use the questionnaire. Prompts were included to explore at what point in the treatment they used the questionnaire, whether or not they referred to it and if it affected their clinical practice. These would only be used if discussion required facilitation. The third question explored their experience of using the IoSQ: what did it feel like to use the questionnaire and were there any disadvantages. The wording was developed with a clinical psychologist, experienced in pain management work and focus group question development. Care was taken to ensure that questions were open and any likelihood of directing a response was minimised (Krueger & Casey, 2007). Questions were then piloted with physiotherapists not involved in the study and no changes were suggested (appendix 26).

Two 'vignettes' were also introduced. These were completed questionnaires identified during the notes audit and participants were asked to discuss how receiving either of these prior to the first appointment with a patient might affect their clinical reasoning. The intention of this question was to facilitate engagement with the IoSQ, even if they had not done so during the research period, thereby stimulating further insight into the potential value of the tool (Murdoch, et al., 2010).

The completed questionnaires (vignettes) are shown in appendix 27 but a summary of their completion is given below:

- Patient 227 ticked three of the four domains (work/caring; everyday activities and hobbies), with three brief comments ("teaching – moving about in corridors"; "driving"; and "walking"). There was no question or

worry written down and the aim of treatment was “Help to walk a) without a crutch b) back to how it was!”

- Patient 230 ticked all four domains, with comments for all four domains, taking up the whole line. For example, under everyday activities, they had written: “Body tends to ‘seize’ after working at desk for as little as 10 mins”. Depression and frustration were both written down under the impact on mood, the latter being underline twice. Comments were also written under both the question/concern section and the aims of treatment. They stated that they were not aware of the cause and so it was difficult to “know what was the best way forward”.

As in Murdoch et al’s study (2010) the interviewer distributed the vignettes and left it to participants to initiate the discussion in their own time. The moderator had already advised that a discussion was to be between the participants and she avoided adding prompts and allowed the group to manage their own pauses or silences (Murdoch et al., 2010). The final question related to changes that they would propose should the study be repeated.

2.5.5.3 *Focus group procedure*

A date for discussion was agreed with the team lead that was mutually convenient for all staff. The procedure was as described for Study 1, Method C, see section 2.4.3.4 (page 70).

2.5.5.4 *Analysis of focus group data*

The process for theme development was undertaken in the same way as for the two patient discussion groups in (studies 1 and 2) (see section 2.4.3.5, page 71).

CHAPTER 3

RESULTS: AUDIT OF PATIENTS' NOTES

3.1 Introduction

This is the first of four chapters presenting the results for the five sources of data and their analysis. Chapter 3 presents the results for the audit of the patients' notes for both study 1 and 2: before and after the introduction of the IoSQ.

3.2 Response rates

3.2.1 Study 1: pre-introduction of IoSQ.

Full data sets were collected (between August and October 2011) for a total of six physiotherapy posts, involving ten members of staff (see table 3.1). (See methods, section 2.4.1.1, page 62 for the rationale pertaining to this). A total of 60 sets of notes were audited.

Table 3.1 *Study 1: Profiles and number of notes audited for each of the physiotherapy posts*

Staff post code	Static post or rotational/cover	Numbers of staff involved	Number of sets of notes identified
A1	Static	1	10
A2	Static	1	10
A3	Rotational/cover	1	10
A4	Rotational/cover	1	10
A5	Rotational/cover	3	10
A6	Rotational/cover	3	10
Total		10	60

3.2.2 Study2: post-introduction of IoSQ

The department had an average of 55 new patient slots per week it was anticipated that even at a conservative consent rate of 10%, it would take 12 weeks to recruit with the potential to extend to allow for any attrition (from either treatment or the study) or delayed discharge due to prolonged treatment.

Chapter 3. Results: Audit of patients' notes

Recruitment commenced in April 2012 and the first consented patients were discharged in July 2012. There was poor compliance in the monitoring of consent rates but the data that was collected is shown in table 3.2. There would have been approximately 1000 patients who would have been discharged within this time period¹. To ensure that patient surveys (and therefore recruitment to the focus groups) could be returned in a timely fashion, a pragmatic decision to stop the collection of discharged patients' notes was made at the end of November 2012. Some of the staff had been more active in recruitment than others and this is summarised in table 3.3. Similarly, there was variability in diligence of outpatient physiotherapy staff at identifying consented notes at discharge from patients' treatment. Although staff had been requested to separate out notes from consented patients at discharge, the discharge rate in September raised concern and so departmental filing systems for discharged patient notes were checked. This identified a further 12 sets of consented and discharged notes. A total of 55 sets of notes, pertaining to ten members of staff, were identified and audited.

Table 3.2 *Recruitment and consent rates for study 2 (summed totals)*

	April	May	June	July	August	September	October	November
Consented	0	0	12	35	75	Data no longer collected		
Refused	0	Data not collected		26	31	Data no longer collected		
Discharged	0	0	0	4	12	23	48	55

Table 3.3 *Study 2: Profiles and number of notes audited for each of the physiotherapy posts*

Staff post code	Static post or rotational/cover	Numbers of staff involved	Number of sets of notes identified
B1	Static	1	10
B2	Static	1	8
B3	Rotational/cover	3	9
B4	Rotational/cover	2	10
B5	Rotational/cover	2	8
B6	Rotational/cover	1	10
Total		10	55

¹ This is based on the discharge rate being the same as the new patient rate, which was averaged at 50 patients per week; an average treatment duration of 6.8 weeks (section 3.4.1); no new patient discharges for the first two months of the research period

3.3 Profile of patients

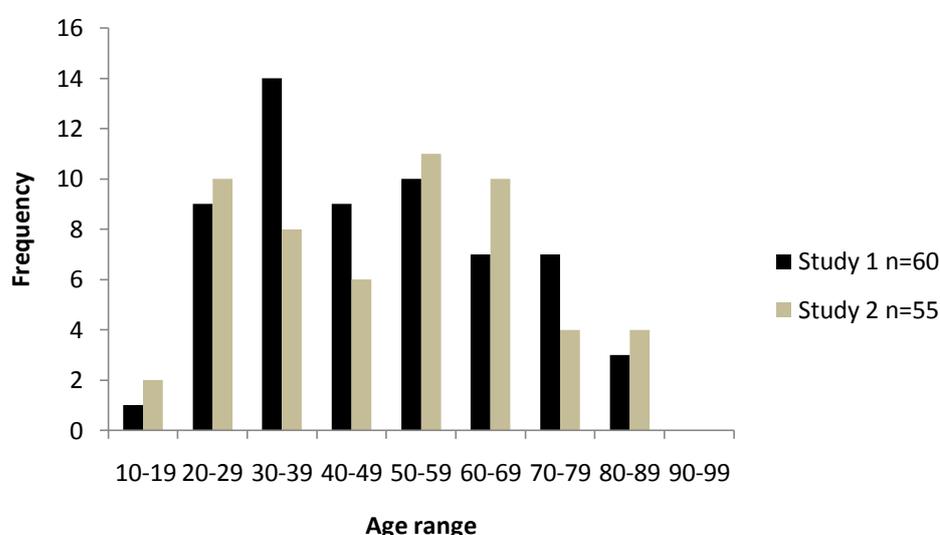
3.3.1 Gender and age range

The gender profile and age distribution for the patients whose notes were audited in both studies are shown in table 3.4 and figure 3.1. In study 1, 78.3% (n=47/60) and in study 2, 70.9% (n=39/55) were of working age (18-65). With respect to being of retirement age (and potentially having caring responsibilities for a partner), 21.7% (n=13/60) in study 1 and 27.3% (n=15/55) were aged 65 or over. There was no record taken of ethnicity but local population statistics record the high proportion of residents in the locality as being white British (section 2.2, page 61).

Table 3.4: Summary statistics of patients involved in notes audit for study 1

	Gender		Age	
	Male	Female	Average	SD
Study 1 n=60	26 (43.3%)	34 (56.7%)	48.2	18.4
Study 2 n=55	24 (43.6%)	31 (56.4%)	49.9	19.7

Figure 3.1: Distribution of age of patients involved in notes audit for service evaluation



3.3.2 Diagnosis and duration of symptoms

Previous service evaluation, as part of the development of the IoSQ resulted in the development of five diagnostic categories (Knott & Frampton, 2013) (appendix 1): trauma and surgery; osteoarthritis or soft tissue problems; spinal pain and whiplash; myalgic encephalomyelitis (ME)/ chronic fatigue syndrome (CFS), fibromyalgia syndrome (FMS) and multi-joint (chronic) pain; other (section 2.4.1.2, page 63)

In this project, the majority of the patients seen had conditions relating to trauma or post-surgical procedures: 68% and 63.6% for studies 1 and 2 respectively (see table 3.5). Few patients (study 1=13.3%; study 2=12.5%) presented with spinal or multisite pain.

Table 3.5: *Diagnostic categories for patients pertaining to the notes audit (%)*

	Diagnosis					Total (%)
	Trauma/ surgery	OA/ soft tissue	Spinal/ whiplash	ME/FMS/ multijoint	Other	
Study 1	41(68.3)	9(15)	7(11.7)	1(1.7)	2(3.3)	60 (100)
Study 2	35(63.6)	12(21.8)	4(7.3)	3(5.5)	1(1.8)	55 (100)

3.4 Summary of interventions

This section summarises the treatment duration, number of appointments, presence of written evidence in the notes for agreement for discharge and presence of questionnaires, other than the IoSQ.

3.4.1 Treatment duration, number of appointments and agreement for discharge

The number of appointments for patients ranged from 1 to 32, with a mean of 7.3 for study 1 and 5.0 for study 2. Figures 3.2 and 3.3 show frequency histograms for the number of appointments and the duration of treatment respectively for the two studies. The range of duration of treatment was 1-48 weeks with a mean of 13 weeks for study 1 and 6.8 weeks for study 2.

Figure 3.2: Frequency histogram for number of appointments

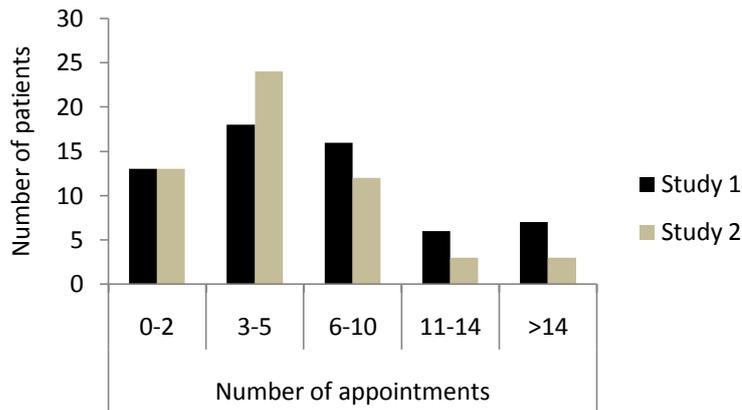


Figure 3.3: Frequency histogram for duration of treatment

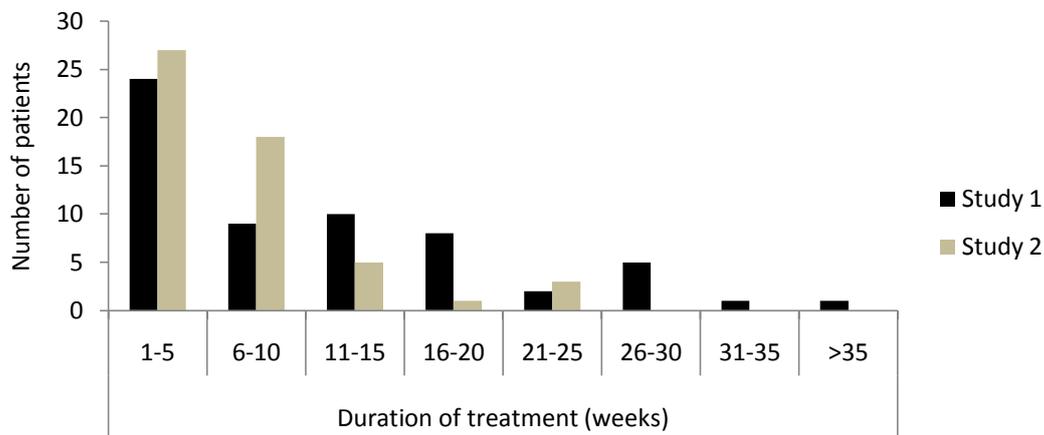
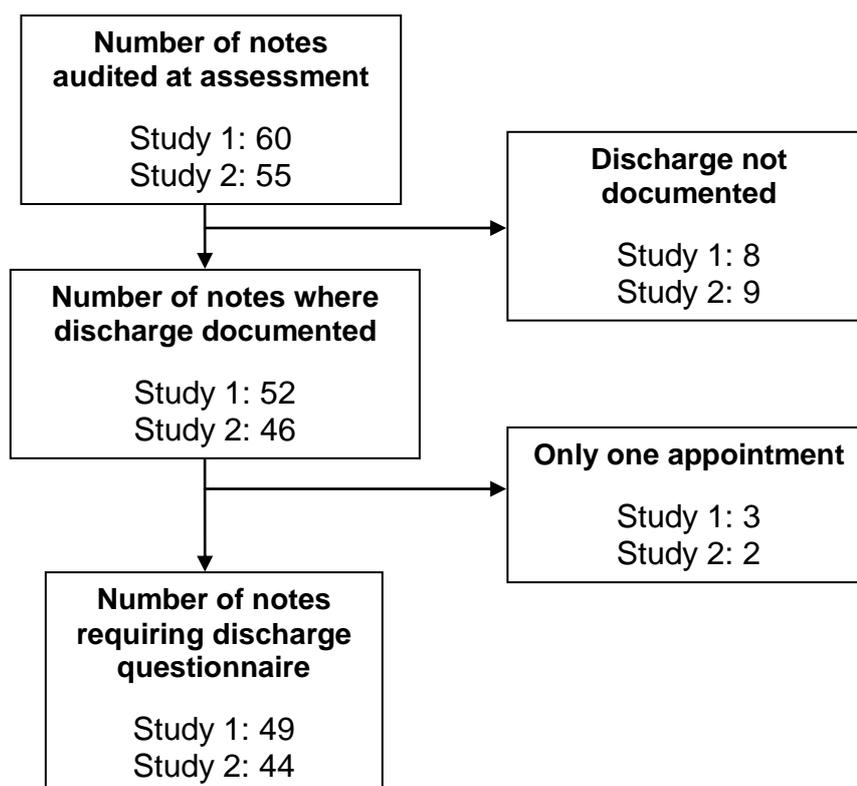


Figure 3.4 demonstrates the number of questionnaires that were anticipated at discharge based on the last entry in the patients' notes stating that discharge had been agreed. Discharge questionnaires were anticipated for 81.7% (49/60) and 80% (44/55) sets of notes.

For 6/8 (75%) and 6/9 (66.7%) of the notes where discharge was not stated, it was written that another appointment was planned. For 2/8 (25%) and 3/9 (33.3%) of the notes there was no written evidence of expectation of either future appointments or plan for discharge. Written evidence for the addressing of any psychosocial or functional issues that had been identified at assessment was looked for, whether or not the last appointment had been identified as the point of discharge.

Figure 3.4 Flow chart describing the number of questionnaires anticipated in the notes at discharge



3.4.2 Presence of questionnaires at assessment and discharge

The presence and names of questionnaires (other than the IoSQ) is summarised in tables 3.6 and 3.7. There is a marked difference in the presence of outcome questionnaires between studies 1 and 2: 10% to 87.3% at assessment and 8.2% to 68.2% at discharge. (See figure 3.4 for clarification of n at discharge). There were no psychosocial screening questionnaires that covered all the evidence based domains, in either study.

Table 3.6: Summary of presence of questionnaires (not IoSQ) at assessment and discharge for studies 1 and 2

	Study 1		Study 2	
	Assessment n=60	Discharge n=49	Assessment n=55	Discharge n=44
Sets of notes with questionnaires	6	4	48	30
Percentage of notes with questionnaires	10%	8.2%	87.3%	68.2%

Table 3.7: Names of questionnaires (not IoSQ) at assessment and discharge for studies 1 and 2

Name of questionnaire	Number of questionnaires present			
	Assessment		Discharge	
	Study 1 (n=60)	Study 2 (n=55)	Study 1 (n=49)	Study 2 (n=44)
TSK (Woby et al., 2005)	2	0	1	0
RMDQ (Roland & Morris 1983)	2	0	0	0
BPI (Cleeland & Ryan 1994)	1	0	1	NA
UEFI (Stratford et al., 2001)	2	11	2	6
LEFS (Binkley, et al., 1999)	1	13	0	9
PSFS ((Stratford et al., 1995)	0	1	0	1
EQ5D-5L (EuroQol Group, 2011)	0	47	0	30

TSK: Tampa Scale of Kinesiophobia; RMDQ: Roland & Morris Disability Questionnaire; BPI: Brief Pain Inventory; UEFI: Upper Extremity Functional Index; LEFS: Lower Extremity Functional Scale; PSFS: Patient Specific Functional Scale; EQ5D-5L: EuroQol-5

3.5 Levels of agreement between the two auditors

The total number of potential domains was 18 for study one (sections 2.4.1.3, page 65) and 33 for study 2 (section 2.5.1.3, page 75. Also see table 3.8.. There was full agreement, across all domains without need for discussion for 15% (9/60) sets of notes in study 1 and 25.4% (14/55) in study 2. For the remaining notes, agreement was reached for all discrepancies apart from two functional domains (hobbies and activities of daily living; at assessment and discharge), both from the same set of notes in study 1. There was a range of 0-8 discrepancies within any set of notes (see appendix 28 for full dataset and examples of discrepancies). There was an overall level of agreement across all audited domains of 86.1% for study 1 and 94.0% for study 2 (see table 3.8).

A summary of the discrepancies for each domain is shown in table 3.9 and the frequency of discrepancies for each category is shown in table 3.10. In studies 1 and 2 these discrepancies related to 92.7% (138/150) and 88.9% (80/90) of the psychosocial and functional domains respectively.

Table 3.8. *Discrepancies in inter-rater agreement for audit domains*

	Sets of notes	Number of notes audited together	Total number potential audit domains	Number of incidents of no agreement	Total number actual audit domains	Total number of discrepancies
Study 1	60	4	$56^1 \times 18^2 = 1080$	2	1078	150 (13.9%)
Study 2	55	10	$45^1 \times 33^3 = 1485$	0	1485	89 (6.0%)*

¹Number of sets of notes audited independently

²Gender; age; diagnosis code; duration since onset; questionnaire present at assessment (not loSQ); written evidence of question or concern about condition; written evidence of impact of condition on a) work/caring b) activities of daily living c) hobbies d) mood; number of appointments; duration of treatment; written evidence of planned discharge; questionnaire present at discharge (not loSQ); written evidence of satisfactorily addressing identified question or concern; written evidence of satisfactorily addressing impact of condition on a) work/caring b) activities of daily living c) hobbies d) mood

³Gender; age; diagnosis code; duration since onset; questionnaire present at assessment (not loSQ); written evidence of question or concern about condition; written evidence of impact of condition on a) work/caring b) activities of daily living c) hobbies d) mood; loSQ present at assessment; number of domains ticked; which domains ticked; number of domains comment added; question written for the therapist; numerical rating scale (NRS); average NRS; number of appointments; duration of treatment; written evidence of planned discharge; questionnaire present at discharge (not loSQ); written evidence of satisfactorily addressing identified question or concern; written evidence of satisfactorily addressing impact of condition on a) work/caring b) activities of daily living c) hobbies d) mood; loSQ present at discharge; number of domains ticked; which domains ticked; number of domains comment added; was any question answered appropriately; numerical rating scale; average NRS

Table 3.9: Summary of discrepancies for each audited domain

	Diagnosis	Duration since onset	Age	Duration of treatment	Presence of questionnaire	ADL	Hobbies	Mood	Question / concern	Work / caring	Total
Study 1	6 (4.0%)	4 (2.6%)	0 (0%)	0 (0%)	2 (1.3%)	34 (23.2%)	40 (27.1%)	11 (7.3%)	28 (17.9%)	25 (16.6%)	150 (100%)
Study 2	3 (3.4%)	5 (5.6%)	1 (1.1%)	2 (2.2%)	0 (0%)	15 (18.0%)	22 (22.5%)	15 (16.9%)	14 (15.7%)	14 (14.6%)	90 (100%)

Table 3.10: Frequency of discrepancies within each category

	Interpretation	Missed	Legibility	Knowledge	Incorrect	Total
Study 1	105 (705)	19 (12.7%)	8 (5.3%)	2 (1.3%)	16 (10.7%)	150 (100%)
Study 2	67 (74.55)	9 (10.0%)	4 (4.4%)	0 (0%)	10 (11.1%)	90 (100%)

3.6 Documentation by physiotherapists in patients' notes

For one set of notes in study 1, there was no agreement between the auditors on two occasions for functional domains relating to hobbies and ADL: therefore there also could be no agreement for the discharge code. There was agreement across all domains in study 2. There was a potential 298 (study 1) ([5x60]-2) and 275 (study 2) (5x55) psychosocial or functional domains at assessment. The flow chart in figure 3.5 summarises the level of physiotherapists' documentation in patients' notes (in both studies 1 and 2), for having explored the functional and psychosocial impact of the presenting health problem. The chart also summarises the level of documentation by physiotherapists that any potential issues had been addressed to the patients' satisfaction.

There was written evidence of screening for 19.5% (58/298) (study 1) and 19.6% (54/275) (study 2) psychosocial or functional domains (figure 3.5). Of the total number of domains where there was evidence of screening, 89.7% (52/58) and 90.7% (49/54) were identified as having an impact (box "Problem identified").

With respect to providing documentation that actual or potential psychosocial or functional issues had been addressed to the patient's satisfaction at discharge, there was no written evidence in 68.1% (203/298) and 69.8% (192/275) domain incidents (box: "Not screened: no evidence potential issues addressed by discharge").

The number of notes where there was no documentation of domains being screened was 40% (24/60) in study 1 and 41.8% (23/55) in study 2 respectively (table 3.11).

Figure 3.5: Flow chart summarising the presence of documentation by physiotherapists, in patients' notes, at assessment and subsequent addressing of issues, across five psychosocial and functional domains (studies 1 and 2)

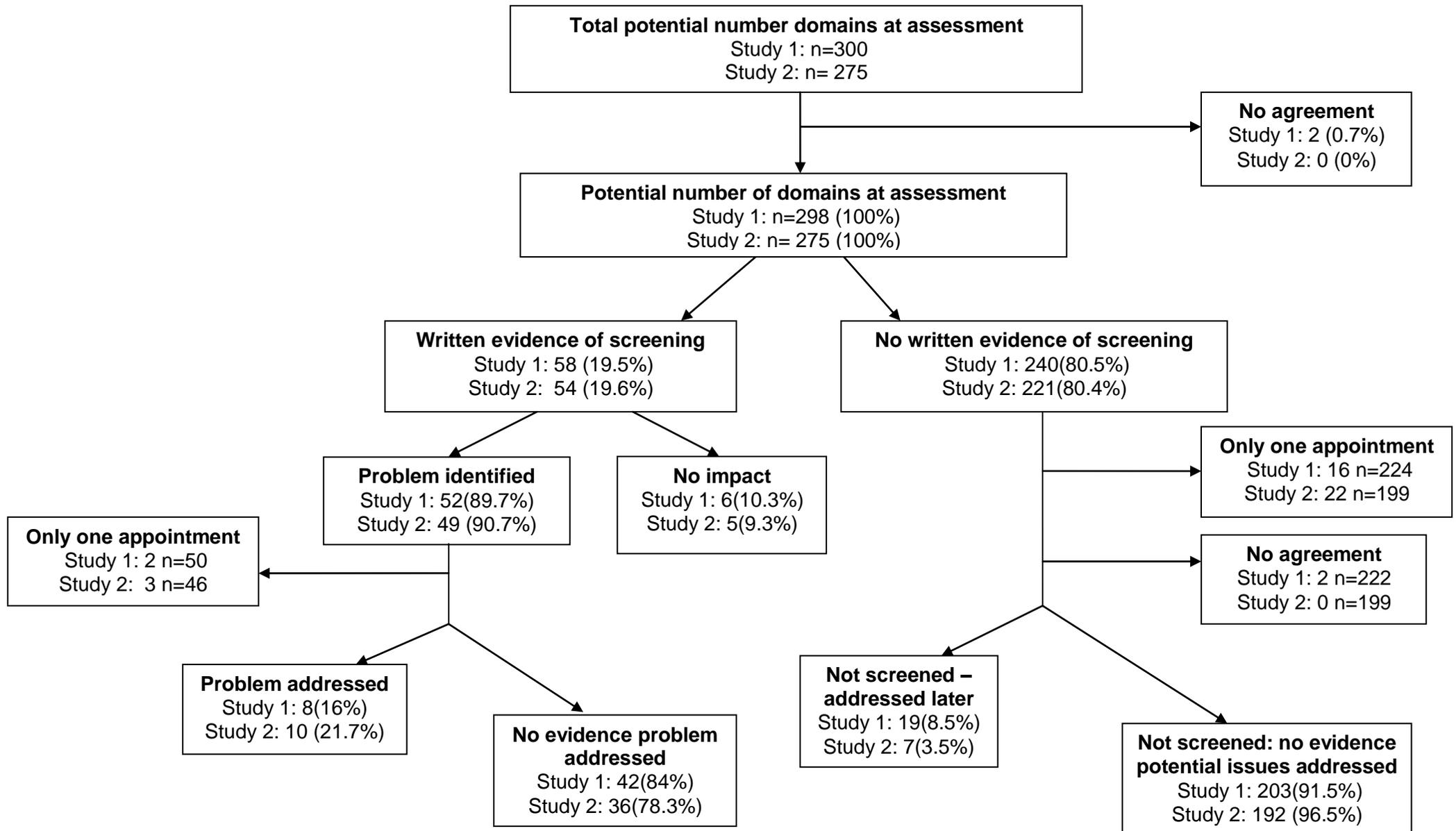


Table 3.11 Frequency of documentation across all of the domains for both studies.

		Number of domains with documentation of screening					
		0	1	2	3	4	5
Sets of notes	Study 1 n=60	24 (40%)	21 (35%)	8 (13.3%)	7 (11.7%)	0	0
	Study 2 n=55	23 (41.8%)	14 (25.5%)	15 (27.3%)	2 (3.6%)	1 (1.8%)	0

Examples are given in appendix 29 reflecting the style and content of patients' notes. These have been typed to ensure anonymity of the physiotherapist and any identifying features removed. The first demonstrates a series of typical notes entries, all for the same patient. The second example shows notes entries when there has been more of a psychosocial or functional consideration.

The remainder of this section looks at each of the domains and considers the level of documentation for assessment and whether or not there was subsequent evidence that any potential concerns or difficulties had been addressed to the patient's satisfaction.

3.6.1 Questions or worries patients may have about their condition

There was a difference of 17.3% between the two studies for providing written evidence of patients who had questions or concerns about their condition: 10% in study 1 and 27.3% in study 2 (table 3.12a). But in both studies, these only related to patients who *did* have questions or concerns. Of those patients where a concern was identified, there was little documentation of it being addressed (table 3.12b, column 2).

Table 3.12a: Questions or worries patients may have about their condition: assessment

		Questions/worries: assessment			
		Yes: affected	Yes: not affected	No evidence of screening	Total
Study 1	6 (10%)	0	54 ¹ (90%)	60 (100%)	
Study 2	15 ² (27.3%)	0	40 ¹ (72.7%)	55 (100%)	

¹Four of these had only one appointment

²One of these had only one appointment

Table 3.12b: Questions or concerns patients may have about their condition: discharge

	Questions/worries: discharge					Total
	Identified and addressed	Screened initially - but no impact	Not screened initially - but was addressed	Identified initially - no evidence addressed	Not screened initially - no evidence addressed	
Study 1	1 (1.8%)	0	4 (7.1%)	5 (8.9%)	46 (82.2%)	56 (100%)
Study 2	1 (2%)	0	1 (2%)	13 (24%)	35 (72%)	50 (100%)

3.6.2 Impact on work, training or ability to care for family members

Only 18.3% of notes (11/60) in study 1 and 9.0% (5/55) in study 2 had written evidence of screening for patients' work or caring responsibilities being affected by their health problem (table 3.13a). There was scant evidence of any identified issues being addressed prior to discharge (0% in study 1 and 2% in study 2) with evidence of only a further 1 (1.8%, study 1) and 2 patients (4%, study 2) being identified later on in their treatment notes with evidence that issues had been addressed by discharge (table 3.13b). Ten patients in each study were described as being retired (16.7% and 18.2% for studies 1 and 2 respectively): 13 (21.7%) and 15 (27.3%) had been identified from the notes audit as being aged 65 years or older. There was no information provided in any of the notes if an older adult had any desire to undertake any form of paid or voluntary work, and if their condition was impacting on this. It was interpreted that issues had not been screened for or potentially addressed in this group, resulting in there being no evidence of issues being addressed by discharge in 71.4% (n=40/56) and 80% (n=40/50) for studies 1 and 2 respectively.

Table 3.13a: Documentation for work, training or ability to take care for family members: assessment

	Work / caring: assessment				Total
	Yes: affected	Yes: not affected	No evidence of screening	Retired / unemployed ¹	
Study 1	11 (18.3%)	4 (6.7%)	35 ² (58.3%)	10 (16.7%)	60 (100%)
Study 2	5 (9%)	3 (5.5%)	37 ³ (67.3%)	10 (18.2%)	55 (100%)

¹No judgement could be made as to the impact of health problem on work/caring roles

²Four of these had only one appointment

³Five of these had only one appointment

Table 3.13b: Documentation for work, training or ability to take care for family members: discharge

Work / caring: discharge						
	Identified and addressed	Screened initially - but no impact	Not screened initially - but was addressed	Identified initially - no evidence addressed	Not screened initially - no evidence addressed	Total
Study 1	0	4 (7.1%)	1 (1.8%)	11 (19.6%)	40 ¹ (71.4%)	56 (100%)
Study 2	1 (2%)	3 (6)	2 (4%)	4 (8%)	40 ¹ (80%)	50 (100%)

¹Ten of these were retired/unemployed

3.6.3 Impact on activities of daily living (ADL)

Table 3.14a shows similar figures for studies 1 and 2 for the percentage of notes where there was no documentation of screening for the impact of the patients' symptoms on their ADL: 74.6% (44/59) and 69.1% (38/55) respectively. There was documentation for a total of 19.7% (11/56) and 16% (8/50) having difficulties addressed (table 3.14b). There was no written evidence that any impact had been addressed (either having been identified initially, or throughout the treatment period) for 80.3% (45/56) of the patients in study 1 and 82% (41/50) of the patients in study 2. There was documentation in one set of notes at discharge that the patient's pain was having a functional impact, but there were no recommendations made.

Table 3.14a: Documentation for engagement in activities of daily living: assessment

Activities of daily living: assessment					
	Yes: affected	Yes: not affected	No evidence of screening	No agreement	Total
Study 1	15 ¹ (25.4%)	0	44 ² (74.6%)	1*	59 (100%)
Study 2	16 (29%)	1 (1.9%)	38 ³ (69.1%)	0	55 (100%)

¹One of these had only one appointment

²Two of these had only one appointment

³Five of these had only one appointment

Table 3.14b: Documentation for engagement in activities of daily living: discharge

Activities of daily living: discharge						
	Identified and addressed	Screened initially - but no impact	Not screened initially - but was addressed	Identified initially - no evidence addressed	Not screened initially - no evidence addressed	Total
Study 1	3 (5.4%)	0	8 (14.3%)	11 (19.6%)	34 (60.7%)	56 (100%)
Study 2	5 (10%)	1 (2%)	3 (6%)	11 (22%)	30 (60%)	50 (100%)

3.6.4 Impact on preferred hobbies or interests

The two auditors failed to reach agreement in study 1 for one of the sets of notes when seeking to identify written evidence of the physiotherapist screening for the impact of the patient's health problem on their preferred interests or social life. There was no evidence of screening in 66.1% (39/59) and 76.4% (42/55) in studies 1 and 2 respectively (table 3.15a). By discharge, there was no evidence that potential issues had been addressed to the patients' satisfaction for 80.4% (45/46) and 90% (45/50) in the two studies respectively (table 3.15b)

Table 3.15a: Documentation for engagement in preferred hobbies / interests: assessment

Preferred hobbies/interests: assessment					
	Yes: affected	Yes: not affected	No evidence of screening	No agreement	Total
Study 1	18 ¹ (30.5%)	2 (3.4%)	39 ² (66.1%)	1 ¹	59 (100%)
Study 2	12 ² (21.8%)	1 (1.8%)	42 ³ (76.4%)		55 (100%)

¹One of these had only one appointment

¹Two of these had only one appointment

³Three of these had only one appointment

Table 3.15b: Documentation for engagement in preferred hobbies / interests: discharge

Preferred hobbies/interests: discharge						
	Identified and addressed	Screened initially - but no impact	Not screened initially - but was addressed	Identified initially - no evidence addressed	Not screened initially - no evidence addressed	Total
Study 1	3 (5.3%)	2 (3.6%)	6 (10.7%)	14 (25%)	31 (55.4%)	56 (100%)
Study 2	3 (6%)	1 (2%)	1 (2%)	7 (14%)	38 (76%)	50 (100%)

3.6.5 Impact on mood or relationships

There was scant written evidence for the systematic screening for the impact of a health problem on patients' mood or relationships: 3.3% (n=2/60) and 1.8% (1/55) in studies 1 and 2 respectively (table 3.16a). Similarly, there was no evidence in either study that any impact on mood or relationships had been screened for, but was unaffected. There was only one additional patient (in study 1) where the impact was identified and addressed later in treatment (table 3.16b).

Table 3.16a: Documentation for impact on mood or relationships: assessment

Mood or relationships: assessment				
	Yes: affected	Yes: not affected	No evidence of screening	Total
Study 1	2 (3.3%)	0	58 ¹ (96.7%)	60 (100%)
Study 2	1 (1.8%)	0	54 ² (98.2%)	55 (100%)

¹Four of these had only one appointment

²Five of these had only one appointment

Table 3.16b: Documentation for impact on mood or relationships: discharge

Mood or relationships: discharge						
	Identified and addressed	Screened initially - but no impact	Not screened initially - but was addressed	Identified initially - no evidence addressed	Not screened initially - no evidence addressed	Total
Study 1	1 (1.8%)	0	1 (1.8%)	1 (1.8%)	53 (94.6%)	56 (100%)
Study 2	0	0	0	1 (2%)	49 (98%)	50 (100%)

3.7 Description and level of completion of the loSQ: study 2

The analysis of the data to explore level of engagement with the loSQ is presented in a number of ways:

- The analysis of psychosocial and functional domains identified (work/training/caring for others; activities of daily living; hobbies; mood/relationships)
- The analysis of psychosocial or functional domains with a written comment
- The presence and content of a written question for the physiotherapist
- The presence and content of aims for physiotherapy treatment
- Scoring of the numerical rating scales

This section starts with a summary of the total number of domains affected at assessment and discharge. The remainder of this section will then provide a more detailed analysis of the domains, but separating out the question or concern for the physiotherapist and treatment expectations: this will be described in sections 3.7.4 and 3.7.5 pages 103 and 106.

At assessment, there were fully completed loSQs in 98.2% (54/55) sets of audited notes. Another questionnaire, EQ5D-5L (EuroQol Group, 2011) was also required to be used in the service: there were 85.4% (47/55) present at assessment.

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At discharge, 5 patients had had only one appointment and so no discharge questionnaires would be expected: n=49. Of the remainder, ten did not have a review/discharge IoSQ by their last appointment: 79.6% (39/49). With respect to the EQ5D-5L, there were 61.2% (30/49) questionnaires at discharge.

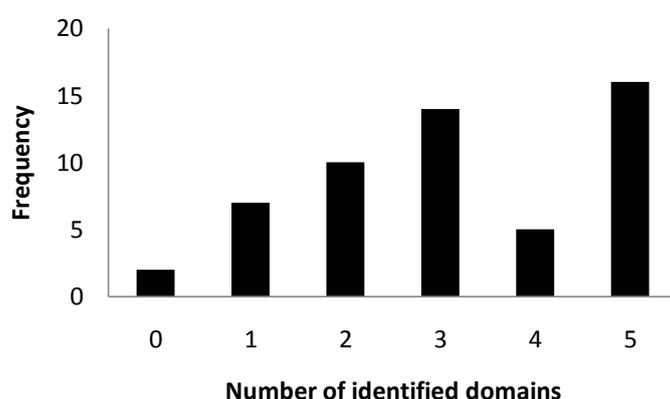
3.7.1 Summary of all domains affected

3.7.1.1 Assessment

A total of 169 domains, out of a potential maximum of 270 (54 questionnaires, each enquiring about 5 domains) were identified as being affected at assessment: a total of 62.6% of all the potential domains were reported as being affected.

There was a range of 0-5 domains identified with the highest frequency being five (see figure 3.6). 96.3% (52/54) patients identified at least one domain. 29.6% (16/54) patients identified that all five domains were affected. Of the five patients who had only one appointment, one did not tick any of the domains, but one identified four, two identified three and one identified two domains.

Figure 3.6: Frequency histogram of number of psychosocial and functional domains affected at assessment (n=54)

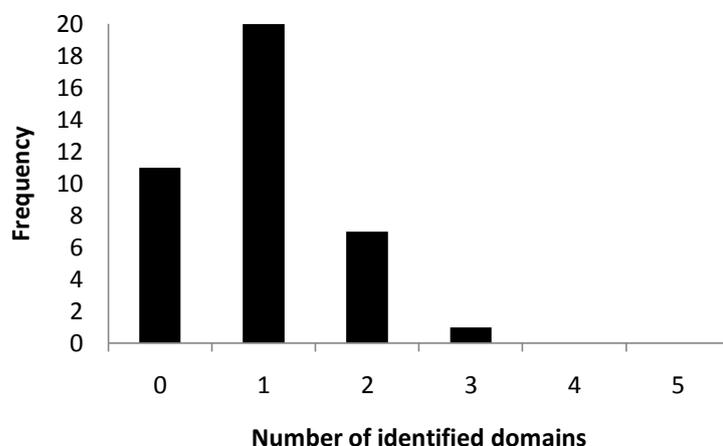


3.7.1.2 Discharge

A total of 37/195 domains, (39 completed questionnaires; 5 potential domains) were identified on the IoSQ as still being affected at discharge. There was a range of 0-3 domains identified with 64.1% (25/39) of patients identifying at least one: one patient reported that three domains were still affected. The

highest frequency of the number of domains affected at discharge was one (see figure 3.7).

Figure 3.7: Frequency histogram of psychosocial and functional domains affected at discharge (n=39)



3.7.2 Frequency of specific psychosocial and functional domains at assessment and discharge

A total of 132 (for 54 patients) domains were identified as being affected at assessment and 33 at discharge (for 39 patients). This can be summarised as 2.4 domains affected per patient at assessment and 0.85 at discharge. The most frequently identified domain at both assessment and discharge were patients' confidence to engage in their preferred hobbies and activities (figures 3.8 and 3.9).

Figure 3.8: Percentage of patients identifying specific domains at assessment (n=54)

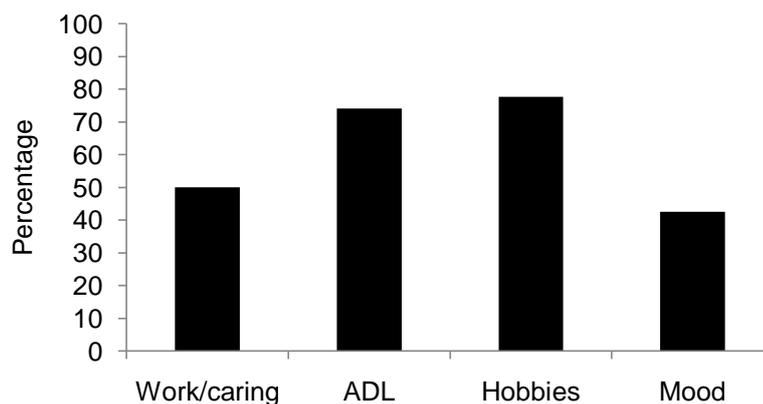
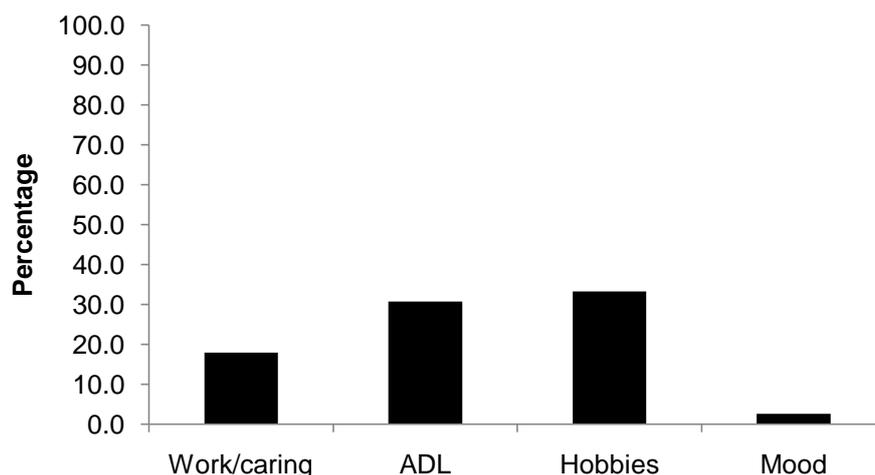


Figure 3.9: Percentage of patients identifying specific domains at discharge (n=39)



3.7.3 Written comments for psychosocial and functional domains at assessment and discharge

The range of number of written comments for the domains (excluding questions or concerns) was 0-4 (n=54) at assessment and 0-3 at discharge (n=39). At assessment, 55.6% (30/53) patients wrote at least one comment with a total of 71 comments written on the remaining 30 questionnaires. At discharge, 18 questionnaires had no comments written for any of the domains, and there were a total of 28 comments across the remaining 21 questionnaires. Figures 3.10 and 3.11 show the distribution of frequency of comments at assessment and discharge. No record was made of which domains had comments and no qualitative analysis was made of these comments.

Figure 3.10: Frequency histogram of number of domains with a written comment at assessment: total number of comments=63

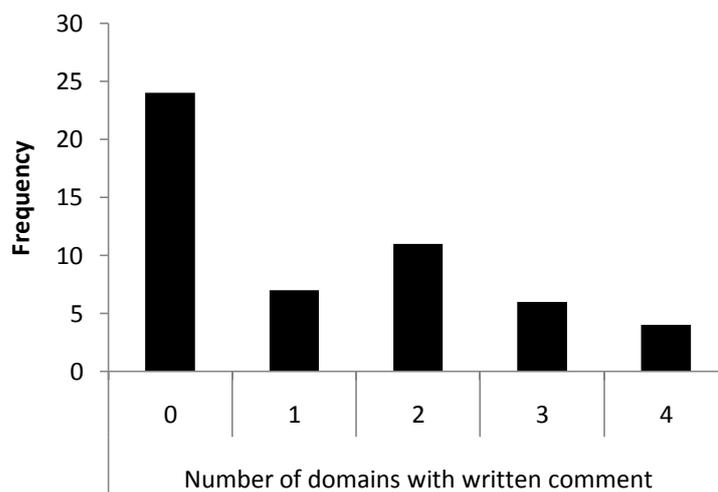
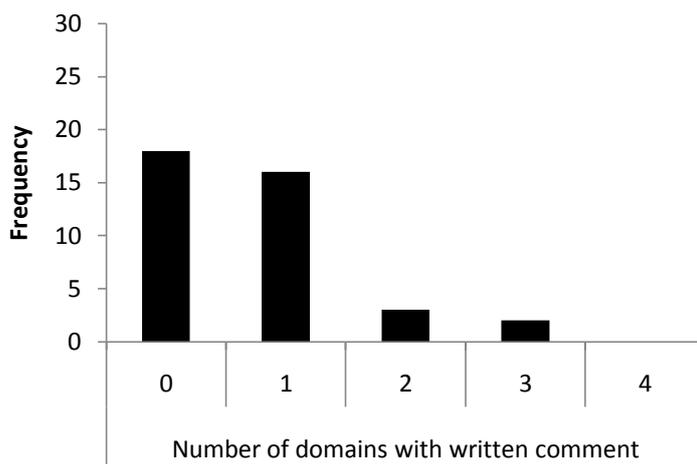


Figure 3.11: Frequency histogram of number of domains with a written comment at discharge: total number of comments=28



3.7.4 Question for the physiotherapist

3.7.4.1 Number of questions identified

66.7% (36/54) patients wrote down a question for the physiotherapist at assessment. 33.3% (18/54) ticked the box to say that they did not have a question or concern. At discharge, 74.6% (29/39) stated that the physiotherapist had fully addressed any question or concern that they had had; 10.3% (4/39) stated that their questions/concerns had not been adequately addressed; 12.8% (5/39) stated that they had not had any questions or concerns. 7.7 % (1/39) failed to answer the question.

3.7.4.2 Thematic analysis of written questions

Patients raised up to five points on the 'question for the physiotherapist', a number of which needed a clinical interpretation as part of the thematic development. For example in response to "Please write down **any question or worry** (however small it might seem) that you might have about your condition, which you would like to ask your physiotherapist", patient 218 wrote "What will be the long term impact and the safety of lifting weights? Possibility of further dislocation". The first statement was interpreted as having two questions from the participant: one regarding the safety during function; the second was interpreted as 'fear of recurrence', as opposed to 'fear of damage' as it seemed that they had had a clear diagnosis, which theoretically, could have a real chance of recurring. Patient 262 highlighted a concern about their future ability

to earn money, rather than specifically about their condition: *"I'm just worried about the future. This has been going on so long that I'm worried that I can't properly provide for my family"*.

Further examples of the written statements and theme development are given in table 3.17. Some of the comments from the questions and aims sections overlapped. A total of 58 separate questions were identified with 12 initial codes (figure 3.12) and six final themes (figure 3.13), the three key ones being: concerns about cause or symptoms (n=14); impact on mood or function (n=14); and questions or expectations about level of recovery (n=11). One respondent stated that all of their questions had already been answered.

Table 3.17: *Examples of code development for responses to 'Questions or concerns' on the IoSQ (patient ID code)*

Written question	Codes		
Still feeling pain but not consistently. Some movements are fine some of the time but very painful at others (204)	Concern about symptoms		
What will be the long term impact and the safety of lifting weights? Possibility of further dislocation (218)	Impact on function	Fear of recurrence	
Is it caused by cancer? It's progressed steadily and am worried will be immobile at work or walking (226)	Cause	Impact on function	
Will they be doing my left leg as well? (224)	Information		
I don't think the operation worked (228)	Cause		
I've had the problem for 3 years, when will it go? (234)	Recovery		
I worry that the weakness in my lower body might spread (235)	Prognosis		
Am I making it worse by trying to do my normal activities and duties? Is it ever going to get better? Why did it start? What can be done to prevent it again? (236)	Fear of damage	Impact on function	Recovery
	Cause	Fear of recurrence	
All of the above. Will this get completely better (238)	Impact on function	Impact on mood	Recovery
Will I be able to have any more pain management if pain gets any worse? (239)	Other treatment options		
If my pain/numbness/pins and needles can be minimised (248)	Symptom reduction		

Figure 3.12: Pie chart representing frequency of codes for patients' questions or concerns identified from the IoSQ

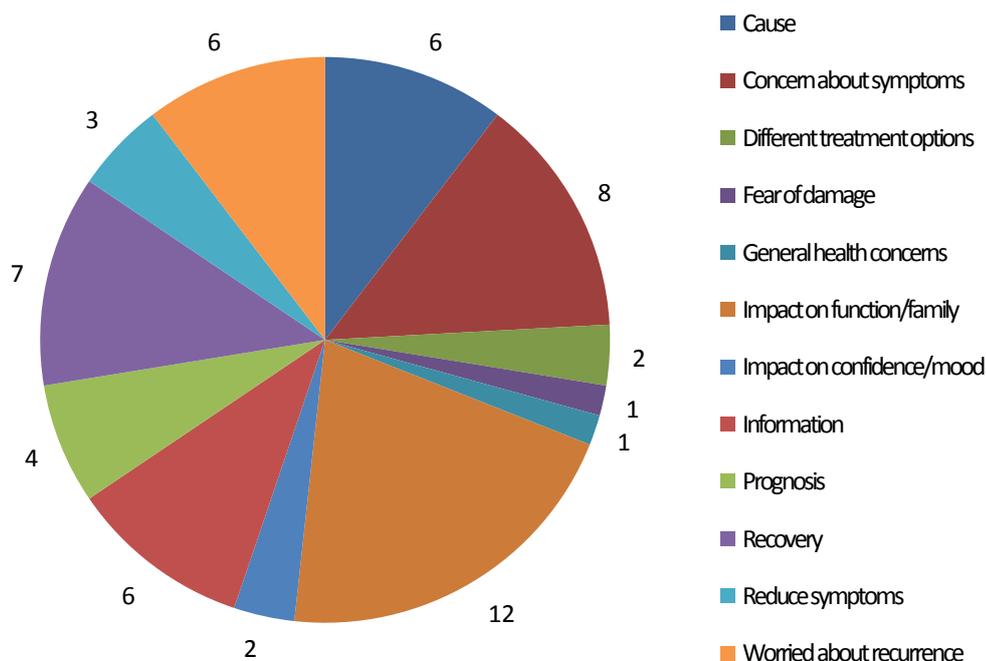
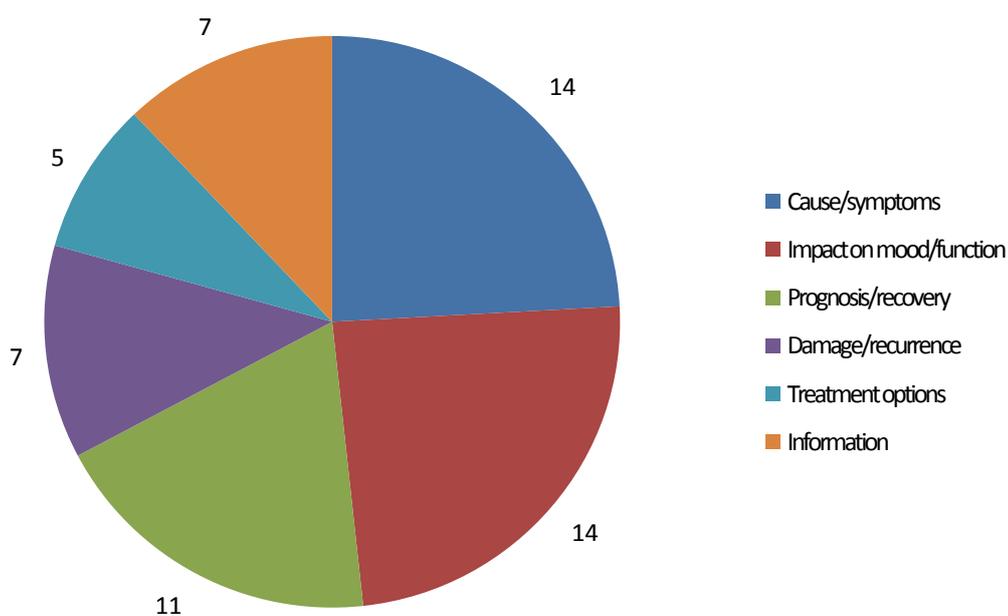


Figure 3.13: Pie chart representing final themes for patients' questions or concerns identified from the IoSQ



3.7.5 Aims of treatment

49/54 (90.7%) patients identified aims/expectations for physiotherapy treatment with a total of 66 aims described with one patient simply writing “*a solution*”.

Table 3.18 shows examples of the coding development. Eight codes were identified (figure 3.14) which were then combined to make five themes (figure 3.15). The code for ‘*Recovery*’ was taken if the statement explicitly stated an expectation or desire to return fully to their previous levels of well-being and/or function, or for symptoms to be fully resolved. For example: “*Exercises that lead to complete recovery*” and “*For the pain to go away and I can walk without pain and discomfort*”. For the latter statement, it was interpreted as going beyond symptom reduction or functional improvement. The three dominant themes were expectations of: improved function (n=20); a full recovery (n=17); and symptom improvement/prevention (n=17) (figure 3.15).

Table 3.18: *Examples of code development for responses to ‘Aims of treatment’ on the IoSQ (patient ID code)*

Written aims	Codes	
Info about what is normal recovery pattern/ timing and further exercises and advice (204)	Prognosis	Rehab programme
Prevention of contractures or worsening of existing (212)	Prevention	
More use of my right shoulder and regain confidence (217)	Improve function	Improve confidence
Return to normal (221)	Recovery	
Pain relief and advice on how to manage it (245)	Symptom improvement	Information
Advice on recuperation (252)	Information	

Figure 3.14: Aims of treatment as identified by IoSQ: pie chart representing relative frequency of codes developed

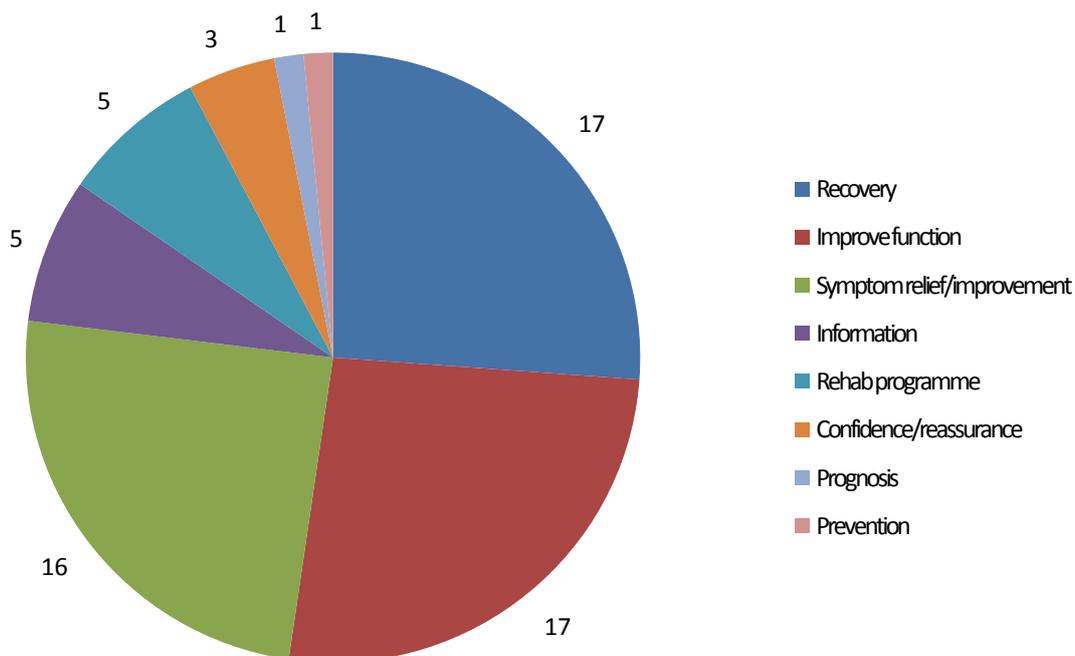
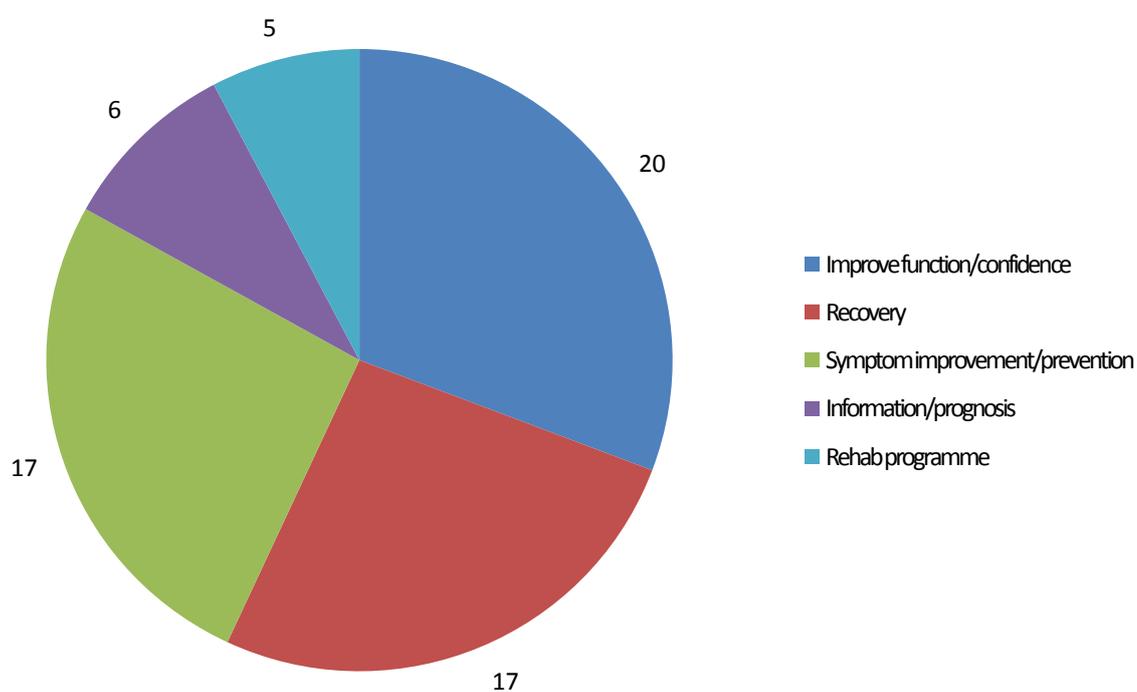


Figure 3.15: Aims of treatment as identified by the IoSQ: pie chart representing frequency of final themes developed



3.7.6 Numerical rating scales for change

Frequency histograms for the numerical rating scales are described in figures 3.16 - 3.19 for the four IoSQ outcome domains. Data is only included where there was both a before and after completed scale. For the domain of 'other' symptom, there was missing data at assessment on one of the questionnaires. For the symptom score changes, four people did not identify an additional problematic symptom other than pain and two did not identify an additional symptom at discharge. Due to a shift to the left of the graph at discharge, the numerical rating scales for all of the domains indicate that they are measuring improvement.

Figure 3.16a: Frequency histogram for pain score at assessment (n=38)

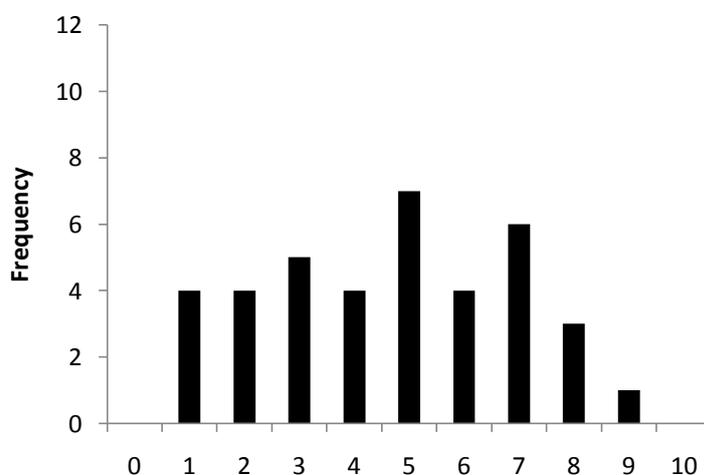


Figure 3.16b: Frequency histogram for pain score at discharge (n=38)

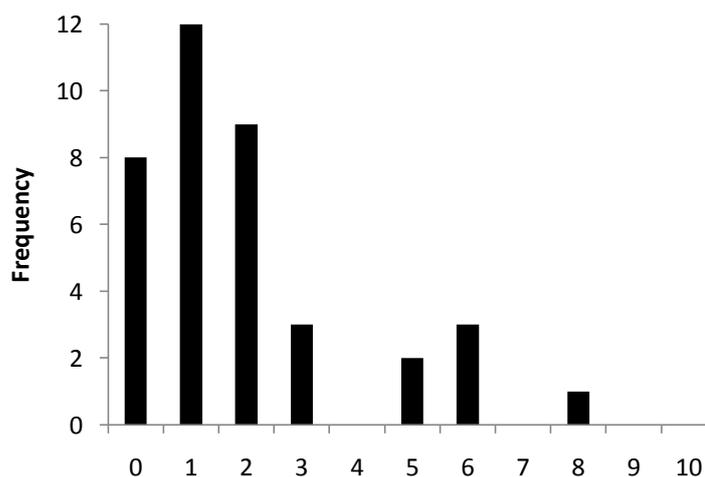


Figure 3.17a: Frequency histogram for 'other symptom' score at assessment (n=37)

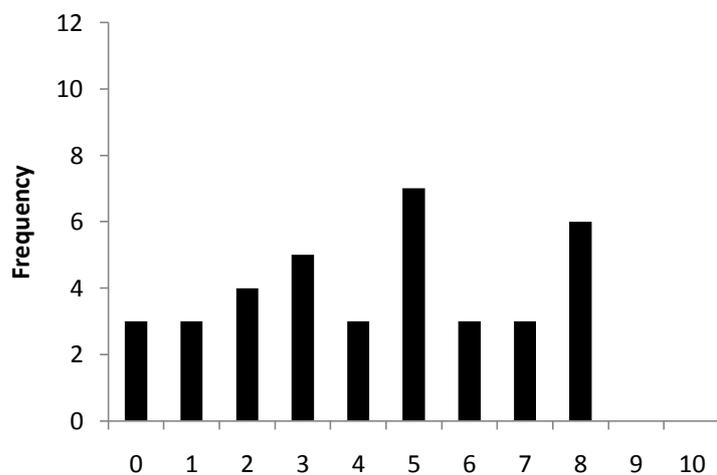


Figure 3.17b: Frequency histogram for 'other symptom' score at discharge (n=37)

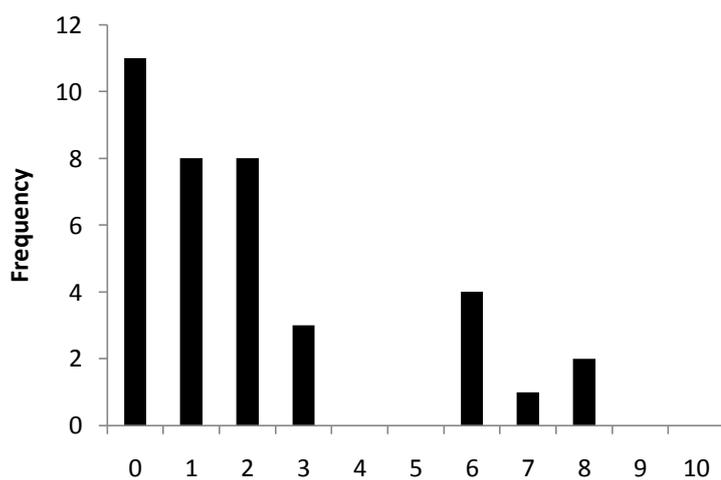


Figure 3.18a: Frequency histogram for confidence for things patient 'wants to do' score at assessment (n=38)

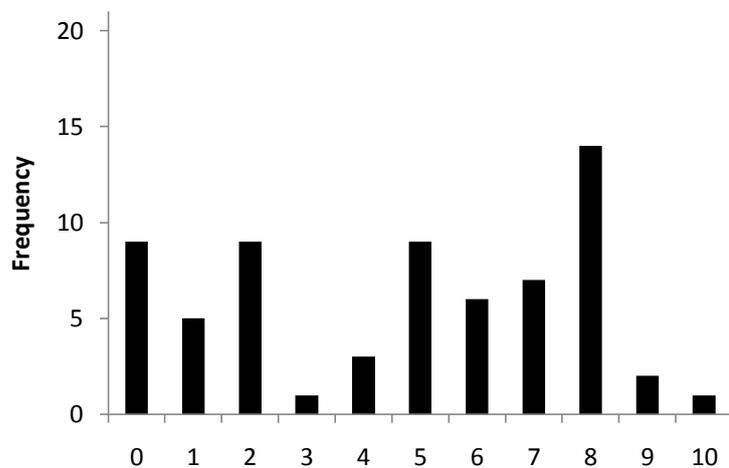


Figure 3.18b: Frequency histogram for confidence for things patient 'wants to do' score at discharge (n=38)

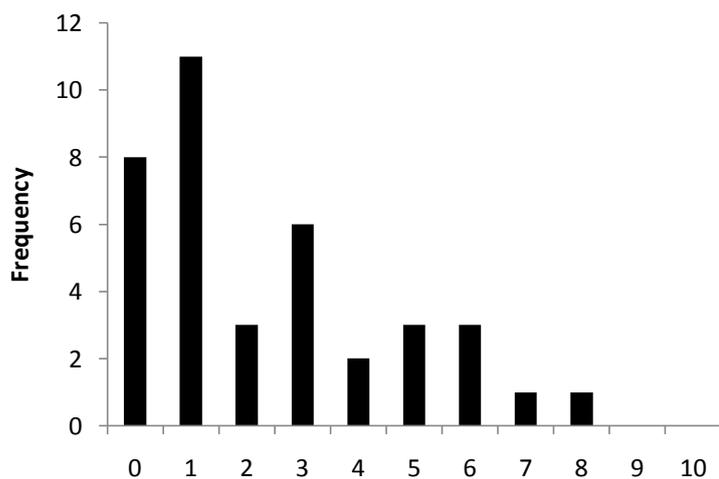


Figure 3.19a: Frequency histogram for 'mood' score at assessment (n=38)

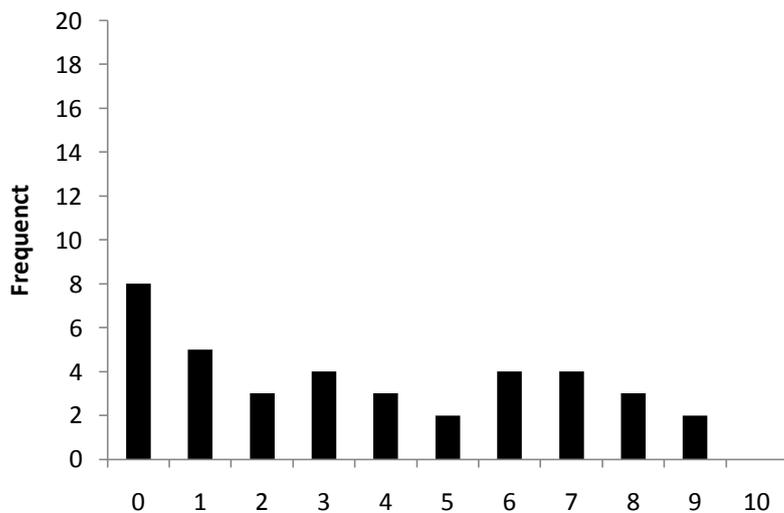
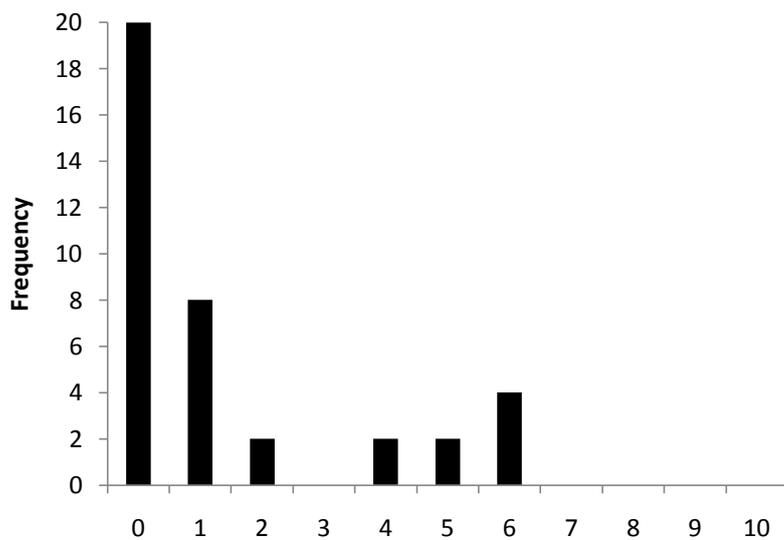


Figure 3.19b: Frequency histogram for mood score at discharge (n=38)



3.8 Summary of results from audit of patients' notes

This chapter has described the results for the notes audit in studies 1 and 2. The patient participant demographic profile was similar for both studies with a higher predominance of trauma/surgery participants than at the site of development of the IoSQ (Knott & Frampton, 2013) (appendix 1). Duration of treatment was longer in the first study, with an expectation of discharge written in most of the notes. The level of inter-rater agreement across all the audited fields was high in both studies with most of the discrepancies relating to the five psychosocial and functional domains: questions or concerns patients may have about their condition; or the impact on their work or caring roles, their activities of daily living, their preferred hobbies or activities; and their mood and relationships.

There was little change in documentation for the total number of domains, which remained at about 20% in both studies. There was even less evidence that any issues had been appropriately resolved at discharge in either study. Activities of daily living and preferred hobbies/interest had the highest level of documentation across both studies showing minimal documentation for the impact on mood or relationships.

The IoSQ showed a high level of completion in study 2 and indicated a higher level of impact on patients' quality of life across all five domains than had been documented by physiotherapists – at both assessment and discharge. At assessment 62.6% of all of the potential domains were identified as being affected and 96.3% of respondents identified at least one domain. Only 3.7% failed to identify any domains. The IoSQ indicated that there was an improvement between assessment and discharge for the number of domains affected: the highest frequency of affected domains changed from five at assessment, to one at discharge.

Most patients identified at least one question or concern at assessment with a minority stating that it had not been fully addressed at discharge. Questions or concerns and patients' aims of treatment were analysed thematically with both having dominant themes relating to the impact on mood or function and

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concerns about their symptoms or level of recovery. Although the comments for the remaining domains were not analysed, just over half of the patients wrote at least one statement at both assessment and discharge. Completion of the five numerical rating scales indicated an improvement between assessment and discharge.

CHAPTER FOUR

RESULTS: SURVEYS OF PATIENTS AND PHYSIOTHERAPISTS

4.1 Introduction

Surveys were undertaken for both physiotherapy staff and patients. In study 1, only the patients were surveyed to minimise change in behaviour of the physiotherapists prior to study 2. The patient survey in study 1 (appendix 11) explored questions or concerns that they may have had at the beginning of their treatment; impact that their symptoms may have had on the key domains and if these were then resolved; their perception as to the importance of physiotherapists exploring the impact of their health problem on their quality of life; any additional comments relevant to the study.

The patient survey in study 2 (appendix 23) addressed the same questions, but also enquired as to how psychosocial or functional issues were raised during their treatment and feedback about the IoSQ specifically.

The survey of the physiotherapists in study 2 (appendix 24) was designed to explore their experience and acceptability of using the IoSQ in terms of practicality, clinical value and design. The remainder of this chapter summarises the survey results.

4.2 Patient surveys

4.2.1 *Response rates and demographics*

In study 1, 31.7% (19/60) and study 2, 60% (33/55) patient surveys were returned. Figure 4.1 shows a graphical summary of this. Table 4.1 summarises the demographics of the respondents with a similar distribution for gender, age range, age mean and diagnosis across the two studies.

Figure 4.1: Flow chart summarising response rates to the patient surveys

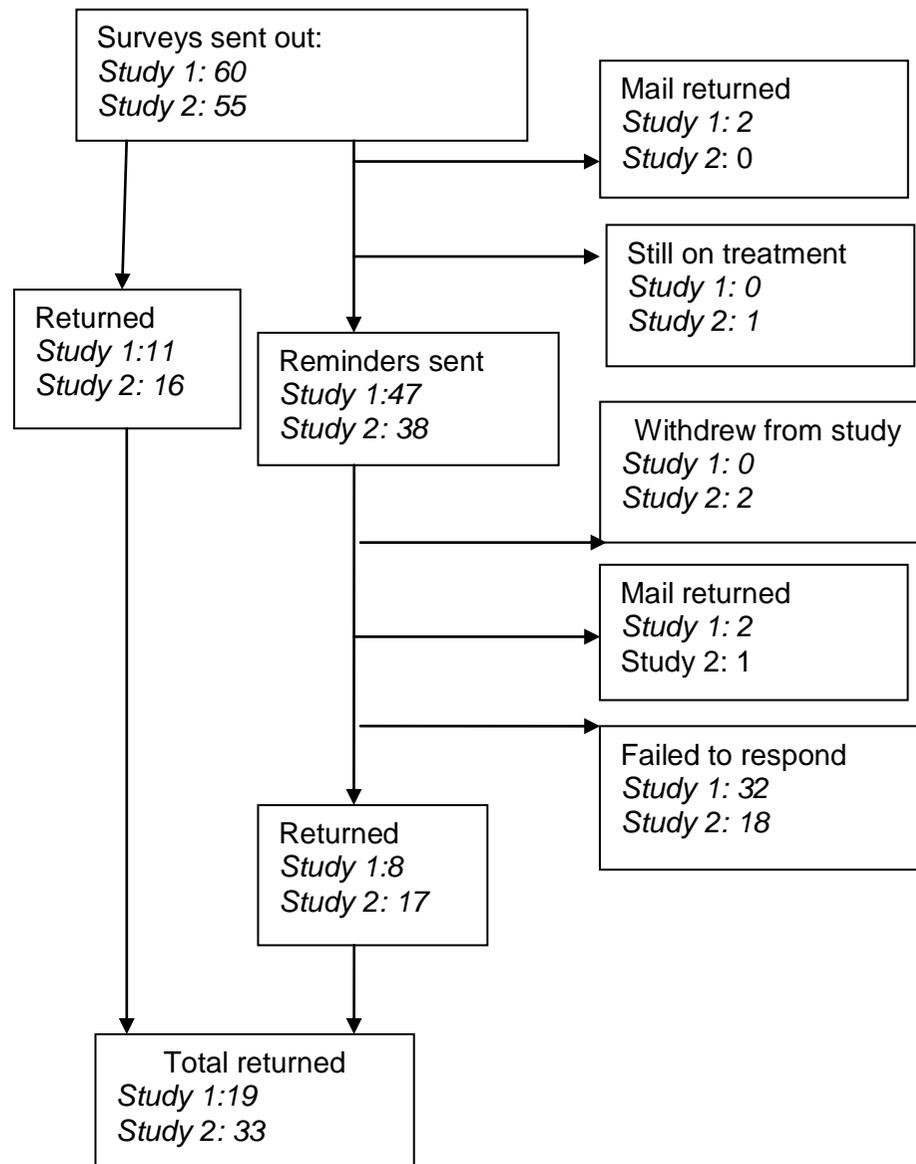


Table 4.1: Demographics of patient survey respondents

	Male	Female	Age range	Age mean	Diagnosis category				
					Trauma/ surgery	Osteoarthritis/ soft tissue	Spinal/ whiplash	ME/FMS/ multi-joint	Physiotherapist uncertain
Study 1 n=19	9 (47.4%)	10 (52.6%)	24-87	55.1	15 (78.9%)	3 (15.8%)	0	0	1 (5.3%)
Study 2 n=33	13 (39.4%)	20 (60.6%)	19-88	56.0	21 (63.6%)	6 (18.2%)	4 (12.1%)	2 (6.1%)	0

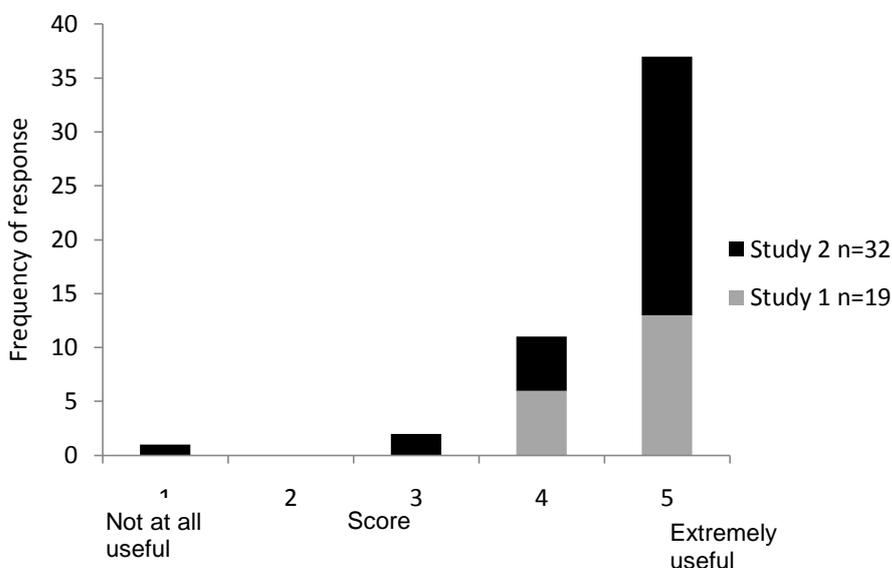
4.2.2 Exploring the perceived usefulness of psychosocial and functional assessment

On the survey, patients were asked:

“Overall, how useful do you think it is for the physiotherapists to explore the impact that your symptoms have on your quality of life?”

with anchors of ‘1’ ‘Not at all useful’ and ‘5’ ‘Extremely useful’. Responses ranged from 4-5 for study 1 and 1-5 for study 2. The mean score was 4.7 for study 1 (n=19) and 4.6 for study 2 with 1 person failing to answer the question (n=32). A histogram showing the frequency of responses, combined for both studies, is shown in figure 4.2.

Figure 4.2: Frequency histogram showing score responses for question relating to perceived usefulness of assessment of ‘quality of life’



4.2.3 Patients’ recall for the impact of their symptoms on psychosocial and functional domains

Table 4.2 provides a summary of the surveys for studies 1 and 2 where patients were asked to recall the impact that their symptoms had had across each domain. There were 19 respondents in study 1 and 33 in study 2. As there were a total of five domains explored, this gave a total of 95 domains in study 1 and 165 in study 2 respectively. It can be seen that approximately two thirds of the domains in each study were affected in each with 10.5% (10/95) and 2.4%

(4/165) in studies 1 and 2 respectively stating that their issues had not been fully addressed at discharge.

Table 4.2: Summary of the impact of symptoms on psychosocial and functional domains

	Domain affected?			Issue addressed?			
	Yes	No	Missing data	Yes	No	Not applicable	Missing data
Study 1 n=95	57 (60%)	28 (29.5%)	10 (10.5%)	51 (53.7%)	10 (10.5%)	22 (23.2%)	12 (12.6%)
Study 2 n=165	92 (55.8%)	58 (35.2%)	15 (9.0%)	104 (63%)	4 (2.4%)	45 (27.3%)	12 (7.3%)

It can be seen that there were some inconsistencies in how these questions were answered. For example, in study 1, 57 domains were identified as being affected, but there were 67 responses relating to whether or not the domain had been addressed to the patient's satisfaction at the point of discharge. This is discussed in section 7.7, page 207. The results for each domain are broken down individually in the following sections.

4.2.3.1 Patients' questions or concerns about their condition

73.7% (14/19) and 60.6% (20/33) of respondents in studies 1 and 2 respectively, stated that they had had questions or concerns about their condition. A higher percentage of respondents in study 1 stated that their concerns had not been adequately addressed at discharge: 15.8% (3/19) versus 6% (2/33) in studies 1 and 2 respectively. A full summary of the responses is shown in table 4.3.

Table 4.3: Patients' questions or concerns about their condition

	Had concerns			Concern addressed?			
	Yes	No	Missing data	Yes	No	Not applicable	Missing data
Study1 n=19	14 (73.7%)	5 ¹ (26.3%)	0	13 (68.4%)	3 (15.8%)	3 (15.8%)	0
Study 2 n=33	20 (60.6%)	13 ² (39.4%)	0	22 (66.7%)	2 (6%)	9 (27.3%)	0

¹2 went on to tick 'Concern addressed'

²4 went on to tick 'Concern addressed'

4.2.3.2 Impact of symptoms on patients' ability to work and/or care for a family member

Table 4.4 summarises the recall of the impact of respondents' health problem to engage in work, training or caring responsibilities. Although a similar percentage in each study stated that their presenting condition had had an impact on this domain (42.1% and 39.4% respectively), both studies also identified that issues had been adequately addressed by discharge.

Table 4.4: *Impact of symptoms on patients' ability to work and/or care for a family member*

	Domain affected?			Issue addressed?			
	Yes	No	Missing data	Yes	No	Not applicable	Missing data
Study 1 n=19	8 ¹ (42.1%)	8 ² (42.1%)	3 (15.8%)	7 (36.8%)	1 (5.3%)	7 (36.8%)	4 (21.1%)
Study 2 n=33	13 ¹ (39.4%)	16 ³ (48.5%)	4 ⁴ (12.1%)	16 (48.5%)	0	14 (42.4%)	3 (9.1%)

¹1 went on to tick 'Not applicable'

²1 went on to tick 'Issue addressed'

³2 went on to tick 'Issue addressed'; 2 were then 'Missing data'

⁴1 went on to tick 'Issue addressed'; 1 went on to tick 'Not applicable'

4.2.3.3 Impact of symptoms on patients' ability to engage in activities of daily living

57.9% of respondents in study 1 and 72.7% in study 2 identified that their condition had had an impact on the ability to engage in activities of daily living. Only 1 person in study 1 (5.3%) and none in study 2 reported that their issues had not been adequately addressed. Table 4.5 summarises the results for this domain.

4.2.3.4 Impact of symptoms on patients' chosen hobbies or interests

The percentage of respondents stating that their chosen hobbies or interests had been affected by their health condition was similar for both studies: 68.4% (n=13/19) for study 1 and 69.7% (n=23/33) for study 2 (table 4.6). A smaller percentage in study 2 (3%: n=1/33) than study 1 (10.5%: n=2/19) stated that they still had concerns about the impact of their health problem on this domain.

Table 4.5: Impact of symptoms on patients' ability to engage in activities of daily living

	Domain affected?			Issue addressed?			
	Yes	No	Missing data	Yes	No	Not applicable	Missing data
Study 1 n=19	11 ¹ (57.9%)	6 ² (31.6%)	2 (10.5%)	10 (52.6%)	1 (5.3%)	5 (26.3%)	3 (15.8%)
Study 2 n=33	24 ³ (72.7%)	7 ⁴ (21.2%)	2 (6.1%)	26 (78.8%)	0	4 (12.1%)	3 (9.1%)

¹1 went on to tick 'Not applicable'

²1 went on to tick 'Issue addressed'; 1 was then 'Missing data'

³1 went on to tick 'Not applicable'; 1 was then 'Missing data'

⁴3 went on to tick 'Issues addressed'; 1 was then 'Missing data'

Table 4.6: Impact of symptoms on patients' chosen hobbies or interests

	Domain affected?			Issue addressed?			
	Yes	No	Missing data	Yes	No	Not applicable	Missing data
Study 1 n=19	13 ¹ (68.4%)	4 ² (21.1%)	2 ³ (10.5%)	13 (68.4%)	2 (10.5%)	3 (13.8%)	1 (5.3%)
Study 2 n=33	23 ⁴ (69.7%)	7 ⁵ (21.2%)	3 ⁶ (9.1%)	25 (75.8%)	1 (3%)	3 (9.1%)	4 (12.1%)

¹1 went on to tick 'Not applicable'

²1 went on to tick 'Issue addressed'; 1 was then 'Missing data'

³Both went on to tick 'Issue addressed'

⁴1 went on to tick 'Not applicable'

⁵3 went on to tick 'Issue addressed'; 2 were then 'Missing data'

⁶1 went on to tick 'Issue addressed'

4.2.3.5 Impact of symptoms on patients' mood and relationship

The final domain, the impact on mood and relationships, shows the biggest difference between the two studies: in study 1, 57.9% (n=11/19) reported that their mood and/or relationships had been affected, whereas in study 2, only 36.4% (n=12/33) reported a negative impact (table 4.7). At discharge, 15.8% (n=3/19) reported that their issues had not been adequately addressed, whereas for study 2 this was less, at 3.1% (n=1/33).

Table 4.7: Impact of symptoms on mood and relationships

	Domain affected?			Issue addressed?			
	Yes	No	Missing data	Yes	No	Not applicable	Missing data
Study 1 n=19	11 ¹ (57.9%)	5 ² (26.3%)	3 (15.8%)	8 (42.0%)	3 (15.8%)	4 (21.1%)	4 (21.1%)
Study 2 n=33	12 ³ (36.4%)	15 ⁴ (45.4%)	6 ⁵ (18.2%)	15 (45.4%)	1 (3.1%)	15 (45.4%)	2 (6.1%)

¹1 went on to tick 'Doesn't apply'

²1 went on to tick 'Issue addressed'; 1 was then 'Missing Data'

³1 went on to tick 'Not applicable'

⁴3 went on to tick 'Issue addressed'; 2 were then 'Missing Data'

⁵2 went on to tick 'Issue addressed'

4.2.4 Relevance and ease of completion of the loSQ

In study 2, where patients had used the loSQ, they were asked to rate the ease of completion of the loSQ and their perception of its relevance to their condition. The anchors to the questions were: 1 (not at all) and 5 (extremely). An loSQ was attached to the survey form. Six respondents stated that they didn't remember using the loSQ and two did not complete the answers. The response ranges were 2-5 for both questions and the mean score was 4.3 and 3.9 respectively, for the ease of completion and relevance. Frequency histograms for scoring responses are shown in figures 4.3 and 4.4. Most respondents scored three or above for both questions with overall, patients indicating that they found the loSQ easy to complete and less so, relevant. Respondents were also invited to add comments, with eight doing so. Two stated that 'circling numbers' was difficult, one stated that it was hard to measure or recall the intensity of pain and one stated that they had asked a friend to help them complete it (she also attended the second patient focus group). Three related specifically to the 'quality of life' (psychosocial or functional impact) (two being quoted below) with one person's comment not being related to the study.

"My whole life is impacted due to the above (psychosocial and functional domains) I could write pages"

Patient 233, study 2

"The healing process involves both mind and body"

Patient 200, study 2

Figure 4.3: Frequency histogram for responses to the question “How easy was the loSQ to fill in?” (n=25)

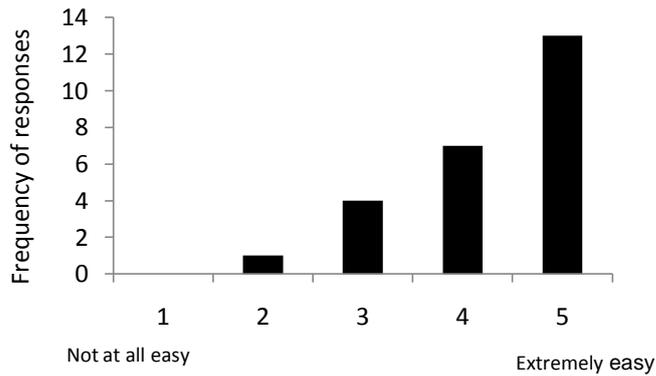
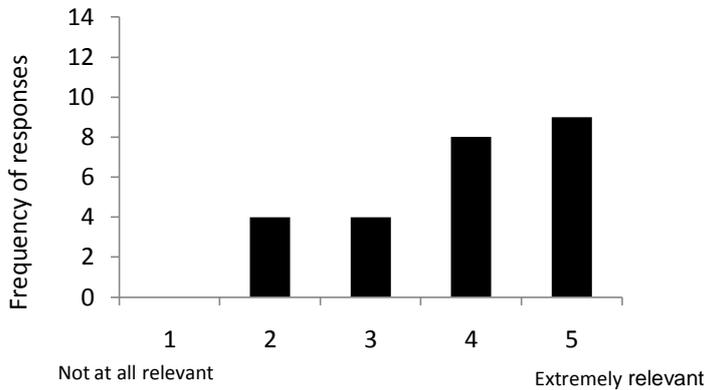


Figure 4.4: Frequency histogram for responses to the question “How relevant was the loSQ to your condition?” (n=25)



4.2.5 Exploration of how psychosocial or functional issues were explored

The survey in study 2 had an additional question: “How were issues raised with your physiotherapist?” The stacked histogram for the responses (figures 4.5) indicates that patients were more likely to raise the issues themselves. Patients reported that it was less likely that their physiotherapist would initiate exploration of psychosocial or functional issues or that issues were discussed through reference to completed questionnaires.

Figure 4.5: Stacked histogram for the question: “How were issues raised with your physiotherapist”: Responses: “I raised the questions myself”; “By talking through the questionnaire(s) I filled in”, “The physiotherapist raised issues”. 1= Never; 5=Always (n=33)

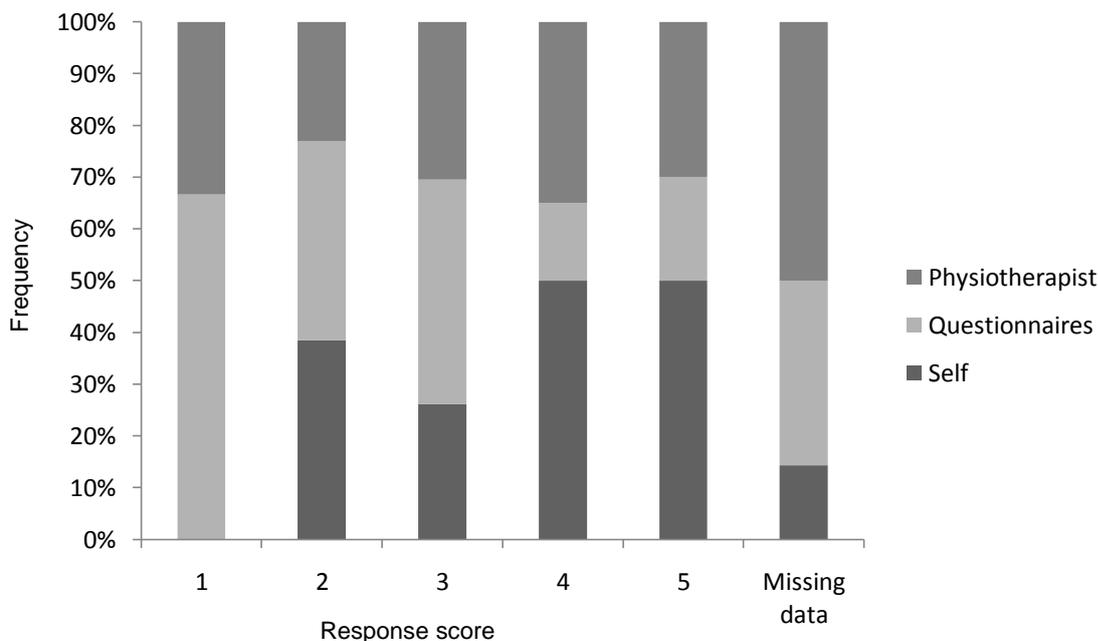


Table 4.8: Study 2: patients recall of how psychosocial issues were raised (n=33/60)

	Patient raised issues	Discussed questionnaire	Physiotherapist raised issues
Response rate	31/33	28/33	26/33
Mean	3.8	2.8	3.4
SD	1.1	1.3	1.3

4.2.6 Patients’ recall for their question for the physiotherapist

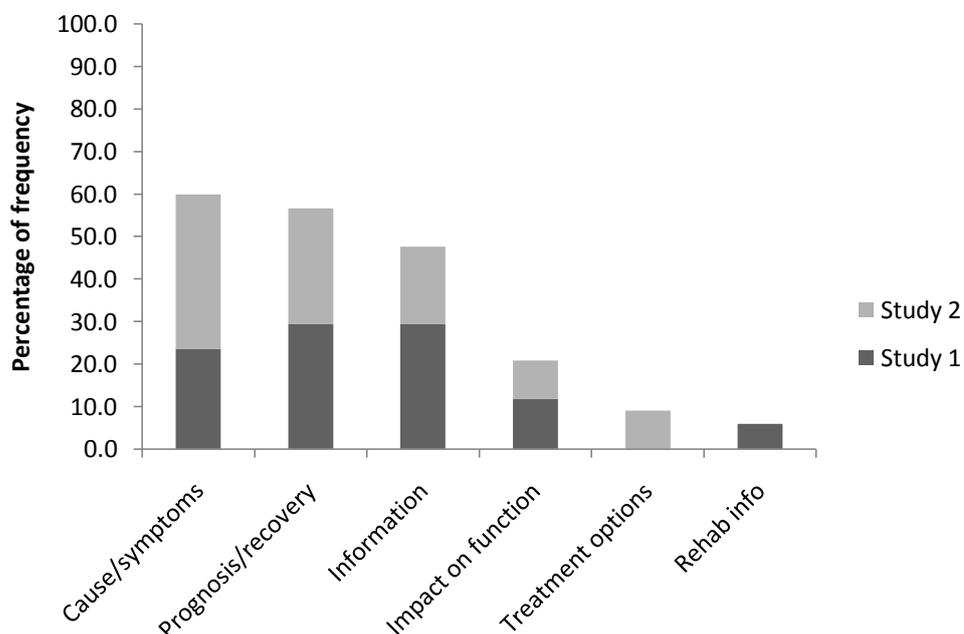
Patients were asked if they had had a question for the physiotherapist at the beginning of their treatment, and if they felt that it had subsequently been fully addressed. In study 1, 14/19 respondents recalled their question, with 17 separate concerns raised; in study two. One of the respondents, who also attended the focus group, wrote:

Many! What was causing the pain, why had it occurred, would it ever resolve. Explained as much as he could but did not have the answer for all questions - nobody else has either.

Patient 119

In study 2, 17/33 recalled their question with 22 separate concerns identified. These were summarised under the same themes as those identified on the IoSQ (section 3.7.4.2, page 103). The results are summarised in figure 4.6

Figure 4.6: Stacked histogram showing percentage frequency of themes for recalled question or concern for the physiotherapist



4.2.7 Feedback regarding changes to the IoSQ

In study 2, 8/33 respondents provided feedback regarding the IoSQ. Three related to the difficulty in completing numerical rating scales (patient ID: 200, 241 and 267), but one of these respondents acknowledged that there is little alternative in terms of obtaining a benchmark. Two stated that they had had difficulty in filling it in: one asked a friend to help; the other was due to the long duration since their physiotherapy. Two comments related to the importance of screening (233, 252) with one stating that the IoSQ “*was relevant and would have been vital if my concerns had been more serious*” (252) and the other stating: “*My whole life is impacted due to the above [domains]*” (233). There was one other response which was not relevant to the question: “*Tea and biscuits*” – indicating difficulty in understanding the survey questions or remit.

4.2.8 Additional comments

The final question in both studies asked if respondents had any further comments relevant to the research. In study 1, 13/19 respondents wrote

Table 4.9: Summary of additional comments from patients' survey (question 6)

Theme	Patient ID		Examples
	Study 1	Study 2	
Physiotherapy and the impact of a health problem	119; 142;154	200;232;265	I have been supplied with a knee brace which supports my right knee, and gives me the confidence to walk without the fear of falling (042)
			The physio/hospital deals with one thing and a protocol to get that better; sometimes it is necessary to see the whole which is a set of knock on effects (232)
			I can't say that my physio has given me confidence to do any of the previous mentioned question. My situation is as it is and I am very motivated and do as much as I possibly can already (154)
Follow up needed	119;		They therefore have NO follow up data as to whether their intervention is successful. The only way back is referral. What about follow up by phone/questionnaire postal when they estimate condition should have improved. This would provide realistic data on outcome and opportunity to review if required (119)
Physiotherapy helped return to desired function	132;134;142;	227	I am a keen gardener and had great difficulty before I had my knee replacement. I am very pleased to say that I am now able to enjoy my garden again (132)
Valued information or support	116;136;143;	267;	My physiotherapist always gave me the time needed, never rushed the appt and always made sure that I full understood the exercises she gave me to do and explained why they would help and what the benefit of them was. (143)
Proposed change to IoSQ	108;	252	I do find personally, that being asked to numerically grade a situation or feeling is exceedingly difficult (252)
Comments not related to study			
Positive feedback for physiotherapy	105;116;112; 134;136;143;	217;227;231; 235;239;252; 267	The physiotherapists were all excellent. They were happy, supportive friendly and sympathetic. They were actually the BEST part of the whole NHS experience for me (105)
Physiotherapy not relevant or not helpful	102;151		Very difficult for physios to help me as I am still going the process of obtaining a new knee. Having had the operation I feel then that they will be more beneficial to me (151)

comments, with five raising more than one point. In study 2, 10/33 respondents wrote comments, with three raising more than one point. There were seven themes, five of which related to the study and are summarised in table 4.9.

4.3 Physiotherapists' survey: study 2

4.3.1 Response rate and demographics

All staff whose notes had been audited received a survey form and there was a 100% response rate. Table 4.10 describes the demographics of the physiotherapists taking part.

4.3.2 Question responses

The first nine questions related to the physiotherapists' perceptions of the information leaflet about the loSQ and the clinical experience of the loSQ. Respondents were also invited to add comments. Scales range from 1 (most negative) to 5 (most positive).

The least endorsed question in the survey was the impact on clinical time to use the loSQ (range 1-3; mean 1.7; n=10) (see table 4.11). This was also explored in the focus groups and the four comments highlighted pressure due to using other outcome measures, completing the form in clinic and patients needing support to complete it. The most endorsed question related to the relevance for the patient group that they see: range 3-5; mean 4.0; n=10. There were no comments for this question. It was also felt that patients found the form relevant to their needs: range 3-5; mean 3.7; n=10.

Although the mean score for the perception of how easy patients found the loSQ to fill in (3.7, range 3-5, n=10), the three comments related to some help needed to complete the form, there was a tendency for both sides (the discharge version of the loSQ was printed on the reverse) to be completed, and that they found the form too wordy.

Due to the small numbers for the comments, there was no attempt to undertake a thematic analysis, but instead they are fully written in out in table 4.12.

Table 4.10 Demographics of physiotherapy respondents for study 2 survey

Gender		Years since qualifying		Years in musculoskeletal outpatients		Specific experience in pain management		Formal training in pain management			
Male	Female	Range	Average	Range	Average	Yes	No	In-service training	Non-accredited courses	Accredited courses	Clinical supervision
3 (30%)	7 (70%)	3-27	11.2	0.5-22	6.9	4 (40%)	6 (60%)	6 (60%)	4 (40%)	1 ¹	1

¹Masters level module in low back pain

Table 4.11: Summary of results for questions 1-9: physiotherapists' survey

Question number	1	2	3	4	5	6	7	8	9
Question content	How useful was information the leaflet?	Do you feel the loSQ was relevant to your patients?	Did using the loSQ impact on your clinical time?	Identifying patients' concerns about their condition?	Was the loSQ helpful for:			Do you think patients found the loSQ:	
					Identifying the impact on specific psychosocial domains?	Identifying patient-centred goals?	Monitoring functional improvement?	Relevant to their needs	Easy to use?
Range (1-5)	3-5	3-5	1-3	3-5	2-4	3-5	2-5	3-5	3-5
Mean	3.4	4.0	1.7	3.8	3.4	3.5	3.2	3.7	3.7

Table 4.12: Comments for questions 1-9: physiotherapists' survey

	Question	Staff code	Comment
3	Did using the IoSQ impact on your clinical time?	25	As well as other outcome measures it took a greater amount of time
		28	Mostly patients filled this out with me or otherwise forgot it
		29	Explanation was required which increased time
		30	Because of our other outcome measures
4	Helpful for identifying patients concerns?	23	It was a good supplement to subjective questioning
		28	Generally these were discussed with patients before I read the IoSQ
5	Helpful for indentifying impact on specific psychosocial domains?	28	Patients didn't always document these feelings
		30	Patients often didn't fill this part in
6	Easier for identifying patient-centred goals?	28	Occasionally patients documented this prior to assessment, but not during
		30	I was doing this anyway, it formalises it
7	Useful to monitor functional improvement?	28	As only assessment and discharge, this was more 'summing' than 'monitoring'
		30	If it was used regularly
8	Did patients' find it relevant to their needs?	28	Only for some conditions or injuries
9	How easy do you think patients found it to use?	25	Most needed help to fill it in
		27	Found it too wordy
		28	Patients were confused sometimes and filled in both parts

The final five questions were open-ended. To account for any changes in attitude towards screening between the two studies, physiotherapists were asked if anything in the last six months had influenced their awareness of screening. There were five comments, relating to the use of other questionnaires (EQ5L-DL and STartBack) (EuroQol Group, 2011; Hill et al., 2008) and general increased awareness and discussion within the department.

With respect to the enquiry into why staff may not have used the loSQ at the time of assessment, there were eight comments. Five stated that they were more likely to use the loSQ if it had been distributed prior to the first appointment. One stated that it was not used if they had already completed the EQ5D and '*functional measures*'. One respondent stated that all their patients had received the loSQ in the post. One participant stated they had been on a short rotation and so only used the loSQ for a short period. Eight respondents wrote comments regarding why the loSQ was not used at discharge. These related to: forgetfulness (five comments); patients failing to complete treatment (five comments); or focussing on using other questionnaires (two comments).

Seven respondents proposed changes to the loSQ and three made suggestions made to assist the process of psychosocial or functional assessment. Three people felt that the layout was cramped and it was proposed that the assessment and discharge version could be printed separately, possibly over 2 pages. One respondent proposed that patients should be able to state what the other symptom is (on the numerical outcome scale, on the second half of the loSQ). One physiotherapist proposed more tick boxes, suggesting that they hadn't appreciated the role of the loSQ. Another proposed that there should be more '*general questions, less leading questions*' with another saying '*the content is very helpful*'.

4.4 Summary of results from surveys of patients and physiotherapists

The gender and age distribution of patient respondents in the two studies (before and after the introduction of the loSQ) was similar. The patient survey response rate doubled to two thirds in the second study and the physiotherapy

response rate was 100%. The combined response from the patient surveys indicated that they felt it is useful to assess for the impact of their health problem on their 'quality of life'. The two most common themes for patients' recall for their questions or concerns related to the cause of their condition or symptoms (diagnosis) and their prognosis or recovery. There were some inconsistencies regarding completion of the question relating to patients' recall regarding the impact of their health problem on different domains, and whether or not these difficulties were adequately addressed. However, about two thirds of all of the potential domains were identified as being affected in both studies, with a very small number reported as remaining unaddressed at discharge.

The most common domain recalled as being affected In study 1 was having a question or concern about their condition: in study 2 this was the impact on ADL. Both of these had a response rate of over 70%. The least frequently affected domain in both studies at assessment was mood: over 50% and 30% respectively. At discharge, the most common domain not adequately addressed was the impact on work or caring responsibilities: over 40%.

In study 2, patients were asked about their experience of using the IoSQ: they indicated that it was easy to fill in, and, to a lesser extent, relevant to their condition. The most endorsed question regarding *how* issues were raised was that patients raised concerns themselves rather than therapists raising them or referring to completed questionnaires. There were few recommendations for change and additional comments related to valuing their physiotherapy treatment and the importance of addressing the impact on function and confidence.

The survey of physiotherapists indicated that they it was relevant to their patients and that it was useful for identifying questions or concerns about their condition. Some concerns were raised about the level of ease of completion of the IoSQ and the amount of clinical time that was used to complete the IoSQ. There was no evidence that it was used to monitor treatment progress. There were some suggestions made with respect to content or layout modification.

CHAPTER FIVE

RESULTS: FOCUS GROUPS

.5.1 Introduction

This chapter describes and summarises the results of the three focus groups:

- patFG1 Study 1: patients: prior to the introduction of the loSQ
- patFG2. Study 2: patients: after the introduction of the loSQ
- physFG3. Study 2: physiotherapists: after the introduction of the loSQ

The results will be reviewed for each group individually and then a discussion and summary will provide an overview for all three groups together.

5.2 Study 1: Patients: prior to the introduction of the loSQ (patFG1)

5.2.1 *Participants*

There were three participants in this group. One participant suffered with chronic back pain (Anna: female, age 52) and two had undergone joint replacement surgery (Alice: female, age 45; James: male, age 73). One participant was of non-white ethnicity. All three participants had answered in the survey that they felt it was very useful (5/5) for physiotherapists to explore the impact that symptoms were having on their quality of life.

5.2. 2 *Questions explored*

The aim of the focus group was to explore the perceived clinical value of the loSQ in the context of participants' beliefs regarding the importance of psychosocial and functional assessment and how it is already undertaken.

After the introduction, the group were asked to expand on question 3 in the survey (appendix 11): 'How useful do you think it is for physiotherapists to explore the impact that your symptoms have on your quality of life?'. This was followed with "How were questions about the impact of your symptoms raised", "How did the physiotherapist make sure that all of your concerns had been

addressed” and “How could these processes be done better?” The IoSQ was then distributed and the final question asked for feedback about its perceived value in the context of the recent discussion and if they could suggest changes about its content.

5.2.3 Coding and theme development

No amendments to the transcript were advised on feedback from the participants. The process of coding and theme development is described in section 2.4.3.5 (page 71) and table 5.1 (page 134-) provide examples of the process. One participant (Alice) identified that she did not wish to be contacted regarding verification of transcription or theme development, with one other participant responding to the e-mail (appendix 17) and their comments are incorporated into the appropriate theme discussion. Three themes were identified:

- There’s a dichotomy of ‘being fixed’ versus ‘stuck with it’
- There’s a limited structure to assessing the impact
- There needs to be a ‘safety net’

A diagrammatic representation of the themes and sub-themes is shown in Figure 5.1.

Figure 5.1 Focus group1: patients (patFG1). A diagrammatic representation of the themes and sub-themes.

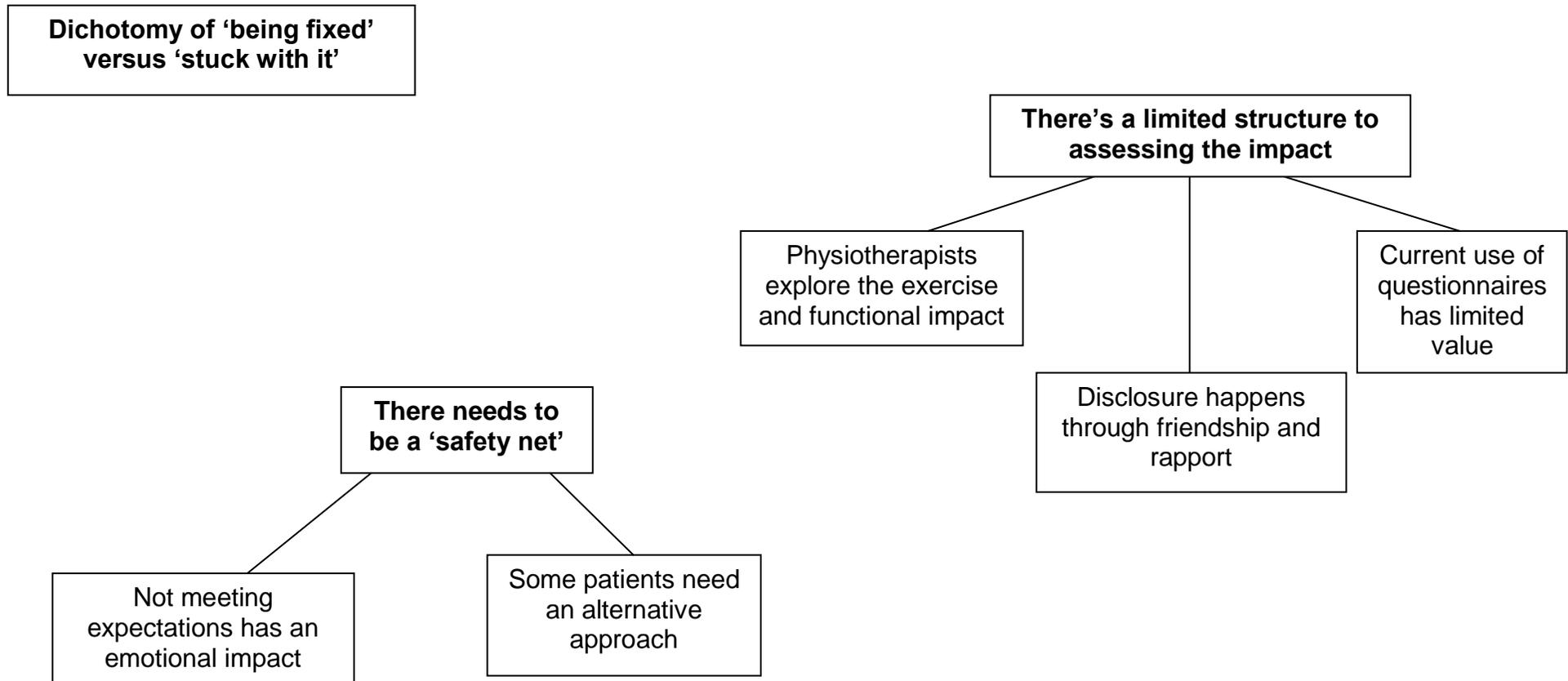


Table 5.1: Example of table used in the development of codes, themes and subthemes: patients (patFG1)

Data extract (text)	Coded for	Theme and subtheme
<p>James ...yes, they set me goals as well, which I like (F: Excellent) which some people might not like goals. I like goals. (F: Yep) And they were setting me goals to achieve by the time I came next time. goals. (F: Yep) You know, do this, for two minutes next week if you can, rather than one minute that you are doing at the moment. That kind of thing, with your exercises. (F: OK) And I stuck quite rigidly to that, to their programme and enjoyed it because I could see the difference that it was making.</p>	<p>Physiotherapist set goals - in context of exercise programme</p> <p>Enjoyed targets as could see the benefit</p>	<p>There's a limited structure to impact assessment: physios explore...</p> <p><i>Comment: physio in control; they set target; patient happy as could see progress</i></p>
<p>Anna: Oh, I think it's essential that they know how it impacts (F: Yep) You might be able to walk into the department. You might be able to manage your work 9-5, or whatever work, but if you then, if your life was a lot more than that, and then all you do is going home and doing nothing, I think that's far more of an impact, than well, for some people, than having a bit of a limp (F: Mmm), or perhaps having this, that or the other. (F: Mmm), (softly spoken) ...it's just, I think that's an integral part of this person</p>	<p>Essential physiotherapist knows impact of the condition: appearance isn't everything. For some patients the impact is more than physical performance</p>	<p>There's a limited structure: physios explore...</p> <p><i>Comment: patient takes control; change of intonation</i></p>
<p>22'27" Anna: I don't know, you were just coming with 'this pain', and someone saw you a few times and then discharged you (F: yep), and it wasn't the chronic pain issue that it's become, and therefore you probably get a different sort of service, one suspects. Ummm (pause), perhaps (spoken very quietly and quickly), been here lots and lots (laughs), and so you probably get a different sort of service now, and now yes, you do think, (pause) you've been discharged, and I've got back into the service, I think I can do that quite easily, but I think perhaps, right in the first instance, when I came, umm, (pause), the problem wasn't...ssolved 23'46"... and (pause)... Seems like you have your 6 weeks, or whatever, and then we are discharged to go away with the exercises. But the problem never leave...sort of got resolved...erm...it then eventually sort of disappeared and then came back again, and this sort of thing, and so therefore having gone on like that for a while, I...just reflecting on it, um, no criticism meant to anybody, you have lots people coming in here with things, that you give them some exercises, and they didn't resolve, and you think...well...should there be any mechanism whereby..., um (pause), I don't know,(speaks</p>	<p>Physiotherapy can seem like 'a process': "someone sees you a few times and then discharged you"</p> <p>If no improvement, need to re-access physiotherapy</p> <p>Expectation of problem being 'solved'</p>	<p>Dichotomy of 'being fixed' versus 'stuck with it'</p> <p><i>Comment: change in intonation; uncertainty in speech style</i></p> <p>There needs to be a 'safety net': some patients need...</p> <p><i>Comment: ambivalence about value of input</i></p> <p>Dichotomy..</p>

quickly) I'm sure it's not necessary with lots of things, but you think well should there be some (last section spoken very quickly)...if you haven't reached this point by so-and-so, if this doesn't go away...I don't know, telephone follow-up, paper questionnaire follow-up... I don't know. I mean, a lot of people probably don't want to come back again. A lot of people do their course and whatever, and it all resolves. But to catch those where it doesn't or somebody with a recurring problem (F: Yep) Or, ahhm, because (pause) I mean, you know, I'm sure a lot of people will go through them thinking "I should be better?"; "Oh well, I can't have done my exercises properly. Do they always come back? Umm, because (pause) you think actually (pause), you don't necessarily know your success rate. (pause), emmm. Because people get seen, they get discharged with their set of exercises; Do you actually know how many of those people actually get back to where they wanted to be, actually achieve what they set out to do? Umm, because of the way it works. There is not that final 'closure of the loop' if you like. (F: Yep) You know, to say, 'Have they got to where they are going?' Is that because they have given up the goal, or they wanted to work on it, or is that because their condition is such that they don't get better? In actual fact you, you don't get that information, with the way the system runs.

I don't know what to do if I don't feel any better: need some kind of follow up

There needs to be a 'safety net': Some need an...

Patients can end up blaming themselves: have they done the exercises 'wrong'

There needs to be a 'safety net': Not meeting expectations

How is patients' achievement of their expectations measured?

Are outcomes measured?

There's a limited structure.. Current use of questionnaires has limited value

Need to measure outcome

5.2.4 Theme: There's a dichotomy: 'being fixed' versus 'stuck with it

There were no subthemes identified, but the theme underlies the context for the remaining themes and subthemes. The expectation of being fixed or fully returning to their previous quality of life related to both surgical and non-surgical conditions. However, it was also felt that sometimes people could be 'worse off' (Anna:51'51") after surgery or may have a 'recurring problem' where the problem wasn't 'solved'. Anna was the dominant voice in this theme although James and Alice acknowledged her opinions. She had a history of chronic and recurrent back pain and expressed frustration at having 'lost' many aspects of her life.

The first time that it was proposed that a different approach may be required for surgical and non-surgical problems was following a discussion between Alice and James, where they had been describing their experience of psychosocial screening. Anna then stated that she had actively chosen to tell the physiotherapists how she felt (15'08") (see section 5.2.5.2, (page 141): subtheme – "*disclosure happens through friendship and rapport*"). James then asked:

James: Did you have an operation?

Anna: No, not initially.

James: That's the fundamental difference. We come from the surgery

James:17'50"

The frustration of a problem not being solved, or being recurrent is highlighted in the next quote from Anna:

perhaps, right in the first instance, when I came, umm, (2), the problem wasn't sssolved and (3). Seems like you have your 6 weeks, or whatever, and then we are discharged to go away with the exercises. But the problem never leave sort of got resolved erm it then eventually sort of disappeared and then came back again, and this sort of thing, and so therefore having gone on like that for a while, I...just reflecting on it, um,

no criticism meant to anybody, you have lots people coming in here with things, that you give them some exercises, and they didn't resolve

Anna:23'46"

Physiotherapeutic exercises are described by Anna as part of a biomedical model: there is a mechanical problem and the prescribed mechanical exercises will fix it. Anna shifts from the first to the third person when describing her lack of progress, as if she is representing others who have '*not been fixed*'. In a similar vein, it was felt that a '*pain problem*' (or persistent pain) may require a different physiotherapeutic approach to post-operative conditions (Anna:15'14"), although there was also ambivalence around this.

Whereas if you, if you're going in there because this pain is getting worse and worse, it, it seems to me, that that is slightly different. And it may be that it has to be handled differently, I don't know.

James: 22'08"

At what point someone is deemed to 'be fixed', or how physiotherapists know what their '*success rate*' is (Anna:25'04") underpinned much of the discussion with frustration being expressed regarding the lack of outcome or follow up measurement.

5.2.5 Theme: There's a limited structure to assessing the impact

Participants felt that physiotherapists had a clear intention, and structure to exploring the impact of health problems on exercise performance or daily function. Enquiry into the impact was often through the use of fixed-answer questionnaires (which didn't allow for individualisation) or by semi-formal discussion. Exploration of other psychosocial domains was as a consequence of developing a 'friendship' with the physiotherapist, built up over time, aided through the continuity of seeing the same therapist. There was little recollection or reference to any formal screening or addressing of psychosocial domains relating to work, potential caring responsibilities, mood or relationships. The process of monitoring progress required good note keeping, especially if

different physiotherapists were seen but it was felt that monitoring of progress from a psychosocial perspective was an informal process. There was a strong sense that questionnaires were a ‘paper exercise’ and were rarely clinically useful or valued by the clinician. Throughout the discussions, it was clearly stated that the impact of symptoms and any outcome measurement needed to be evaluated from the *patient’s* perspective.

5.2.5.1 Subtheme: Physiotherapists explore the exercise and functional impact

The precise mechanics of how issues were raised was not seen as important – so long as issues were identified and it was seen as being “*top of the agenda*” (Anna:19’55”). James stated that his physiotherapist explored what he could functionally manage, right at the first appointment (13’34”):

Could you walk along the corridor? How did you walk along the corridor? Could you go upstairs? Could you not go upstairs (...) and I thought they based their exercises (...) on that discussion

He also felt that the physiotherapists’ exploration of the functional impact was “*intentional*” (18’13”).

The focus for monitoring progress was seen to be on through physiotherapeutic exercise programmes (“*they checked how far my knee was going, or not*” John: 41’57”) and through providing support to return to desired physical activities (swimming, walking, gardening, golf), which was “*positively encouraged*” (Alice: 46’15”). However, it was felt that physiotherapy exercise targets were identified by the physiotherapist:

They set me goals. You know, do this for two minutes this week if you can, rather than one minute that you are doing at the moment”

James:5’11”

Exercises were set, and times

Alice: 45’54”

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Anna described more of a 'trial and error' approach, still directed by the physiotherapist, as her ability was limited by her pain (46'44"):

Anna: So, it was more, didn't set a number because ah ah, hee hee it was "Well, if you can do some, do some, and then stop when you"

LK: Mmhm

Anna: And then as ah, as I as I got to be able to do one thing, the position was made slightly more difficult

Anna went on to say that she valued being able to measure change although the wording she used indicates that she questioned whether or not true progress was being made (47'02"):

and it actually makes you seem like you are getting somewhere.

This section was spoken faster and quieter than previously. Anna had also spoken of having "lost" aspects of her life and her repeated statements of not wanting to be seen as 'criticising the service', would suggest that Anna found this difficult to articulate.

Participants felt that issues pertaining to exercise programmes and treatment procedures and protocols were fully addressed through clear discussions and explanations. However improvement in other psychosocial and functional domains tended to result indirectly from restoring function and a return to desired goals, rather than being specifically explored by the physiotherapist:

Well. I had the knee problem for many years and I missed the social life at the golf and I missed the exercise (2) and when I came here, again as I mentioned earlier, in a slight state of depression (3) but now I play golf twice a week (.) my quality of life is back where it was 5 or 6 years ago and at my age, 74, that's tremendous

James:3'43"

Alice also spoke of her low mood prior to her surgery:

Well I found my quality of life, um, was very low, well, before I had both my knees done, I was very, very down.

Alice:9'23"

Like James, she felt that issues relating to her mood were addressed indirectly during physiotherapy: "*doing the gentle exercises*" in hydrotherapy, as well as her ability to walk further did "*motivate*" her and "*raise (her) spirits*" (11'02").

However, Anna described her situation as being different and was the only voice expressing concern about being "*judged by appearances*" (15.14):

Anna: I'd not had any surgery. I had walked into the department; I was still at heh heh work

LK: *Yeah*

(12 seconds of discussion)

Anna: I think the way I was, that erm I was still at work, you know, and you look alright heh heh

The drop in her voice in this section, punctuations of laughter without humour and increased speed in speech indicates that this was an important point to her.

Anna went on to describe the broader impact that her pain had had on her life: "*Everything outside (her working life) had gone*" and she "*wanted them back again*" (15'20"). She had stated earlier in the discussion (7'31") that

You might be able to walk into the department. You might be able to manage your work 9 til 5, or whatever work, but if you then if your life was a lot more than that, and then all you do is going home and doing nothing, I think that's far more of an impact

Both Alice and James had stated that they were retired from work but there was no further discussion regarding formal processes for the identification or the addressing of other psychosocial domains: returning to social activities or non-

exercise related hobbies, the impact on relationships, or for managing caring responsibilities. Indeed, when a direct question was asked

And your goals, and confidence and you mood, how was that sort of measured, or kept track of?

LK: 42'34"

The response was "No, I don't think they recorded that. No" (James: 42'40"). Ultimately, it didn't matter who initiated a topic or how the impact of a health problem was explored,

so long as it is discussed and it then underpins what you are aiming for

Anna:22'03"

As part of the process of enhancing trustworthiness, a summary of the themes were sent to the participants. Only one responded (appendix 17) and their comments emphasised the expectation that exercises are prescribed and that monitoring of their progress helps to identify the appropriateness of discharge. They described surveying their friends and family regarding their experience of physiotherapy who "*virtually all said that the difficulties that their condition caused to their life whether it be pain/work/sport etc were still present at discharge, their mood had probably improved because there was an expectation of improvement*".

5.2.5.2 Subtheme: Disclosure happens through friendship and rapport

Participants in the discussion group endorsed that psychosocial issues other than the functional impact needed to be explored. They felt that when it was raised, it tended to be through informal discussion, as a direct consequence of developing rapport or friendship. This was first raised by James (04'11"):

To the extent that we almost became friends, you know. Because you've seen them and you're sharing, you know, well I wouldn't say intimate, but certainly personal details of how you felt about the situation.

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Alice valued being seen by the *'two same physiotherapists (...) from before'* and that, combined with a history of written notes, made it *'easier for (her)'* (19'03"). This was quickly endorsed and the concept of continuity was named by Anna, who then took the conversation over: Alice continued to give clear affirmation to Anna's comments

Anna: *Yeah, I mean I think continuity is essential.*

Alice: *Yes.*

Anna: *I mean, I got continuity. I was ok. But I think without that, it would have been very difficult, because then, everything that's been said in the place before, moving it on to the next issue*

Alice: *Yeah*

James felt that the *"chatting"* helped it to feel like a collaborative process. Alice also reflected on the sense of friendship describing that having seen the physiotherapists before, it was *"really easier to talk to both of them"* and *"you know general how you doin', how you keepin'"* (19'00").

James raised the possibility that *'individual personalities'* (18'16") and *"individual situations"* influenced whether or not a patient needed to be *"drawn out"* and he felt that the physiotherapist's approach was intentional to try and achieve that. However, Anna's perspective was different: she stated that she had taken responsibility for identifying her difficulties (15'08"):

I think I probably told them heh heh

As discussed in the previous section, this predominantly related to the significant impact that her condition had had on broader areas of her life, and this was more important to her than an ability to perform exercises or to improve her range of movement: that approach had been tried when she had previously had physiotherapy: *"been here lots and lots heh heh"* (23'24") and

you were just coming with this pain and someone saw you a few times and (they) discharged you

Anna: 23'09"

5.2.5.3 Subtheme: Current use of questionnaires has limited clinical value

Participants were uncertain as to the role or value of questionnaires. In their experience, they had been used as part of their surgery, but not when attending physiotherapy. When they had used them, there was a sense of overload (either in the number of questionnaires used, or the number of questions on the form) and closed questions did not allow the opportunity to personalise a response. Although there was a frustration that completed forms did not seem to be used clinically, there was disappointment over ambivalence from a staff member regarding the need for a questionnaire to be returned. However, it was agreed that a 'tick sheet' can be a useful prompt to flag up issues.

Alice had trouble remembering the process of completing questionnaires and seemed ambivalent about their role and value (39'03"):

Alice: Yeah. Umm, I seem to remember filling various questionnaires [in

LK: Was] this with physiotherapy or part of your surgery?

Alice: Both ((sounds uncertain))

LK: Mmhm

Alice: Definitely with physiotherapy.

LK: Right

Alice: Yeah, yeah, um, um oh it's a while back now can't mem, I remember fillin' in forms on, on on, uhh um on progress, and how you

LK: Excellent

Alice: know, and that sort of thing

(26 seconds of dialogue)

Alice: as well, um you know, they had forms on us and, you know, talk about how you, um, you are gettin' on and that was taken into account.

LK: And did you fill in those forms yourself or did your physio ask you questions?

Alice: Just ask, ask you questions

Clearly, the last question by the moderator was leading and so the response would have to be interpreted in the context of other data (section 6.2, page 186). Anna was more clear that she had not completed any questionnaires, and felt that a “tick-box form” (41’02) doesn’t “*actually encompass what you want it to say*” (41’40”) and it is “*quite difficult on forms to get the qualitative information that you need*” (40’56”). However, there could be merit in a “tick-box” questionnaire to act as a prompt for physiotherapists, but issues should be explored through conversation.

As a result of using questionnaires as part of outcome measurement for orthopaedic surgery, James also expressed scepticism about their clinical value. This came up on two occasions:

And if we ticked, presumably if we’d have not had ticked all the boxes somebody would have followed up. Presumably, I don’t know

James:28’53”

He highlighted that the same question within a questionnaire was asked “*about three times*” and laughed when saying “*I don’t know if it’s a trick* (43’27”)”. He felt frustration that the nurse “*wasn’t too bothered whether (he) handed it in or not*”, especially after answering “*about 40 questions*” (43’48”) with a concluding thought of “*How valuable is this then?*” (43’58”).

5.2.6 Theme: There needs to be a ‘safety net’

All three participants felt that there could be significant problems if expectations or goals are not met or the need to compromise is not addressed appropriately. Failure to attain expectations can result in uncertainty or feelings of guilt and there needs to be systems in place to address this. People who may need more support should be identified early and a review of expectations and goals must be undertaken prior to the point of discharge. If expectations have not been met a follow-up process and/or further support would be valued.

5.2.6.1 Subtheme: Not meeting expectations has an emotional impact

Participants described facing uncertainty if they don't improve. Negative feedback from questionnaires at the point of discharge can be disheartening and even if there isn't a 'cure' there needs to be 'hope'. The importance of appropriately addressing expectations was revisited throughout the discussions but the emotional impact was primarily discussed by Anna. Failing to attain goals could be 'depressing' (Anna: 5'44"), and the patient can even experience self-blame as a consequence of failing to improve:

I'm sure a lot of people will go through (physiotherapy) thinking "I should be better"; "Oh well, I can't have done my exercises properly".

Anna:24'53"

5.2.6.2 Subtheme: Some patients need an alternative approach

It was also felt that some people, or those who may be different stages of life, could benefit from help to reach a compromise with expectations: but it wasn't felt that the required support was always forthcoming. It was deemed important to have a process for early identification for people who may require more support and to identify those who have not fulfilled their expectations, ideally prior to their last appointment.

The need for a timely identification and provision of extra support for some patients was identified early in the discussion by Anna.

Whether there's people who...are in a worse situation, where goals are inappropriate, I'm sure that there probably are, um, but I think that you need to decide that quite early on and differentiate whether people are going to need goals and support.

Anna: 06'48"

A later discussion around failure to attain the desired outcome was emotionally charged and peppered with pauses, caveats, hedging and rapid speech, as if trying to justify Anna's (and others) expectations of getting better. Interestingly,

Anna switched from using the first to the third person when describing her experience of physiotherapy and as she continued, merged the experience of her previous into her recent treatment. Her style of speech (speeding up, quieter, hesitancy, laughter) suggested ambivalence of physiotherapy fulfilling her expectations, so resulting in a need for her to re-access the service

And it wasn't the chronic nature that it's become, aah and so therefore you probably get a different sort of service, one suspects. Ummm, per'aps heh heh been here lots and lots heh heh and it's so you probably get a different sort of service, and now yes, you do think, that, eh, a, you've been discharged, and I've got back into the service

Anna:23'13"

This section ended with her reflecting on the paradox of physiotherapists expecting patients to continue to improve, but logistically not being able to see them through to the point that they do and there being no mechanism in place to monitor their outcome.

James described his process of loss and compromise (49'44"-50-56") and the interviewer then switched the focus to talk about any potential value of the IoSQ. However, Anna took the conversation back to difficulties with trying to face compromise (50'58"):

Anna: I think it's very interesting] though.

LK: Mmh

Anna: Helping you to compromise, because I think it depends on what you've had done and what you've lost

LK: Mmhm

James: Right

Anna: Umm. And so I. Yeah, I think that's a big issue.

This was explored further with Anna (51'14"):

LK: And how does that happen? That helping you to compromise?

Anna: *I don't know.*

This was followed by a leading question by LK which Anna seemed reluctant to answer, being quick to offer reassurance against perceived criticism (51'20"):

LK: *Do, do you think it does happen?*

Anna: *That's why that's why I say I think, that's an issue. Yeah.*

Eerh because it's very easy to offer a service, and this, you know, I'm not, I'm not offering blame or criticism.

LK: *None taken*

Anna: *But as an observer*

LK: *Yeah*

Anna: *It's easy to offer a service, to somebody, where they have something you can fix it, and you see them improve*

The importance of having a mechanism to identify people who have not achieved their expectations was first raised by Anna (24'12"):

Just reflecting on it, um no criticism meant to anybody, you have lots people coming in with things, that you give them some exercises, and they didn't resolve ((hear deep intake of breath)) and you think, well should there be any mechanism whereby, umm, I don't know, I'm sure it's not necessary with lots of things, but you think well should there be some if you haven't reached this point by so-and-so, if this doesn't go away I don't know, telephone follow-up, paper questionnaire follow-up. I don't know.

James concurred with her viewpoint and there was concern as to how people who have outstanding difficulties are identified (30'20"):

There doesn't seem to be a follow-up from the physiotherapy, probably, they don't see that it's their job, maybe? I don't know heh heh. Perhaps it's your own doctor's task? I don't know – who's task is it? If you are not satisfied with your progress, I don't

know what the answer to that is. Somebody should be following it up.

When discussing the wording on the IoSQ, the sense of 'discharge' was described as feeling very 'final'. Anna dominated this discussion and questioned what sort of services people should access. She felt it should not be "*just physiotherapy*" (52'38"), but possibly even counselling (54'48"). Indeed, Anna felt that if there was not another option for people with low mood, the questionnaire "*actually could be detrimental*" (53'27").

As mentioned above, an e-mail regarding feedback for the IoSQ was received (appendix 17). The final point made was: "*If you expect improvement to a patient's disability/problem at discharge your questionnaire is essential*" which was followed with "*It will also mean that in cases where improvement is not forthcoming the physios are going to have to face this issue with the patients*".

5.2.7 Summary of themes for patients attending focus group in study 1: patFG1

This first patient focus group (patFG1) had not used the IoSQ clinically and so the discussion aims were to explore their experience of psychosocial screening in the context of current service delivery and to then enquire into the potential value of the IoSQ in consideration of the points raised.

Throughout the discussion there was a strong dichotomy between patients who are 'fixed' and those who are not. Being fixed was attributed to both surgery and the prescription of physiotherapy exercises. Concern was raised that failing to recover could result in patients' self-blame or guilt, possibly due to not doing the prescribed exercises correctly. Not being fixed in line with expectations was seen as '*a big issue*' and it was felt that some people may need to be identified early on so that additional or different support could be given.

Identifying psychosocial and functional issues was seen as being very important, and needs to be '*at the top of the agenda*'. The development of friendship and rapport with their therapist was valued, which helped to increase the likelihood of disclosure and also provided emotional support. However, screening predominantly focussed on the impact of the participants' health

problem on daily function and activity-related hobbies. This tended to happen by the use of standardised, 'tick-box' questionnaires or through intentional questioning by physiotherapists. Considerable frustration was expressed over the role of questionnaires: the ones that patients had come across did not reflect their personal situation, kept asking the same questions in different ways, and were not referred to in the clinical setting. Although one participant felt that physiotherapists' do try to 'draw things out' from some patients another had concerns that she would be judged as being '*all right*' as she was still at work. She therefore took it upon herself to highlight issues pertaining to the impact on the rest of her life. Her style of communication indicated that she was stating this opinion on the behalf of others.

It was felt that questions and concerns regarding their condition were addressed through discussion and being reassured that participants could phone up their therapist if they needed to. Participants felt that their mood '*lifted*' as a consequence of having treatment in group settings, or being aware of symptom improvement. They did not feel that issues pertaining to confidence, mood or other goals were recorded. There were no discussions related to the screening of work or relationships difficulties.

Improvement was monitored through range of movement measurement and exercise progression but Anna seemed ambivalent that this accurately reflected her recovery. It was felt that there was no mechanism in place to measure outcome at the point of discharge from physiotherapy and additional follow-up by phone or questionnaire would have been valued. This was particularly the case as patients may feel uncertain as to where to go next, or how to re-access physiotherapy if exercise had not '*solved the problem*' or that their needs had not been met.

At the end of the focus group, the IoSQ was distributed and feedback invited. It was felt that the word '*discharge*' was too 'final' and it was proposed that the word 'review' could be used instead. There was concern that the word 'discharge' could highlight the discrepancy of unmet expectations, which could be detrimental: counselling or help to compromise with their situation may be required and should be identified *prior* to discharge. Anna's perspective is

summarised by her statement: “It’s easy to offer a service to somebody where they have something you can fix it, and you see them improve”.

5.3 Study 2. Patients: following the introduction of the IoSQ (patFG2)

5.3.1 Participants

Four patients had agreed to take part but due to inclement weather, only three attended: Daniel (72 years old), Janet (75 years old), and Mary (65 years old). Daniel had had surgery following fall; Janet had had a joint replacement but had now developed symptoms in the other leg, about which she was concerned. Mary was suffering with recurrent hip and back symptoms.

5.3.2 Questions explored

The aim of this discussion group was to explore the clinical usefulness of the IoSQ. This was undertaken by asking the participants: “What did you perceive the role of the questionnaire to be”; “How was it used by your physiotherapist”; “Can you describe what it felt like to use the IoSQ”; and “Overall, what are your thoughts about the usefulness of the IoSQ as part of your physiotherapy treatment”. Participants were also asked if they would change anything about the IoSQ or the research process that they had been involved with (appendix 25).

Three themes were identified:

- Physiotherapists address some issues well
- Cynicism regarding the value of questionnaires
- IoSQ helps to individualise treatment

These, along with their subthemes are summarised in figure 5.2. Two participants responded to the e-mail requesting feedback about the developed themes and sub-themes: both endorsed the analysis. As shown in table 5.2, which provides an example of the code development, participants in this focus group, were likely to discuss a concept at considerable length. Their focus was sometimes more on describing the experience of their treatment rather than

exploring the questions pertaining to psychosocial screening so resulting in fewer examples for each theme.

5.3.3 Theme: physiotherapists explore and address some issues well

Although there are only two comments relating to this theme, it was felt important to represent this as a separate theme as the concept ran throughout the discussion: participants were very positive about the physiotherapy treatment that they had received. Mary described how progress was monitored at each visit by her therapist asking how things were going and if anything had changed from the previous visit (15'13"). However, towards the end of the group she also stated (43'54"):

I think sometimes you've got, the physios and all the other departments need sometimes just to, just to try to pick up on the person they're dealing with

This was said in the context of difficulties that older people may have in disclosing the impact that their condition is having on their quality of life and she implies that clinicians are not always sensitive to the additional needs that people may have. This is discussed further in section 5.3.4.3, page 159.

Figure 5.2: Focus group 2: patients (patFG2). A diagrammatic representation of the themes and sub-themes.

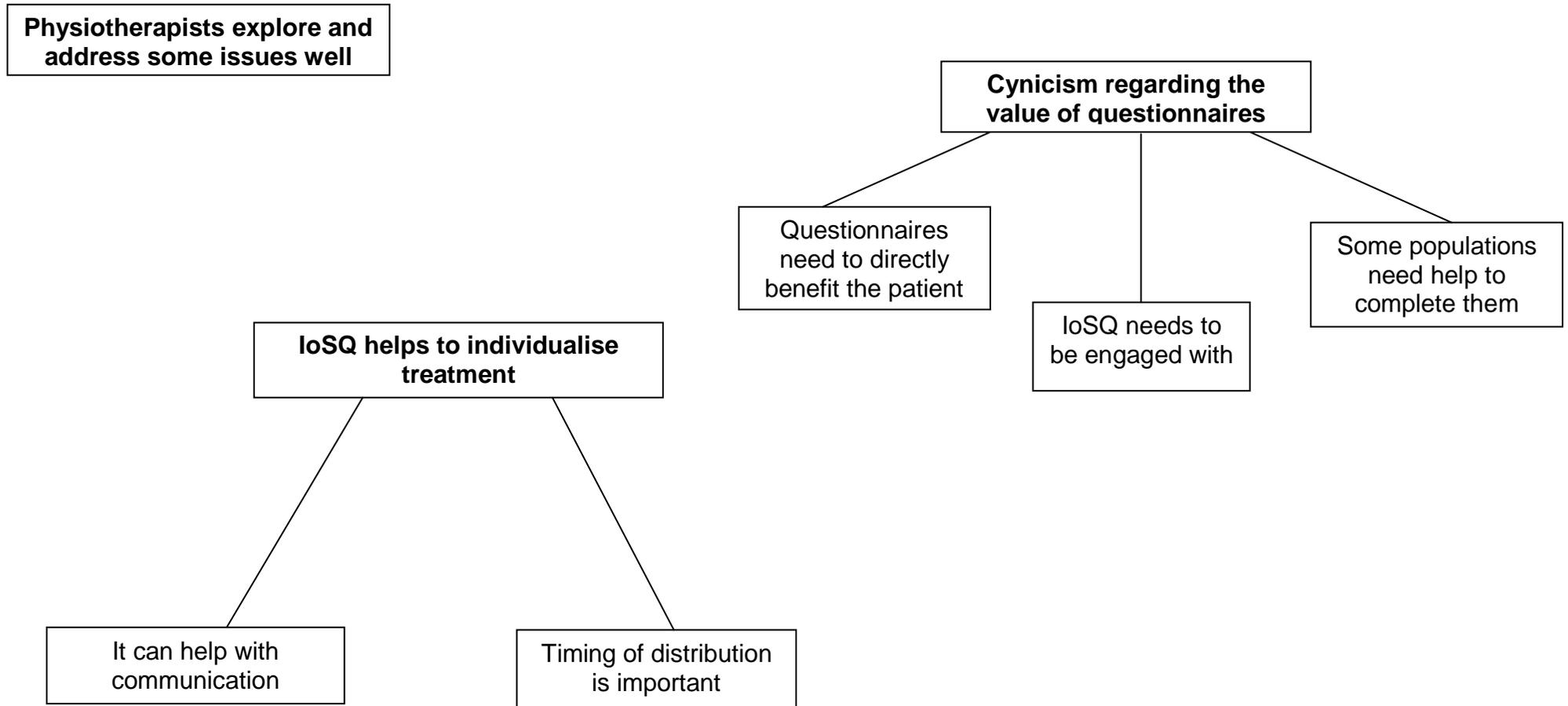


Table 5.2: Example of table used in the development of codes, themes and sub-themes: patients (patFG2)

Original text	Coded for	Theme and subtheme
<p>LK: OK, Great discussions. Thank you. Um, can I ask you, how was the questionnaire used when you came in to see your physio? (2)</p> <p>Janet: I can't remember if he looked at it or not. Mary: No, I can't I can't remember 26'00"</p> <p>Daniel: I can answer that very well because (2) being the sort of person I am I wasn't if you like happy because I couldn't erh suppo- so effectively I asked mine, I said now look, take question one, in my circumstances, so effectively I was reinforcing what I'd written down, so in effect I did, and he didn't take us long, it was our introductory talk, because he said are you happy to participate in this, he got me to fill the form in, which you've got a copy of (consent form), so I did that, umm, and then I what was it he must have gone off to get something whilst I filled it in, I'm sure he took a few minutes, came back, we talked our way through it, so yes, in my case, I would, even though I didn't get the satisfactory answer from my point of view, but in fairness, I understand why, because there's no point if he's going to tell me what to write down, um, you know the whole purpose of the questionnaire. So he knew the general points from the top half and then he knew why where my specifics were, a bit like you, I was fortunate in that my pain levels were virtually non-existent and as far as the confidence and mood in this sense, I can relate it back to the first one anyway, I think if I'd had pain, then my answers to these next two ((talking about the NRSs)) would have been affected by that so you know, in that respect, anybody looking at it would say OK, well clearly someone in pain, your confidence is affected and your mood's affected, that's common sense so to that extent, I would hope that they'd be using it. Mine did, but then it's a bit unfair because there were no real concerns so we didn't spend long at it. 27'49"</p> <p>LK: So you don't have any recollection as to how it was used Janet: I remember filling it in while I was sitting in the waiting area and handing it in but at the time I did have a lot of pain before I started my</p>	<p>Can't remember if the IoSQ was referred to in appointments</p> <p>Physio did engage with IoSQ</p> <p>Although he didn't have significant difficulties, recognises that if he's had significant pain it would have affected his mood and confidence would have been affected</p> <p>Thinks IoSQ would be useful if had more concerns – but physio would have to engage with it</p> <p>Remembers completing the IoSQ but</p>	<p>Cynicism regarding the value of questionnaires IoSQ needs to be engaged with</p> <p>Cynicism regarding the value of questionnaires IoSQ needs to be engaged with</p> <p>IoSQ helps to individualise treatment: IoSQ useful if situation more complex</p> <p>Cynicism regarding the value of questionnaires IoSQ needs to be engaged with</p>

<p>physio and I was still in pain at the end but it was different, all the nerve endings that was the trouble, I couldn't lay on the bed or anything, it was too painful, so I was given a drug that evidently they usually use for depression, but it helps nerve endings and that did help LK: OK Janet: But I can't recall if we looked at it or not to be honest Mary: No I can I remember filling it out but I don't remember looking 28'42"</p>	<p>not that it was referred to</p> <p>Remembers filling it in, but not relating to it</p>	
<p>30'57" Daniel: You wanted to know about the general, the point is, in the National Health Service at the minute, there is a move towards this evaluating, you know, evaluation process, what do patients think it's a political, let's be blunt and honest about it and it's then used as a carrot or a stick, depending on how you look at these things, and I'm very cynical about those they are used for that purpose because they're nothing to do with you and the fact that you filled it in just gets used as um stick to bash (mmh) particular department or hospital with. Now that said, if you felt it was helping that hospital to do something better because of something they'd overlooked, fine, I have no problem with that, it's a little bit like the way schools would use Ofsted inspection, because they are published without qualifications and erh this is what I felt in hospital because i was in there as a bed blocker, not for my own reasons but because I was a non-emergency and yet they wanted to deal with me in the first available opportunity so I was kept in effectively, one of the wards down the end which had very sadly, but it was a big eye-opener for me a lot of the confused geriatric patients if you see what I mean, so even though I had an orthopaedic issue I was actually in the holding ward which I'm not complaining about for one minute because I, it was a blessing for me to, because it doesn't half put your own condition in perspective, and you could see there why there was a need for questionnaires, in a sense because it would tell you where the problems are. This on the other hand, as I see it, correct me if I wrong, but I get the impression that you are coming at this from a pain management, physiotherapy angle, as far as this is concerned. Now if that's the case, you know, but then you've opened it out to questionnaires in general, so there's my answer to you. This is addressing a specific issue and we've</p>	<p>Cynical about value of questionnaires: concerned they have more of political or management agenda than clinical.</p> <p>Acknowledges that if questionnaires help to improve services, they are useful</p> <p>Satisfaction questionnaires – not relating to IoSQ</p>	<p>Cynicism regarding the value of questionnaires Questionnaires need to directly benefit the patient</p>

<p>all agreed in our different ways it's better to have it than not, without a doubt. As to questionnaires in general I then make a comment I've just made, I worry, because the patient thinks (1) and it allows individual patients to come up with their particular grudges, for want of a better word, oh I didn't like that nurse, I mean let's be blunt, when I was in there, they were either the wrong colour or, it really saddened me this, in this day and age, to find out the sort of prejudices that manifest themselves in the health service and people under pressure so if, you know, you weren't responded to in a particular time, well, again, if you were able to look at the total picture, you'd say was I responded to in a reasonable, but if you ask a simple yes-no questionnaire of how do you, and it worries me about the use of questionnaires in the health service what's the er purpose? If they are to deal with specific clinical issues or general issues, fair enough, but they have to be very very carefully used, °very carefully used°. That would be my whereas as this one on the other hand doesn't fall into that category at all this, to my mind, is functional. It serves a very useful purpose and you know, I totally support its use. What my question is, what happened before to other patients um, if this wasn't around? I would feel that I might have forgotten to say something but then presumably then the physio would have probably have asked these questions anyway so perhaps. But if you fill it in beforehand, that speeds the process up 35'03"</p>	<p>Concerned that satisfaction questionnaires can be used as an opportunity to vent personal grievances or prejudices</p> <p>Pleased that the IoSQ is available due to it's clinical / functional role: questions what was used before it was developed, although presumes that physios already asked the questions so therefore this is used to speed up the process if used beforehand</p>	<p>Cynicism regarding the value of questionnaires People have different 'agendas' (need to have clinical value) Physiotherapists explore and address IoSQ helps to individualise treatment: : timing of distribution is important</p>
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5.3.4 Theme: Cynicism regarding the value of questionnaires

Participants clearly stated that they felt that questionnaires should have a clinical value with Daniel expressing concern that their primary role was for a 'political' or 'management' agenda. These beliefs were initially described in the context of a patient satisfaction questionnaire that he had completed when in hospital and impacted on all of his reflections on the IoSQ. Participants also felt that there may be a burden or overload of paperwork for patients which could result in questionnaires not being completed appropriately. There was a question as to how much the physiotherapists had engaged with the IoSQ but its potential value as a prompt to initiate discussion was acknowledged. It was also felt that there would be some populations who would need additional support to complete the IoSQ, or would require the physiotherapist to intentionally engage the patient with the questionnaire to gain more useful information. This would certainly apply to some older people or those with literacy difficulties.

5.3.4.1 Subtheme: Questionnaires need to directly benefit the patient

Daniel had significant concerns about the role of questionnaires, particularly when evaluating a service (31'25"):

I'm very cynical about those they are used for that (evaluation) purpose because they're nothing to do with you and the fact that you filled it in just gets used as um a stick to bash (mmh) a particular department or hospital with.

This was reiterated more strongly later on:

*We should be sticking to the clinical level, full stop.
(Questionnaires) should never be used for any purpose other than the well-being of the individuals dealing with the questionnaire.*

Daniel: 49'50"

However, he described being reassured that the IoSQ had a valuable clinical role (34'26"):

...whereas as this one on the other hand doesn't fall into that category at all this, to my mind, is functional. It serves a very useful purpose and you know, I totally support its use

However, the context of this statement needs to be reflected on as towards the end of the group (1:11'26") he states

now you've got a dilemma there because I know what you are trying to achieve I mean you in the generic term. You are trying to achieve an assessment of the success of the physio department's clinical progress and that's a value thing but that can only be done at the end, can't it?

This was said during a discussion about the merits of the IoSQ being used solely at discharge or as a tool to measure progress. It reflects that even though he was very positive about the potential of the IoSQ as a patient-centred tool, he continued to be sceptical that its primary use was for a service evaluation rather than to benefit the patient.

Mary felt that as questionnaires were often distributed at the time of, or just after discharge, patients would not perceive any direct personal gain and so be unlikely to complete and return them:

if you send people out with a bit of paper and they've been discharged from the 'ospital most of them are gonna do paper aeroplanes (laughter) or write a shopping list if there's a spare place on the back (laughter)

Mary:58'27"

The timing of distribution is discussed further in section 5.3.5.2, page 161. All three participants described that for a questionnaire to benefit a patient, it needed to be brief and easy to complete. For example, Mary stated:

but questionnaires like this is lovely because it doesn't involve all sorts of pages and pages and pages, you know,

they're just relatively straightforward questionnaires that most people can just answer straight off anyway but erh, yeah.

Mary: 44'54"

5.3.4.2 Subtheme: loSQ needs to be engaged with

Mary described the value of being able to flag up to the physiotherapist that they have additional concerns or difficulties, prior to attending a physiotherapy appointment. This could be done by telephone or questionnaire, so that extra time could be allocated to discuss things so that *"they can hear what you're saying and pick up you know from where you are coming from"* (19'31"). Although it was acknowledged that the loSQ provides an opportunity *"to say what you really do think"* (Mary: 17'33") there was uncertainty as to how much it was engaged with (25'55")

:

Janet: *I can't remember if he looked at it or not.*

Mary: *No, I can't I can't remember*

However Daniel clearly recalled his therapist referring to it, even though Daniel had not identified major concerns (27'47"):

I would hope that they'd be using it. Mine did, but then it's a bit unfair because there were no real concerns so we didn't spend long at it

His uncertainty about whether or not the loSQ was engaged with routinely was further highlighted when he said:

...is this simply a prompt which is the way I've summed it up, and a physio will have picked up your worry and the key question is what's the link between this and then the physio picking it up.

Daniel: 11'52"

Janet had similar concerns, especially at discharge (23'33"):

Is there any, if for instance, you put down the level of pain down at six, for instance, when you're discharged, is there any notice taken of that, or is it just logged, and that's it

5.3.4.3 Subtheme: Some populations need support to complete them

Daniel explained how he had asked his physiotherapist for guidance in completing the IoSQ, but had been advised that it was his interpretation of the question that was important. On reflection, he concurred with this and valued the openness of the questions on the IoSQ, allowing him the freedom to explain any concerns from his own perspective. However, Janet and Mary reflected at some length on the difficulties that older people may have in completing questionnaires. Janet felt that some people may have concerns about being a 'nuisance' or putting down 'the wrong things' or 'exaggerating' (35'40") and Mary linked this back to older people using the example of mood and relationships. She felt that they may have concerns about the information being passed on to someone else or simply being prescribed tablets because they were depressed (36'05"). She developed this further when considering their independence for getting their own meals: an older person may not want to 'admit' that they couldn't stand to cook their own meals, but in reality, they were "surviving on cereals and a regular delivery of milk" (38'03"). This would relate back to the earlier subtheme of the need of the physiotherapist to engage with the IoSQ and the patient to support the individual in disclosing difficulties that they may be having. These potential concerns were also raised a short time later by Daniel, who stated:

some people might find something committed to paper intimidating but then you're in a no-win situation, I'd rather that it was there than wasn't there but not getting too hung up on if people (2) don't want (to complete it)

Daniel: 41'13"

With respect to literacy, Daniel, a retired teacher, felt that having a tick-box as well as an open-text option was valuable so that even if a patient didn't feel confident or able to write something, there would still be a prompt to initiate dialogue with the physiotherapist (45'40").

5.3.5 Theme: IoSQ helps to individualise treatment

There are two subthemes in this section: that it can help with communication and the timing of distribution is important. There were a number of discussions around the importance of matching expectations to maximise the benefit of treatment. It was felt that the IoSQ helped to provide a structure and prompts to ensure that patients' particular concerns and circumstances can be identified appropriately. This was seen to be particularly valuable if a health problem does not improve or is recurrent. To maximise the benefits of the IoSQ the importance of timing – at assessment and discharge – was also discussed. It was felt that having time and privacy to complete the questionnaire was valued and it was important for any issues to be identified, prior to the first appointment. Issues relating to the role of the IoSQ, if it was to be used at review or discharge were also discussed. Overall, participants appreciated the brevity and clarity of wording of the IoSQ and would value being able to use it at further appointments – with physiotherapists or doctors.

5.3.5.1 Subtheme: It can help with communication

Daniel summarised his opinion of the IoSQ right at the beginning of the discussion group (3'35"):

...the questionnaire in my view is excellent in that it gives you the range of things that worry you, it gives you an opportunity to draw attention to them and it flags up hopefully in the numbering system the thing that's most important to you which gives the physio then the area to concentrate on. That's it in a nutshell, thank you.

Both Janet and Mary concurred with this, especially in comparison to the questionnaires they had been given in orthopaedics: they "*had to put yes or no*" which "*is not always straightforward to answer like that*" (Janet: 3'55") with Janet adding later on (30'29") that being able to write a comment on the IoSQ "*is better*"

Daniel recognised that "*time is precious*" and

“anything that speeds up the communication process between patient and physio, to boths benefit, is worth it”.

Daniel: 20’18”

This would enable the physiotherapist to quickly determine *“where the areas of concern are and know what to concentrate on”*. He raised this again a short time later when reflecting on the impact on an individual’s confidence and mood if a pain problem doesn’t fully resolve (27’40”): he felt that the loSQ could help to provide an *‘indication’* (39’00”) for physiotherapists as to what may be a patient’s concerns. This would then enable the physiotherapist, in their *“own subtle way”*, to draw things out so that they could be addressed.

Clear communication is also important if expectations are to be matched. For example, when completing the numerical rating scales at the point of discharge Daniel felt that the scores *“should be nought” “and if they’re not (...) you shouldn’t have been discharged”* (58’40”). The context of re-administration of the loSQ, and indeed any questionnaire, should be an important part of the treatment and discharge process (1:12’19”).

At different points throughout the discussion, all participants stated that they felt the loSQ had a useful role to improve communication and identify patients’ needs. Mary expressed that she would value having it (or something similar) in future appointments to be able to *“put down exactly how you are feeling”* (13’04”). It was even considered to be potentially beneficial when seeing their consultant or GP (15’10”; Mary and Janet 21’20”). Daniel enquired as to what had been used prior to the development of the loSQ (13’43”).

5.3.5.2 Subtheme: Timing of distribution is important

It was mooted that completing the questionnaire prior to the first appointment would be of significant benefit – providing the physiotherapist then referred to it and picked up on any issues that had been identified. There was considerable discussion towards the end of the meeting regarding the value of the loSQ at review or discharge. Although this partly related to the wording it was felt that the loSQ could be important to prepare for discharge. If it is given prior to the final appointment it would help to identify outstanding issues and aid the

discharge decision (Daniel: 1:01'31"). However, if it was given out as the patient was leaving, it would serve little clinical purpose (Mary: 59'45") and could result in a sense of feeling 'high and dry (Daniel: 1:06'57")', especially if shortcomings are written down in black and white and there was no forthcoming additional support.

5.3.6 Summary of themes for patients attending focus group in study 2: patFG2

One of the participants very clearly voiced his concerns that questionnaires are used in the health service to evaluate a department, rather than having a primary role to improve an individual's care. He stated strongly that: "*Questionnaires should never be used for any purpose other than the well-being of the individuals dealing with the questionnaire*". Despite this scepticism the participants came across as being positive about the potential clinical value of the IoSQ. To maximise its utility, patients should ideally have time and privacy to complete it, prior to the first appointment. This would help to improve communication and make the best use of available time. It was recognised that it was important to identify the impact of a condition on mood and relationships, but there was also ambivalence as to the IoSQ's ability to help disclose such information: it could make some people feel more vulnerable. The IoSQ was seen as a useful tool for clinicians, potentially for doctors as well as physiotherapists, but they would still need to engage with it in a sensitive and meaningful way. A summary of the themes, along with a brief description of the study aims, was sent to the participants. There was one response (168), Daniel, who restated his appreciation of the IoSQ and reinforced the importance of distributing the questionnaire prior to discharge, "*ensuring that any ongoing support needed by the patient can be provided*".

5.4 Study 2. Physiotherapists: following introduction of the IoSQ (physFG3)

5.4.1 Participants

There were eight participants in this group. Four were employed in static posts and were more senior therapists (Sandy, Ruth, Debra and Doug). The other four were junior or rotational staff (Kim, Ashleigh, Elaine and Jess)

5.4.2 Questions explored

As the IoSQ had only been briefly introduced at the beginning of the research process, physiotherapy participants were asked to discuss what they perceived its role to be. Participants were then asked to discuss how they had used it with their patients, and what it had felt like to use the IoSQ (appendix 25). Two patient-completed questionnaires that had been identified during the notes audit (appendix 27) were distributed to the focus group participants who were invited to discuss how the questionnaires might influence their clinical reasoning. To complete the discussion, participants were asked if they would like to comment on or would recommend changing any part of the research process, finishing with an invitation to add any final or summary points.

Examples of coding, sub-theme and theme development is given in table 5.3 and the themes, along with the sub-themes, are summarised graphically in figure 5.3. Two themes were identified:

- Questionnaires can be burdensome so need to be worthwhile
- The IoSQ helps to provide context

Figure 5.3: Focus group 3, physiotherapists (physFG3). A diagrammatic representation of the themes and sub-themes.

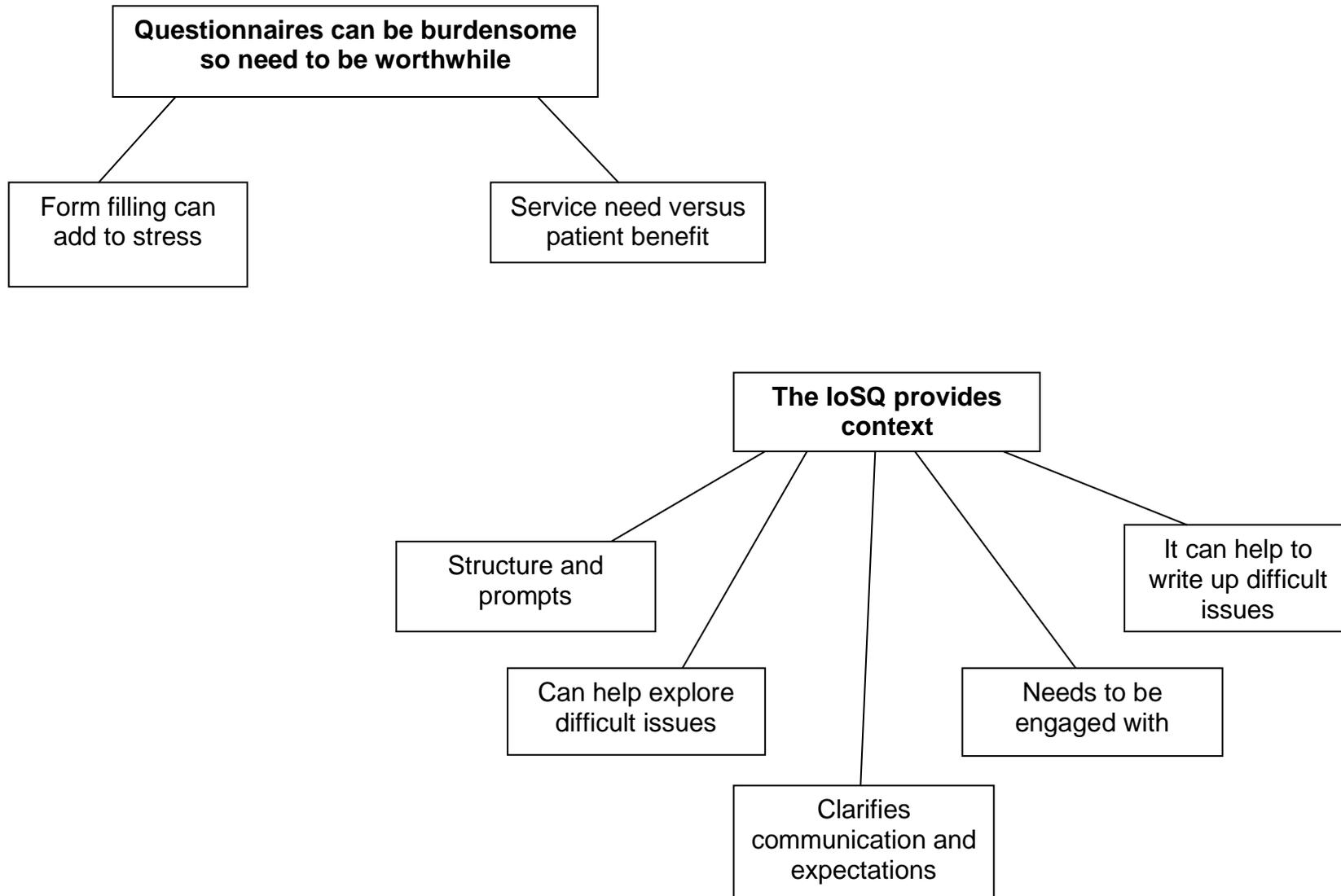


Table 5.3: Example of table used in the development of codes, themes and sub-themes: physiotherapists (physFG3)

Text	Coded for	Theme/subtheme
<p>Kim Yeah, sometimes] the patients tick two:0 boxes as well. Sandy: Yess Jess: Fre(h)quently Doug: He he Kim: whereas this one's really clear and set out so (mmh) it follows on quite nicely</p>	<p>Questionnaires can be confusing / don't fulfil patients needs</p>	<p>Questionnaires can be burdensome form filling can add to stress</p>
<p>Jess: Are you] assessing us or the tool are you thinking? Doug: Yeah. Whereas if I was sold this is as right, you know, 'This is really going to prompt you to look more into their functional activities, their moods, their relationships, and (1) ehm, and also give you an objective marker that can then be re-measured, I might have embraced it more:re actually, and um, and used it more. Because actually, on reading it, back now I'm thinking>, actually, this is really good↑ ((<i>smiling</i>)) ((<i>laughter 3 secs</i>)) I wish I'd eh, really pushed it through a bit more. ((<i>Laughter</i>)) And I don't mean that because I didn't push it through ((<i>laughing</i>))</p>	<p>Realises now that's a really useful tool to prompt exploring psychosocial domains and to provide an objective measure</p>	<p>IoSQ provides context structure and prompts Questionnaires can be burdensome: patient needs v service benefit</p>
<p>19'54" J: I think often subjectively on examination as well, I often ask these questions but I think I am quite poor at writing down these answers fully↑. Doug: he he fair play J: Because I think you are quite, you know, you get through it quite quickly, and I think that it's something you remember, but actually, I don't often document it very well, I don't think, I think I will remember about my patient and they've got lots of concerns about home life but I probably would summarise that as, ve:ry succinctly as, 20'15" Doug: Yeah J: and probably not put as much detail as I might ((<i>sounds sheepish</i>)) Doug: that's, that's, perhaps where it's nice though isn't it, that actually J: mmh D: Got it written down in full, makes you remember actually <u>how</u> bad it</p>	<p>Although feels asks questions well, aware poor at writing them down fully. Agreed with. Remembers psychosocial issues but documents very succinctly and short on detail. IoSQ helps to document all the initial problems in full</p>	<p>IoSQ provides context it can be difficult writing issues up</p>

<p>was ((S left)) Da: Yeah, and we're all hopeful aren't we, that we do screen these questions and we ask these questions and we umm, but I'm sure you're right, I'm sure you'll probably [find we're J: can't write everything down Doug: not good] at writing all of this down. How do you write down your um (1) you try, don't you, and summarise what they've said about their mood and relationships, but sometimes that's hard to (.) 20.45 J: You really need it in [their own [words= ?: =We focus on what we want J: don't you]? (yeah) (yeah) Doug: Yeah J: To be accurate]. You interpret it and is then [translate it. Doug: Our subjective view of it is always going to be forced upon [it isn't it? Jess: Yea(h)h] Doug: Their =subjective view is going to be watered down. ?: = Like Chinese Whispers. You hear what you want sometimes] J: Yeah. You're gonna say they are] concerned about it when actually might have said something completely different but you've taken it as concern. Doug: Yeah R: Some things are difficult to know what to actually write down in their notes J: Mmh R: Aren't they. Because they're quite confidential to them sometimes when they tell J: Yeah R: you things. You think 'Oh, ((talking together, difficult to hear)) Yeah, that's right Doug: But then, with certain patients, they are the exact things we need to remember, ((lots of agreement)) (of course) we need to write</p>	<p>Ambivalent as to if do actually screen Hard to summarise what is said about impact on mood and relationships</p> <p>To be accurate, psychosocial issues need to be written down in patients' own words: therapist may mis-interpret information</p> <p>Can be difficult to know what to write, out of concern for confidentiality – and yet they could be the most important issues to capture, challenge and address</p>	<p>IoSQ provides context structure and prompts IoSQ provides context it can be difficult writing issues up</p> <p>IoSQ provides context clarifies communication (patient's own words)</p> <p>IoSQ provides context clarifies communication (patient's own words)</p> <p>IoSQ provides context it can be difficult writing issues up</p>
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<p>down, we need to challenge (1) you know, address (.) and manage. (1) R: Its just how to document it, isn't it Doug: Mmh Jess: How to document it <u>at the time</u>, when they are opening their heart to you and you're just sitting there (<i>yeah</i>) and writing it all down its not always the best way to gather rapport, is it? 21'36" Doug: No:oh, ye:ah that's true and when you are reflecting on that, you are going to miss certain things, aren't you? Jess: mmh Doug: Mmh (2) Jess: °Try and quote them but its hard° (2) 21'43" Emily: I think what Ruth says is a really good point, especially when you hear something particularly sensitive. It <u>is</u> hard to think "I'm putting this down" and putting it in writing in a document that, yes, it's confidential, but it <u>is</u> seen by more eyes (<i>mmh</i>) than just mine, (<i>yep</i>). Um. Whereas if they've written it in their own writing, its almost a consent that its ok for this to be [in my Jess: Mmh. Yeah Emily: my]°° medical records Doug: Yeah, sometimes when the subjective gets tricky or emotional, or someone starts crying, and things (1) [you're Jess: Not <u>cr(h)y(h)ing</u> he he ((<i>other quiet laughter</i>)) Doug: putting your answers down, aren't you (mmh) but that forms a really important part °of the °°assessment (.) doesn't it Jess: Mmh (3) ?: Does that answer the question (1) that you asked? ((<i>whispered</i>)) (2)</p>	<p>Not appropriate to write things down when they are disclosing, and can affect rapport</p> <p>Recognise the value of quoting verbatim, but its hard</p> <p>Concerns about writing sensitive information down, which could be confidential</p> <p>If patients write issues down themselves (eg on IoSQ) it gives permission for it to be recorded</p> <p>Psychosocial issues are an important part of the assessment</p>	<p>IoSQ provides context structure and prompts</p> <p>IoSQ provides context it can be difficult writing issues up</p> <p>IoSQ provides context Can help explore difficult issues</p> <p>IoSQ provides context it can be difficult writing issues up</p>
<p>LK: (<i>vignettes introduced</i>) 41'58" R: Well this one here you would think straight away they're actually, they're quite sort of frustrated and not really very happy= J: =And a lot of concerns, they've filled in every single portion K: And they've circled it as well, what they've [done J: and starred it] K: they've starred little bits, and J: underlined</p>	<p>The way the IoSQ been completed immediately highlights concerns and distress</p>	<p>IoSQ provides context: clarifies communication and expectations</p>

<p>R: underlined</p> <p>K:]] underlined and sometimes circled and ((hear deep intake of breath)) (2) ye:ah and they've</p> <p>?: Would give you more information than the other one though</p> <p>R: That would give you an idea to move anywhere with them (?) regardless of what's wrong with them you've got to help address some of those issues (yep) otherwise</p> <p>Doug: Yeah</p> <p>R: whatever treatment you gave them you're not going to make any progress at all</p> <p>J: and they really wanted information didn't they?</p> <p>Doug: Mmh</p> <p>J: Because if you think of their concern or worry, sorry <u>question</u> or worry, its difficult to know why <what's the best way forward also you don't want to <<keep taking(...?) they've clearly got quite a lot of questions</p> <p>Doug: It gives you a lot, a lot before you even start asking them any questions. You know their lacking confidence and their mood's been affected. They're not really sure of what the cause of the problem is, and they're not able to do the things they want to do, so, (2)</p> <p>43'01" A: And you know that they've underlined frustration as well, so you know, sort of subjectively, they're going to be maybe a little anxious about it so they [might</p> <p>J: And angry]</p> <p>A: you might spend a bit longer time ta:king (.) to (.) them</p> <p>R: And the fact that they've put <u>lengthy</u> on themselves means its not just a recent thing and they they're quite worn down with it aren't they?</p> <p>J: You're going to have to careful how you approach this person potentially as well so you don't inflame them further</p> <p>R: Because they could be quite sort of angry</p> <p>J: yeah</p> <p>R: Couldn't they</p> <p>J: They could start off quite sort of defensive and angry</p> <p>E: It could kind of work two ways. You look at it before and you bare that in mind, or mebbe you look at it (1) and you start coming out with</p>	<p>More useful than other questionnaires</p> <p>Highlights that regardless of what is wrong with them, a number of issues need to be addressed</p> <p>You have a lot of information before you even see them</p> <p>Highlights they might be frustrated, anxious or angry</p> <p>Highlights might need to spend longer talking to them</p> <p>Highlights patient is 'worn down'</p> <p>Highlights may need to be sensitive and not feed in to the problem</p> <p>Aware that this could also create pre-conceptions by the physio</p>	<p>IoSQ provides context Can help explore difficult issues</p> <p>IoSQ provides context: provides structure and prompts</p> <p>IoSQ provides context: can help highlight difficult issues</p> <p>IoSQ provides context: needs to be engaged with</p>
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<p>pre-conceptions which might actually form barriers</p> <p>J: Mmh</p> <p>E: between you and the patient. Mebbe, you need to do your subjective and then refer to this after that so that you can then °breaking those things down</p> <p>43.40 Doug: =There's a danger,</p> <p>E: =It kind of works two ways doesn't it?</p> <p>Doug: There's a danger actually if you <u>don't</u> look at these things before you ask them questions then they might be doubly annoyed ((Talking together))</p> <p>?: Yeah, they think you don't know</p> <p>Doug: because they've already told you this information, um, so actually, the start of your subjective, really needs to start with reading this, doesn't it. (Mmh) Before you do anything else</p> <p>Jess: But <u>remain</u> open minded (2)</p>	<p>which could then create barriers with the patient</p> <p>Again pros and cons of looking at loSQ before/after first appt: if look at before, may be judgemental; if don't look at til later, patient annoyed as not taking note of information provided</p> <p>Propose: use before but remain 'open-minded'</p>	<p>loSQ provides context: : need to engage with loSQ /patient</p>
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5.4.3 Theme: Questionnaires can be burdensome so need to be worthwhile

Participants were mindful of the burden for patients (and staff) for using questionnaires. 'Questionnaire overload' was seen as an issue for staff and patients due to a combination of a recent change in service requirements and also if there was additional research involvement. If questionnaires are completed in the clinic, this can impact on available contact time, so it is important that they are clearly laid out and easy to complete – especially for patients with literacy problems. It was acknowledged that service outcomes do need to be measured but there was also a focus on the importance of questionnaires being clinically relevant and designed to enhance the individual's care.

5.4.3.1 Subtheme: Form filling can add to stress

Ruth felt that no-one had had a 'big problem' (4'03") with answering the questions on the IoSQ, even though some people do have a problem 'with forms'. However, it was proposed that some patients may just 'tick a box' rather than write a considered comment (Doug:4'17") or may even miss sections out (Jess:23'01"). There were three things that had added to the burden of engaging with the IoSQ: patients may also have been involved in research trials or may have attended the pain service (both requiring a number of, or repeated questionnaires (Ruth and Doug:23'06")); and a recent change in service requirements which had demanded a rigorous distribution and collection of a new outcome measure for all patients (Kate:5'07"). It was also mooted that going to a hospital appointment in itself could be stressful and being given a questionnaire would add to this (7'47"):

Ruth: *I think anybody going to a hospital appointment often gets a bit sort of het up because they think they're in the wrong place the first time*

Jess: *Threatened*

Ruth: *and they don't know where to go so they're arriving in a bit of tizz, and they've found that the right place, and they are given this*

Jess: *yeah*

Ruth: *and I think some people really have a problem with being given all of these bits of paper : to fill in*

Jess stated that as she had rotated in and out of the department and she hadn't had much opportunity to use the IoSQ, but nevertheless was concerned about 'overloading the patient' (18'14") and missing the opportunity to engage meaningfully:

Jess: *I just felt that the patient was thinking that ((sighs)) something_else just talk to me*

Elaine: *Just thinking how I would feel if I was presented with all of this paperwork when I had come to physio perhaps if I was an awkward patient I'd ((interrupted))*

Jess: *And its sort of paper pushing and bureaucracy rather than and they probably wouldn't see necessarily the benefit for them. And they just think that you're trying to make us, I don't know, box ticking*

Elaine: *Perhaps in a way, this gives them back a little bit of*

Jess: *Yeah*

Elaine: *More of a chance to voice something rather than just, circling numbers*

The *process* of completing questionnaires was also considered to add to stress. With commonly used outcome, or 'tick-box' questionnaires, people will often tick more than one answer, which can be a problem (11'33"). However, in contrast to this, Jess proposed that having the IoSQ prior to the first appointment would mean that patients have more time to provide a considered answer, make the process seem less '*threatening*' (7'22"). Literacy was also mentioned as a reason for why people may find the completion of questionnaires difficult, but this was not explored any further. The need for questionnaires to be perceived by patients as being able to provide personal benefit is explored further in the next subtheme.

5.4.3.2 Subtheme: Service needs versus patient benefit

Due to recent and proposed changes to service commissioning and delivery, there had been a requirement to use outcome questionnaires more consistently: the topic of the perceived role and value of questionnaires was revisited a few times. Kim was aware that patients were sceptical regarding the role of questionnaires. For example, they had stated ‘*oh, this is for your computer*’ (24’15”). But she had previously stated that the questions in the first section of the loSQ, with the opportunity to write comments were “*really nice because it makes it more patient specific*” (16’58”).

Elaine endorsed service evaluation emphasis of questionnaires when proposing that the loSQ wouldn’t be able to replace the required EQ5D-5L as it didn’t cover ‘*the quantifiable stuff*’ which ‘*justifies what we do*’ (11’56”) and that completing outcome questionnaires was what she ‘*needed to do and this* (the loSQ) *felt slightly secondary*’ (17’19”). Interestingly, Elaine began to soften her views just after Jess represented patients’ potential frustration over the number of questionnaires (‘*just TALK TO ME*’: 18’18”). She reflected on how she might feel if she was presented with ‘*all of this paperwork*’ and how the loSQ ‘*gives them back a little bit of more of a chance to voice something, rather than just °circling numbers>*’. Sandy suggested that the numerical rating scales of the loSQ could potentially also fulfil the service need and if it was possible, capturing information from the psychosocial domains/comments would also be valuable (12’40”):

Sandy *You could on the bottom bit, but again its the whole bit you’d want to look at, the impact, so that’s the only, may be downside. I would say*

?: *That would make it more useful day to day*

Sandy: *Mmh*

?: *at the moment its*

Sandy: *Well it could replace the EQ5D then, potentially, as a more useful measure, if it had a*

Doug: *Its got an average down here, hasn’t it? I suppose the one question*

Sandy: *for those bottom questions*

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Doug: *Yeah, yeah, those bottom questions, because those other things are hard to quantify aren't they*

Sandy: *Yes, I don't know how you'd do it I haven't got the answer*

The 'identity crisis' of the IoSQ was raised again by Emma (54'10"), still uncertain as whether or not it could be both a screening and outcome tool. In the final comment of the discussion group, Doug restated that he thought it could and reaffirmed the potential that he saw in it as a clinical tool for the patients' benefit:

It's tricky, we're in a we're in a time of having to report outcome measures so tools like this are useful that I think, try and marry some of the subjective nature of things with some objective measure. So I think it's a really useful idea um yeah no, now I'd be intrigued to know more about it in a sense heh heh

Doug: 55'59"

Doug felt that at the beginning of the study, it hadn't been made clear what the aims were. He felt that he would have engaged with the IoSQ better if he'd had the potential clinical benefit explained more clearly: it could be used as a tool to 'mould your treatment' (14'48").

...actually, on reading it, back now I'm thinking>, actually, this is really good (smiling) (laughter) I wish I'd eh, really pushed it through a bit more. (laughter)

There was a discussion around the ability of questionnaires to identify patients' difficulties which otherwise may not have been highlighted. On the one hand, the IoSQ allowed an open response, from the patient's perspective, but a questionnaire such as Lower Extremity Function Scale (Binkley, Stratford, Lott, Riddle, & North, 1999) may be more useful as it could flag up something that the patient hadn't previously considered (Jess and Sandy:9'00").

The need for a patient-focussed (versus a service or outcome-focussed) questionnaire was raised towards the end of the discussion, when reviewing two IoSQs that had been completed by patients. One of the examples had had a lot of writing and comments on it and Jess remarked that it reminded her of a patient who would ‘*always write an essay next to, all down the sides (...) and on the back*’ (55’36”). This was stated in a flippant manner as it was followed by the sequence of statements:

Jess: *so umh, I think she would have quite like(h)d this one*
(Laughter)

Doug: *It suggests she wants a voice doesn't she*
(Laughter) Heh heh (4) *It's tricky, we're in a we're in a time of having to report outcome measures so tools like this are useful that I think, try and marry some of the subjective nature of things with some objective measure. So I think it's a really useful (2) i::dea um (2) yeah (1) no, now I'd be intrigued to (2) know more about it in a sense heh heh (2)*

LK: *Cool (2). That's great. I'll finish it there. Thank you very much indeed.*

Doug: *You're welcome*

This was an interesting section, especially as it was right at the end of the focus group. Doug, the more senior therapist, was rationalising the need for patients ‘to be heard’ (see the next section) and yet the group also displayed discomfort, as demonstrated by the laughter and pauses. As highlighted earlier in this section, although there seems to have been some ambivalence here, Doug was clearly expressing an interest in the clinical application of the IoSQ.

5.4.4 Theme: The IoSQ provides context

This theme has five subthemes. Physiotherapists felt that they already undertook a level of psychosocial screening, but the IoSQ provides *structure and prompts* to the process. This was seen as particularly useful if a patient wasn't making the expected recovery, so providing a platform to explore things further. There was considerable discussion around how the IoSQ *can help to*

explore difficult issues, especially after the introduction of the two IoSQs that had been identified from the notes audit. The IoSQs role for *clarifying communication and expectations* was related to patients being able to write concerns in their own words and the wording providing an appropriate context in which the psychosocial questions are asked. The subtheme of the *need for it to be engaged with* related to both patients and staff, highlighting the risk of any clinical tool being a process rather than being used to its full potential. The final theme related to the contribution that the IoSQ can provide for *helping to write up difficult issues*.

5.4.4.1 Subtheme: Structure and prompts

The opening statements of the discussion indicated that physiotherapists feel they routinely undertake adequate psychosocial screening. However, Doug identified that the IoSQ aims to provide structure to the screening process (1'37") and can help to *'reinforce'* the process. He followed this up a short time later saying that even though people may just *'tick a box'*, just because *'it's there'*, the IoSQ still provides a prompt for the physiotherapist to explore the issue further (4'39"). The inference that physiotherapists may miss issues was first raised when Elaine described valuing the IoSQ if patients failed to make the progress that was expected: it provides a *'prompt'* to reflect on difficulties that patients may have previously identified on the form (5'22"; 16'53"). She indicated that she tended to refer to the IoSQ later in treatment rather than routinely at the beginning, so missing the potential to address highlighted issues early on. This uncertainty about efficacy in psychosocial screening was raised by Debra (20'34"):

Debra: *Yeah, and we're all hopeful aren't we, that we do screen these questions and we ask these questions and we umm, but I'm sure you're right, I'm sure you'll probably [find we're*

Jess: *we can't write everything down*

As is shown, she was interrupted by Jess, who started the discussion about documentation (see section 5.4.4.5, page 181). The topic of the level of

screening undertaken was not revisited. Kim also endorsed the value of having a 'structure' (7'20") to facilitate psychosocial screening and as the discussion progressed, Doug became more of an advocate for this quality (14'34"):

Yeah. Whereas if I was sold this is as right, you know, 'This is really going to prompt you to look more into their functional activities, their moods, their relationships, and ehm, and also give you an objective marker that can then be re-measured, I might have embraced it more actually, and um, and used it more. Because actually, on reading it, back now I'm thinking>, actually, this is really good (smiling) (laughter 3 secs) I wish I'd eh, really pushed it through a bit more.
(Laughter)

Doug proposed initially that the IoSQ would be more appropriate for people with persistent pain, but later reflected that it can be easy to make assumptions about how patients are coping, especially within an orthopaedic caseload. Ashleigh took this further: if a therapist is familiar with a condition or intervention, it is easy for them to see it as being '*relatively simple*', but to the patient, it is a '*huge deal*' (10'20"): staff therefore should not make assumptions about how patients are coping and having a structure can ensure that issues are routinely screened for.

5.4.4.2 Subtheme: Can help to explore difficult issues

Doug raised early on that some of the '*hard to glean*' psychosocial issues may be easier to access due to the structure of the IoSQ (1'22"). This was followed by a discussion regarding the advantages and disadvantages of encouraging patients to disclose sensitive or personal issues on a questionnaire rather than through discussion with a therapist. There was uncertainty as to whether a 'tick box' would make it more or less likely that people '*put their feelings down*' (Doug: 2'25) especially as disclosure can be dependent on having built rapport: Kate (4'43") proposed that even if a box was simply ticked, this could then provide a prompt to discuss the issue further: with Jess adding, '*to delve a bit deeper*' and '*know specifically which bits they are worried about*' (Kate). An alternative viewpoint was that it may be '*less threatening*' to write things down,

rather than *'saying it to a stranger'* (Jess:2'30"). Another perspective was that if patient felt that their low mood affected their ability to complete the IoSQ, having extra time or security of completing it at home could facilitate the process (Jess: 7'30"; Doug and Elaine: 29'13"). Elaine felt that the most useful question on the IoSQ was the one enquiring about writing down any question or concern especially as the patient *'may not be confident to voice it in person'* (5'10"). This discussion also included Jess who said that she was sometimes surprised by what people wrote and valued the IoSQ because *'Well, they didn't ask me that'* (5'45"). Later on (37'10"), when Ruth was describing the value of asking the patients about any concerns that they might have about diagnosis, Elaine reflected that one of her patients had written on the IoSQ specifically about concerns of her cancer returning and acknowledged that this had been helpful.

As highlighted in the last example in table 5.2 (page 153) the introduction of the vignettes (appendix 27) stimulated considerable discussion around the impact of the manner of completion of the IoSQ on participants' clinical reasoning. Ruth, Jess, Kim, Doug and Ashleigh were all actively engaged in the conversation and reflected that one of the patients came across as being frustrated with a lot of concerns because they had *'filled in every single portion', 'circled', 'starred bits and underlined'*. Ruth surmised that *'whatever treatment you gave that patient you're not going to make any progress at all'*. It was proposed that the patient was *'anxious'* or *'angry'* which would mean that *'you might spend a bit longer time talking to them'*.

Rapport was seen as essential for building good communication and maximising the likelihood of matching treatment expectations, especially in a more general outpatient setting. In this context, Kim Jess and Elaine felt it was beneficial that the IoSQ should be completed prior to the first appointment (7'06"; 29'18"; 38'18"), feeding into the process of rapport-building, providing that this doesn't then run the risk of pre-judging how the patient might be (Jess: 44'20"). The text in table 5.4 summarises Doug's beliefs that psychosocial screening *should* be a routine part of a physiotherapist's assessment but also shows awareness that identifying some of the more complex issues can be difficult: it's possible that the IoSQ could be a way to facilitate the process. His speech in the section seemed more uncertain than in others, with pauses and

caveats. This may have been due to his awareness of being a more experienced clinician with respect to identifying and addressing these issues, and not wishing to undermine his colleagues, or possibly wanting to 'please' the researcher by reflecting positively on the IoSQ.

Table 5.4: Text from focus group 3 (physiotherapists) proposing value of IoSQ for exploring difficult psychosocial issues

30.03 Doug: umm. I think the questions are (1) brilliant um (2) ntzh, I think as we, lots of us have talked about before, I think, uhm (1) I think a lot of these questions really should be asked as part of our subjective and asking what their expectations are and what they expect ehm, what their beliefs are and what they're worried about. I, because I work, I think because I more, work with a different patient group, in persistent pain, I always ask que(h)stions about how does your pain >affect your mood< um so, I um (2) and you're right, in pain, you've got lots of questionnaires that ask that as well heh heh heh, so but I think um, for use in outpatients um (2) I think, yeah, I can see benefit I think. °Definitely°. And um, (2) I agree, with having it sent out before and having the um, having them, giving them time, to think about what their concerns or worries are, um you can get a lot of information that way. I also know that just what people write down on questionnaires and you can ask them, they won't always come out with it, it might be even more deep seated, that takes, that might not even come out in the first session (*mmh*) it might come out a bit later on, (1) so um, but this might be ehm, this might be a way of, for some people, of unlocking that you would otherwise you wouldn't (.) °you wouldn't know°

5.4.4.3 Subtheme: clarifies communication and expectations

Sandy introduced the topic of communication and the risk of being misunderstood (2'46"). This was in the context of the current practice of enquiring about the impact of symptoms on mood or relationships during assessment or follow-up appointments. In the clinical setting, she felt that you need to be '*quite experienced*' and '*you do it carefully*'. There is a risk that patients can interpret that line of questioning as implying '*you're thinking this is all in my head or I'm depressed*' (Sandy:3'00"). Doug endorsed this saying that if you enquire about stress,

people's response can be 'Oh God. They're going to go down that route of stress is causing my symptoms

Sandy found the provision of helpful specific examples of the impact of the health problem on patients' mood as: being worried about the future or being more snappy than usual. She felt that this '*is kindof nice because it makes it less of a threatening question*' (3'07). The IoSQ's role for helping with communication was also discussed when reflecting on the vignettes. Ashleigh reflected that the patient completing one the forms seemed frustrated or angry (43'01") with Jess than stating "*angry*" and Ruth describing patient as "*worn down with it*". Jess went on to say that the IoSQ was helping to flag up that

Jess: *You're going to have to careful how you approach this person potentially as well so you don't inflame them further*

Ruth: *Because they could be quite sort of angry*

Jess: *yeah*

Ruth: *Couldn't they*

Jess: *They could start off quite sort of defensive and angry*

Jess' repetition of the phrase "*quite sort of*", although validating Ruth's statement, also highlights her lack of confidence in interpreting the emotional impact of the patient's health problem.

Matching treatment expectations is important, especially if the patient is expecting a biomechanical approach to their pain, but the physiotherapist has an intention to explore psychosocial issues. Jess felt that the IoSQ helps to raise awareness that more issues would be explored, other than '*just look at my knee bend*'(29'59"). Participants described that it can be difficult asking patients what their expectations are of physiotherapy: they can be '*defensive*' - '*I've come to see you*' (Jess:6'18"). However, it was felt that having this question written down on the IoSQ helped to overcome this. Elaine reflected that she had been aware of '*all of those patients who put I want to be pain free*' and being mindful of having to address that before starting treatment (6'27")

5.4.4.4 Sub-theme: needs to be engaged with

This sub-theme overlaps with that of the IoSQ providing 'structure and prompts': it only serves this purpose if the tool is then engaged with. Doug highlighted this

early stating that clinicians must engage with questionnaires so they do not just 'become a form' (4'40"; 37'48"). He picked up this topic for a third time (43'40"), and on this occasion, more directly and forcibly, interrupting Elaine and highlighting the impact if the therapist does not value the time and effort that the patient has put in to completing it:

Doug: *=There's a danger,*

E: *=It kind of works two ways doesn't it?*

Doug: *There's a danger actually if you don't look at these things before you ask them questions then they might be doubly annoyed*

(Talking together)

?: *Yeah, they think you don't know*

Doug: *because they've already told you this information, um, so actually, the start of your subjective, really needs to start with reading this, doesn't it (Mmh) Before you do anything else*

However, participants were aware that they did not necessarily engage with the loSQ unless it became apparent that the patient was not progressing (Elaine, Kim and Jess: 5'15). Sandy had found the loSQ "*interesting to begin with*" and felt that she "*said a lot of this stuff*" during her subjective assessment. It seemed like an admission when she stated that she did not use it at discharge: there was an audible and deep intake of breath, before she said (19'12"):

(intake of breath) but (2) on fo:llow up, I didn't then re, often didn't re-use this as a final discharge, and that was probably because (1) I I guess (2) I felt that I'd gleaned through my relationship with my patient over the period of time, that I had picked up on these individual things and followed them through

There were a number of pauses and hesitations, which was unusual for her speech style throughout the rest of the discussion. As a senior member of staff, she continued to justify the equally informal process that she applied to ensure that psychosocial issues are addressed:

I had mentally ticked them off as I went along rather than re-presenting them with the whole outcome measure to re-do.

Ummh. (1) Ntzh. (2) Yeah. So I particularly found it useful initially, um °but less so on follow up°

Engagement with the IoSQ applied to the patients too: Jess felt it was more beneficial if the patients completed it at home as they needed “*adequate time to really think about it*” (7’03”). It was raised that when completing questionnaires “*some people definitely want to please you*” and look to the therapist for the correct answer (Ruth:28’02”). Although the help seeking could be due to the desire to please, it could also be due to lack of understanding of the questionnaire. When physiotherapists were asked about completing the questionnaire by patients, they found it difficult not to “*lead*” them in their answer (Kim 28’19”). Kim went on to reinforce previous comments that a more useful way to apply the IoSQ was in the patient having time to complete it at home, highlight that it is to be used to “*work towards their rehab*” and then engage with the patient and the completed IoSQ to help build up rapport. Jess, Doug, Elaine and Ruth contributed to this discussion, concurring with Kim’s comments. One concern that was raised by Elaine a short time later was that the IoSQ may be passively directing the patient’s focus to the *negative* impact of their symptoms rather than providing a framework to empower them to identify a goal or develop an *active* approach to their difficulties (35’50”). Doug picked up on this comment and reinforced the importance of *engaging* with the written comment and turning “*that into a positive*” (by goal setting), to which Elaine addressed her own concern saying “*And get them to come up with that as well*”.

5.4.4.5 Subtheme: It can help to write up difficult issues

Effectively capturing the patient’s perspective can be challenging but standard outcome or screening questionnaires, with ‘yes/no’ answers provide no scope for this. Having a questionnaire that provides the opportunity to write open comments can help to address this and also help to represent patient’s difficulties ‘in their own words’.

Jess was the first to raise the topic of writing down information pertaining to psychosocial screening (19'54"). Table 5.5 shows the discussion that took place around this topic that went on to include Ruth and Emily.

Table 5.5: Text from focus group 3 (physiotherapists) proposing value of IoSQ for documenting psychosocial screening

<p>Jess: I think often subjectively on examination as well, I often ask these questions but I think I am quite poor at writing down these answers fully↑.</p> <p>Doug: heh heh fair play</p> <p>Jess: Because I think you are quite, you know, you get through it quite quickly, and I think that it's something you <u>remember</u>, but actually, I don't often document it very well, I don't think, I think I will <u>remember</u> about my patient and they've got lots of concerns about <u>home</u> life but I probably would summarise that as, ve:ry succinctly as,</p> <p>Doug: Yeah</p> <p>Jess: and probably not put as much detail as I might (<i>sounds sheepish</i>)</p> <p>Doug: that's, that's, perhaps where it's nice though isn't it, that actually</p> <p>Jess: mmh</p> <p>Doug: got it written down in full, makes you remember actually <u>how</u> bad it was (Sandy left)</p> <p>Debra: Yeah, and we're all hopeful aren't we, that we do screen these questions and we ask these questions and we umm, but I'm sure you're right, I'm sure you'll probably [find we're</p> <p>Jess: we can't write everything down</p> <p>Debra: not good] at writing all of this down. How do you write down your um (1) you try, don't you, and summarise what they've said about their mood and relationships, but sometimes that's hard to (.)</p>

Debra, who spoke little during the focus group, raised uncertainty that adequate psychosocial screening takes place, and reinforced other participants' awareness that inadequate documentation happens. There were concerns about misrepresenting what patients had said (20'52"):

Doug: Their subjective view is going to be watered down

Jess: like Chinese Whispers

as well as confidentiality, especially if sensitive information was disclosed (Ruth). Writing accurate notes whilst maintaining rapport was another potential difficulty, especially if the patient was disclosing sensitive information or upset, and yet

Doug: *...with certain patients they are the exact things we need to remember (lots of agreement)*

?: *of course*

Doug: *we need to write down, we need to challenge you know, address and manage*

Ruth: *It's just how to document it, isn't it*

(21'15")

This was a brief but intense discussion, but this topic was not explored again during the focus group.

5.4.5 Summary of themes for physiotherapists attending focus group in study 2 (physFG3)

At the beginning of the study, the physiotherapists had been given little information about the role of the IoSQ or its role within the project, other than a brief information leaflet. They found it difficult to fully engage with using the IoSQ due to a recent service requirement to rigorously use the EQ5D-5L at assessment and discharge, so creating a sense of 'questionnaire overload'. Although it was acknowledged that it is important to evaluate the benefits of treatment, there was a frustration that these questionnaires don't enhance an individual patient's care. Participants were clear about the importance of psychosocial screening, but prior to the introduction of the IoSQ process of exploring and addressing issues tended to through building '*rapport*' or the '*gleaning*' of information. Although there was uncertainty as to how willing patients may be to write down more sensitive or personal issues, giving them time to complete the IoSQ at home, prior to their first appointment, the written information can provide a forum to explore 'deeper' issues. However, this would also require the physiotherapist to engage with what had been written and to guard against making 'judgements' about them. Physiotherapists reported valuing that the IoSQ provided a structure and prompts to assist screening and an opportunity to provide written comments, in the patients' own words. This all helped to enhance communication, identify issues early on and contributes to a more acceptable form of documentation. It was also seen to be valuable having one questionnaire that could potentially address outcome

measures as well as psychosocial issues and was appropriate for an orthopaedic as well as a chronic pain population.

5.5 Summary of the focus group analysis

The three focus groups were analysed independently: patient participants prior to the introduction of the IoSQ (patFG1); patients after the introduction of the IoSQ (patFG2); and physiotherapists at the end of study 2 (physFG3). The three themes identified in the patient group from the first study related to a dichotomy of either being 'fixed' or being 'stuck' with a health problem; the limited structure to assessing the impact of a health problem and the need for a 'safety net' for patients who do not have their expectations met. Frustration with the limitations of fixed response questionnaires was expressed, which was heightened if the clinicians did not engage with the responses and because there is no opportunity to individualise responses. Any improvement in mood related to an improvement in symptoms and consequential improvement in function rather than being directly targeted by the treating therapist.

In patFG2, the themes related to the fact that physiotherapists do assess and address some issues well, but again they need to identify the broader needs of 'the person they're dealing with'. Although there was 'cynicism' regarding the value of questionnaires for patients, it was felt that the IoSQ could help to address this due to its potential to individualise the impact of the health problem. The participants of patFG2 acknowledged that although some people may have concerns or difficulty in completing the IoSQ, its brevity and simplicity was valued but for maximum benefit, it would need to be completed prior to the first appointment and engaged with to ensure that identified difficulties were addressed appropriately.

Two themes were identified in physFG3 where, similar to the patient focus groups, staff acknowledged the limitations of current questionnaires. However, they felt that the IoSQ has the potential to address some of these limitations and to provide a valuable context for exploring and documenting the psychosocial and functional impact of a health problem in a structured way. Physiotherapists were aware of the limited level to which they engaged with the IoSQ but attributed this to firstly, the brevity of its introduction at the beginning

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of the study, and also to the number of other questionnaires that they had to use. They felt that some concerns that patients may have about completing the loSQ could be addressed by it being distributed prior to the first appointment: this would also reduce the impact on clinical time. Finally, they expressed interest about its potential to be used as an outcome measure as this could also reduce the reliance on other questionnaires.

CHAPTER SIX

INTEGRATION OF THE MIXED METHODS RESULTS

6.1 Introduction

The IoSQ was developed to address the needs of a local physiotherapy service. To determine if the IoSQ is acceptable and useful in clinical practice, it was important to explore not only physiotherapists', but patients' experiences of its introduction to a service naive to its development. The results for each of the methods have been described separately in chapters 3 (notes audit), 4 (surveys) and 5 (focus groups) and are now integrated and summarised in the context of each of the secondary research questions:

- What were patients' experiences of psychosocial and functional assessment before and after the introduction of the IoSQ?
- How did the Impact of Symptoms Questionnaire affect the provision of documentation for the assessment and addressing of the psychosocial and functional impact of a health problem?
- What evidence was there for patients engaging with the IoSQ?
- What evidence was there for physiotherapists engaging with the IoSQ?
- What were patients' experiences of using the IoSQ?
- What were physiotherapists' experiences of using the IoSQ?

Figure 1.4, page 45 describes the role of the different methods in answering these questions. Although there will be an inevitable repetition of some of the data presented in previous chapters, this is kept to minimum and wherever possible, this is presented in a different format to appropriately facilitate the integration of the findings.

6.2 What were patients' experiences of psychosocial and functional assessment before and after the introduction of the IoSQ?

The patient participant response rate improved for the second patient survey, with both groups indicating that assessment of the impact of a health problem

on their 'quality of life' was important (section 4.2.2, page 117, section 4.2.4, page 121). However, the surveys (figure 4.5, page 123) indicated that patients tended to take responsibility themselves for ensuring that important issues were explored: participants in patFG1 felt this was facilitated through the development of friendship and rapport (section 5.2.5.2, page 141). . Additional comments on the returned surveys from both studies highlighted that patients were frustrated if their treatment needs were not met.

Patients in both focus groups felt that physiotherapists intentionally and effectively identified and addressed issues pertaining to movement and physical activity (sections 5.2.5.1, page 138; 5.3.3, page 151). This was through a combination of the use of condition-specific or functional outcome measures, or through questioning or observing what the patient was able to do '*in the moment*'. However, it was discussed in all of the focus groups that existing validated questionnaires had limited clinical value (sections 5.2.5.3, page 143; 5.3.4.1, page 156; 5.3.4.3, page 159; 5.4.3, page 170;) and there was a limited structure to exploring the broader impact of a health problem (sections 5.2.5.2, page 141; 5.3.3, page 151; 5.4.4.1, page 176) .

6.3 How did the IoSQ affect the provision of documentation for the assessment and addressing of the psychosocial and functional impact of a health problem?

This question was mainly answered by the notes audit which was undertaken to identify a) the presence of documentation by physiotherapists for having assessed and addressed the impact of the presenting health problems on psychosocial and functional domains and b) the written evidence on the IoSQ for exploring the same questions. The value and process of documentation was also raised in the focus groups.

There was little change between the studies in the level of documentation by physiotherapists for the assessment of the impact of a health problem: this remained less than 20%. This is summarised in table 6.1 along with the percentage of affected domains, as identified by the survey (table 4.2, page

118) and the loSQ (section 3.7.1, page 100). It highlights that physiotherapists are only documenting one third of the domains that are affected, with just under half of notes in both study having no evidence of any domains being explored (section 3.6, page 92). Documentation mostly occurred if there was a *negative* impact: in other words, written evidence is only provided if a domain *is* affected and very rarely if it was screened for but *not* affected.

Table 6.1: Comparison of the percentage of domains affected at assessment, as identified by the different research methods

	Difficulties identified at assessment	
	Study 1	Study 2
Notes	19.5%	19.6%
Survey	60%	55.8%
loSQ	NA	62.6%

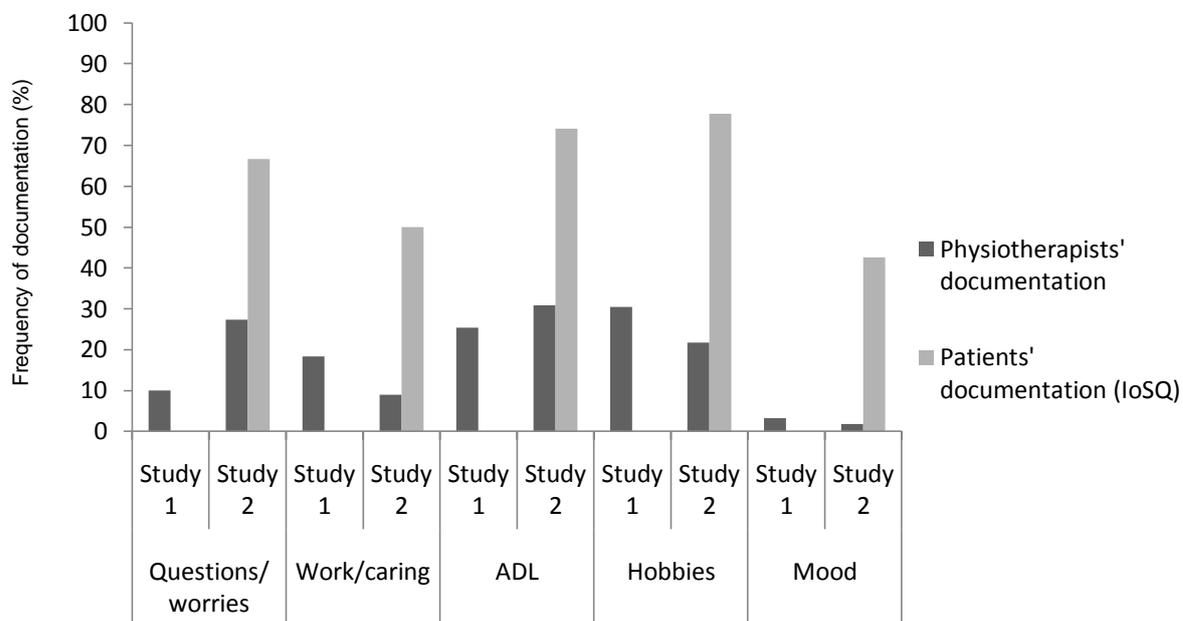
Figure 6.1 compares the frequency of documentation by physiotherapists in patients' notes, and by patients using the loSQ, for the impact on each of the psychosocial and functional domains. This shows a noticeable difference between the two modes, particularly for the domain of 'mood and relationships'. The written notes in both studies predominantly described physical assessment findings, physical treatment modalities, and exercise programmes and their progression (appendix 29), so endorsing the experience of patients as reported in the patient focus groups.

Analysis of both the notes audit and the completion of the loSQ also explored the *number* of domains that were identified as being affected by each patient. Almost all of the patients identified on the loSQ that at least one domain was affected (96.3%) (3.7.1.1, page 100), but physiotherapists documented only 58.2% as having at least one domain affected (table 3.11, page 94).

In terms of identifying patients who were more profoundly affected by their health problem, the notes audit found little documented evidence of patients having a number of psychosocial domains affected: there was only one patient with four domains and none with all five implicated. In total, there was written evidence of four or five domains being affected in 1.8% patients. However, in

contrast the patient-completed IoSQ identified a total of 38.9% of patients with either four or five domains affected (figure 3.6, page 100).

Figure 6.1: Frequency of documentation of the impact of a health problem: comparison between physiotherapists and self-reporting by patients*



*Data regarding physiotherapists' documentation is taken from tables 3.12a (page 94); 3.13a (page 95); 3.14a (page 96); 3.15a (page 97); 3.16a (page 98). Data regarding patients' documentation is taken from table 3.8 (page 90)

Table 6.2 integrates the evidence between the notes audit, IoSQ and survey for that potential psychosocial issues have been addressed by discharge.

Although the surveys indicate that few people considered that they had had unresolved difficulties at discharge (table 4.2, page 117), completion of the IoSQ identified that 64.1% patients stated that at least one domain was still affected at discharge (section 3.7.1.2, page 100). Only one patient was identified in the written notes as having an unresolved functional difficulty (section 3.6.3, page 96). There was also little documentation by physiotherapists that issues identified at assessment were addressed to the patients' satisfaction at the point of discharge (figure 3.5, page 93).

The remainder of this section integrates the evidence of documentation of psychosocial and functional assessment of the patients' survey and the completion of the IoSQ for each of the individual domains. Where appropriate, these results are presented in the context of the focus group discussions.

Table 6.2: Comparison of the percentage of domains still affected at discharge, as identified by the different research methods

	Unresolved difficulties at discharge	
	Study 1	Study 2
Notes	0%	2%
Survey	10.5%	2.4%
IoSQ	NA	19%

6.3.1 *The level of documentation for identifying and addressing patients' questions or concerns about their presenting condition*

The notes audit in studies 1 and 2 identified poor written evidence of having enquired into patients' questions or concerns, whereas completion of the surveys and IoSQ identified that in reality, a number of patients had questions or concerns, some of which had not been addressed at the point of discharge (sections 3.7.4.1, page 103 and 4.2.3.1, page 118) (see table 6.3).

Table 6.3: Identification of patients' having questions or concerns about their condition

	Assessment		Discharge	
	Study 1	Study 2	Study 1	Study 2
Notes	10%	27.3%	0%	0%
Survey	73.7%	60.6%	15.8%	6%
IoSQ		66.7%		10.3%

PatFG2 and physFG3 both identified that participants valued the IoSQ for identifying questions or concerns that patients may have about their condition: this is discussed further in sections 6.6 and 6.7 (pages 195 and 196)

6.3.2 *The level of documentation for exploring and addressing the impact on work, training or caring responsibilities:*

With respect to difficulties pertaining to work or employment, a high percentage of patients were of working age (18-65 years) (section 3.3.1 page 85). Table 6.4 shows a summary of the findings of the different methods for exploring the impact on this domain, indicating that the IoSQ was more effective than physiotherapy written notes for providing documentation. The IoSQ also identified a number of unresolved difficulties at discharge.

Table 6.4: Summary of the results of the different methods for exploring the impact of patients’ symptoms on their work or caring role

	Difficulties identified at assessment		Unresolved difficulties at discharge	
	Study 1	Study 2	Study 1	Study 2
Notes	18.3%	9%	0	0
Survey	42.1%	39.4%	2.6%	0
IoSQ	N/A	50%	N/A	18%

Although the written comments were not collected from the IoSQ with respect to each domain, there were some specific comments relating to concerns about financial security or employment written in the section enquiring into “questions or concerns about your condition”. (section 3.7.4.2, page 103).

6.3.3 *The level of documentation for exploring and addressing the impact on activities of daily living*

The notes audit identified similar figures for the two studies regarding the written evidence for screening of the presenting health problem impacting on patients’ ADL: 25.4% and 30.9% respectively (figure 6.1, page 188; table 6.5). Both surveys identified a higher level of impact than identified by physiotherapists’ documentation (table 4.5, page 119) with the IoSQ identifying a similar level to the survey in study two: 74.1% and 72.7% respectively (table 6.5). Completion of the IoSQ provided patient-led documentation of unresolved difficulties at discharge: further evidence of some issues being unresolved at the point of discharge was also provided by the survey in study 1.

Table 6.5: Summary of the results of the different methods for exploring the impact of patients’ symptoms on their activities of daily living

	Difficulties identified at assessment		Unresolved difficulties at discharge	
	Study 1	Study 2	Study 1	Study 2
Notes	25.4%	30.9%	0%	0%
Survey	57.9%	72.7%	5.3%	0%
IoSQ	N/A	74.1%	N/A	30.8%

6.3.4 *The level of documentation for exploring and addressing the impact on hobbies or interests*

The IoSQ provided a higher level of documentation for the impact of a presenting health problem on this domain, with a higher level identified by the

survey in both studies compared to documentation: this is summarised in table 6.6.

Table 6.6: Summary of the results of the different methods for exploring the impact of patients' symptoms on hobbies or interests

	Difficulties identified at assessment		Unresolved difficulties at discharge	
	Study 1	Study 2	Study 1	Study 2
Notes	30.5%	21.8%	0%	0%
Survey	68.4%	69.7%	10.5%	9.1%
IoSQ	NA	77.8%	NA	33.3%

6.3.5 The level of documentation for exploring and addressing the impact on mood and relationships

Again, the IoSQ provided the highest level of documentation for the impact of a health problem, but at discharge, there was a slightly higher indication of unresolved issues identified by the survey (3.1%; n=1/33) (table 6.7).

Table 6.7: Summary of the results of the different methods for exploring the impact of patients' symptoms on their mood and relationships

	Difficulties identified at assessment		Unresolved difficulties at discharge	
	Study 1	Study 2	Study 1	Study 2
Notes	3.3%	1.8%	0%	0%
Survey	57.9%	36.4%	15.8%	3.1%
IoSQ	NA	42.6%	NA	2.6%

6.3.6 Documentation: summary of the integration of the results

The level of documentation by physiotherapists for having assessed or addressed the impact of a presenting health problem across a number of quality of life domains was unchanged across both studies. Introduction of the IoSQ in study 2 identified that therapists were only documenting one third of the domains that had been self-identified by patients. At discharge in study 2, just over 70% of patients indicated on the IoSQ that at least one domain was still affected and yet there was documentation for only one patient, for one domain. The impact on mood was the least frequently documented domain by patients and staff. Documentation by staff that did occur tended to relate to a domain

being negatively affected rather than providing evidence that the domain had been screened for, but was unaffected.

6.4 What evidence was there for patients engaging with the IoSQ?

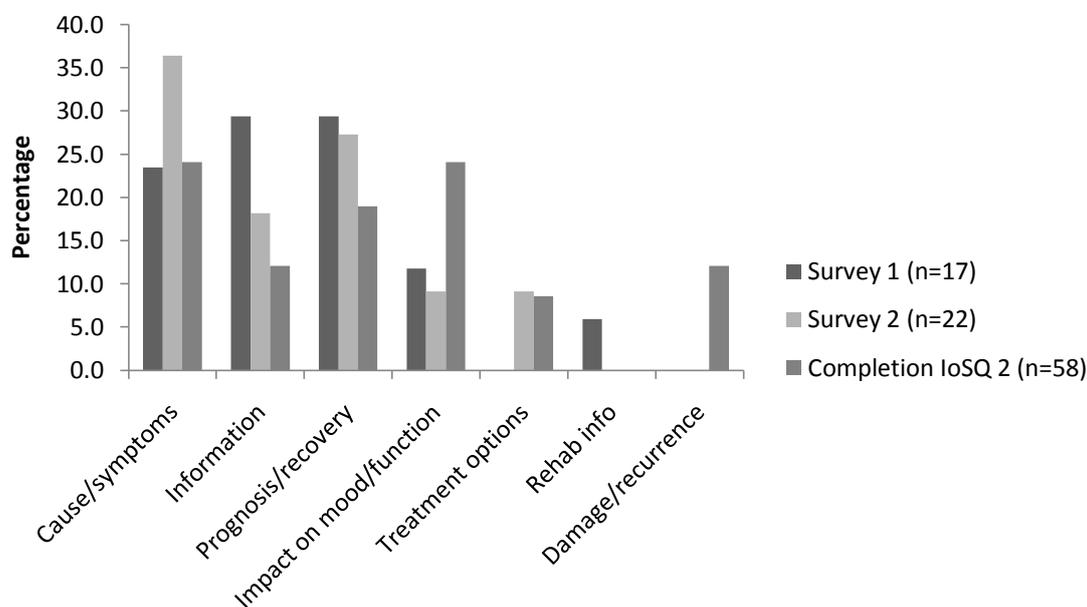
Again, this question was primarily answered through the audit process with a high completion rate for the IoSQ at both assessment and discharge (section 3.7, page 99). The previous section summarised the level of completion of the IoSQ with respect to the different domains affected by patients' presenting health problem. The IoSQ also provides an opportunity for patients to write additional comments pertaining to each of the four domains. The remainder of this section summarises the level of engagement in patients providing written comments and their completion of the numerical rating scales.

Just over half of the patients wrote at least one comment across the four domains on the IoSQ (impact on work/caring; activities of daily living; preferred hobbies/activities; mood and relationships). There was a total of 71 comments across each of these domains, across the 54 questionnaires (section 3.7.3, page 102), with some patients writing a comment in all four domains. A thematic analysis of patients' questions or concerns was undertaken as identified by the IoSQ (study 2) (section 3.7.4.2, page 103) and the surveys (studies 1 and 2) (section 4.2.6, page 123). These are summarised and compared in figure 6.2. The dominant themes from the survey related to questions about the nature of the symptoms or the prognosis: this was also reflected on the IoSQ. The impact on mood or function was more likely to be identified on the IoSQ.

Enquiry into patients' expectations of treatment was consistently completed on the IoSQ with almost all of the participants answering this question (section 3.7.5, page 106). Akin to the theme developed in the first patient focus group (*Dichotomy of 'being fixed' versus 'stuck with it'*) (section 5.2.4, page 136), examples from the theme '*recovery*' emphasised many patients' expectation to return to a previous level of activity or quality of life (table 3.17, page 104). This

was the second most prevalent theme accounting for a quarter of the comments and links to a discussion in physFG3, as discussed below.

Figure 6.2: Frequency of themes for “questions or concerns” as identified from the surveys (studies 1 & 2) and the loSQ (study 2)



There was a concern raised in patFG2 that older people may be reluctant to complete the loSQ out of concern for ‘being judged’. The age range of participants was 17-88 years of age, and the one questionnaire that was not completed was that of a 24-year old. Further enquiry into the data identified that fifteen people were aged 65 years or older, and of these, a quarter stated that their condition was having an impact on their mood and 80% had identified that it was having an impact to engage in activities of daily living.

Although the loSQ was primarily developed to facilitate exploration and subsequent documentation of the impact of a health problem, there was a request from the physiotherapists for it to have the potential to record change. Even though written feedback on the surveys and comments in patFGs 1 and 2 indicated a frustration with numerical rating scales, section 3.7.6 (page 108) shows that patients engaged well with their completion.

In summary, this section has provided a useful body of evidence for patients engaging well with completion of the loSQ, across all domains, at both assessment and discharge. It has additionally highlighted the level of

engagement for patients writing out their question or concern about their condition, their expectations of treatment and additional personalised comments under each domain. Despite some concerns that were raised, older people also engaged well with completing the IoSQ, including the question relating to the impact on mood and relationships. The numerical rating scales were consistently completed at assessment and discharge.

6.5 What evidence was there for the physiotherapists engaging with the IoSQ?

Evidence for this was determined from the physiotherapists' and patients surveys (study 2) and the focus groups (patFG2 and physFG3). Staff reported that they had felt overwhelmed by service demands to rigorously use the EQ5L-5D which impacted on their ability to engage with the IoSQ (section 5.4.3.2, page 172). They also stated that it was affected by the limited introduction and training at the beginning of the research project (section 5.4.3.2, page 173). Patients indicated in the surveys that physiotherapists did not tend to explore issues through engagement with questionnaires (figure 4.5, page 123).

6.6 What were patients' experiences of using the IoSQ?

The patient (section 4.2.4, page 121) and physiotherapy surveys (section 4.3.2, page 126) explored the perceptions of ease of completion of the IoSQ and relevance to the patients' conditions. The results indicated that patients and therapists felt that the IoSQ was easy to complete and relevant to the presenting condition. There were also some comments regarding wording and layout.

All groups had identified frustration about the limited clinical value of validated questionnaires (sections 5.2.5.3, 5.3.4, 5.4.3, pages 143, 156, 170): but very early in patFG2 a participant stated that the IoSQ provided "*the range of things that worry you*" and "*gives you an opportunity to draw attention to them*". This was endorsed by the other two participants later in the discussion (section

5.3.5.1, page 160). The ability to individualise their responses to questions on the loSQ was especially valued by patients – providing physiotherapists engaged with the completed forms (sections 5.3.4.2, 5.3.5, pages 158 and 160): it was felt that it could help with communication and prioritise issues to be addressed. Although only one of the participants recalled their therapist referring to the loSQ, members of patFG2 felt it had the potential to provide prompts to help identify concerns (section 5.3.5.1, page 160) prior to a first appointment and any outstanding issues or difficulties – providing the loSQ is distributed *prior* to discharge (section 5.3.5.2, page 161). However, there were also concerns expressed that some groups of people may be reluctant or would need support to complete the loSQ (section 5.3.4.3, page 196) – especially if its remit was perceived as service evaluation rather than patient benefit (section 5.3.4.1, page 156)

6.7 What were physiotherapists' experiences of using the loSQ?

Although physiotherapists acknowledged the need to measure outcomes, they were also acutely aware of the potential burden and limited clinical value of fixed-response questionnaires (section 5.4.3.2, page 171). However, they felt that the loSQ was relevant to the presenting conditions of their patients (section 4.3.2, page 126) and gave them 'a voice' (section 5.4.3.1, page 171). It was proposed that having the loSQ before the first appointment would make it less "threatening" to complete (section 5.4.3.1, page 171, section 5.4.4.3, page 179) and could enhance an expectation of a biopsychosocial approach (section 5.4.4.3, page 179). This could also improve rapport, so facilitating the exploration of the impact on mood, relationships and more difficult issues (section 5.4.4.2, page 177). This was valued as it was felt that misunderstanding can occur and patients could subsequently misinterpret an enquiry to imply that their health problem was 'caused by depression' (section 5.4.4.3, page 178): this was endorsed in patFG2. Physiotherapists felt that by allowing patients to write down difficulties or concerns in their own words, the loSQ could help to ensure that patients' perspective was accurately represented and to address therapists' concerns about confidentiality issues when writing up notes (section 5.4.4.5, page 182). It could also provide a reference point to monitor progress - from the *patient's* perspective (table 5.5, page 182). It was

discussed as to whether or not the IoSQ could have a role as an outcome tool, so reducing the need to use additional questionnaires.

Having a clinical tool that provides structure and prompts to the process of psychosocial and functional assessment was particularly valued by participants, especially if the patient was not making the expected progress (section 5.4.4.1, page 175). In a similar vein, it was acknowledged that it can be easy for an experienced physiotherapist to make assumptions that recovery would be straightforward and yet this would not necessarily be the expectation or experience of the patient (section 5.2.5.1, page 140). Staff therefore valued the provision for patients to write comments (especially regarding questions or concerns). It was also acknowledged that just having the box ticked within a domain could prompt staff to explore any issues further (sections 5.2.5.3, page 144, section 5.3.4.3, page 159, section 5.4.4.1, page 175).

6.8 Chapter summary

This chapter has integrated the results in the context of the research questions. The role of the IoSQ was valued by both patients and physiotherapists to help identify patients' questions or concerns about their condition as well as the impact on broader aspects of life. It has the potential to provide structure and prompts, develop rapport and to facilitate the matching of expectations, in a safe way. Unlike fixed-response questionnaires, the IoSQ enables this by allowing patients to write things 'in their own words'. Although there was no change in the level of documentation of these domains by physiotherapists, there was evidence that patients engaged effectively with the completion of the IoSQ, at both assessment and discharge. However, it was acknowledged by staff and patients that physiotherapists would need to engage with the IoSQ more effectively: this could possibly be addressed by a more effective introduction or training regarding the role of the IoSQ. The IoSQ was also endorsed for its potential to flag up unresolved difficulties or concerns at discharge – providing it is administered *prior* to the last appointment. The implications of these findings in the context of the literature will be discussed in the final chapter.

CHAPTER SEVEN

DISCUSSION

7.1 Introduction

This project has found that the Impact of Symptoms Questionnaire (IoSQ) was engaged with well by patients and has the potential to be useful tool to facilitate identification and discussion of the broader psychological, social and functional impact of a health problem. Evidence for this was gathered from a mixed methods approach comprising notes audits, surveys and focus groups to answer a number of secondary research questions.

Evaluation of the level and content of completion of the IoSQ by patients indicates that it could have a valuable role for the provision of documentation from their perspective, not only regarding the impact of a health problem on their quality of life, but also whether not issues have been adequately addressed. The surveys and focus groups also shown that although there was little evidence that the IoSQ was fully engaged with by staff, both physiotherapists and patients felt that it has the potential to facilitate the assessment of the impact of a presenting health problem. The remainder of this chapter will discuss the secondary research questions in the context of the literature, the strengths and weaknesses of the research project and recommendations for future research.

7.2 Patients' experiences of assessment before and after the introduction of the IoSQ

The importance and value of exploring the impact of a health problem on patients' psychological well being and their functional, social and environmental context is fully recognised (ACC, 2004; CSP 2005 & 2012; French & Sims, 2004; Grotle et al., 2010; Hill & Fritz, 2011; WHO, 2014). However, even where clinicians' knowledge regarding guideline adherence or adoption of a more patient-centred approach has been shown to improve, there has been little enquiry into this enhancing documentation or patients' experience (Bekkering et

al., 2003; Breen et al., 2011; Evans et al., 2010; Green et al., 2008; Overmeer et al., 2011; Rutten et al., 2013; Stevens & Beurskens, 2010; Stevenson et al., 2006; van der Wees et al., 2008). Patients in this project identified that it was very important to them that enquiry into the impact of their health problem should be undertaken. In addition to this, both staff and patients indicated that the IoSQ was relevant to the presenting conditions, even though there was a higher incidence of post-trauma or surgical conditions than at the site of its development (Knott & Frampton, 2013) (appendix 1). Patients stated that even after the introduction of the IoSQ, they tended to take responsibility for raising concerns that were important for them. They felt that this happened primarily through the development of rapport and 'friendship' which facilitated the discussion of more sensitive issues. However, it is worth noting that the patient cohort in this study had a high average number of treatment contacts so making the gradual development of a therapeutic relationship more likely. Realistically, such extended treatment duration would not be typical for most musculoskeletal physiotherapy departments.

Patients felt that the IoSQ has the potential to address the limitations that not only they identified in fixed-response questionnaires, but those that have been identified in the literature (Main & George, 2011a; Ong et al., 2006; Stewart et al., 2011). By having the opportunity to write free text patients felt this could help to draw attention to what is important to them as individuals: using their own words to explore topics in more detail could enhance the process of developing rapport. However, it was also acknowledged that therapists would have to engage in this process and take the initiative to relate to the completed form. Owing to the presence of numerical rating scales, patients discussed the role of the IoSQ: does it explore or measure the impact of a health problem? They proposed that it could do both but emphasised the value of its re-administration *prior* to the point of discharge so that if required, it could highlight the need for further or alternative care. Interestingly, even though frustration with numerical rating scales was expressed, these were completed consistently, at assessment and discharge.

Dissonance between patients' and physiotherapists' expectations is felt to underpin therapists' adherence to a biomedical paradigm (Jeffrey & Foster,

2012). The importance of meeting expectations of treatment was clearly raised in both patient focus groups with frustration expressed that this does not always happen. This was explored in two contexts. Firstly, patients identified a potential difficulty in adjustment if their expectation for 'being fixed' was not met. This may be experienced as: loss of hope; feeling low; self-blame for not doing their exercises correctly; or blaming health care professionals. This is of particular concern as the impact on mood, although the least affected, was also the least likely to be documented as having been screened when compared to completion of the IoSQ. In a similar vein, patients had concerns that physiotherapists may 'make assumptions'. For example, if a therapist is aware that a patient is at work, they may presume that other aspects of life are unaffected. The concept of 'making assumptions', and the potential role for the IoSQ to address this are discussed further in the section exploring physiotherapists' experience of using the IoSQ (section 7.6, page 205).

7.3 The role of the IoSQ on the provision of documentation

Considering that the skills required to undertake exploration of the psychological and social impact of a health problem are inconsistently and inadequately taught at an undergraduate level (Main & George, 2011a; Overmeer et al., 2009) and are poorly undertaken by qualified therapists (Jeffrey & Foster, 2012; Main & George, 2011b; Sanders et al., 2013), it would be expected that documentation of such assessment would be inconsistent and inadequate. Not only did the level of documentation by physiotherapists remain low in both studies, they were very similar, and indeed a little lower than at the site which prompted the development of the IoSQ (Knott & Frampton, 2013) (appendix 1). Of concern is that 40% of the notes in both studies had no documentation for enquiry across any of the domains.

Although this project concurred with the literature in that physiotherapists were effective at assessing the functional movement-based impact of a health problem (Green et al., 2008; Hill, Vohora, et al., 2010; Jeffrey & Foster, 2012; Main & George, 2011b; Sanders et al., 2013), the frequency of documentation

by therapists even for this domain remains low compared to that identified by patients using the IoSQ. This discrepancy between physiotherapists' documentation in notes and patients' self-report on the IoSQ applied across all of the domains – at assessment and discharge. In addition to this, due to the vast potential of aspects of life that could be impacted (WHO, 2001) it makes pragmatic sense for a therapist to only write down if an aspect of life *is* affected, rather than not: as demonstrated in this project. To add to the complexity, this project did not evaluate any discrepancy that may have occurred in the number of difficulties *within* each domain: for example, an impact on activities of daily living may affect a patient's ability to dress, use stairs and their confidence to go shopping. If a therapist had documented one of these in the notes, but the patient had identified all three by writing comments on the IoSQ, this was not considered in the analysis. These points all reinforce the merits of patients taking responsibility themselves for the documentation of the impact of their health problem on areas that are important to them (McCracken, 1998).

Although lack of documentation by therapists does not evidence clinical reality (Breen et al., 2011) the findings from the notes audit were in line with the experiences of the focus group participants: therapists did not routinely explore the impact of a health problem on domains other than daily function or movement. Even then, the IoSQ identified nearly double the documented frequency of impact at assessment for activities of daily living, with one third of patients stating on the IoSQ at discharge that they had unresolved difficulties: whereas only one physiotherapist documented that one patient was reporting difficulty in one domain at the time of discharge. Over 70% of the patients completing the IoSQ were of working age, and it is of concern that nearly one fifth of the patients stated on the IoSQ that their health problem was the source of unresolved work-related difficulties at discharge. Although this was not verified by the survey, this could be an important role for the IoSQ as work related difficulties are a predictor of poor outcome (Linton & Hallden, 1998).

With respect to the different research methods, there was a poor level of agreement in the percentage of all of the domains affected at discharge, with the IoSQ identifying the largest residual impact. It may be that as the survey was distributed some weeks after discharge from treatment, residual difficulties

had improved. Although it was not an intention of this research to evaluate the reliability of the IoSQ for identifying residual difficulties, if a patient is stating that their quality of life is affected, it would be important for the therapist to provide additional specific reassurance or advice at this time – and provide documentation that this has occurred.

7.4 Patients' level of engagement with the IoSQ

Stevens and Buerskens (2010) claimed that a barrier to patients engaging with outcome questionnaires was that they did not want to use measurement instruments, only to have therapy. However, it is interesting to note that this conclusion was as a result of having interviewed physiotherapists. Patients in this study did identify a frustration with questionnaires, but this was as a consequence of perceiving them to have little clinical value, and clinicians seeming to not value them when returned. As identified by the models for the implementation of change in clinical practice (Grol et al., 2005), any intervention to improve the consistency and appropriateness of psychosocial and functional assessment and its subsequent documentation would have to demonstrate acceptability with both the patients and clinicians. As stated earlier, all focus group discussions had identified limitations with fixed response questionnaires; therefore analysis of the level of completion of the IoSQ provided valuable insight to the level of its acceptability by patients.

The vast majority of patients provided a written response to their expectations of treatment, with two thirds recording at least one question or concern to ask their therapist. Understandably, the developed themes related to patients' concerns about the impact on their function, levels of recovery and symptom improvement or prevention: it is important to not only identify but to address these as negative beliefs are likely to affect patients' outcome (Foster et al., 2008). In addition to this, although the comments across the other four domains were not analysed, these were similarly well completed, with some patients writing comments across all four. Despite concerns being raised by some of the focus group participants that older people may be reluctant to highlight loss of independence, this provides preliminary information that patients across all age

ranges are willing to fully engage with all questions on the IoSQ so providing the potential to personalise the impact of a health problem.

The literature indicates that without the development of an effective and comprehensive training programme, it is unlikely that physiotherapists will adequately improve their practice of patient-centred assessments (and therefore documentation) in the near future (Main & George, 2011a). However, this project has shown that the IoSQ has the potential to provide a platform for patient-completed documentation as a viable alternative. Despite this, it would still be important for therapists to be more engaged with the process of documenting strategies that they employ to address such difficulties.

7.5 Physiotherapists' level of engagement with the IoSQ

Although staff demographics were only recorded in study 2, the limited attendance on accredited courses in pain management or psychologically informed skills training (Main & George, 2011a), and lack of supervision from an experienced pain management clinician suggests that the therapist cohort is likely be similar to staff working in other musculoskeletal outpatient departments. The IoSQ was introduced to the clinicians at the research site with minimal information and no training, partly as this reflects a pragmatic reality of the pressures on resources for supporting training and implementation strategies but also to minimise the development of any bias in perceptions of the IoSQ. The multiplicity of pressures on staff was borne out during the project as clinicians described being overwhelmed due to staffing difficulties and requirements to rigorously employ the EQ5D-5L (EuroQol Group, 2011). However, the low level of training may have resulted in a lack of 'ownership' of the study, or motivation to maximise recruitment levels, which was also reflected in their poor compliance in monitoring recruitment rates. Although there was only clear evidence of one therapist actively engaging with a patient's completed IoSQ the discussion relating to how the two vignettes could affect clinical reasoning was valuable for two reasons. Firstly, it helped generate discussion as to the potential role and value of the IoSQ and secondly, it

highlighted the value that the vignettes could have as a training tool for using the IoSQ.

Although patients tended to take responsibility for raising issues, there was some limited indication from the survey that questionnaires were used to facilitate exploration of the broader impact of a health problem, but there was no enquiry regarding which questionnaires this related to. However, clinicians did describe in the focus groups that they found the IoSQ valuable for identifying patients' questions or concerns, and expectations of treatment – especially if they were not making the anticipated recovery.

7.6 Physiotherapists' experiences of using the IoSQ.

The literature is clear that there is disparity not only in clinicians' knowledge of evidence-based psychosocial predictors of outcome (Overmeer et al., 2004) but the mode and consistency of their screening in a clinical setting (Coole et al., 2010; Harding et al., 2010; Jeffrey & Foster, 2012; Kent et al., 2009; MacNeela et al., 2010). Arguably, for physiotherapists to feel confident to undertake routine exploration of the psychological, social and functional impact of a health problem this would require complex behavioural change (Grol et al., 2005; Rutten et al., 2013), and indeed there are potential barriers to undertaking such assessments (Knott, 2005; Foster & Delitto, 2011). The challenges of exploring and documenting psychologically sensitive or confidential issues were raised in the staff and patients focus groups but both expressed that the IoSQ has the potential to assist the process. It was felt that such enquiry could be framed in the words of the patient, so helping to reduce therapists' concerns that such enquiry might be 'too psychological' or beyond their remit (Foster & Delitto, 2011; Knott, 2005). Interestingly, Jeffrey and Foster (2012) had identified that depression in patients can be seen by physiotherapists as a barrier to recovery. Depression was raised in a different context in this research: the patients had concerns of therapists inferring that depression was causing their symptoms with staff similarly having concerns that patients would hold this belief. It was proposed in the physiotherapy focus group that the wording of the IoSQ was appropriate for helping to address this.

There have been studies (Rundell et al., 2009; Rutten et al., 2013) which highlight the value of applying the ICF categories (WHO, 2002) to inform clinical reasoning in the application of the biopsychosocial model. In reality though, with the core standards being a 15-page document (WHO, 2002) or even using specific standards for different conditions, this would be an unwieldy and impractical process to apply in a busy department. Even should there be an ideal 'fixed response' questionnaire (Watson, 2011) it would be unable to reflect the complexity of the interaction between the constituent components and the intra- and interpersonal levels, as well as at societal, environmental and cultural levels (Stewart et al., 2011). Although staff acknowledged their limited engagement between the IoSQ and patients, they recognised it's potential to provide structure and prompts in guiding the assessment process. They also highlighted during the discussion of the vignettes, that the IoSQ could have a valuable role in identifying patients' negative beliefs or expectations early on in the care pathway, so enhancing their clinical reasoning process (Main & George, 2011a; Rutten et al., 2013).

The key beliefs identified by Moss-Morris et al., (2002) as being correlated with poor outcome (expectations of symptoms lasting a long time; symptoms having a severe impact on quality of life; and poor beliefs of self-control or cure) linked well with the themes from the IoSQ relating to patients' questions or concerns about their condition, and expectations from treatment. It was also raised that the IoSQ could pre-empt the risk of therapists making assumptions: just because a treatment protocol may seem routine to them, a patient may still have significant concerns and this would need to be effectively identified.

There were some concerns raised about using the IoSQ. These primarily related to disclosing sensitive issues on a questionnaire but as the additional comments relating to the specific domains were not analysed, it is not clear how well this section was engaged with. It would be also useful to explore is specifically in future research by undertaking semi-structured interviews following patients' completion of the IoSQ.

Physiotherapists felt that the IoSQ has the potential to be a tool to provide structure. They also valued its potential to provide prompts to facilitate the

identification of specific difficulties, so giving patients a 'voice' rather than 'just circling numbers: this is in keeping with Main & George's call (2011a) to provide a novel approach to patient-completed questionnaires. They also felt that where patients had completed the IoSQ prior to their appointment, there was minimal impact on clinical time. However, they did express frustration and having to use a number of different questionnaires, especially as they perceived that many of them had little clinical relevance. It was therefore proposed that if the IoSQ could be validated to measure change, this could help to reduce the number of questionnaires required.

7.7 Strengths and limitations

In the context of developing a new clinical tool, it was important to determine the acceptability (by both patients and staff), and the feasibility of introducing the IoSQ into a physiotherapy department - prior to implementing a randomised study to evaluate its effectiveness. This is also in keeping with Grol et al's (2005) models for implementing behaviour change. Being designed to prompt physiotherapists' engagement with exploring the broader impact of a health problem, it has been important to incorporate patients' perspectives on the value of the IoSQ. This has required the application of different research methods, which also enabled a deeper understanding of the complexity and potential value of implementing such a behaviour change strategy (Grol et al., 2005; Tashakkori & Teddlie, 2003). Clinical observation or recording could have been an alternative method for determining therapists' engagement with the IoSQ: this had already been discounted for pragmatic reasons and potential risk of bias (section 1.5.2, page 49). However, employing a mixed model approach helped to address this by integrating and cross-referencing the results from the surveys and focus groups (Onwuegbuzie & Teddlie, 2003). For example, even though there were limitations regarding the validity of the findings from the surveys (see below), their inclusion provided further insight regarding the shortfall in documentation of physiotherapists' enquiry into the impact of patients' health problems. Individual reporting of each of the research methods, followed by a chapter integrating the results for each of the secondary research questions has allowed for a more clear 'audit trail'. This facilitates the

reader's determination of the appropriateness of the researcher's interpretation of the findings (Onwuegbuzie & Teddlie, 2003; Rallis & Rossman, 2003). See section 1.5.4.1, page 53 for further discussion on this. The validity of the audit findings were enhanced due to its thorough piloting throughout its development, the application of a clear guidance sheet to provide transparency, and reporting of the levels of inter-rater agreement.

The use of examples of patient-completed IoSQs was particularly valuable in generating discussion in the physiotherapy focus group. Staff became more animated and involved as the discussion progressed and it transpired that one of the reasons for not fully engaging with the IoSQ in the clinical setting was due to its brief introduction and lack of training at beginning of the project. If staff had had a better understanding of the role and application of the IoSQ from the outset, this may have resulted in more useful critique and feedback, rather than a reliance on a perception that is likely to have been influenced by shared group discussion with peers.

There are a number of further potential sources of bias in this project (Bowling, 2001; Evans, Thornton & Chalmers, 2010). Although three departments were approached for inclusion in the studies, only one responded. It is not known why the other two did not wish to be considered for the research but this may have influenced the findings. Enquiry into the level of documentation was undertaken by analysing the pooled audit data for all of the physiotherapy staff, which may have yielded different results if analysed and compared as individuals: may have transpired that some staff were more effective than others at documentation. This should be considered in any future work.

With respect to the surveys, patients' recall for the impact of their pain problem is likely to have been affected by a time delay from the point of discharge and their receipt. Although efforts were made to improve this in the second study, this could still be an important factor. As well as the general limitations in using surveys (section 1.5.3.2, page 50) the prompts used in question 1 regarding patients' questions or concerns about their condition, may have biased their recollection. For example, the analysis identified that the dominant themes related to the cause or prognosis for their symptoms, with few enquiring into

treatment or rehabilitation options. Although it could be argued that it would be important to ensure that all opportunities are provided to enable patients to ask questions, the leading prompts of: "Did you want to know if an X-ray would be useful? Or: What was causing your symptoms?" may have biased patients to identify more health concerns than they had had in reality. In addition to this, there was an inconsistency in responses to the question asking patients a) if their condition had impacted on their quality of life and b) if so, had this been addressed to their satisfaction (section 4.2.3, page 117). There was also an incomplete response to the question "How were issues raised with your physiotherapist" with most of the missing responses relating to "By my physiotherapist": if data was missing because they felt that their therapist *had* or had *not* taken responsibility for raising issues, this would have made the interpretation more clear. In the patient survey following the introduction of the IoSQ, the researcher wanted to specifically enquire into the extent to which the therapist had engaged with the completed IoSQ, and so a new question was added. As other questionnaires had been used in the first study, it would have been valuable to have included this question in the first survey for comparison.

The National Institute for Health Research states that involving patients in the design, undertaking and dissemination of research can not only improve the quality of the research, but result in clearer outcomes and faster uptake of new evidence (National Institute for Health Research [NIHR], 2014). Due to limited resources this was not possible for this project but would have been invaluable for improving clarity and reducing bias, inconsistencies and ambiguities: for example, in the development of the survey and focus group questions. Improved piloting of the surveys and allowing more time for their development would also have been of value (Johns, 2010; Oppenheim, 1992; Rattray & Jones, 2007). The poor response rate for the surveys and small research numbers reduce the reliability of the findings and could also potentially have been improved with patient participant involvement. Even though this was a mixed methods study these low numbers will have a significant limitation on the generalisability of the findings.

The limited level of involvement of the clinical staff at the introduction of the project is also likely to have contributed to the poor recruitment levels. In

addition to staff not engaging with documenting the recruitment rate, there was no information regarding patient demographics or reasons for not opting in to study 2. It is likely that physiotherapists or patients who intuitively understood the concept of the IoSQ would have been more proactive in the recruitment process, which in itself, would positively bias their opinions to its value. Improved communication with the clinical staff may have helped to ameliorate this.

The small number of focus groups and patient participants means that although the analysis contributed to a deeper understanding of the research enquiry, it reduces the likelihood of identifying all of the potential issues and themes relating to the questions. In addition to this, the patient demographics for the project indicated that half of the participants in both studies were aged 50 or under: and yet only one of the focus group participants was in this range, with four being over 65. As there was no representation of the young working age population in the second focus group, there would be bias in the expectations and needs of their discussions. This may have contributed to a greater focus on patients' treatment experiences and specific concerns about older people seeking help. Despite discussion with supervisors and peers regarding the findings and theme development (from the focus group and surveys), having an additional researcher (or expert patient participant) would have helped to reduce bias in analysis as a consequence of the researcher's experience and beliefs. It had been an intention to undertake a more discursive approach (Phillips & Hardy 2002; Potter & Wetherell, 1987) which would have provided a deeper understanding of the social context in which statements and opinions were raised. In this project it has not been clearly identified which participants were more vocal and how their, or the facilitator's opinions then affected the responses of others.

7.8 Implications

This project has highlighted that patients valued being able to talk about their psychosocial and functional concerns and yet previous research has indicated that physiotherapists do not undertake this routinely. It has been clearly

identified that patients ideas and concerns about their pain determines their behaviour, which in turn, affects outcome (Foster et al., 2008; WHO, 2001): and yet current training paradigms seem to provide barriers for physiotherapists to develop effective skills training in psychologically enhanced therapy (Main & George, 2011a). However, these studies have shown that the IoSQ had acceptability within the population explored and was seen to have potential to enhance clinical practice. It is therefore recommended further research is undertaken to develop and evaluate a brief skills training programme to maximise clinicians' engagement with the completed IoSQ (Grol et al., 2005), as part of a larger study exploring the efficacy of the IoSQ to enhance patient care and outcomes.

7.9 Future research

This project has only explored the feasibility and stakeholders' perceptions of the value of introducing the IoSQ to a physiotherapy service: there are therefore limited inferences that can be made about its usefulness as a tool to promote behaviour change or its impact on clinical outcome (National Institute for Health and Care Excellence [NICE], 2007). The IoSQ would therefore need to be subjected to a controlled evaluation (Evans et al., 2010), with preceding pilot studies to ensure feasibility of the study design (Craig et al., 2008).

The IoSQ was developed to facilitate the exploration and subsequent documentation of the impact of a health problem across a number of key areas of life. It is recommended that the following areas for research should be considered: exploration of the reliability of the IoSQ for identifying patients concerns regarding their health problem and the impact on their quality of life; the development and evaluation of a skills training programme to enhance therapists' understanding and engagement with the IoSQ; the clinical value of introducing the IoSQ into physiotherapy departments with respect to a) addressing patients' identified difficulties and concerns and b) improving patients' outcomes.

Prior to evaluating the clinical application of the IoSQ, there would be merit in exploring the ability for the IoSQ to reliably identify aspects of life that are affected: that is to determine its test-retest reliability (Rattray & Jones, 2007). This would be explored by re-administering the IoSQ within a few days of patients' initial completion of the IoSQ and correlating the findings. It would also be valuable to undertake semi-structured interviews with patients to gain a deeper understanding regarding their thought processes for completing the IoSQ (Ong et al., 2006): this would help to further inform its potential clinical value and application.

RCTs are designed to control for bias (as described in section above) and would be the fairest test for evaluating any clinical benefit of the IoSQ (Evans et al., 2010). The development and evaluation of the skills training programme would comprise the feasibility stages (Craig et al., 2008) of a cluster randomised controlled trial (cRCT) (Green et al., 2008). The training programme should be developed with the involvement of both patients and staff to increase the likelihood that it could be implemented in a 'real world' setting (NIHR, 2014): that is, where training resources are limited with respect to finances, time or access to 'expert' clinicians (Overmeer et al., 2011). This project has indicated that the patient-completed IoSQs (vignettes used in the physiotherapists focus groups) could be of value to help enhance reasoning skills for its clinical application and so should be considered for inclusion in any training programme. Process analysis to determine fidelity to physiotherapists' engagement with the IoSQ could employ patient surveys and focus groups, comparing departments with and without specific training in the use of the IoSQ.

With respect to determining the patient benefit of using the IoSQ, it would be important to consider the economic impact (Craig et al., 2008; NICE, 2007), as well as exploring psychosocial parameters of change (for example, self-efficacy, depression or anxiety). This could include medication usage, the number of follow up appointments (GP, physiotherapy and secondary care), onward referral rates (to pain management, mental health or psychology services) and Quality of Life Adjusted Life Year (QALY) (Craig et al., 2008). Along with the feasibility and pilot studies, these could provide insight as to *why* the IoSQ provided any benefit. The IoSQ could also have a valuable role to play

alongside the StarTBack tool (Hill et al., 2008). This has already been validated for the identification of LBP patients who have low, medium or high-risk of a poor outcome. The IoSQ could be trialled alongside the StarTBack tool to determine if the IoSQ enhanced care or improved outcomes in patients within either the medium or high risk categories. A cluster RCT using a design similar to Stevenson, Lewis and Hay, 2006 would be appropriate to explore this.

7.10 Conclusion

This project was undertaken in a physiotherapy patients predominantly presenting with musculoskeletal difficulties following surgery or trauma. Both patients and staff felt that a specific strength of the IoSQ was the facility for patients to write their difficulties in their own words, so providing a potential structure and prompts to facilitate further exploration. Having patient-completed, rather than relying on physiotherapist-completed documentation could help to minimise misinterpretation of the patient's experience, more effectively match patients' and therapists' expectations and overcome the enigma of having to provide documentation relating to all the aspects of life that could be affected by a health problem. However, staff reflected that limited introduction and training regarding the role of the IoSQ affected their level of engagement with it. It therefore remains to be seen if the IoSQ has a future role in facilitating behaviour change for physiotherapists exploring the psychosocial and functional impact of a health problem. However, this project has provided further evidence that it is perceived as being acceptable to both clinicians and staff and has the potential to be clinically useful.

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APPENDIX 1

Article: Knott & Frampton (2013)
Journal of the Physiotherapy Pain Association

A SERVICE ACTION RESEARCH PROJECT DESCRIBING THE DEVELOPMENT AND CLINICAL EVALUATION OF A NEW PSYCHOSOCIAL SCREENING TOOL: THE IMPACT OF SYMPTOMS QUESTIONNAIRE.

AUTHORS:

LINDA KNOTT¹, DR. IAN FRAMPTON²

¹ *Clinical Specialist Department of Physiotherapy, Torbay Hospital, TQ2 7AA. linda.knott@nhs.net*

² *Dr Ian Frampton: Senior lecturer in Clinical Psychology, College of Life and Environmental Sciences, University of Exeter EX4 4QG*

Abstract

Background

The prognostic influence of psychosocial factors in musculoskeletal conditions has been well documented. However, two local service audits in the United Kingdom highlighted poor compliance with the use of psychosocial screening and outcome questionnaires in routine clinical practice. Staff consultation resulted in the development of a new tool to facilitate this process. This paper describes the development, use and exploration of the clinical usefulness of this tool.

Methods

Working on criteria defined by staff and a literature review, the tool (Impact of Symptoms Questionnaire: IoSQ) is patient-completed, exploring the impact of their condition on five psychosocial domains, enquiring about treatment expectations, and comprising four numerical rating scales measuring outcome. Uniquely, it additionally provides the opportunity for qualitative comment. Service evaluation comprised re-audit of patients' notes, across six musculoskeletal physiotherapy departments looking at compliance in use and an online survey of physiotherapists regarding its perceived usefulness.

Results

Compliance in appropriate questionnaire use at assessment improved from 22.5% and 27.6% (2007, n=80 and 2009, n=116 both pre-IoSQ) to 52.7% (2010, n=167). Survey of physiotherapists (n=34,) identified the key benefits as: help with setting patient-centred goals and being appropriate for

all patients. Qualitative feedback was positive and the IoSQ was identified as a preferred questionnaire for clinical use amongst a range of measures.

Discussion

The IoSQ has the potential to be a clinically useful tool for psychosocial screening and measuring outcome. Further work needs to be undertaken to enhance compliance in questionnaire use, to explore the perceived value by patients and to determine the psychometric properties of the IoSQ, including validity, reliability and sensitivity to change.

Background and purpose

The influence of psychosocial factors on recovery from a range of musculoskeletal conditions, especially low back pain has been well documented (Grotle et al., 2007, Hill and Fritz, 2011, Linton and Shaw, 2011) and United Kingdom professional standards require physiotherapists to consider psychosocial issues (standards 1 and 5) and use outcome measures (standard 6) as a routine part of their clinical work (Chartered Society of Physiotherapy, 2005). However, guidelines do not guarantee implementation (Bishop and Foster, 2005) and skills training does not ensure change in clinical practice (Malhotra et al., 2009, Overmeer et al., 2009). Determining which are the most influential psychosocial domains requires further research (Ramond et al., 2011, Hill and Fritz, 2011, Linton and Shaw, 2011) but arguably, to the patient in front of you, this is not dictated by academic literature but by their personal context and cannot be identified by standardised questionnaires (Hill and Fritz, 2011, Ong et al., 2006, Nicholas et al., 2011). This paper describes the context of the development of a new psychosocial screening tool and outcome measure, the Impact of Symptoms Questionnaire (IoSQ) and its subsequent initial evaluation.

The identification of a clinical need

A stepped care service (Bower and Gilbody, 2005) for the management of chronic musculoskeletal pain was developed in an outpatient physiotherapy service in the South West of England in 1999. To help maximise effective referral into the service, staff were required to use the rebro psychosocial screening questionnaire at assessment (Linton and Hallden, 1998) and the Roland and Morris Disability Questionnaire (RMDQ) at assessment and discharge (Roland and Morris, 1983). To ensure that patients with unresolved difficulties as a consequence of their pain were being appropriately referred into the service, an audit of notes was undertaken in 2007. The notes were screened for the timely presence of both questionnaires as well as evidence of a written record of psychosocial issues being screened for and, where appropriate, addressed to the patient's satisfaction. The audit was across eight community musculoskeletal outpatient departments

(Knott and Francis, 2009). An audit tool was developed and notes for ten patients were taken from the discharge filing drawer for each department. Only 18 out of 80 (22.5%) sets of notes had both the rebro and RMDQ at assessment, with 19 (23.8%) having the rebro and 34 (47.5%) having the RMDQ. There was considerable difficulty in objectively identifying written evidence for the screening and appropriate management of psychosocial issues (Knott and Francis, 2009).

Staff consultation following audit feedback, resulted in abandonment of the rebro and RMDQ but addition of the Measure Yourself Medical Outcome Profile (MYMOP) (Paterson, 1999), and Pain Self Efficacy (PSEQ) (Nicholas, 1989). The importance of using questionnaires was reinforced during in-service training. However, re-audit in 2009, using a refined audit tool, showed little improvement in the presence of all required questionnaires at assessment (27.6%, 32/116) or psychosocial screening.

Discussion with clinicians following presentation of findings from the second audit identified a number of issues relating to poor compliance: time required and practicalities of administering and scoring questionnaires; a perception that patients and physiotherapists felt that questionnaires used were often not relevant to the presenting condition or concerns; questionnaires had limited clinical usefulness, so reducing motivation to use them; MYMOP (Paterson, 1996), although providing the potential for individualising difficulties, was often incorrectly completed.

Interestingly, a previously published study compared compliance in the use of outcome questionnaires in Irish and Canadian physiotherapy departments working with older adults, over two time points (Stokes and O'Neill, 2008). Barriers (in order of decreasing frequency of response) were: lack of time; no questionnaires meeting clients' needs; therapists' lack of knowledge; lack of resources and lack of professional consensus; lack of administrative support; low in therapists' priority. With respect to attitudes in undertaking psychosocial screening specifically, there is no literature exploring this, but local focus groups, identified that although the clinical value of the process was acknowledged, there were barriers to undertaking such assessments (Knott, 2005). These barriers were identified as being: a 'fear of opening a can of worms', 'lack of time', and 'physiotherapists' primary role being to identify and treat pathology'.

Addressing the clinical problem: development of the IoSQ

Continuing with an action research model (Waterman et al., 2001) discussion with staff following presentations of audit findings were undertaken and notes were made. These discussions identified a number of criteria that they wanted to be met to enhance compliance in questionnaire usage and psychosocial screening (Table 1). A review of the literature was undertaken to identify questionnaires that may be

suitable, but none were found. It was therefore agreed that the literature would be used to identify the domains to be included (Enderby et al., 1998, Von Korff, 2011, Nicholas, 2010, Turk et al., 2006, Paterson, 1999, Linton and Boersma, 2003, 2010, Woby et al., 2007) with staff subsequently being involved in the questionnaire design to maximise its clinical utility. Initial wording for the psychosocial screening section was developed and shared with all staff working in the local acute hospital and community outpatient physiotherapy departments (n=34). Feedback was received and amendments made. Each department was then visited so that the purpose, identified domains and wording of the questionnaire could be discussed more fully. Further amendments were made after each visit and again shared with staff until a final draft version was agreed by consensus.

Table 1: *Clinical requirements of a new questionnaire as identified by local staff*

On one side of A4 paper
Generic for all musculoskeletal conditions
Easy for patient completion
Simple scoring process
Explore evidence-based psychosocial domains
Allow a qualitative component to ensure issues were patient specific
Not seem "too psychological"
Facilitate review processes / measure outcome

In the first part of the IoSQ, the first four psychosocial domains are described, and the patient is asked to tick the box if their health problem is having any impact on that domain (Appendix 1).

They are also invited to write a comment within each domain. The domains relate to:

- The patient's ability to go to work or college, or to undertake their caring role. It was decided to combine these domains. Work and training are often combined in other questionnaires but caring is not routinely included even though it may be an important part of a patient's responsibilities. Combining also helped to save valuable space.
- Their ability to undertake everyday activities for example, self-care, shopping going up and down stairs, sleeping.
- Their ability to enjoy their usual hobbies, for example going to the cinema, doing DIY, playing sport, seeing friends, recreational walking
- Their mood or relationships

Patients are then invited to write down any specific concerns that they may have and would like to ask their physiotherapist. This would have the potential to include fear of pain ('fear-

avoidance'), damage ('catastrophising') or movement ('kinesiophobia').

The second section comprises numerical rating scales (NRS) (0-10) for the domains of pain, any other self-reported symptom, and the impact of their symptoms on 'everything that they want to do', and their mood. All questions relate to the previous week and have the anchors of "No pain/impact/problem" to "Worst pain/problem/impact possible". The reverse side is designed to be used at discharge and again asks them to tick any domain that their symptoms are still causing concern.

Routine use of the questionnaire

Patients attending their first appointment are invited to complete the IoSQ whilst in the waiting area and give to their treating therapist, so facilitating discussion during the assessment process. It is important to note that the discharge section is designed not to raise the expectation of returning to their previous function, or abolishing their symptoms, as this is not necessarily realistic for all patients. Indeed, ticking domains at discharge could highlight that concerns or functional difficulties still need to be addressed, or that signposting or referral to other services may be required. The intention of the IoSQ is to empower therapists to work with psychosocial issues, rather than referring them on to other services should threshold scores be reached (Hill et al., 2011).

The purpose of this case report is to demonstrate the clinical usefulness of a new combined psychosocial screening tool and outcome measure.

Evaluation of clinical usefulness

Notices were displayed in waiting areas of eight musculoskeletal physiotherapy departments in the South West of England inviting new patients to complete the IoSQ and hand it to their treating physiotherapist. Physiotherapists had previously been advised to review the completed IoSQ with the patient as part of their assessment process and to re-administer the questionnaire at discharge (printed on the reverse side). Completed questionnaires were routinely filed in the patients' notes.

Survey of physiotherapists

In May 2010, all 34 physiotherapists working across all local departments were invited to complete an online survey (distributed by SurveyMonkey.com; appendix 2) exploring their perceptions of the questionnaire's usefulness and also how they rated patients' reactions to it. A reminder was sent to all participants after two weeks. Data was entered and analysed descriptively using Excel (Microsoft, 2007).

Audit of patient's notes

The notes of five new patients referred to each participating physiotherapist in a single month were included in the study and pairs of auditors reviewed the consistency of completion the questionnaire using an agreed audit tool. No therapist audited their own department. Data was entered and analysed descriptively using Excel (Microsoft, 2007).

Results

Survey of physiotherapists

Of the 34 physiotherapists invited to participate, 32 started and 29 completed the survey (90.6%). Range of years qualified was 2-35 years (mean 11.25 years) and the duration in current post was range 0.6-15 years (mean 3.6 years). 27 physiotherapists (84.4%; n=32) stated they had used the questionnaires at assessment "for the majority" of their patients. Of the five that did not, two stated that they had inadequate administrative support; two stated there was inadequate time and one was unaware of the questionnaire.

Staff were asked to rate their sense of patients' perceptions of: the ease of completion of the questionnaire; the relevance to their condition; the usefulness of the questionnaire in identifying issues which their condition was having an impact on. No therapist used the minimum score of 0 (range 0-5) and the mean (standard deviation) scores were 3.4(1.01), 3.3(1.02) and 3.5(1.15) respectively (Table 2).

Staff were also asked to rate their own perception for: the value of the questionnaire in terms of: relevance for the patient; time saved in undertaking psychosocial screening; changes in confidence levels for which psychosocial issues

Table 2: Summary of findings from physiotherapists' survey regarding value of the IoSQ

	Perception of patients beliefs (n=32)			Physiotherapists own perception (n=29)				
	Easy to complete	Relevant	Help to identify issues	Appropriate	Help to identify issues	Confidence	Goals	Help with management /treatment
Min	2	2	1	0	2	1	2	1
Max	5	5	5	5	5	5	5	5
Mean	3.4	3.3	3.5	3.6	3.6	3.1	3.7	3.1
StDev	1.01	1.02	1.14	1.12	1.02	1.16	1.01	1.20

to explore; help in identifying patient centred goals; help in identifying appropriate management/treatment options. The highest endorsed questions were: it was useful for goal-setting; it was appropriate for most of their patients, and saved time in identifying psychosocial issues (mean (SD) 3.7 (1.01), 3.6 (1.1) and 3.6 (1.02) respectively).

At discharge, four out of thirty-one respondents stated that they re-administered the questionnaire. Twenty-five therapists gave reasons for not using it and the following categories were created: patients not returning due to a same-day appointment system resulting in follow-up appointments not being booked routinely (n=18); physiotherapist forgot to administer the questionnaire (n=5); time issues (n=2); trial period too short and patients not yet discharged (n=1); not used at the outset (n=1). For physiotherapists who did use it at discharge, three felt that it appropriately reflected changes in the patients; one therapist didn't.

The final question related to which questionnaire(s) physiotherapists would prefer to use: 23/30 chose IoSQ (76.7%), 11 (36.7%) chose self-efficacy, five chose MYMOP (16.7%), two chose RMDQ (6.7%) and four selected 'other' (13.3%) (Orebro (Linton and Boersma, 2003), Hospital Anxiety and Depression questionnaire (Zigmond and Snaith, 1983) and condition-specific questionnaires). Some therapists ticked more than one questionnaire.

Comments were invited in questions relating to perceptions of patients' beliefs about the questionnaire and the physiotherapists own perceptions. Sixteen comments were given: they were mostly positive and examples are given in table 3.

Table 3: Examples of comments from physiotherapists regarding usefulness of the IoSQ

Physiotherapists' perceptions of patients beliefs
I think people know what they want help with before they come in but it does help the physio to identify the problems
Simpler than previous questionnaires although I regularly get patients to fill in the self-efficacy and occasionally the Roland Morris and HAD scores
I put yes, definitely to the above questions, as this applies to the majority of my patients. There are always a few people who are concerned about filling in forms. I'd say that there are fewer with this form than with any other I have used. On the whole, patients find it simple and short to fill in
Some of the patients found it difficult to indicate on the questionnaire their varying levels of pain. They wanted to circle more than one number as the pain had changed dramatically within the last week. Generally had positive feedback from patients though

Varies, depends on patient: some easy / helpful; some hard / don't consider relevant
A number of patients needed prompting when filling in the form eg often just ticked a box rather than providing detail of activities/emotion that were affected by the pain. Therefore if you use as postal questionnaire you get a number of incomplete responses. Not always appropriate if a one off problem that was resolving. Possibly the most useful bit was the question at the end re: do they have questions or worries
Physiotherapists' own perceptions
It helped me to appreciate that what I consider to be a big impact of symptoms on a person's life is not necessarily what they consider important
Again, on the whole, definitely yes. As I said before, there are always exceptions and I don't think that it is to do with this form but people's reluctance to fill in forms generally. Unfortunately in this day and age we are bombarded with forms and it puts people off. People are scared of not giving the 'right' answer!
I found it cut down on time as a few questions I would normally ask were already covered and filled in prior to the assessment

Audit of patients' notes

167 sets of notes were audited. Conditions seen were categorised as: osteoarthritis/soft tissue problems (n=83); spinal pain/whiplash, including referred pain (n=59); trauma/post-surgery (n=17); myalgic encephalomyelitis/fibromyalgia syndrome/non-inflammatory multiple joint pain (n=3); other (n=4).

Questionnaires were completed at assessment in 88 sets of notes (52.7%). The number of psychosocial domains endorsed ranged from 0-4 (median=2; mode=3) and for comments ranged from 0-4 (median=0; mode=0). In eight sets of notes (9.1%), no boxes for the psychosocial domains were ticked. The scores for the NRS were averaged for each patient and the average of these was 5.4 (range 1-10; median=5.25; mode=5). Five questionnaires had two or less completed scales and so were not included. The average number of treatment contacts was 1.9 (range 1-8; median=1; mode=1).

Discharge was agreed at last contact in 67 notes (40.1%), fourteen of these had had only one appointment. Of the 53 where there should have been discharge questionnaires, there were only eight (15.1%).

With respect to questions or concerns about their condition, 25 patients (15%) completed this. Questions related to: fear of damage or specifically wanting a diagnosis (n=12); impact on function (n=12); attaining symptom relief (n=4); impact on mood (n=1). Only two questionnaires were re-administered at discharge and both stated that their questions/concerns had been fully addressed.

Discussion

Administration of IoSQ

Audit showed that the IoSQ has been used across a range of conditions and age-groups. Although there was an improvement in compliance of use of all required questionnaires at assessment (22.5%, n=80 in 2007, 27.6%, n=116 in 2009; 52.7%, n=167 in 2010) this still falls short of the audit standard of 100%. Interestingly, 84.4% (27/32) of therapists reported that they had used the IoSQ with 'the majority of their patients' and 76.7% (23/30) reported that the IoSQ would be their questionnaire of choice. This discrepancy in stated and observed compliance in questionnaire use is worth considering in studies where therapists are simply asked if they use questionnaires (Stokes and O'Neill, 2008). The main benefits of the IoSQ were identified as facilitating goal-setting and being applicable to all patients.

Poor compliance for re-administering questionnaires at discharge remained, so making it difficult to evaluate the IoSQ at this time point. Departments with the lowest rates did not offer pre-booking with patients, so follow-up appointments were rarely pre-arranged: of the 100 patients where discharge was not agreed at the last contact, 78 had only had one appointment. Potentially this could be addressed by re-administering the IoSQ by telephone, online or by post. Owing to the brevity of the IoSQ, it is not unreasonable that it could be used at each contact: this was also proposed by staff at the final audit feedback. This would enable progress to be monitored and could at least provide an outcome if a patient failed to return following a second appointment. One member of staff showed 100% compliance (in a department that pre-booked appointments and had no administrative support), highlighting that in principle, questionnaires can be used consistently.

Clinical usefulness of IoSQ

With respect to the value of the IoSQ itself, when it was used, it was completed well: there were only five instances where two or fewer NRS scales were completed (5.7%). In eight questionnaires, none of the psychosocial domains were ticked but from this service evaluation, it is not possible to determine if this accurately reflects that the patients' symptoms were having no impact on their lives, or if it reflects poor understanding of the questions. As highlighted by physiotherapists' comments (Table 3), it was felt that the 'question for the physiotherapist', although not widely used, was valuable in facilitating addressing patients' beliefs and concerns. The order has now been changed so that the question is at the end of the psychosocial screening section to explore whether this enhances completion rates. It was suggested that there should be a tick-box for the physiotherapist to indicate that they had addressed the patient's question, but as it is the patient's perception as to how the question was addressed that is more important, this was not changed. Qualitative feedback also resulted in addition of a tick box on the discharge side for

one appointment only being required and 'advice only' being given. There has also been the addition of a question relating to patients' expectations from treatment. (appendix 1).

The IoSQ and evaluation was developed as a consequence of identifying local needs. As the author was known to the staff involved, it could be that there was a bias in feedback and compliance in the use of the questionnaire. However, considering that there was poor improvement in the use of questionnaires between the first two audits and there was a subsequent 100% improvement, this is unlikely to be the whole explanation. Twenty-nine participants (90.6%) completed the survey which compares well to Stokes & O'Neill (2008) who described compliance at 75% in their study. This improved rate could have again been due to the author being known to the participants.

Future work

It could be of value to undertake a similar evaluation in other settings whilst including further qualitative exploration of physiotherapists' perception of their role in undertaking such psychosocial assessments and their training needs. Further work needs to be done to explore whether identification of the domains on the IoSQ truly represents the number of domains affected. It would also be useful to undertake qualitative or observational work to explore if and how physiotherapists use the IoSQ to explore issues raised by the patient further. It would also be valuable to consult patients' views regarding the IoSQ's acceptability and usefulness in the context of other questionnaires that are already available. It would also be necessary to explore the psychometric properties (Bowling, 1997, pp130-138) and any correlation between the number of psychosocial domains ticked and the NRS outcome scores as well as the potential of the IoSQ for predicting outcome.

Conclusion

A service evaluation was initially undertaken due to concerns about local physiotherapists screening patients adequately to maximise use of a stepped care pain management pathway. Despite considerable support and training being available, physiotherapists raised concerns about their role and confidence in undertaking such screening. There were also issues relating to the use of validated questionnaires, which were felt not to be clinically useful. Involving staff in the development of a screening tool and outcome measure relevant to their needs has improved compliance in the use of questionnaires in clinical practice. In addition, a feedback survey and notes audit both indicate that the IoSQ is clinically useful to facilitate screening for psychosocial issues which could otherwise impede recovery. In the context of supporting physiotherapists to undertake psychosocial screening and make more effective use of pain management pathways the Impact of Symptoms Questionnaire is potentially a useful tool. Colleagues are invited to explore its application in their

own services and to test its psychometric properties and clinical utility.

Ethical approval: This study was classed a service improvement project and ethical approval was not required.

Conflict of interest: None

Acknowledgement This research was conducted as part of a Doctorate in Clinical Research at the University of Exeter, UK.

Funding Funding assistance for a Doctorate in Clinical Research has been received from South West Health Authority (UK) and Chartered Society of Physiotherapy.

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Hospital number
Name Date

Now that we are reviewing your progress, I would like to ask how you are. Please tick any of the boxes that your symptoms are still causing you to have concerns about. It may be useful to give a specific example.

- Work or college** and/or the ability to **look after or care** for others.
.....
- Everyday **activities** (eg shopping, sitting at the computer, sleeping, vacuuming, driving, going up and down stairs, getting things in and out of cupboards, dressing and self care)
.....
- Enjoying our usual hobbies (eg going to the cinema, doing DIY, decorating, playing sport, going for long walks, seeing friends)
.....
- Your mood and relationships (eg worried about the future, more snappy than usual)
.....

If you had any **questions or concerns** about your condition, did your physiotherapist fully address them for you? (Please tick the appropriate box) **Yes** **No**
If you **didn't have any questions or concerns**, please tick this box

Thinking of the last week:										
Please circle one number that best describes your level of pain										
0	1	2	3	4	5	6	7	8	9	10
No pain										Worst pain possible
If appropriate, please circle one number that best describes any other symptom (relating to your condition) that bothers you (eg numbness, ache, weakness, poor balance)										
0	1	2	3	4	5	6	7	8	9	10
No problem										Worst problem possible
Please circle one number that best describes the impact of your symptoms on your confidence for everything you want to do										
0	1	2	3	4	5	6	7	8	9	10
No impact										Worst impact possible
Please circle one number that best describes the impact of your symptoms on your mood										
0	1	2	3	4	5	6	7	8	9	10
No impact										Worst impact possible

Please return this questionnaire to your physiotherapist or the reception desk

For physiotherapy use only: **Average**
Reason for no d/c Q: Advice only
Other- state

APPENDIX 2

Online survey for physiotherapists, distributed through SurveyMonkey

As you know, I have been trialling the value of the Impact of Symptoms Questionnaire and I would now like to evaluate your experience of it. I would therefore be very grateful if you could complete the attached questionnaire.

1. Please state:

The year that you qualified:

How long you have been in your current role:

Your clinical role eg band 5 rotation:

2. Please describe your experience in pain management, both clinically, and for specific training (please answer BOTH components)

- Clinical: No / very little experience
- Clinical: Observed / been observed with at least 3 patients
- Clinical: Done a placement in pain management less than 3 months
- Clinical: Done a placement in pain management longer than 3 months
- Training: Not attended any courses
- Training: Attended inservice training course(s)
- Training: Attended weekend course(s)
- Training: Completed accredited post graduate course(s)

3. Did you use the Impact of Symptoms Questionnaire at assessment for the majority of your patients?

- Yes
- No

4. If your answer to question 3 was 'No', please state why:

- No, or inadequate administration support
- Not enough time
- I wasn't aware of it
- Other: please specify:

5. Did you feel THE PATIENTS found the questionnaire:

	No, definitely not					Yes, definitely
	0	1	2	3	4	5
Easy to fill in?	<input type="checkbox"/>					
Relevant to their condition?	<input type="checkbox"/>					
Useful for helping them to identify areas that they wanted help with?	<input type="checkbox"/>					

6. Did YOU feel that this questionnaire:

	No, definitely not					Yes, definitely
	0	1	2	3	4	5
Was relevant to most of your patients?	<input type="checkbox"/>					
Helped to save time in undertaking psychosocial screening?	<input type="checkbox"/>					
Improved your confidence to know which psychosocial aspects to explore?	<input type="checkbox"/>					
Helped you to identify patient-centred goals more easily?	<input type="checkbox"/>					
Helped you to identify appropriate management/intervention options more easily?	<input type="checkbox"/>					

Additional comments:

7. Did you tend to use the questionnaire when discharging the patient?

- Yes
- No

8. With respect to question 7:

If you answered NO, please state why:

If you answered YES, do you think the questionnaire accurately reflected their reported change?

9. Which questionnaires would you rather continue to use with your patients:

- MYMOP
- Self efficacy
- Impact of Symptoms Questionnaire
- Roland and Morris
- Other (please specify)

10. Please write down any suggestions where you think the wording or questions should be modified to assist with the psychosocial screening process

Thank you for completing the questionnaire

APPENDIX 2

Impact of Symptoms Questionnaire

2a: as used in the project

2b: modified as a consequence of the project

Hospital number

Name Date

IMPACT OF SYMPTOMS QUESTIONNAIRE©: Assessment

We want to help you get your life back on track. Please tick any of the boxes below which your symptoms are causing you to have concerns about. It may be useful to give a specific example. (There is space overleaf if you would like to write more)

- Work or college** and/or the ability to **look after or care** for others.
.....
- Everyday **activities** (eg shopping, sitting at the computer, sleeping, vacuuming, driving, going up and down stairs, getting things in and out of cupboards, dressing and self care)
.....
- Enjoying our usual hobbies (eg going to the cinema, doing DIY, decorating, playing sport, going for long walks, seeing friends)
.....
- Your **mood and relationships** (eg worried about the future, more snappy than usual)
.....

Please write down **any question or worry** (however small it might seem) that you might have about your condition, which you would like to ask your physiotherapist
.....
.....

..... *I don't have a question or worry (please tick)*

What are **you hoping to get** from your treatment?

Thinking of the last week:											
Please circle one number that best describes your level of pain											
0	1	2	3	4	5	6	7	8	9	10	
No pain									Worst pain possible		
If appropriate, please circle one number that best describes any other symptom (relating to your condition) that bothers you (eg numbness, ache, weakness, poor balance)											
0	1	2	3	4	5	6	7	8	9	10	
No problem									Worst problem possible		
Please circle one number that best describes the impact of your symptoms on your confidence for everything you want to do											
0	1	2	3	4	5	6	7	8	9	10	
No impact									Worst impact possible		
Please circle one number that best describes the impact of your symptoms on your mood											
0	1	2	3	4	5	6	7	8	9	10	Avg
No impact									Worst impact possible		

Hospital number

Name Date

IMPACT OF SYMPTOMS QUESTIONNAIRE©: Review

Now that we are reviewing your progress, I would like to ask how you are. Please tick any of the boxes that your symptoms are still causing you to have concerns about. It may be useful to give a specific example. (There is space overleaf if you would like to write more)

Work or college and/or the ability to **look after or care** for others.

.....

Everyday **activities** (eg shopping, sitting at the computer, sleeping, vacuuming, driving, going up and down stairs, getting things in and out of cupboards, dressing and self care)

.....

Enjoying our usual hobbies (eg going to the cinema, doing DIY, decorating, playing sport, going for long walks, seeing friends)

.....

Your mood and relationships (eg worried about the future, more snappy than usual)

.....

If you had any **questions or concerns** about your condition, did your physiotherapist fully address them for you? (Please tick the appropriate box) **Yes** **No**

If you **didn't have any questions or concerns**, please tick this box

Thinking of the last week:

Please circle **one number** that best describes your level of **pain**

0 1 2 3 4 5 6 7 8 9 10
No pain Worst pain possible

If appropriate, please circle **one number** that best describes any **other symptom** (relating to your condition) that bothers you (eg numbness, ache, weakness, poor balance)

0 1 2 3 4 5 6 7 8 9 10
No problem Worst problem possible

Please circle **one number** that best describes the impact of your symptoms on your **confidence** for everything you **want to do**

0 1 2 3 4 5 6 7 8 9 10
No impact Worst impact possible

Please circle **one number** that best describes the impact of your symptoms on your **mood**

0 1 2 3 4 5 6 7 8 9 10
No impact Worst impact possible

For physiotherapy use only:

Average

Reason for no d/c Q: Advice only

Other- state

APPENDIX 3

Letter from Research and Development Directorate regarding
service evaluation status of study 1

Linda Knott
Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torquay
TQ2 7AA

Royal Devon and Exeter
Hospital (Wonford)
Barrack Road
Exeter
EX2 5DW

Tel: 01392 411611

RESEARCH & DEVELOPMENT DIRECTORATE

Direct Tel: 01392 406075

Direct Fax: 01392 403012

Email: Chris.Gardner@rdeft.nhs.uk

18th July 2011

Dear Linda Knott

Title: A mixed methods service evaluation of bio psychosocial screening in a physiotherapy outpatient department.

The above proposal was reviewed on the (date) at the Royal Devon & Exeter, Research and Development Local Research Committee Meeting.

The members of the committee deemed your study didn't meet the below definition of research, and therefore you may continue with your Service Evaluation.

- 1.1.1. the research is novel (i.e. generates new evidence);
- 1.1.2. the research is generalisable (i.e. research outputs can be applied throughout the NHS);
- 1.1.3. the results are publishable or can otherwise be disseminated as research;

(Source: Research & Development policy)

Please note: this decision is based on the document provided; any changes should be reported to the R&D office.

This project can only be presented as a Service Evaluation and not as Research.

Yours Sincerely



Mr Chris Gardner
R&D Directorate Manager

APPENDIX 4

Ethical approval from the Department of Psychology, University of Exeter, for service evaluation: study 1

PSYCHOLOGY DEPARTMENT ETHICAL APPROVAL FORM

Tick one box: STAFF Project POSTGRADUATE Project TRACK A
 UNDERGRADUATE Project TRACK B
 ROUTINE EXTENSION TO PRE-APPROVED STUDY

Title Of Project: A mixed methods pilot study to explore the clinical usefulness of the new Impact of Symptoms Questionnaire (IoSQ) as a psychosocial screening tool in physiotherapy outpatient departments.

Name of researcher(s) Linda Knott

Name of supervisor (for student research) Prof David Richards Date

		YES	NO	N/A
1	Will you describe the main experimental procedures to participants in advance, so that they are informed in advance about what to expect?			✓
2	Will you tell participants that their participation is voluntary?	✓		
3	Will you obtain written consent for participation?	✓		
4	If the research is observational, will you ask participants for their consent to being observed?			✓
5	Will you tell participants that they may withdraw from the research at any time and for any reason?	✓		
6	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	✓		
7	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	✓		
8	Will you debrief participants at the end of their participation (ie. give them a brief explanation of the study)?	✓		

If you have ticked No to any of Q1-8, but have ticked box A overleaf, please give any explanation on a separate sheet. (Note: N/A = not applicable)

		YES	NO	N/A
9	Will your project involve deliberately misleading participants in any way?		✓	
10	Is there a realistic risk of any participants experiencing either physical or psychological distress or discomfort? If Yes, give details on a separate sheet and state what you will tell them to do if they should experience any problems (e.g. who they can contact for help).		✓	

If you have ticked Yes to 9 or 10 you should normally tick box B overleaf; if not, please give a full explanation on a separate sheet.

		YES	NO	N/A
11	Does your study involve work with animals? If yes, and your study is purely observational, please tick box A. All other studies should tick box B and provide supporting information.		✓	
12	Do participants fall into any of the following special groups? If they do, please refer to BPS guidelines, and tick box B overleaf. Please note that you may also need to gain satisfactory CRB clearance or equivalent for overseas participants.	School children (under 18 years of age)		✓
		People with learning or communication difficulties		✓
		Patients	✓	
		Those at risk of psychological distress or otherwise vulnerable		✓
		People in custody		✓
	People engaged in illegal activities (e.g. drug taking)		✓	

There is an obligation on the lead researcher to bring to the attention of the Departmental Ethics Committee projects with ethical implications not clearly covered by the above checklist.

PLEASE TICK EITHER BOX A or BOX B BELOW AND PROVIDE THE DETAILS REQUIRED IN SUPPORT OF YOUR APPLICATION, THEN SIGN THE FORM.

Please tick:

<p>A. I consider that this project has no significant ethical implications to be brought before the Departmental Ethics Committee.</p>	<input checked="" type="checkbox"/>
<p>In less than 150 words, provide details of the experiment including the number and type of participants, methods and tests to be used (i.e. the procedure).</p> <p>New patients attending an outpatient physiotherapy department will be asked to complete the questionnaire as routine part of their treatment. 60 sets of notes for consenting participants will be audited, using a previously trialled process, to identify written evidence of the 6 departmental physiotherapists undertaking psychosocial screening and the addressing of issues raised. Those people whose notes are audited will be sent a questionnaire exploring their experience of physiotherapists screening for and addressing psychosocial issues. They will also be invited to attend a focus group to explore this in more depth. The participating physiotherapists will also be sent an evaluation questionnaire and invited to attend a focus group. Data will be analysed in the light of a previous service evaluation prior to the introduction of the Impact of Symptoms Questionnaire. This study has received IRAS approval, reference 12/EE/0076 v3.</p> <p><i>This form (and any attachments) should be submitted to the Departmental Ethics committee where it will be considered by the Chair before it can be approved.</i></p>	

<p>B. I consider that this project may have ethical implications that should be brought before the Departmental Ethics Committee, and/or it will be carried out with children or other vulnerable populations.</p>	
<p>Please provide all the further information listed below in a separate attachment.</p> <ol style="list-style-type: none"> 1. Title of project. 2. Purpose of project and its academic rationale. 3. Brief description of methods and measurements. 4. Participants: a) Human research: Recruitment methods, number, age, gender, exclusion/inclusion criteria. b) Animal research: location of study site, method of obtaining / marking / identifying subjects, handling procedures for field experiments. 5. Consent and participant information arrangements, debriefing. (Not relevant for animal research) Please attach intended information and consent forms. 6. A clear but concise statement of the ethical considerations raised by the project and how you intend to deal with them. 7. Estimated start date and duration of project. <p><i>This form should be submitted to the Departmental Ethics Committee for consideration. If any of the above information is missing, your application will be returned to you.</i></p>	

I am familiar with the BPS Guidelines for ethical practices in psychological research (and have discussed them with other researchers involved in the project.)

Signed <u>Linda Knott</u> (UG/PG Researcher(s), if applicable)	Print Name <u>Linda Knott</u>	Date <u>27th Feb 2012</u>
	Email <u>Linda.Knott@hls.ac.uk</u>	
Signed <u>[Signature]</u> (Lead Researcher or Supervisor)	Print Name <u>[Signature]</u>	Date <u>28/02/2012</u>
	Email <u>[Signature]</u>	

STATEMENT OF ETHICAL APPROVAL

This project has been considered using agreed Departmental procedures and is now approved.

Signed <u>[Signature]</u> (Chair, Departmental Ethics Committee)	Print Name <u>C.W. Burnett</u>	Date <u>6/3/12</u>
---------------------------------------------------------------------	--------------------------------	--------------------

APPENDIX 5

Letter from NRES committee, East of England, Hertfordshire

Proportionate review outcome for study 2

09 February 2012

Ms Linda Knott
Clinical Specialist Physiotherapist
South Devon Healthcare Foundation Trust
Department of Physiotherapy
Torbay Hospital, Lawes Bridge
Torquay
TQ2 7AA

Dear Ms Knott

Study title: Mixed methods study to explore the value of the new Impact of Symptoms Questionnaire (IoSQ) as a psychosocial screening tool in physiotherapy outpatient departments.

REC reference: 12/EE/0076

Protocol number: Version 3

The Proportionate Review Sub-committee of the NRES Committee East of England, Hertfordshire reviewed the above application on 08 February 2012.

Summary of Study

Study to evaluate a new Impact of Symptoms Questionnaire (IoSQ) using surveys and focus groups.

Material Ethical Issues

The possibility of identifying staff or patients through qualitative comments on writing up the research findings from the patient and staff survey is acknowledged in A6-2 but care will be taken to minimize this risk.

Participants Approach/Recruitment

All new patients attending the physiotherapy department for the first time will be given the PIS and consent forms. Under 16s will be excluded. The identification of potential participants will not involve reviewing or screening identifiable personal information.

Risks/Burdens

Patients may disclose low mood or anxiety as a consequence of their health condition during focus group discussions. The focus group facilitator would in the event advise the patient to contact their GP and if required consent will be sought to contact the patients GP on their behalf to raise the GP's awareness of the problem (A6-2 and A.23).

Confidentiality

The researcher and research assistant, both of whom are outside the direct care team, will have access to physiotherapy generated patient notes. This is justified in A40. An administration assistant will remove names from notes which will be given a code. The researcher will only be analyzing anonymized data.

Participant Information Sheets

There is no section entitled 'What if something goes wrong?'

Ethical opinion

On behalf of the Committee, the sub-committee gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, 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.

Conditions required by the REC:

- ✓ 1. The PIS should include the heading "**Who has reviewed this study?**" and state that "this study has been approved by the East of England Research Ethics Committee Hertfordshire."
- ✓ 2. The participant information sheets for patients should have a section with the heading "**What if something goes wrong?**" and include the following text:
"If you have any concern about any aspect of this study, you should ask to speak to the researcher who will do their best to answer your questions [name and telephone number]. If you remain unhappy and wish to complain formally, you can contact the Royal Devon and Exeter Foundation Trust Patient Advice and Liaison Service (PALS) [give contact details]". Independent advice on making a complaint can be obtained from the Independent Complaints and Advocacy Service (ICAS) [local contact details]."
- ✓ 3. The PIS for staff should also include a section entitled **What if something goes wrong?** And refer staff initially to the researcher to resolve any difficulties. It should also include text to the effect that 'staff who wish to complain can seek advice from their union.'

Ethical review of research 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", above).

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).

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. Confirmation should also be provided to host organisations together with relevant documentation.

Approved documents

The documents reviewed and approved were:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Covering Letter	from Linda Knott	31 January 2012
Evidence of insurance or indemnity	Zurich Municipal	11 July 2012
Interview Schedules/Topic Guides Appendix 6 Focus Group Schedule - Patients	1	12 January 2012
Interview Schedules/Topic Guides Appendix 7 - Focus Group Schedule - Staff	1	11 January 2012
Investigator CV	Mrs Linda Knott Jan 2011	
Investigator CV	David Richards (Academic Supervisor)	
Letter from Sponsor	Letter from Dr Michael Wykes, University of Exeter	30 January 2012
Appendix 2 - Patient notes data collection	1	11 January 2012
Appendix 3 - Codes for patient notes audit	1	11 January 2012
Participant Consent Form: Appendix 12 - Patient Consent Form - Survey	1	11 January 2012
Participant Consent Form: Appendix 14 - Patient Consent Form - Focus Group	1	11 January 2012
Participant Consent Form: Appendix 10 - Staff Consent Form	1	11 January 2012
Participant Information Sheet: Appendix 11 Patient PIS - 1st Appointment - Research	1	11 January 2012
Participant Information Sheet: Appendix 13 - Patient PIS - Focus Group	1	11 January 2012
Participant Information Sheet: Appendix 9 - Staff Information - Research	1	11 January 2012
Participant Information Sheet: Appendix 8 - Information Leaflet for IoSQ	1	11 January 2012
Protocol	3	03 December 2011
Questionnaire: Appendix 1 - Impact of Symptoms Questionnaire	1	11 January 2012
Questionnaire: Appendix 5 - Staff Participant Survey	1	11 January 2012
Questionnaire: Appendix 4 - Patient Survey	1	11 January 2012
REC application	IRAS Parts A&B 51396/288336/1/105	31 January 2012
Referees or other scientific critique report	from Professor David Richards	

Membership of the Proportionate Review Sub-Committee

The members of the Sub-Committee who took part in the review are listed on the attached sheet.

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 NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

12/EE/0076

Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely



pp **Mr David Grayson**
Chair

Email: Recofficetemp@eoe.nhs.uk

Enclosures: *List of names and professions of members who took part in the review*
"After ethical review – guidance for researchers" [SL-AR2]

Cc:

Dr Michael Wykes, (Sponsor Contact)
University of Exeter
EX4 4QG

Miss Gyan Lang, (NHS R&D Contact)
Royal Devon & Exeter NHS Foundation Trust
Barrack Road
Exeter
EX2 5DW

APPENDIX 6

Letter of approval for study 2 from Royal Devon and Exeter NHS
Foundation Trust

Royal Devon and Exeter
Hospital (Wonford)
Barrack Road
Exeter
EX2 5DW

Tel: 01392 411611

GENERAL MANAGEMENT

Direct dial: 01392 406933

Direct Fax: 01392 403012

Email: Research@rdefn.nhs.uk

Ref: VL/MC/R&D/CG

Ms Linda Knott
Clinical Specialist Physiotherapist
South Devon Healthcare Foundation Trust
Department of Physiotherapy
Torbay Hospital, Lawes Bridge
Torquay
TQ2 7AA

19th March 2012

Dear Ms Knott

Study Title: Clinical Usefulness of a new questionnaire in physiotherapy V1

R&D Study No: 1211715 **MREC No:** 12/EE/0076

I have reviewed the Trust R&D file for your study which has received approval from the East of England - Hertfordshire Research Ethics Committee dated 17th February 2012. I am happy to give approval on behalf of the Royal Devon & Exeter NHS Foundation Trust (RD&E).

The documents approved with this study are detailed on the separate sheet.

Adverse Events

ALL **Serious Adverse Events (SAEs)** that occur to RD&E patients during the study must be reported to the R & D Office **within 24 hours** of becoming aware of the event. This must be done using the Trust R&D SAE fax template, quoting the study reference number.

Monitoring

You will be required to submit to the R&D Office regular quarterly updates on recruitment figures and an **End of Study Report** on completion of the trial at this site. If the study takes longer than 1 year, annual reports on progress will be needed. Any publications arising from the research conducted at this site must be sent to the R&D Office at Noy Scott House as part of the ongoing Research Governance process.

Research Governance

All research must be managed in accordance with the requirements of the **Department of Health's Research Governance Framework (RGF)**. In order to ensure that research is carried out to these standards and to provide assurance to the Trust, your study may be randomly selected for audit at any time and you must co-operate with the auditors.

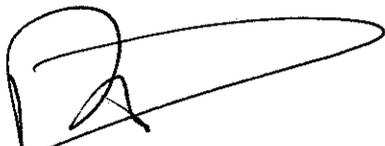
It is recommended that **Good Clinical Practice (GCP)** training is undertaken and updated every 2 years for those staff who will be consenting participants into the study.

It is the responsibility of the Lead investigator (Chief Investigator for locally initiated studies and Principal Investigator for Multi-Centre studies) to ensure clarity of roles and responsibilities and to make sure all study specific duties are appropriately delegated on the Delegation Log and signed/dated where appropriate.

The duration of the Trust Approval extends to the date specified in the IRAS application form. Action may be taken to suspend Trust Approval if the research is not run in accordance with the Research Governance Framework. Research must commence within 6 months of Trust R&D Approval.

With best wishes for a successful study

Yours sincerely



Dr Vaughan Lewis / Mr Martin Cooper
JOINT MEDICAL DIRECTORS

Cc
Professor David Richards – Academic Supervisor
Mrs Sarah Moore – Local Collaborator
R&D Study File

Study No.:

List all documents on file

Study Short Title:

Doc Name	Version	Date	Date of letter from ethics
Staff Info About Research	2	15/02/2012	17/02/2012
Patient Information Sheet: App. 11	2	15/02/2012	17/02/2012
Focus Group Schedules - Patients	1	12/01/2012	09/02/2012
Focus Group Schedules - Staff	1	11/01/2012	09/02/2012
Patient notes data collection	1	11/01/2012	09/02/2012
codes for patient notes audit	1	11/01/2012	09/02/2012
Patient consent form - Survey	1	11/01/2012	09/02/2012
Patient consent form - focus group	1	11/01/2012	09/02/2012
Staff consent form	1	11/01/2012	09/02/2012
Patient info sheet - focus group	1	11/01/2012	09/02/2012
Information leaflet for IoSQ	1	11/01/2012	09/02/2012
Protocol	3	03/12/2011	09/02/2012
Symptoms Questionnaire	1	11/01/2012	09/02/2012
Staff Participant Survey	1	11/01/2012	09/02/2012

APPENDIX 7

Study 2: letter from University of Exeter, agreeing sponsorship

30th January 2012

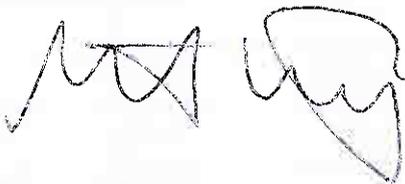
Project title A pilot study to explore the value of the introduction into an outpatient physiotherapy department, of a new psychosocial screening tool: the Impact of Symptoms Questionnaire

Chief Investigator Linda Knott, Clinical Specialist Physiotherapist, Pain Management Department of Physiotherapy, Torbay Hospital and University of Exeter

Dear Sir/Madam,

The University of Exeter will act as sponsor for the proposed clinical study titled 'A pilot study to explore the value of the introduction into an outpatient physiotherapy department, of a new psychosocial screening tool: the Impact of Symptoms Questionnaire'. The University will undertake its responsibilities in this role as outlined in the Department of Health's Research Governance Framework for Health and Social Care (second Edition, 2005). In addition the University will ensure that the necessary ethical approval and cover for indemnity and insurance are in place before the study commences.

Yours sincerely,



Dr Michael Wykes
Research & Knowledge Transfer
University of Exeter
Tel: 01392 262351
Email: m.c.wykes@exeter.ac.uk

APPENDIX 8

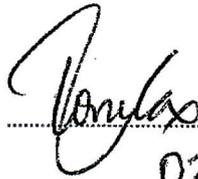
Study 2: site specific approval

1. Type of authorisation:

Clinical director

	Title Forename/Initials Surname
	Mr Tony Cox
Post	Clinical Director for Professional Services and Divisional Manager for Diagnostic and Professional Services
Qualifications	
Organisation	Royal Devon and Exeter Foundation Trust
Work Address	Barrack Road, Exeter
PostCode	EX2 5DW
Work E-mail	Tony.Cox@rdefn.nhs.uk
Work Telephone	01392 402950/402512
Mobile	
Fax	

Signature:



Date:

02/03/2012

Declaration by Principal Investigator or Local Collaborator

1. The information in this form is accurate to the best of my knowledge and I take full responsibility for it.
2. I undertake to abide by the ethical principles underpinning the World Medical Association's Declaration of Helsinki and relevant good practice guidelines in the conduct of research.
3. If the research is approved by the main REC and NHS organisation, I undertake to adhere to the study protocol, the terms of the application of which the main REC has given a favourable opinion and the conditions requested by the NHS organisation, and to inform the NHS organisation within local timelines of any subsequent amendments to the protocol.
4. If the research is approved, I undertake to abide by the principles of the Research Governance Framework for Health and Social Care.
5. I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to the conduct of research.
6. I undertake to disclose any conflicts of interest that may arise during the course of this research, and take responsibility for ensuring that all staff involved in the research are aware of their responsibilities to disclose conflicts of interest.
7. I understand and agree that study files, documents, research records and data may be subject to inspection by the NHS organisation, the sponsor or an independent body for monitoring, audit and inspection purposes.
8. I take responsibility for ensuring that staff involved in the research at this site hold appropriate contracts for the duration of the research, are familiar with the Research Governance Framework, the NHS organisation's Data Protection Policy and all other relevant policies and guidelines, and are appropriately trained and experienced.
9. I undertake to complete any progress and/or final reports as requested by the NHS organisation and understand that continuation of permission to conduct research within the NHS organisation is dependent on satisfactory completion of such reports.

10. I undertake to maintain a project file for this research in accordance with the NHS organisation's policy.
11. I take responsibility for ensuring that all serious adverse events are handled within the NHS organisation's policy for reporting and handling of adverse events.
12. I understand that information relating to this research, including the contact details on this application, will be held by the R&D office and may be held on national research information systems, and that this will be managed according to the principles established in the Data Protection Act 1998.
13. I understand that the information contained in this application, any supporting documentation and all correspondence with the R&D office and/or the REC system relating to the application will be subject to the provisions of the Freedom of Information Acts and may be disclosed in response to requests made under the Acts except where statutory exemptions apply.

Signature of Principal Investigator
or Local Collaborator:

Linda Knott

Print Name:

LINDA KNOTT

Date:

23rd Feb 2012.

APPENDIX 9a

Guidance notes for undertaking the patients' notes audit

Prior to pilot

ASSESSMENT

99=MD=missing data

¹ **Diagnosis code**

Process:

- Examine proforma assessment sheet and identify nature of onset of symptoms
- Examine end of proforma assessment sheet/ first notes entry to identify diagnosis

1 = trauma or surgery;

2 = osteoarthritis/soft tissue;

3 = spinal/whiplash;

4 = ME, FMS, multijoint pain;

5 = physiotherapist is uncertain of diagnosis

6 = other

² **Duration since onset to date of first appointment:**

Process:

- Examine proforma assessment sheet / first notes entry to identify duration since onset

1 =<6 weeks

2 = 6 weeks – 3 months

3 = > 3months

³ **Questionnaire present?**

1 = yes, **fully** completed

2 = yes, **missing** data / partly filled in

3 = yes, **not completed**. No further boxes in this section need to be completed: draw a line through.

4 = **no**. No further boxes in this section need to be completed: draw a line through.

⁴ **Domains identified: Physiotherapy notes**

Process

- Psychosocial domain needs to have been identified within the first two appointments
- Domains need to be written by the *physiotherapist*, not identified from some other source eg referral letter, A&E notes. This domain may no longer be relevant

1 = evidence **domain screened** and has Q or concern / domain **is** affected

- Physiotherapist needs to have written question or concern that the patient has stated. Examples could be: are investigations required; is it safe to exercise; will

they get better; they have had different – or no – diagnoses; are worried that something has been missed, etc.

- Physiotherapist needs to describe impact on specific domain and state that its attributed to their condition: ‘Struggling to cope with prolonged sitting at work’; ‘Not doing usual sports due to fear of further damage’; ‘Lost confidence to socialise’; ‘Feeling more irritable than usual’; ‘Worried about implications of the condition for the future’; ‘Loss of independence for usual daily activities due to weakness’.
- NB** Stating usual ‘aggravating’ or ‘easing’ postures or activities is inadequate
Stating ‘Off work’ is inadequate

2 = evidence **domain screened**, but no Q or concern / domain **not** affected

- Question / concerns about condition: physiotherapist needs to state equivalent of: “Patient has no questions or concerns about their symptoms / condition”
- Functional domains: physiotherapist needs to state the specific domain and that there is no impact.

3 = **no evidence** domain screened

- Nothing written in the notes to state that a domain is, or is not affected. Stating or describing a domain (eg ironing; labourer) is **not adequate** information to make a judgement. “Off work” is not adequate as it does state *why* off work eg may be due to unrelated problem.

4 = patient is **retired/unemployed**; no caring responsibilities; not in work or training

⁵Question for the therapist:

1 = **question or any remark written** out on IoSQ. Potentially then up to physiotherapist to explore further and evidence in notes that this has been done.

2 = **no question written** on IoSQ

⁶NRS score average

If one or two NRS score only, mark ‘99’ ie missing data

If 3 or 4 NRS scores: these can be averaged

DISCHARGE

⁷ Duration of treatment

Number of weeks: nearest whole number

If only one appointment, write 1

⁸ D/c agreed? physiotherapy notes

1 = Yes

2 = Yes, but agreement of SOS or state 'If required / needed' etc

3 = No: clear written evidence that a **future appointment is expected**

4 = No: **no** clear written **evidence** that a **future appointment** is expected

⁹ Domains addressed: physiotherapy notes?

1 = question or concern / domain screened and **identified initially**: evidence of being **addressed to patient's satisfaction**

- Written evidence that the patient is reassured about their question / concern
- Written evidence that the patient is satisfied with the outcome relating to the domain

2 = question or concern / domain screened and **identified initially**, but no impact therefore nothing needed to be addressed

3 = question or concern / domain **not screened and identified initially**, but evidence of being **addressed to patient's satisfaction**

- Process as for 1 when domain not initially identified

4 = question or concern / domain **screened or identified initially** but **no evidence of being addressed** to patient's satisfaction

- No written evidence that the patient is reassured about their question / concern
- No written evidence that the patient is satisfied with the outcome relating to domain

5 = **no evidence** question or concern / domain screened or identified **initially or then addressed** to patient's satisfaction

- Process as for 3 when domain not initially identified

¹⁰ **Question for the therapist: from IoSQ**

1 =Yes

2 =No

3 =didn't have any questions/concerns

Glossary

Rx = treatment

Ax = assessment

Ix = investigations

HEP = home exercise plan

= fracture or broken bone

PMH = previous medical history

S&S = signs and symptoms

D/c = discharge

APPENDIX 9b

Guidance notes for undertaking the patients' notes audit

Final guidance notes: following pilot

ASSESSMENT

99=MD=missing data 88=NA=not applicable

1 Diagnosis code

Process:

- Examine proforma assessment sheet and identify nature of onset of symptoms
- Examine end of proforma assessment sheet/ first notes entry to identify diagnosis

1 = trauma or surgery;

2 = osteoarthritis/soft tissue;

3 = spinal/whiplash;

4 = ME, FMS, multijoint pain;

5 = physiotherapist is uncertain of diagnosis

6 = other

2 Duration since onset to date of first appointment:

Process:

- Examine proforma assessment sheet / first notes entry to identify duration since onset

1 =<6 weeks

2 = 6 weeks – 3 months

3 = > 3months

3 Questionnaire present?

1 = yes, **fully** completed

2 = yes, **missing** data / partly filled in

3 = yes, **not completed**. All further boxes in this section, mark 99 (missing data)

4 = **no**. No further boxes in this section need to be completed: draw a line through.

4 Domains identified (*physiotherapy notes*)

For a domain that is restricted, it must be clearly stated if it is due to the health problem. For example: a hobby may be swimming, and if they are post surgery, it may be that the hobby is not affected by the health problem, but to the fact that they cannot afford to go at the moment, or opening times are not compatible with work.

Process

- Psychosocial domain needs to have been identified within the first two appointments
- Domains need to be written by the *physiotherapist*, not identified from some other source eg referral letter, A&E notes. This domain may no longer be relevant

(Code 4, continued: domains identified from physiotherapy notes)

1 = evidence **domain screened** and has Q or concern / domain **is** affected

- Physiotherapist needs to have written question or concern that the patient has stated. Examples could be: are investigations required; is it safe to exercise; will they get better; they have had different – or no – diagnoses; are worried that something has been missed, etc.
- Physiotherapist needs to describe impact on specific domain and state that its attributed to their condition: ‘Struggling to cope with prolonged sitting at work’; ‘Not doing usual sports due to fear of further damage’; ‘Lost confidence to socialise’; ‘Feeling more irritable than usual’; ‘Worried about implications of the condition for the future’; ‘Loss of independence for usual daily activities due to weakness’.

NB Stating usual ‘aggravating’ or ‘easing’ postures or activities is inadequate
Stating ‘Off work’ is inadequate

2 = evidence **domain screened**, but no Q or concern / domain **not** affected

- Question / concerns about condition: physiotherapist needs to state equivalent of: “Patient has no questions or concerns about their symptoms / condition”
- Functional domains: physiotherapist needs to state the specific domain and that there is no impact.

3 = **no evidence** domain screened

- Nothing written in the notes to state that a domain is, or is not affected. Stating or describing a domain (eg ironing; labourer) is **not adequate** information to make a judgement. “Off work” is not adequate as it does state *why* off work eg may be due to unrelated problem.

4 = patient is **retired/unemployed**: not forming judgement if health impacts on employment or caring status. This is addressed in discharge codes.

5 Question for the therapist

1 = **question or any remark written** out on IoSQ. Potentially then up to physiotherapist to explore further and evidence in notes that this has been done.

2 = box ticked to say **they don’t have a question or concern**

3 = **no question written** on IoSQ **and box not ticked** to say ‘no question or concern’

6 NRS score average

If one or two NRS score only, mark ‘99’ ie missing data

If 3 or 4 NRS scores: these can be averaged

DISCHARGE

7 Duration of treatment

Number of weeks: nearest whole number

If only one appointment, write 1

8 D/c agreed? (*physiotherapy notes*)

1 = Yes

2 = Yes, but agreement of **SOS** or state 'If required / needed' etc

3 = No: clear written evidence that a **future appointment is expected**

4 = No: **no** clear written **evidence** that a **future appointment** is expected

9 Domains addressed? (*physiotherapy notes*)

1 = question or concern / domain screened and **identified initially**: evidence of being **addressed to patient's satisfaction**

- Written evidence that the patient is reassured about their question / concern
- Written evidence that the patient is satisfied with the outcome relating to the domain

2 = question or concern / domain screened and **identified initially**, but no impact therefore nothing needed to be addressed

3 = question or concern / domain **not screened and identified initially**, but evidence of being **addressed to patient's satisfaction**

- Process as for 1 when domain not initially identified

4 = question or concern / domain **screened or identified initially** but **no evidence of being addressed** to patient's satisfaction

- No written evidence that the patient is reassured about their question / concern
- No written evidence that the patient is satisfied with the outcome relating to domain

5 = **no evidence** question or concern / domain screened or identified **initially or then addressed** to patient's satisfaction

- Process as for 3 when domain not initially identified

6 = May or may not have been screened initially, **but evidence that patient is not happy or has concerns about the outcome**

10 Question for the therapist (*from IoSQ*)

1 = Yes

2 = No

3 = didn't have any questions/concerns

Glossary

Rx = treatment

Ax = assessment

Ix = investigations

HEP = home exercise plan

= fracture or broken bone

PMH = previous medical history

S&S = signs and symptoms

D/c = discharge

APPENDIX 10

Notes audit data collection tool

Patient Name:

Therapist name:

Patient ID number:

Therapist ID number:

Before / After introduction of IoSQ

ASSESSMENT														
									IoSQ					
M/F	Diagnosis ¹ code	Duration ² since onset	Q'aire present ³ ? (NOT IoSQ)	Domains identified ⁴ ? From physiotherapy notes					IoSQ present ³	Number domains identified	Number of domains comment added	Question for the therapist ⁵ ?	NRS scores ⁶	Avg
Age				Question/ concern	Work/ caring	ADL	Hobbies	Mood						
			Name(s)					Which domains? (tick if approp)						
								Work/ caring	ADL	Hobbies	Mood			
			Score(s)											

DISCHARGE														
									IoSQ					
N° of appts	Duration of treatment ⁷	D/c agreed? ⁸	Q'aire present at last contact ³ ?	Domains addressed ⁹ ? From physiotherapy notes					IoSQ present ³	Number domains identified	Number of domains comment added	Question for the therapist ¹⁰	NRS scores	Avg
				Question/ concern	Work/ caring	ADL	Hobbies	Mood						
			Name(s)					Which domains? (tick if approp)						
								Work/ caring	ADL	Hobbies	Mood			
			Score(s)											

Patient Name:

Therapist name:

Patient ID number:

Therapist ID number:

Before / After introduction of IoSQ

ASSESSMENT															
									IoSQ						
M/F	Diagnosis ¹	Duration ² since onset	Q'aire present ³ ? (NOT IoSQ)	Domains identified ⁴ ?					IoSQ present ³	Number domains identified	Number of domains comment	Question for the therapist ⁵ ?	NRS scores ⁶	Avg	
				Question/ concern	Work/ caring	ADL	Hobbies	Mood							
			Name(s)						Which domains? (tick if approp)						
									Work/ caring	ADL	Hobbies	Mood			
			Score(s)												

DISCHARGE															
									IoSQ						
N ^o of appts	Duration of treatment ⁷	D/c agreed? ⁸	Q'aire present at last	Domains addressed ⁹ ?					IoSQ present ³	Number domains identified	Number of domains comment	Question for the therapist ¹⁰	NRS scores	Avg	
				Question/ concern	Work/ caring	ADL	Hobbies	Mood							
			Name(s)						Which domains? (tick if approp)						
									Work/ caring	ADL	Hobbies	Mood			
			Score(s)												

APPENDIX 11

Patient survey: study 1



PATIENT SURVEY
Impact of symptoms on health problems

1a Before your physiotherapy, did you have any specific questions or concerns about condition?

For example: Did you want to know if an X-ray would be useful? Or: what was causing your symptoms? Or: if it was safe to exercise or return to work? Or: when would you get better?

Yes* / No* / Can't remember* *Please circle appropriate answer

If you answered 'Yes', please answer questions 1b and 1c. If you answered 'No', please go on to question 2

1b What was your question or concern about your condition?

1c Did your physiotherapist fully answer your question/concern? Yes* / No*
 *Please circle appropriate answer

2a Did your symptoms have any significant impact on the following areas of your life?
 *Please tick the appropriate column

- Your confidence to go to work and/or look after your family
- Your confidence to do the everyday activities that you need to. *For example: go up/down stairs; drive; travel by bus; do housework; reach cupboards, etc*
- Your confidence to engage in your usual hobbies or social life
- Your mood. *For example: make you feel low or more irritable than usual*

Yes*	No*

If you answered 'Yes' to any of the questions in 2a, please answer question 2b. If you didn't answer 'Yes' to any of the questions, please go on to question 3.

2b Did your physiotherapist give you all of the support / advice that you needed to:
 *Please tick the appropriate column

- Improve your confidence to go to work and/or look after your family?
- Improve your confidence to do your everyday tasks?
- Improve your confidence to engage in your hobbies / social life?
- Help improve your mood?

Yes*	No*	Doesn't apply*

Please turn over:

APPENDIX 12

Patient information letter regarding the survey:

Study 1

M

Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torbay
TQ2 7AA

Contact: 01803 654309
linda.knott@nhs.net

Dear

You have recently attended the physiotherapy department at Heavitree Hospital. As part of my doctorate at Exeter University, I am undertaking an evaluation of the care that you have received. This study has been approved by the University and NHS ethics committees and your physiotherapy department.

The study relates to the questions that your physiotherapist asked you about your condition and the impact that your symptoms had on your quality of life. I would be very grateful if you could read the attached information sheet and consider completing the enclosed brief questionnaire, then returning it in the envelope provided.

Many thanks for your help in undertaking this study.

Yours sincerely

Linda Knott
Clinical Specialist in Pain Management

**EXPLORING PHYSIOTHERAPISTS' ASSESSMENT OF THE IMPACT OF
PATIENTS' SYMPTOMS ON THEIR QUALITY OF LIFE**
Information sheet about the survey

Why might I want to take part in this survey?

Research tells us that it is useful for healthcare professionals to explore people's concerns about their health condition. Addressing the impact that it has on their lives, can help to improve their treatment outcome. It is also a requirement of the physiotherapy standards of clinical practice (CSP, 2005) to undertake this screening process. Having looked at the notes that your physiotherapist wrote, I would now like to explore *your* experience of the kind of questions that the physiotherapist asked you. I would like to find out whether or not you feel that your physiotherapist fully addressed any concerns or difficulties that you had because of your health problem.

How will this research affect me?

Participation in this survey is optional. At the top of your survey, you will see that there is a unique identity code. The code makes sure that your name and personal details will not be known to the researcher. ***Providing specific information or choosing not to be involved will not affect any health care that you need in the future.*** Best efforts will be made to ensure that individual participants will not be identifiable in the writing up of the research.

How will any information be stored?

The original, anonymised surveys will kept in a locked filing cabinet in a locked room and stored for 5 years; the analysed data will be stored on an NHS computer that is password protected. This ensures transparency of the research process. This practice is in keeping with the University of Exeter's Code of Good Practice in the conduct of research and a copy of this document can be found at:

<http://www.exeter.ac.uk/research/documents/gncode.pdf>

What do I need to do if I want to be involved?

Please complete the attached questionnaire and return it, using the envelope provided, within a week. If you do not return it within 2 weeks, you will receive a reminder via the research administrator.

PTO

Please remember to ***indicate if you would also be willing to attend a discussion group***, along with other patients. This aim of this group would be to explore your views as to the *value* of physiotherapists assessing and addressing questions or difficulties about your health problem: an additional information form is enclosed about this group.

What do I need to do if I don't want to be involved?

You do not need to do anything and please ignore the reminder letter that will come in 2 weeks time.

Thank you

I would like to thank you for taking the time to read and take part in this survey. If you would like any further information or to receive a summary of the results, please do not hesitate to contact me:

Linda.knott@nhs.net or 01803 654309

APPENDIX 13

Topic guide for patient focus group, study 1
(patFG1)

TOPIC GUIDE FOR PATIENT FOCUS GROUP

Introduce self.

Just so that we can get to know each other a little, I will be asking you take it in turns to introduce yourself, and to take a couple of minutes to say what prompted you to take part in this discussion. But first, I would like to set the scene and highlight some 'ground rules' for us all.

- Process of recording
- Anonymity and confidentiality
- Allowing each other to finish points; allowing quieter people to contribute
- Keeping to time
- Any questions or concerns?

Turn on recorder

Setting the scene: I am doing a study on how physiotherapists look at the bigger picture of peoples' experience: not about physiotherapy *treatment*.

Introduce themselves, with brief account of what prompted them to attend the focus group.

.....

You all indicated on your survey forms that you thought it was important for physiotherapists to explore the impact that your symptoms or health problem can have on different aspects of your life. Can you tell me more about that?

Prompts:

- Anything else?

.....

.....

.....

.....

.....

.....

.....

.....

.....

APPENDIX 14

Patient information regarding focus group, study 1
(patFG1)

Linda Knott
Clinical Specialist in Pain Management
Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torbay
TQ2 7AA

Contact: 01803 654309
linda.knott@nhs.net

PATIENT INFORMATION ABOUT THE FOCUS GROUP

What is the value of taking part in a focus group?

The survey that you have just received will provide useful information about what you remember from the questions your physiotherapist asked you about the impact of your symptoms on your quality of life. It would also be helpful to explore your thoughts as to *how* the physiotherapist asked about concerns that you had about your symptoms. I would also like to find out if you felt that this was a useful process. Talking about these questions in a group can help to generate new ideas that we may not come up with on our own.

What will be involved?

When enough people have replied to say that they would like to join a discussion group, you will be contacted to arrange a time that is best for you. The groups will take part in the physiotherapy department at Heavitree. Before the discussion begins, you will be asked to sign a consent form to say that you are willing to take part. There will be up to 8 people in the group and the facilitator (Linda Knott) will ask the group questions and invite everyone to discuss them. The group will last for about 45 minutes. The discussions will be recorded so that they can be typed out word for word and analysed by the researcher (Linda Knott). Key themes that people raise during the discussions will be identified and related to information that has been pulled out from physiotherapists' notes and the survey forms. You will be invited to read the transcripts before they are analysed and to make any additional comments that you think would be helpful.

Will it affect me in any way?

The facilitator will set out guidelines so that everyone is comfortable sharing their thoughts and ideas. Although names may be used during the discussions, you may choose to use a name other than your own. Your real name will not be used in

PTO

writing up the findings and all efforts will be made to ensure anonymity. Anything you say, or choosing to withdraw from the discussion at any time, will not affect any current or future healthcare treatment. Unfortunately, we will not be able to cover any expenses that you incur. The discussions are not intended to provide any kind of treatment or support for your health problem. Should the discussions raise any concerns for you, it is advised that you raise these with your GP or physiotherapist.

What are the benefits of the study?

You will be helping to improve the care of patients attending physiotherapy departments. The findings of this study will be fed back to the staff at Heavitree and will also be written up with the intention of getting it published in an appropriate journal. I would also be happy to send a summary of the findings to you at the end of the study.

What happens to the recordings and information?

The original, anonymised transcripts will be kept in a locked filing cabinet in a locked room and stored for 12 months from the end of the study. The analysed data will be stored on an NHS computer that is password protected. This ensures transparency of the research process. This practice is in keeping with the University of Exeter's Code of Good practice in the conduct of research and a copy of this document can be found at: <http://www.exeter.ac.uk/research/documents/gncode.pdf>

I would like to take part in the discussion group: what do I need to do next?

Please tick the 'Yes' box at the end of the survey form and then send it back in the envelope provided.

I do not wish to take part: what happens now

Please tick the 'No' box at the end of the survey form and then send it back in the envelope provided.

Thank you for taking the time to read this information and I hope that you are able to take part in the discussions. If you have *any questions or concerns* about this study, please do not hesitate to contact me.

APPENDIX 15

Patient consent form for focus groups, studies 1 and 2
(patFG1 and patFG2)

APPENDIX 16

Jefferson transcription notation

Jefferson Transcript Notation includes the following symbols:

Symbol	Name	Use
[text]	Brackets	Indicates the start and end points of overlapping speech.
=	Equal Sign	Indicates the break and subsequent continuation of a single utterance.
(3)	Timed Pause	A number in parenthesis indicates the time, in seconds, of a pause in speech.
(.)	Micropause	A brief pause, usually less than .2 seconds.
↓	Down Arrow	Indicates falling pitch or intonation.
↑	Up Arrow	Indicates rising pitch or intonation.
,	Comma	Indicates a temporary rise or fall in intonation.
-	Hyphen	Indicates an abrupt halt or interruption in utterance.
>text<	Greater than/Less than symbols	Indicates that the enclosed speech was delivered more rapidly than usual for the speaker.
<text>	Less than/Greater than symbols	Indicates that the enclosed speech was delivered more slowly than usual for the speaker.
⁰	Degree symbol	Indicates whisper, reduced volume, or quiet speech.
ALL CAPS	Capitalized text	Indicates shouted or increased volume in speech.
<u>underline</u>	Underlined speech	Indicates the speaker is emphasizing or stressing the speech.
:::	Colon or Colons	Indicates prolongation of sound.
wo(h)rd		(h) is a try at showing that the word has "laughter" bubbling within it
(hhh)		Audible exhalation.
(.hhh)	High Dot	Audible inhalation.
wor-		A dash shows a sharp cut-off
(text)	Parenthesis	Speech which is unclear or in doubt in the transcript.
((<i>italic text</i>))	Double Parenthesis	Annotation of non-verbal activity.

Jefferson, G. (1984) *Transcript Notation*, in J. Heritage (eds), *Structures of Social Interaction*, New York: Cambridge University Press.

<http://www.transana.org/support/onlinehelp/team1/transcriptnotation1.html>

<http://homepages.lboro.ac.uk/~ssca1/notation.htm>

<HTTP://HOMEPAGES.LBORO.AC.UK/~SSCA1/TRANS3.HTM>

APPENDIX 17

Example of e-mails regarding verification of focus group transcripts and themes

Example of e-mail correspondence requesting feedback on transcript and themes

From: Knott Linda (SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST)
[mailto:linda.knott@nhs.net]
Sent: 11 January 2012 21:07
To: A...
Subject: Final questions!

Dear A....

Happy New Year!

Many thanks for attending the focus group. If you chose to not reply to this e-mail, I shall respect your privacy and not contact you again.

I am attaching a transcript of our discussions. You are very welcome to read through it and see if it accurately represents what was said.

You are very welcome to add any final thoughts about the research that you think might be useful.

Again, very many thanks for your help and thoughts.

Linda

From: A...
Sent: 19 February 2012 13:59
To: Knott Linda (SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST)
Subject: RE: Final questions!

Linda

Reading your transcript makes the discussion seem very disjointed – it didn't seem that way at the time. I hope it was helpful to you.

I would imagine your ioSQ would be a useful tool and far easier to fill in than some patient questionnaires.

A...

From: Knott Linda (SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST)
Sent: 20 February 2012 09:23
To: A....
Subject: RE: Final questions!

Dear A..

Thanks very much for taking the time to read the transcript and reflect back to me. It's interesting how we do actually speak - and still are able to make sense of a conversation! it certainly was helpful and I would be very happy to send you a summary of the themes/findings when I get to that stage - let me know if you would be interested.

And thanks too for your thoughts on the IoSQ

Best wishes

Linda

From: A...
Sent: 09 March 2012 18:04
To: Knott Linda (SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST)
Subject: RE: Final questions!

Linda

Would be interested in your findings

Not sure exactly how you intend to use your ioSQ – ie audit of services or as a review of whether further treatment is needed. For all patients or just certain groups
I would just like to point out that however you word the follow up questionnaire it will inevitably cause distress to some people – if the answer to all the questions is negative after a significant investment of time and effort into physio and especially if you see no real chance of improvement then inevitably mood can easily score 10. I have no idea what numbers of patients may be in this group but would just like to think that you have considered that any benefit you are going to gain is substantial.

(The next section A requested should remain confidential)

Regards
A....

From: Knott Linda (SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST)
[mailto:linda.knott@nhs.net]
Sent: 15 March 2012 10:43
To: A...
Subject: RE: Final questions!

Hi A...

Again, many thanks indeed for taking the time to get back to me.

Apologies: let me try to clarify what the purpose of the IoSQ is.

It has been designed to be used as a clinical tool, alongside the patient,

- a) at the first appointment, to identify more easily, the impact that a health problem is having in all aspects of a patient's life, so that hopefully, the clinician can be alerted more easily if there are significant areas / issues that need to be addressed
- b) at (what is anticipated to be) the final appointment, to ensure that all issues that were initially identified, have now been addressed to the patient's satisfaction.

Its purpose is not for service evaluation, but to assist the physiotherapist at looking more at 'the whole person' rather than a set of symptoms.

I shall send you the summary of the themes in due course

Best wishes

Linda

From: A...
Sent: 20 April 2012 18:03
To: Knott Linda (SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST)
Subject: RE: Final questions!

Linda

I find it interesting that you plan to use the patient questionnaire to identify ongoing patient issues at discharge – my impression and I assumed normal practice was that you were discharged when you were able to perform the exercises and proceed with the appropriate progression. The instructions are then continue and things will improve.

I realised my care may be slightly different to others so I have therefore asked friends and family (1 is a doctor) – it is surprising how many people have attended an NHS physio. It would seem that in the vast majority of cases people are seen and taught various exercises with a variable number of appointments to check how exercises are progressing – all but one (he discharged himself) said that at discharge they were better at the exercises they had been given. However virtually all said that the difficulties that their condition caused to their life whether it be pain/work/sport etc were still present at discharge, their mood had probably improved because there was an expectation of improvement. My sample included knees, hips, backs, shoulders and Achilles – pain, injuries and replacements

If you expect improvement to a patient's disability/problem at discharge your questionnaire is essential.

If it is going to be used with the expectation patients will not be discharged until there is improvement or resolution you are going to need many more physio appointments to provide on going physio. It will also mean that in cases where improvement is not forthcoming the physios are going to have to face this issue with the patients who repeatedly fill in the questionnaire showing no improvement and that their mood is probably becoming low – I found 2 of those even in my small sample.

Obviously not scientific but thought you may be interested

Best wishes

A...

From: Knott Linda (SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST)
[mailto:linda.knott@nhs.net]
Sent: 05 May 2012 12:35
To: A...
Subject: RE: Final questions!

Dear A...

At last, I think I have managed to come up with my final themes.

I am attaching a graphical representation of the themes: and how they relate to the 4 questions asked. Hopefully this will make sense as a stand-alone document: if not, please don't hesitate to ask any questions.

Clearly, this was only one focus group, with 3 people, so the findings are very limited and not generalisable, but the aim is to represent this group's views.

I really appreciate all the feedback that you have given me: it has been extremely helpful, and I hope that I can do justice to your thoughts and opinions.

Best wishes

Linda

No comments were received regarding the theme development

APPENDIX 18

Information for physiotherapists for participating in study 2

Linda Knott
Clinical Specialist in Pain Management
Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torbay
TQ2 7AA

Contact: 01803 654309
linda.knott@nhs.net

STAFF INFORMATION ABOUT RESEARCH

Psychosocial screening by musculoskeletal outpatient physiotherapists: evaluation of a new clinical tool

This information sheet has been written to invite you to take part in the above research. Please take your time to read the following information and discuss it with Linda Knott if you have any questions.

Why is this research an important issue?

Research evidence tells us that undertaking psychosocial screening helps to predict outcome (1) and implement the most appropriate type and level of intervention (2). It is also a requirement of the physiotherapy standards of clinical practice to undertake such screening and to use outcome questionnaires (3). The Impact of Symptoms Questionnaire (IoSQ) was developed at a local department as a clinical tool to try and help with both of these issues.

Why should I take part in this study?

There are no guidelines for writing up findings from psychosocial screening and the previous service evaluation identified that it was difficult to determine if this had been undertaken appropriately. After discussion with your manager, it was agreed to trial the IoSQ to see if it would help with this process. It is hoped that this study will not only raise your awareness of the impact of psychosocial issues but add to the knowledge of what would be helpful to make the process of screening for and addressing of difficulties identified, more effective.

What will be involved in the study?

Audit of patients' notes. When booking into the reception area for their first appointment, patients will be given the study information and consent forms. They will

be asked to complete the consent form handing, it to their treating physiotherapist by their second appointment. The notes of patients, who have consented, will be audited when they are discharged: 10 sets of notes for each physiotherapist.

Survey of patients. Once notes have been audited, the patient will be sent a questionnaire relevant to the research question.

Focus group of patients. Patients will be invited to attend a focus group to discuss findings from the survey in more depth.

Survey of staff. At the end of a 4-month trial period, all of the physiotherapy staff will be sent a questionnaire to explore their experience of using the IoSQ.

Focus group of staff. You will also be invited to attend a focus group which will discuss the findings of the survey in more depth. Focus groups can also help to generate new ideas. The discussion will last for about 60 minutes. The discussions will be recorded so that they can be typed out word for word and analysed by the researcher (Linda Knott). Key themes that people raise during the discussions will be identified. You will be invited to read the transcripts before they are analysed and to make any additional comments that you think would be helpful.

Do I need to do anything differently with my patients?

In a week's time, you will be asked to attend a brief training session for using the IoSQ. You will be given a written information sheet. You will not be expected to significantly change your usual clinical practice.

Please remember to ask all of your new patients if they would be willing to take part in the study. Consent would need to be gained by the second appointment. Please use the IoSQ, regardless of whether or not the patient consents. This should be completed before, or during the first appointment, as will be explained in the training session. It can also be used on subsequent appointments to help with goal setting. It should be used at discharge from treatment.

Patients may ask you about the study. It would be helpful if you do not give information about the specific issues that are being explored. This is to help them to interact with you as 'naturally as possible'.

What is involved in taking part in the research?

Audit of patients' notes. I will be auditing 10 sets of notes for each physiotherapist. These notes will be identified as patients are discharged from your care but only notes of patients who have agreed to take part in the study will be used. For these patients, please mark the front of the envelope to indicate that they have consented to take part in the study and collect them separately until the audit is completed. Please keep the consent forms in the patient's notes. Each of these patients will be sent a survey and invited to attend a focus group.

Survey of the clinical usefulness of the IoSQ. At the end of the 4-month trial, you will be sent a survey to explore your experience of using the IoSQ. This should be returned to your manager. You will be given a reminder if you have not returned it within 2 weeks.

How will this research affect me?

You can withdraw from the study at any time, without giving a reason. This would not affect your employment situation. Your survey will be assigned a unique identity code. Data on who the codes relate to will be held by the administrator assistant for this study and will not be accessible to either the researcher or your clinical manager. On the survey, there are some questions relating to basic demographics which will help to 'set the scene' for the study. There will be no reference to individual physiotherapists in the writing up. All data will be summarised as descriptive statistics with some examples of qualitative feedback.

What will happen with the results?

I would like to feedback the results of the service evaluation and this study as soon as the results have been analysed. It is intended that the results will be published in an appropriate peer-reviewed journal. No personal or sensitive information will be published and no data will be identifiable to individual people.

What if something goes wrong?

If you have any concern about any aspect of this study you should should ask to speak to the researcher who will do their best to answer your concerns: Linda Knott, 01803 655469, linda.knott@nhs.net. Staff who wish to complain can seek advice from their union.

What do I need to do next?

Please complete the attached consent form if you would like to take part in the study and then place it in the box provided.

Who has reviewed this study?

This study has been approved by the East of England Research Ethics Committee, Hertfordshire.

Thank you

If you would like any further information, please do not hesitate to contact me:

Linda.knott@nhs.net or 01803 655469

References

1. Linton S, J., Boersma K, M., A. Early identification of patients at risk of developing a persistent back problem: the predictive validity of the Orebro musculoskeletal pain questionnaire. *Clinical Journal of Pain*. 2003;19(2):80-6.
2. Haldorsen EMH, Grasdahl AL, Skouen JS, Risa A, E., Kronholm K, Ursin H. Is there a right treatment for a particular patient group? Comparison of ordinary treatment, light multidisciplinary treatment, and extensive multidisciplinary treatment for long-term sick-listed employees with musculoskeletal pain. *Pain*. 2002;95:49-63.
3. Chartered Society of Physiotherapy. *Core Standards of Physiotherapy Practice*. London: The Chartered Society of Physiotherapy; 2005.

APPENDIX 19

Information for physiotherapists for using the IoSQ

Tel: 01803 654309
linda.knott@nhs.net

Clinical Specialist in Pain Management
Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torquay
TQ2 7AA

Information leaflet for the Impact of Symptoms Questionnaire

What is the purpose of the IoSQ?

This questionnaire has been developed for 5 main purposes:

- To help identify specific questions or concerns the individual may have about their condition and evidence that they have been addressed
- To provide a patient-centred starting point for exploring the impact a health problem is having on an individual's function and well-being
- To assist with identifying patient-centred goals across the domains of work / family caring responsibilities; activities of daily living; hobbies / social life; and mood
- To provide a measure of change in the perceived severity and the psychosocial impact of the symptoms
- To facilitate the provision of written evidence of assessing and addressing issues of concern to the patient

The questionnaire is in two sections:

- The first explores the psychosocial impact of the condition and can help to identify issues which could impede recovery or their 'coming to terms' with their condition. Patients are asked to tick any of the domains that are affected and are invited to write additional comments for clarity. These should be reviewed with the patient as soon as the form has been completed. This provides an opportunity to address any associated issues eg not feeling believed or supported at work. Relevant goals can then be set to ensure that regardless of whether or not symptoms improve, a return to desired function can be targeted.
- The second comprises four numerical rating scales (NRS), 0-10. The first two scales look at pain and any other symptom that may be affecting them, for example, weakness, poor balance, etc. The other two scales look at the impact that the symptoms have on their mood and also all activities that are important to them.

When should it be used?

The intention is that it can be used with all adults presenting with any health problem. Ideally, it should be completed prior to their first appointment for example, in a waiting area. The patient may choose to take it home and bring it back to the second appointment. It can be used during subsequent appointments, as well as at discharge to monitor change. This is useful should they fail to complete treatment.

How should it be used?

Ideally, the patient should complete the questionnaire on their own. However, some prompts or clarification may be useful, especially if the patient has reading or language difficulties. This can be undertaken during the first appointment. The questionnaire should be re-administered without reference to the previous one(s).

How can it help clinically?

At review appointments or discharge, if issues relating to mood or function are still identified, or NRS scores are not improving, it could indicate that presenting symptoms need to be re-evaluated, psychosocial issues explored in greater depth or the appropriateness of identified goals reviewed.

How is the IoSQ scored?

As the IoSQ has not yet been validated or evaluated for its reliability or sensitivity to change, it should not be used as a sole clinical outcome measure or be used in research.

Psychosocial domains

The user can take note of the change in the number of domains ticked in the first section.

Numerical rating scales

In essence, the average of the three or four of NRSs used is taken. If either pain, or an additional symptom are rated at the first contact, they should be included in the final average, even if it has not been completed, or if it /they are scored as 0. This ensures an appropriate representation of the change in symptoms. Similarly, if a new symptom, or pain associated with the presenting condition, is scored where it wasn't at assessment, the sum of the NRSs is still divided by 3. This will enable a change in symptoms (worsening or improving) to be more appropriately represented.

APPENDIX 20

Consent form for physiotherapists, study 2

Clinical Specialist in Pain Management
Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torquay
TQ2 7AA

CONSENT FORM

Study number:
REC approval number
Participant ID:

01803 654309
linda.knott@nhs.net

**Psychosocial screening by musculoskeletal outpatient physiotherapists:
evaluation of a new clinical tool**

Please INITIAL the boxes if you agree with each section:

1. I have read the information sheet dated..... for the above study and have been given a copy to keep. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.

3. I understand that relevant sections of my patients' notes and data collected during the study will be looked at by individuals from the Research Team only, but also from regulatory authorities if this is required. I give permission for these individuals to have this access. I understand that the information will be kept confidential.

4. I understand that I will be sent a survey that I will then complete and return.

5. I agree to participate in a focus group, as described.

6. I know how to contact the research team if I need to.

Name of physiotherapist Date Signature

Name of researcher Date Signature taking consent

When completed: 1 for participant;1 for researcher site file (original)

APPENDIX 21

Patient information regarding notes audit and survey, study 2

Linda Knott
Clinical Specialist in Pain Management
Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torbay
TQ2 7AA

Contact: 01803 654309
linda.knott@nhs.net

PATIENT INFORMATION ABOUT RESEARCH

I am studying for my Doctorate at the University of Exeter and I will be undertaking a study to look at how physiotherapists undertake assessments of patients. You are attending the physiotherapy department for your first appointment and I would like to explain the research that I will be doing, and to invite you to be part of the research.

This letter covers:

- Why this research is an important issue
- What would be involved in taking part in the research
- How this research would affect you
- What you would need to do to take part in the research

Please take your time to read the following information and discuss it with your physiotherapist if you have any questions.

Why is this project an important issue?

Previous research has shown that it is important that physiotherapists and other healthcare professionals assess a range of things relating to a person's health problem. However, little research has been done to show how routinely or appropriately these issues are assessed.

What is it that my physiotherapist should be assessing?

At this stage of the research, it is useful not to be specific about the things that I am looking at, as this could change what you or your physiotherapist would naturally do or say in an appointment. The research question is *not raising concerns* about the safety or effectiveness of your physiotherapy treatment, but it is looking more at the *kind of things* that physiotherapists automatically tend to assess and screen for.

What is involved in taking part in the research?

I am planning to look at 10 sets of notes for each physiotherapist.. These notes will be identified as patients are discharged from the physiotherapists' care but only notes of patients who have agreed to take part in the study will be used.

The people that the notes relate to will be contacted and asked to complete a short survey. The survey questions will relate directly to the information that is being collected from the notes and will ask about *your* perspective as to how you felt issues were explored. As well as the survey, I will also be asking if you would be willing to join a group with others who have been involved in the research, to discuss this in more detail.

How would this research affect me?

If 10 sets of notes have already been collected for the physiotherapist that is treating you, your notes will not be used in the research, and you will not be contacted. If your notes are used, you will be informed and sent a copy of your consent form. The researcher will be aware of your name at the time of looking at your notes. However, an administration assistant will remove your name from the data form, and replace it with an anonymous identity code. This means that when the researcher is analysing the data, they will not know who it relates to. The information that will be collected will not consist of anything sensitive in nature.

If you are sent a survey, the questions will ask you about your experience of your recent physiotherapy treatment. Your physiotherapist will not have access to anything that you say. The same identity code that was used for your notes audit will be used on your survey form. Your identity will only be known to the researcher if you take part in the discussion group. You will be sent more information about the discussion group if your notes are used in the first part of the research. You can decide then if you would like to take part.

The database with your name on will be destroyed as soon as all of the data from the notes and surveys has been collected. The rest of the data will be kept for up to 3 months from completion of the study, which is anticipated to be June 2013 and will either be held on a password protected computer on in locked filing cabinet.

What if something goes wrong?

If you have any concern about any aspect of this study, you should ask to speak to the researcher who will do their best to answer your questions: Linda Knott, 01803 654309. If you remain unhappy and wish to complain formally, you can contact the

Royal Devon and Exeter Foundation Trust Patient Advice and Liaison Service (PALS), Barrack Road, Exeter, EX2 5DW; telephone - 01392 402093; e-mail - pals@rdeft.nhs.uk. Independent advice on making a complaint can be obtained from the Independent Complaints and Advocacy Service (ICAS). They will, if required, complain on your behalf and will provide assistance with all stages of the complaint process. Their contact number is: 0845 120 3782 and you will be directed to a local office

What will happen with the results?

It is intended that the results will be published in a physiotherapy journal. No personal or sensitive information will be published and no data will be identifiable to individual people.

Who has reviewed this study?

This study has been approved by the East of England Research Ethics Committee, Hertfordshire.

Do I have to take part?

It is up to you to decide to join the study. You can ask your physiotherapist about any concerns that you might have. You are free to withdraw at any time, without giving a reason. This would not affect the standard of care you receive.

I am interested in taking part in this study: what do I need to do now?

If you would like to take part, please complete the attached consent form and give it to your physiotherapist by the end of your second appointment.

This study has been approved by the national ethics committee and the Research and Development committee of your local Trust.

If you have any questions or concerns about the study, you can contact myself or my field supervisor, Dr Becky Chasey on 01803 654309. Thank you.

Linda Knott

APPENDIX 22

Patient consent form for audit of notes and survey, study 2

PATIENT CONSENT FORM

Study number:
REC approval number
Participant ID:

Clinical Specialist in Pain Management
Department of Physiotherapy
Torbay Hospital
Lawes Bridge
Torquay
TQ2 7AA

01803 654309
linda.knott@nhs.net

**RESEARCH EXPLORING HOW PHYSIOTHERAPISTS UNDERTAKE
ASSESSMENTS: Survey**

Please INITIAL the boxes if you agree with each section:

1. I have read the information sheet dated..... for the above study and have been given a copy to keep. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.

3. I understand that relevant sections of my physiotherapy notes and data collected during the study will be looked at by individuals from the Research Team only, but also from regulatory authorities if this is required. I give permission for these individuals to have access to my records. I understand that the information will be kept confidential.

4. I understand that I will be sent a survey that I will then complete and return

5. I understand that I will be offered the opportunity to be included in a discussion group and that I will be sent further information before the group happens

6. I am willing to be contacted by phone and e-mail to assist with arranging meetings and returning questionnaires only

Please turn over

APPENDIX 23

Patient survey, study 2

PATIENT SURVEY
Impact of symptoms on health problems

*Please read the survey below and answer **all** of the questions.*

1a) Before your physiotherapy treatment, did you have any specific questions or concerns about your condition? *For example: Did you want to know if an X-ray would be useful? Or: what was causing your symptoms? Or: if it was safe to return to work? Or: when would you get better?*

*Please tick the appropriate box

Yes*	No*

If you answered 'Yes', please answer questions 1b and 1c. If you answered, 'No', please go to question 2.

1b) What was your question or concern?

.....

1c) Did your physiotherapist fully answer your question / concern? Please tick the appropriate box:

Yes*	No*

2a) Did your symptoms have any impact on the following areas of your life? Please tick the appropriate column

	Yes*	No*
Your confidence to go to work and/or look after your family		
Your confidence to do the everyday activities that you <u>need</u> to. <i>For example: go up/down stairs; drive; travel by bus; do housework; reach cupboards, etc</i>		
Your confidence to engage in your usual hobbies or social life		
Your mood. <i>For example: make your feel low or more irritable than usual</i>		

If you answered 'Yes' to any of the questions in 2a, please answer question 2b. If you didn't answer 'Yes' to any of the questions, please go on to question 3

2b) Did your physiotherapist give you all of the support / advice that you needed to:

*Please tick the appropriate column

	Yes*	No*	Doesn't apply*
Improve your confidence to go to work and/or look after your family?			
Improve your confidence to do your everyday tasks?			
Improve your confidence to engage in your hobbies / social life?			
Help improve your mood?			

3) How were issues raised with your physiotherapist? *Circle ONE number for each question.*

	Never					Always				
I raised the issues myself	1	2	3	4	5					
By talking through questionnaire(s) I had filled in	1	2	3	4	5					
The physiotherapist raised issues	1	2	3	4	5					

4) Attached to this survey is a copy of the Impact of Symptoms Questionnaire (IoSQ) that you may have used during your physiotherapy treatment. With respect to the IoSQ, please tick the appropriate box for each of the questions below.

If you don't remember using the questionnaire, please tick the box and go to question 5.

	Not at all				Extremely
How easy was the IoSQ to fill in?	1	2	3	4	5
How relevant was the IoSQ to your condition?	1	2	3	4	5

Please add any comments about the IoSQ that you think might be helpful:

.....

.....

5) Overall, how useful do you think it is for physiotherapists to explore the impact that your symptoms have on your quality of life?

	Not at all useful				Extremely useful
	1	2	3	4	5

6) Please add any other comments that you think would be relevant to this study?

.....

.....

Please indicate if you are willing to take part in a discussion group. This would be to discuss the questionnaire and to explore how physiotherapists ask about the impact of health problems.

Please tick the appropriate box

Yes , I would like to attend a discussion group	<input style="width: 80%; height: 20px;" type="checkbox"/>	<input style="width: 80%; height: 20px;" type="checkbox"/>
No thank you, I would not like to attend a discussion group	<input style="width: 80%; height: 20px;" type="checkbox"/>	<input style="width: 80%; height: 20px;" type="checkbox"/>

If you ticked **Yes**, please write down any dates in the next 3 months that you are not available:

.....

And telephone number(s) and/or e-mail if you are happy for us to contact you using these:

Telephone E-mail

.....

Finally, would you like to receive feedback about this study, in the form of a newsletter? NB this would be sent out by e-mail. *Please tick the appropriate box*

Yes		No	
-----	--	----	--

MANY THANKS FOR COMPLETING THIS SURVEY
Please return the survey in the envelope provided

APPENDIX 24

Topic guide for patient focus group, study 2
(patFG2)

APPENDIX 25

Physiotherapists' survey, study 2

**STAFF SURVEY ABOUT CLINICAL VALUE OF IMPACT OF SYMPTOMS
QUESTIONNAIRE
Information sheet**

Why should I take part in this survey?

You have kindly agreed to trial the Impact of Symptoms Questionnaire (IoSQ) in your clinical work. I would now like you to complete the attached questionnaire to help me explore if it would be a useful tool to develop further.

How will this research affect me?

With this letter, you will have received a unique identity code. Data on who the codes relate to is held by the administrator assistant for this study and will not be accessible to either the researcher or your clinical manager. Some information about undertaking psychosocial screening has been gathered from patient notes before and after the introduction of the IoSQ: data from these notes have been correlated with the physiotherapists' unique code. On this survey form, there are some questions relating to basic demographics which will help to explore relationships between before and after levels of psychosocial screening and physiotherapists' clinical experience and training. Best efforts will be undertaken to ensure that individual physiotherapists will not be identifiable in the writing up of the research.

What do I need to do next?

Please complete the attached questionnaire and return to your manager within a week. If you do not return it within 2 weeks, you will receive a reminder via your manager.

Thank you

I would like to thank you for taking the time to read and take part in this survey. If you would like any further information or to receive a summary of the results, please do not hesitate to contact me:

Linda.knott@nhs.net or 01803 655469

STAFF PARTICIPANT SURVEY
Impact of Symptoms Questionnaire (IoSQ)

Please read the survey below and circling the appropriate number for **all** of the questions. **If you score less than 3** for any of the questions, please provide a bit more detail.

1) How useful did you find the **information leaflet** about the IoSQ?

1	2	3	4	5
Not at all useful				Extremely useful

I didn't get the information leaflet (tick if this applies to you):

.....

2) Do you feel that the IoSQ was **relevant** to the patients that you see?

1	2	3	4	5
Not relevant to any of my patients				Relevant to all of my patients

.....

3) Did using the IoSQ impact on the clinical **time** you had with your patients?

1	2	3	4	5
Using it took <i>more</i> time		It took about the <i>same</i> time		Using it <i>saved</i> time

.....

4) Was the IoSQ helpful for identifying **patients' concerns** about their condition?

1	2	3	4	5
Not at all helpful				Extremely helpful

.....

5) Was the IoSQ helpful for identifying the **impact** of their condition on the specific psychosocial domains?

1	2	3	4	5
Not at all helpful				Extremely helpful

6) Did using the loSQ make identifying **patient-centred goals** easier?

1	2	3	4	5
No, definitely not				Yes. definitely

.....

7) Did using the loSQ help to **monitor patients'** functional improvement?

1	2	3	4	5
No, definitely not				Yes. definitely

.....

8) Do you think that **patients** found the **questionnaire relevant** to their needs?

1	2	3	4	5
No, definitely not				Yes. definitely

.....

9) How **easy** do you think the **patients** found the questionnaire **to use**?

1	2	3	4	5
Not at all easy				Extremely easy

.....

10) Please describe **anything else in the last 6 months** that has made you more aware of providing **written evidence** of screening and addressing psychosocial issues from a patient-centred perspective.

.....

.....

.....

11) If you did not use the loSQ with all of your patients at **assessment**, what were the main reasons for not doing so?

.....

.....

.....

12) If you did not use the IoSQ with all of your patients at **discharge**, what were the main reasons for not doing so?

.....
.....
.....

13) Is there **anything else that would be useful** to help you undertake psychosocial screening / address identified issues with more confidence?

.....
.....
.....

14) Demographics

a) Gender*: Male / Female Number of years since you qualified:
*Please circle as appropriate

b) Number of years in musculoskeletal physiotherapy outpatients:

15) Experience and training

a) Do you have **clinical experience in pain management**? **Yes / No**

b) Have you had any psychological skills **training** (eg communication skills; motivational interviewing; dealing with anger/distress; CBT)? **Yes / No**

If you answered **yes to 15b)** please circle all that are relevant:

- I. In-service training
- II. Short non-accredited course eg weekend; conference; workshop
- III. Post grad course: state duration and qualification
- IV. Clinical supervision by psychologist or pain management therapist
- V. Other:

Thank you for completing this survey. Please return it to your manager

APPENDIX 26

Topic guide for physiotherapists' focus group, study 2
(physFG3)

APPENDIX 27

Vignettes for physiotherapists' focus group, study 2 (physFG3):
anonymised, patient-completed IoSQa

Hosp
Name

IMPACT OF SYMPTOMS QUESTIONNAIRE©

want to help you get your life back on track. Please tick any of the boxes below which your symptoms are causing you to have concerns about. It may be useful to give a specific example.

227

Work or college and/or the ability to **look after or care** for others.

Teaching - moving about in corridors etc.

Everyday **activities** (eg shopping, sitting at the computer, sleeping, vacuuming, driving, going up and down stairs, getting things in and out of cupboards, dressing and self care)

driving

Enjoying our usual hobbies (eg going to the cinema, doing DIY, decorating, playing sport, going for long walks, seeing friends)

walking

Your mood and relationships (eg worried about the future, more snappy than usual)

Write down **any question or worry** (however small it might seem) that you might have about your condition, which you would like to ask your physiotherapist

I don't have a question or worry (please tick)

How are you hoping to get from your treatment? *Help to walk @ without*
with (b) back to how it was!

Ranking of the last week:

Please circle **one number** that best describes your level of pain

0 1 2 3 4 **5** 6 7 8 9 10
No pain Worst pain possible

Appropriate, please circle **one number** that best describes any **other symptom** (relating to your condition) that bothers you (eg numbness, ache, weakness, poor balance)

0 1 2 3 4 **5** 6 7 8 9 10
No problem Worst problem possible

Please circle **one number** that best describes the impact of your symptoms on your **confidence** in everything you want to do

0 1 2 3 4 **5** 6 7 8 9 10
No impact Worst impact possible

Please circle **one number** that best describes the impact of your symptoms on your **mood**

0 **1** 2 3 4 5 6 7 8 9 10
No impact Worst impact possible

Avg

Hospital
Name *St.*



that we are reviewing your progress, I would like to ask how you are. Please tick any of the boxes that your symptoms are still causing you to have concerns about. It may be useful to give a specific example.

- Work or college and/or the ability to look after or care for others.

- Everyday activities (eg shopping, sitting at the computer, sleeping, vacuuming, driving, going up and down stairs, getting things in and out of cupboards, dressing and self care)

- Enjoying our usual hobbies (eg going to the cinema, doing DIY, decorating, playing sport, going for long walks, seeing friends)

- Your mood and relationships (eg worried about the future, more snappy than usual)

If you had any questions or concerns about your condition, did your physiotherapist fully address them for you? (Please tick the appropriate box) Yes No
If you didn't have any questions or concerns, please tick this box

Thinking of the last week:

Please circle **one number** that best describes your level of pain

0 1 2 3 4 5 6 7 8 9 10
No pain (sometimes aches) Worst pain possible

If appropriate, please circle **one number** that best describes any **other symptom** (relating to your condition) that bothers you (eg numbness, ache, weakness, poor balance)

0 1 2 3 4 5 6 7 8 9 10
No problem Worst problem possible

Please circle **one number** that best describes the impact of your symptoms on your **confidence** for everything you want to do

0 1 2 3 4 5 6 7 8 9 10
No impact Worst impact possible

Please circle **one number** that best describes the impact of your symptoms on your **mood**

0 1 2 3 4 5 6 7 8 9 10
No impact Worst impact possible

Please return this questionnaire to your physiotherapist or the reception desk

For physiotherapy use only:

Average

Reason for no d/c Q: Advice only

Other- state

IMPACT OF SYMPTOMS QUESTIONNAIRE©

230

We want to help you get your life back on track. Please tick any of the boxes below which your symptoms are causing you to have concerns about. It may be useful to give a specific example.

- Work or college and/or the ability to look after or care for others.
UNABLE TO CROUCH/DOWN OR REST ON KNEES. DIFFICULT TO STEP UP/DOWN
- Everyday activities (eg shopping, sitting at the computer, sleeping, vacuuming, driving, going up and down stairs, getting things in and out of cupboards, dressing and self care)
BODY TENDS TO SEIZE AFTER WORKING AT DESK FOR AS LITTLE AS 10MINS
- Enjoying our usual hobbies (eg going to the cinema, doing DIY, decorating, playing sport, going for long walks, seeing friends)
NOT ABLE TO PLAY SPORT AT PRESENT. GOLF - LONGER WALKS REQUIRE CUTTING
- Your mood and relationships (eg worried about the future, more snappy than usual)
LONG TERM ILLNESS IS CAUSING 'DEPRESSION' FRUSTRATION

Please write down any question or worry (however small it might seem) that you might have about your condition, which you would like to ask your physiotherapist

STILL NOT AWARE OF CAUSES SO IT IS DIFFICULT TO KNOW WHAT IS BEST WAY FORWARD - ALSO I DO NOT WANT TO KEEP TAKING SKILLERS ETC

I don't have a question or worry (please tick)

What are you hoping to get from your treatment? INCREASED MOBILITY - DROP IN PAIN WHEN NOT TAKING PAIN KILLERS

Thinking of the last week:

Please circle **one number** that best describes your level of pain. NO PAINKILLERS FOR 16 HOURS

0 1 2 3 4 5 6 7 8 9 10
No pain Worst pain possible

If appropriate, please circle **one number** that best describes any **other symptom** (relating to your condition) that bothers you (eg numbness, ache, weakness, poor balance) TAKING PAINKILLERS ETC.

0 1 2 3 4 5 6 7 8 9 10
No problem Worst problem possible

Please circle **one number** that best describes the impact of your symptoms on your confidence for everything you want to do

0 1 2 3 4 5 6 7 8 9 10
No impact Worst impact possible

Please circle **one number** that best describes the impact of your symptoms on your mood

0 1 2 3 4 5 6 7 8 9 10
No impact Worst impact possible

Avg

Name _____

Now that we are reviewing your progress, I would like to ask how you are. Please tick any of the boxes that your symptoms are still causing you to have concerns about. It may be useful to give a specific example.

Work or college and/or the ability to look after or care for others.

Dep/Heavy bending very painful to access floor level.

Everyday activities (eg shopping, sitting at the computer, sleeping, vacuuming, driving, going up and down stairs, getting things in and out of cupboards, dressing and self care)

Enjoying our usual hobbies (eg going to the cinema, doing DIY, decorating, playing sport, going for long walks, seeing friends)

Your mood and relationships (eg worried about the future, more snappy than usual)

If you had any questions or concerns about your condition, did your physiotherapist fully address them for you? (Please tick the appropriate box) Yes No

If you didn't have any questions or concerns, please tick this box

Thinking of the last week:

Please circle **one number** that best describes your level of **pain**

0 1 2 **3** 4 5 6 7 8 9 10
No pain Worst pain possible

If appropriate, please circle **one number** that best describes any **other symptom** (relating to your condition) that bothers you (eg numbness, ache, weakness, poor balance)

0 1 2 3 4 5 **6** 7 8 9 10
No problem Worst problem possible

Please circle **one number** that best describes the impact of your symptoms on your **confidence** for everything you want to do

0 1 2 3 4 5 **6** 7 8 9 10
No impact Worst impact possible

Please circle **one number** that best describes the impact of your symptoms on your **mood**

0 1 2 **3** 4 5 6 7 8 9 10
No impact Worst impact possible

Please return this questionnaire to your physiotherapist or the reception desk

For physiotherapy use only:

Average

Reason for no d/c Q: Advice only

Other state

APPENDIX 28

Examples and summaries of discrepancies in the patients' notes
audit

Appendix 27

Examples of decision making process and discrepancies

Patient 129:

Written in the patient's notes: "Patient happy with how knee feels and ADLs". After discussion it was agreed that although there was no documentation about questions or concerns or the impact on function at the beginning of the treatment process, the therapist had identified that the patient was "*happy*" with their knee with respect to questions or concerns and function domains. There was no evidence that any impact on mood, hobbies or work/caring role had been screened for

Patient 133:

Written in the patient's notes: "Patient happy with our care". This was interpreted by JC that the patient had no questions or concerns about their condition at the time of assessment and that at discharge, there was nothing to be addressed. LK had interpreted this that although the patient was satisfied with the treatment that they had received, it did not necessarily imply that there were no questions or concerns about their condition.

Patient 146:

Written in the patient's notes: "*Used to do gymnastics. Stopped as back pain*". The patient was presenting with shoulder pain and there no reference to this on the patient's ability or desire to continue with gymnastics, or any other hobby / social activity.

Patient 148:

Written in the patient's notes: "*SH. Football, running. Already cycling at Uni. Been surfing and beach running without any problems*". This was interpreted that the impact on hobbies/social activities had been adequately screened for.

Tables showing summaries of the discrepancies from the notes audit

Interpretation

	Total frequency (%)	Domains										Agreement in favour of	
		Diagnosis	Duration since onset	Age	Duration of treatment	Presence of questionnaire	ADL	Hobbies	Mood	Question / concern	Work / caring	LK	JC
Study 1	105 (100)	1 (1.00)	1 (1.00)				27 (25.7)	32 (30.5)	6 (5.7)	21 (20)	17 (16.2)	55 (52.4)	50 (47.6)
Study 2	67 (100)						11 (16.4)	18 (26.9)	15 (22.4)	12 (17.9)	11 (16.4)	36 (53.7)	31 (46.3)

Missed

	Total frequency (%)	Domains										Agreement in favour of	
		Diagnosis	Duration since onset	Age	Duration of treatment	Presence of questionnaire	ADL	Hobbies	Mood	Question / concern	Work / caring	LK	JC
Study 1	19 (100)	1 (5.3)	1 (5.3)				2 (10.5)	8 (42.1)	3 (15.8)		4 (21.0)	6 (31.5)	13 (68.4)
Study 2	9 (100)	1 (11.1)					2 (22.2)	2 (22.2)		2 (22.2)	2 (22.2)	6 (66.7)	3 (33.3)

Legibility

	Total frequency (%)	Domains										Agreement in favour of	
		Diagnosis	Duration since onset	Age	Duration of treatment	Presence of questionnaire	ADL	Hobbies	Mood	Question / concern	Work / caring	LK	JC
Study 1	8 (100)	1 (14.3)	1 (14.3)				4 (57.1)			2 (14.3)		8 (100)	
Study 2	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)		2 (50)	2 (50)			0 (0)	2 (50)	2 (50)

Knowledge

	Total frequency (%)	Domains										Agreement in favour of	
		Diagnosis	Duration since onset	Age	Duration of treatment	Presence of questionnaire	ADL	Hobbies	Mood	Question / concern	Work / caring	LK	JC
Study 1	2 (100)	2 (100)										2 (100)	
Study 2	0 (100)												

Incorrect

	Total frequency (%)	Domains										Agreement in favour of	
		Diagnosis	Duration since onset	Age	Duration of treatment	Presence of questionnaire	ADL	Hobbies	Mood	Question / concern	Work / caring	LK	JC
Study 1	16 (100)	1 (6.25)	1 (6.25)			2 (12.5)	1 (6.25)		2 (12.5)	5 (31.25)	4 (25)	8 (50)	8 (50)
Study 2	9 (100)	2 (22.2)	4 (44.5)		2 (22.2)						1 (1.1)	3 (33.3)	6 (66.7)

APPENDIX 29

Examples of documentation: notes audit

Appendix 28

Examples of patients' notes

Patient with no documentation re psychosocial issues

Appointment 1:

Front sheet: body chart – shaded in and symptoms, history and aggravating and easing factors described.

Right dynamic hip screw: fully weight bearing. Discomfort; intermittent. Aggravated by: fatigue end of the day; walking downhill; squatting for more than a few seconds. Eased by Ibuprofen day; paracetamol night.

Right phlois plating to humerus. Intermittent aches. Reduced range of movement. Eased: heat/hot shower. Passive range of movement; pendular movements.

Previous medical history: fracture right scapula 2011

Reduced bone density. Started calcitide by GP

Still works in xxxxx

Assessment notes:

Range of movement recorded – hips and shoulders

Gait: slight hip hitching of right side – reports this may be a learnt actions

Problem list	Treatment plan
Potentially weakness in right hip, pt reports further treatment required	Focussed on shoulder treatment today
Reduced ROM++ passively right shoulder. Pain in right shoulder on movement	Home exercise plan: active-assisted range of movement – external rotation and flexion Walking hand up the wall: flexion and abduction Passive stretches in flexion (supine) hold 30 secs; 3 sets Hand behind back with towel (internal rotation ROM) Towel over doorway – active-assisted flexion – end of range
Learnt gait alteration (right side)	

Patient was already seeing xxx for a right scapular fracture. Pt and got shoulder flexion to about 140° before the latest accident. Pt agrees with treatment plan (above).

Plan: review with xxxx (thanks) who will take over this pt's care now.

- Mobs to shoulder
- Strengthen of right hip: ?lower limb class
- Consent form for study

Treatment 2:

Pain ISQ. Aches

90° flexion BUT 25° true glenohumeral joint (GHJ)

Lateral rotation (LR): 25°

Hand behind back (HBB): L5

Treatment (Rx):

↔ Caud in LR IV
↕ Head of humerus in LR
Flexion (??) with scapula held } 15 minutes

Assessment (Ax): ++ capsular pattern

Plan: requires manual therapy (*next eight words illegible*)

Treatment 3:

Subjective (S): (*four words illegible*)

Objective (O): Flexion – 90° - 40° true GHJ. LR 35°

Rx: as above // LR 40°

Plan: (*two words illegible*) re ACR

Treatment 4:

S: ↑ ROM

O: Flexion 95: about 50 GHT

LR 45 - ++ scap (*illegible 3 words*)

Rx: as above. Minimal change

Plan: Review post-op

Treatment 5:

S: see attached op note

O: Flexion 90°

LR 30°

HBB L1

Rx: Physiological flexion III+ 5 mins

Physiological LR III+ 5 mins

// Flexion 95°, LR 35°;

Plan: review 1 week

Treatment 6:

S: Same

O: flexion 90°. LR 50°. HBB L1

Rx: 1) in LR. D.D↑ IV and ↔ IV 5 mins

// 60°

2) in flexion (*illegible – 2 words*) IV and ↔ caudad IV

10 minutes // 110°

Plan: need to continue. Review 1 week

Treatment 7:

S: no new problems

O: Flexion 90°. LR 50 (30° pure GHJ) HBB T11°

Rx: as per above

// flexion 110°

Treatment 8:

S Same

O: Flexion 90° – 100° LR 60° HBB L1

Rx: As above //120° LR 65°

Added LR + theraband

Flexion (*illegible word*)

Flexion with hold at end



To fatigue x3

Plan: R/V 10 days

Treatment 9:

S: Well. More strength

O: FI 100° Adduction 30°

LR: 60° MR -20° in forward flexion 70°

HBB L1

Rx: added physiological medial rotation (MR) III+

Adduction III+

↔ Caudal in flexion and physiological stretch

// FI 120°

MR 30°

Add 30°

Plan: R/V 1 week

Patient B

Treatment 1:

O/E

Mobilised unaided

Sitt and stand ✓

Lying supine (more comf knees bent up)

Scar ✓

Didn't seem approp on this appt to assess ROM

Impression: Pt tentative and appears v anxious as feels still in pain. Encouraged pt leg pain better than was, explained approp take pain medication impt if manages better

(see com re prev Hx)

- May progress to multi-gym as keen to go back to gym/cycling
- Explanation of surgery and rehab time scales

Treatment 2

S: Def better than was

Problems: LBP agg – walking, lifting activity

Eased – nil

Tingling – def better – all down leg – better

Back at work (*describes job*)

Activity – sitt and stand ok ✓

Walking –

No cycling yet

Follow up with surgeon

Plan: shown further ex/stability ex

- FIL
- Advise

See again after seen Mr x

Plan: for cont ↑ activity

- Usual activity – standing work, cycling
- For 1 gym session – would like to return to gym

Treatment 2

Mr x happy with progress and has d/c pt

Pt reports leg pain much better

Minimal p&n/numbness

Now LBP only

Feels happy and cont ex/return to gym (has gym at home) gymball, rowing, bench.

To commence swimming

Long discussion with pt re ex/activity. Feels can manage now as no symptoms of leg pain – more some back pain.

Plan: continue ex/+ advice. D/c pt. Pt happy with this