The Experiences of Physiotherapy Independent Prescribing in Primary Care: Implications for Professional Identity and Practice

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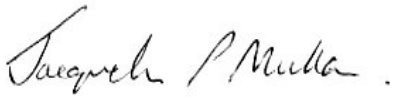
I certify that all material in this thesis which is not my own work has been identified and that any material that has previously been submitted and approved for the award of a degree by this or any other University has been acknowledged.

(Signature) 

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Abstract

Background

The NHS Long Term Plan (NHS England, 2019) and the formation of Primary Care Networks (PCNs) in England, and the untenable workload and shortage of General Practitioners (GPs) in the UK are all driving changes in primary care, with increasing focus on seamless models of care, multi-professional working and empowerment of patients in prevention and self-management. As part of multi-professional advancing practice, new Physiotherapy First Contact Practitioner (FCP) roles are developing. Additionally, legislative change in the UK in 2013, now enables physiotherapists (holding a master's level non-medical prescribing qualification) to independently prescribe certain drugs that assist in patient management. This opportunity for physiotherapists to be independent prescribers (IPs) is a contemporary development in role change and purpose, supported by comparatively new legislation, with a relative dearth of directly related research. PCNs and FCP roles are also in their infancy, hence the chosen context for this research. This research applied a critical realist approach informed by both practice-applied theory and underpinning theoretical concepts including the sociology of professions and professional identity.

Aim

The overall aim of the research was to explore the experiences of musculoskeletal (MSk) physiotherapy independent prescribing in primary care from the multiple perspectives of those involved, and from that, identify the implications for physiotherapy professional identity and practice.

Method

A critical realist approach was used with qualitative data collected via 15 semi-structured interviews (face to face or audio phone call) with physiotherapists and GPs specifically interested in, or working in, MSk primary care. Participant recruitment was through purposive sampling via professional interest groups, NHS and social enterprise employers. Participants held a range of roles (some overlapping): 13 physiotherapists (including eight IPs), two GPs, three MSk service managers, three physiotherapy consultants and two commissioners, working across 15 different sites and 12 different organisations. Nine physiotherapy participants were working in FCP roles (seven of whom were IPs)

on part-time service level agreements from their main employer (e.g. secondary care or community trust). Interviews were recorded and transcribed. Thematic analysis was applied, primarily via theory driven code book deductive coding supported by inductive coding to identify new aspects from the data and give balance.

Key findings

Vertical boundary pushing into the prescribing remit of the medical profession was viewed as an opportunity to advance practice and provide comprehensive patient care, although some questioned the direction of travel of the physiotherapy profession. Physiotherapists were keen to create a niche as specialist MSk physiotherapists with additional prescribing attributes, rather than being viewed as “cheap” or “pseudo” GPs. GPs were supportive of physiotherapists prescribing. Whilst individuals were empowered by their independent prescribing qualification, they were frustrated by the current UK controlled drugs legislation, prescribing IT access and uncertainty about PCNs supporting sustainability of physiotherapy independent prescribing. Physiotherapists identified vulnerability, isolation and dealing with risk as potential issues, but noted patient mileage and clinical experience as vital to mitigate these. Unexpected ‘side effects’ of prescribing included more focused conversations and enhanced practice directly attributed to prescribing knowledge, and deprescribing.

Implications

Prescribing was viewed as pushing physiotherapy professional boundaries and challenging identity perhaps more than previous new scopes of practice. Application of Ibarra’s (1999) Adaption in Role Change model indicated a lack of role models in the journey between provisional selves to possible selves as prescribing FCPs. Participants identified the need to establish prescribing impact and worth within physiotherapy FCP roles, particularly around the difficult to measure aspects such as more holistic conversations. To support individuals, management of vulnerability and risk, development of self-efficacy in physiotherapy prescribing and a clear career pathway needs addressing.

Keywords

Physiotherapy independent prescribing, primary care, professional identity, musculoskeletal practice.

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List of Abbreviations

HCPC	Health and Care Professions Council
CSP	Chartered Society of Physiotherapy
GP	General Practitioner
MSk	Musculoskeletal
ACP	Advanced Clinical Practitioner
ESP	Extended Scope Practitioner
PCN	Primary Care Network
FCP	First Contact Practitioner*

*N.B. Whilst FCP can apply to other professions e.g. paramedics and podiatrists, within the context of this research it is related to physiotherapy First Contact Practitioners unless otherwise stated.

Chapter 1 Introduction and Background

1.1 Introduction

When new independent prescribing legislation for physiotherapists and chiropodists/podiatrists came into law via a legislative change to the Human Medicines Regulation 2013 (Chartered Society of Physiotherapy, 2013), the anticipation from the Department of Health (Department of Health, 2013) and the Chartered Society of Physiotherapy (CSP) (CSP, 2012; CSP, 2013; Beswetherick and White, 2015) was very positive. Karen Middleton, the then Chief Allied Health Professions Officer for National Health Service (NHS) England said “this is a huge step for the physiotherapy profession in terms of being able to provide services which offer patients better access, a better experience and improved outcome … physiotherapists … need to influence local commissioners in terms of how these new prescribing rights can result in significant service redesign, in particular in order to reduce the demand on General Practitioner (GP) time” (DOH, 2013).

Since then the wider health agenda has moved forward considerably, particularly in relation to focus and flexibility in delivery of primary health care (NHS England, 2014; NHS England, 2017a; National Health Service (NHS) England, 2019a; NHS England, 2019b) and the emphasis on advanced clinical practice for multiple health professional groups (Health Education England (HEE), 2017). The resultant developing role opportunities such as First Contact Practitioner (FCP) and Advanced Clinical Practitioner (ACP), all of which are underpinned by relevant frameworks (HEE, 2017; HEE, NHS England and Skills for Health, 2018), require professionals such as physiotherapists to develop new knowledge, skills and competencies and additional educational qualifications as part of evolving the scope and levels of practice. An example of such a postgraduate attribute and qualification for physiotherapists is non-medical prescribing to become an independent prescriber.

Within primary care, it was suggested that the new ways of working could ease some of the pressures on GPs who are overwhelmed by the numbers of people requiring consultations (DOH, 2013; NHS England, 2014; NHS England, 2016; NHS England, 2017a; NHS England, 2019a; NHS England, 2019b). This research therefore aligned well with government policies regarding emerging

roles in healthcare aimed at potentially providing patients with easier access to healthcare interventions (DOH, 2013; NHS England, 2014; NHS England, 2016; NHS England, 2017a; NHS England, 2019a; NHS England, 2019b). As part of evolving practice, the specific implications of how physiotherapy independent prescribing within musculoskeletal (MSk) primary care was manifesting itself in reality was not fully understood, hence this overall research question:

What are the experiences of physiotherapy independent prescribing in primary care: implications for professional identity and practice?

The focus of this research is in relation to MSk physiotherapists working in GP surgeries who manage conditions such as arthritis, joint and muscle pain, acute injuries and long-term MSk conditions. The views of a range of stakeholders were sought including practitioners (physiotherapists and GPs), service managers and commissioners.

1.2 Background

Community and primary care management of acute and long-term conditions is rapidly evolving, with an increasing focus on seamless models of care, multi-professional working and above all empowerment of the patient in self-management (DOH, 2013; CSP, 2012; NHS England, 2014; NHS England, 2016; NHS England, 2017a; NHS England, 2019a). Service provision and staff roles are changing to meet these needs; physiotherapists are ideally placed to be at the forefront of these changes (CSP, 2013; DOH, 2013; NHS England, 2019b). Relatively recent changes in legislation and professional practice now mean that physiotherapists (holding an additional non-medical prescribing qualification) can independently prescribe certain drugs to assist in patient management. This provides a new and exciting opportunity for individual physiotherapists to advance practice and importantly potentially improve the quality of patient care (CSP, 2013; DOH, 2013; Beswetherick and White, 2015; CSP 2020c).

Independent prescribing for physiotherapists is a contemporary example of a change in professional role/scope of practice that may make a big difference especially to community-based care. However, by its nature, it may lead to some professional and practice issues arising. For example, it will impinge on the medical professions' scope of practice. As Freidson (1970) noted, "legally

and otherwise, the physician's right to diagnose, cut and prescribe is the centre. … and the physician's authority and responsibility in that constellation of work are primary". In this context, "prescribing is one of the core activities that demarcate the medical profession from other groups … prescribing is the battleground on which the cause of clinical autonomy is defended" (Britten, 2001, p478).

1.2.1 The context of health care in the UK

The NHS Five Year Forward View (NHS England, 2014) recognised the need for change in the NHS in relation to developments in science and technology and evolving challenges of living longer with more complex health needs. New models of care were proposed including more focus on prevention and self-care, public health and a re-investment in primary care, particularly in recognition of the role of GPs as a cornerstone of health care and the pressures they are under. Specific to primary care, the review of working practice and reconfiguration of services have been driven by unsustainable workload, high demand, a decade of constrained funding (Lacobucci, 2019), and a crisis in GP numbers (NHS England, 2014; NHS England, 2016; NHS England, 2017; NHS England, 2019a; NHS England, 2019b; Holden et al, 2019; Lacobucci, 2019). Headlines had included long term health conditions taking up 70% of the health service budget (NHS England, 2014) requiring a shift to promoting healthier behaviour and targeted prevention associated with proactive primary care (NHS England, 2014). The proportion of NHS funding for general practice had fallen to 7.9% in 2015 from 11% in 2006, representing a shortfall in GP funding of £3.36 billion by 2017-18, calling for a need to redress the proportion to over 10% by 2020 (Mathers, 2016). GPs were described as overworked, overloaded and exhausted (Mathers, 2016) and under pressure (Lacobucci, 2019) with a proposed need for 5,000 more GPs and a team of multiple professionals in primary care to provide a flexible workforce to meet patient and population need (NHS England, 2014). Vautrey (2021) in Pulse reported a BMA survey identifying that more than a quarter of GPs wanted to take early retirement, half wanted to reduce their hours, two thirds felt fatigue and exhaustion, and half were living with a mental health condition made worse by their work (Vautrey, 2021). The urgent need to address primary care workforce flexibility and resource was recognised to meet demand and offset the GP crisis. Thus, the

General Practice Forward View (NHS England, 2016) further built the detail of the NHS Five Year Forward View (NHS England, 2014) and noted the need for sufficient recruitment and workforce expansion across multiple professions underpinned by sustainability and transformation partnerships specific to support general practice. It was viewed as a blueprint for the future of primary care. The NHS England Next Steps on the Five-Year Forward View (NHS England, 2017a) reviewed progress since 2015 and planned forward to 2020. It specifically noted the need to increase convenient patient access across GP services and expand multi-disciplinary primary care although at this stage, unlike pharmacists, physician associates, mental health therapists and nurses, physiotherapists were not specifically identified as one of the key professionals (NHS England, 2017a). That said, the physiotherapy as first point of contact in general practice concept began to emerge (Goodwin and Hendrick, 2016; Moffatt, Goodwin and Hendrick, 2018), with First Contact Practitioner (FCP) appointments in physiotherapy materialising in 2018 (CSP 2020b).

More recently the focus of healthcare has moved even more overtly from secondary and tertiary care to primary and community care with the publication of the NHS Long Term Plan (NHS England, 2019a). One aspect of this ten-year plan is to remove the divide between primary care and community health services and to move towards the development of Primary Care Networks (PCNs) of local GP practices and community teams (NHS England, 2019a). A five-year framework for GP contract reform was additionally published (NHS England, 2019b) to “translate commitments in the NHS Long Term plan into a five-year framework for the GP services contract” (NHS England, 2019b, p3) including detail of requirements and funding streams to achieve the ambition. PCNs were allocated additional monies (from April 2020) to target specific professions, notably pharmacists and physiotherapists, due to the established nature and size of these professions, the high demand for their skills and a relatively positive position in terms of staffing supply than many other professions (Murray, 2019). Specifically, by 2023/24, the GP contract is expected to invest £1.799 billion, or £1.47 million per typical network covering 30,000-50,000 people. This will fund around 20,000 more health professionals including additional clinical pharmacists, physician associates, physiotherapy first contact practitioners, community paramedics and social prescribing link workers (NHS England, 2019c). PCNs will be guaranteed funding through the

Additional Roles Reimbursement Scheme to meet a recurrent 100% of the costs of physiotherapy FCPs within PCNs from April 2020 (NHS England and BMA, 2020) increased from an original 70% of the costs (NHS England 2019b). It is worth noting that whilst there is some research available in relation to direct access and physiotherapy as first point of contact (e.g. Bishop et al, 2017; Goodwin and Hendrick, 2016; Downie et al, 2019; Goodwin et al, 2020), the financial and structural commitment to the FCP role has been made against a relative paucity of evaluative evidence (Goodwin et al, 2020).

Physiotherapy FCPs in PCNs will mainly have a remit for musculoskeletal services within GP practices, especially initially, and will be enabled to develop as advanced clinical practitioners including potentially up-skilling via a non-medical prescribing Masters' level course to become independent prescribers. This offers a timely, contemporary and legislative rationale for the focus of this research.

1.2.2 Context of independent prescribing

Legislation underpins which professions can prescribe medicines. It also allows arrangements to be developed to administer medicines to certain types of patients, in certain circumstances (Health and Care Professions Council, 2020).

There are two different types of prescriber:

An independent prescriber is "someone who is able to prescribe medicines on their own initiative from the British National Formulary (BNF)" (HCPC, 2020). Examples of independent prescribers are doctors, independent nurse prescribers and independent pharmacist prescribers and since 2014, independent physiotherapy prescribers.

A supplementary prescriber is able to prescribe medicines in accordance with a clinical management plan. The plan is agreed between the supplementary prescriber, a doctor and the patient (HCPC, 2020).

As summarised by both Cooper et al (2008) and Cope, Abuzour and Tully (2016), the history of non-medical prescribing started in 1992 with the conception of prescribing related to limited items by district nurses and health visitors (Cope, Abuzour and Tully, 2016). A Nurse Prescribers' Formulary was introduced in 1994 (Cooper et al, 2008). Various iterations of prescribing rights then evolved for the nursing profession including all suitably trained nurses

being able to prescribe from the Nurse Prescribers' Formulary (in 2001) and an increasingly extended drug formulary, all within a supervised framework (dependent prescribing – later renamed supplementary prescribing) with legislation being introduced to enable nurses to practice as supplementary prescribers in 2003 (Cooper et al, 2008; Cope, Abuzour and Tully, 2016). Pharmacists had a slower engagement with non-medical prescribing than nurses (Bissell, 2014), perhaps because of being more community based as opposed to NHS (Cooper et al, 2008), eventually aligning with nurses in gaining supplementary prescribing rights in 2003. Since then the nursing and pharmacy professions have gained additional rights in parallel, including the legislation to prescribe all controlled dugs except Schedule 1 and unlicensed medicines (in 2005) and subsequent recognition as nurse and pharmacist independent prescribers in 2006 (Cooper et al, 2008). Just prior to this, in 2005, suitably trained physiotherapists, chiropodists/podiatrists, radiographers, and optometrists were enabled to practice as supplementary prescribers (Cooper et al, 2008), with optometrists becoming independent prescribers in 2007 (Cope, Abuzour and Tully, 2016). In August 2013, independent prescribing rights for physiotherapists and chiropodists/podiatrists came into law via a legislative change to the Human Medicines Regulation 2013 (CSP, 2013). This represented a world first for physiotherapy (CSP, 2012) and followed a Department of Health (DOH) funded scoping project (Marks, 2009).

During 2014, the first non-medical prescribing continuing professional development (CPD) programmes with an independent prescribing pathway route for physiotherapists commenced, with the first independent prescribers (who had not previously been supplementary prescribers) registering their prescribing qualification with the HCPC in late 2014. Additionally, existing supplementary prescribers were now able to complete a non-medical prescribing conversion programme to upgrade their prescribing qualification to register with the HCPC as an independent prescriber.

At the time of the new legislation being passed in 2013, it was suggested by the Department of Health (DOH) that prescribing will "mean patients will no longer have to go back to their doctors to get medication after visiting the physiotherapist, … freeing up valuable time for General Practitioners (GPs) and making things more convenient for the patient" (DOH, 2013). It was anticipated

that many of the 15 million people living with long term conditions in the UK could benefit from more timely and local care enabling them to manage their conditions better (DOH, 2013). Johnson in CSP, (2012) noted, “Giving physiotherapists the opportunity to prescribe independently will hugely improve the care we can provide in the future. Patients will now receive a more streamlined and efficient service, meaning they get the medicines they need more immediately” (CSP, 2012).

In consideration of the experiences of the first wave of professions enabled to independently prescribe, Cope, Abuzour and Tully (2016) noted that “prescribing is a complex skill that is high risk and error prone, with many influencing factors…(and yet) literature reports regarding the impact of non-medical prescribing are sparse“ (Cope, Abuzour and Tully, 2016, p165). Implementation and sustainability of prescribing in nurses and pharmacist has been considered with Latter et al (2010) noting that “93% of nurse prescribers and 80% of pharmacist prescribers had used their independent prescribing qualification” (Latter et al, 2010. p1) although subsequently, this had decreased to 86% of the nurses and 71% of pharmacists currently prescribing (Latter et al, 2010). Bissell suggested a lack of formal supervision for nurse prescribers, many nurses not prescribing despite completing training, and a concern about the underlying drivers of medical shortages or medical budgets, as underlying issues that needed to be addressed to support prescribing in nursing (Bissell, 2014).

Most prescribing has been in primary care and patient acceptability has been reported as high (Weiss, Sutton and Adams, 2006; Latter et al, 2010; Hindi et al, 2019). Patients accessing non-medical prescribing had a higher quality of care with more choice and convenience (Latter et al, 2010; Stenner et al, 2011), with the vast majority being very satisfied with their visit to an independent prescriber (Hindi et al, 2019). Interestingly, patients who saw a prescribing nurse have reported having a comparably higher satisfaction than patients seeing a GP or prescribing pharmacist, which was attributed to more time, describing options, and greater perceived practitioner empathy from the nurses (Weiss et al, 2015). A survey of patients’ experiences and perceptions of care provided by nurse and pharmacist independent prescribers in primary care was published by Tinelli et al (2015). This survey aimed to identify the impact of

prescribing by nurse and pharmacy independent prescribers from the patients' perspective. It reviewed the consultation, the patient–professional relationship, quality of care, choice, knowledge, patient-reported adherence and control of their condition. Despite the 30% responder rate (294/975 patients), findings indicated that patients had positive experiences of their non-medical prescriber (e.g. satisfaction with last visit - 94% for nurses and 87% for pharmacists) and did not express a strong preference for their prescribing to be carried out by a medical prescriber as opposed to non-medical prescriber (Tinelli et al, 2015).

Latter et al (2010) described nurse and pharmacist prescribing as safe, and identified that overall, clinically appropriate prescribing decisions were being made by nurse and pharmacist non-medical prescribers, although there was capacity for better background pharmacology knowledge in nurses and physical assessment and diagnosis skills in pharmacists (Latter et al, 2012). Hindi et al's (2019) survey of prescribing in primary care identified the independent prescriber's knowledge, competence, and organisational factors such as workload and colleague support, as key barriers and enablers to independent prescribing and highlighted the need for underpinning policy strategies to address these (Hindi et al, 2019). It is worth noting the "early frustrations (from nursing) about prescribing from a limited formulary were identified but allayed by the subsequent legislative change to full formulary prescribing" (Cooper et al, 2008, p247).

Independent prescribing in physiotherapy is an example of advanced practice and reflects a professional role boundary change. As Stanley and Borthwick (2013, p298) noted "extensions in health professionals' role boundaries may involve the incorporation of new or vacant roles, as well as the competitive acquisition of others". As part of the bigger picture, the nature of prescribing within a sociological perspective is noteworthy, particularly the underlying challenge to the medical profession's dominance by other professions specifically related to the activity of prescribing. Baird (2000) had described the unique position of power held by doctors for many years in relation to prescribed medication, the associated control of the scope of practice of other professions, and their probable reluctance to give it up. This was also echoed by Britten in his description of prescribing as the "battle ground on which the cause of clinical autonomy is defended" (Britten, 2001, p478). As commentary,

Bissell (2014) suggested a consensus view that in relation to prescribing, medical dominance/power was being challenged but not necessarily eroded (Bissell, 2014). Cooper et al (2008) reported a number of views from doctors in previous studies ranging from feeling threatened, confusion and blurring of professional roles, to generally positive attitudes (Cooper et al, 2008). Weiss, Sutton and Adams (2006) highlighted the lack of awareness and understanding of non-medical prescribing in pharmacy. The greater clinical autonomy associated with non-medical prescribing was welcomed in nursing although there was a wish not to be “exploited as a cheaper source of labour” (Cooper et al, 2008, p259).

In summary, currently in the UK, the medical professions are still the main independent prescribers in health provision, with some nurse, pharmacy and podiatric prescribers also practicing. Whilst it is recognised that GP workloads are unsustainable (DOH, 2013; CSP, 2012; NHS England 2016; NHS England 2019a; NHS England 2019b), patient demand is increasing (DOH, 2013; NHS England, 2014; NHS England 2017; NHS England 2019a) and therefore other professions need to be prescribing in primary care, how physiotherapists develop their roles and professional identify as independent prescribers alongside these other professions is unclear. As context, it is useful to note that as of Dec 2019, there were 1,122 physiotherapy independent prescribers annotated on the HCPC register amongst a total physiotherapy registrant number of 43,198 (HCPC, 2019b).

1.2.3 Contemporary prescribing legislation and practice

Prescribing in physiotherapy is highly regulated incorporating the HCPC Standards for Prescribing (HCPC, 2019), the Royal Pharmaceutical Society published and maintained Competency Framework for all Prescribers (Royal Pharmaceutical Society, 2016), and the Outline Curriculum Framework for Education to prepare Physiotherapists as Independent/Supplementary prescribers (Allied Health Professions Federation, 2018). As a registered prescriber, physiotherapists are required to prescribe within the law: particularly in relation to controlled drugs. Three different pieces of legislation govern the use of medicines in the UK: The Human Medicines Regulations 2012, the Misuse of Drugs Act 1971 and the Misuse of Drugs Regulations, 2001 (CSP, 2018; CSP, 2019).

For further information regarding specifics of physiotherapy prescribing, please see Appendix A. This level of specific clarity has been included in the appendix A, as it was discussed by participants and thus lucidity is required in order to facilitate contextualising by the reader of the reported data analysis.

1.2.4 Physiotherapy within musculoskeletal primary care

Currently there are essentially two different roles in which physiotherapists might be working in primary care. These are:

1.2.4.1 Physiotherapy First Contact Practitioner (FCP)

These roles are relatively new and emerging roles within primary care. They are in line with the broader FCP drive to alleviate the GP staffing crisis and part of local and regional strategic transformation planning in line with the ten-year NHS Long Term Plan (NHS England, 2019a) and the related GP contract (NHS England, 2019b). Within physiotherapy, the current set up is typically experienced MSk physiotherapists who are employed by a community or secondary care organisation, taking on these FCP roles in primary care GP surgeries as part of a service level agreement. These roles are in their infancy and the requirements of the roles are still being explored and ascertained. Prescribing is one post graduate qualification that may or may not be required for, and/or have an impact on, these roles. Thus, the experiences, implementation and sustainability of independent prescribing within these FCP roles working with MSk patients in primary care has not yet been determined.

Therefore, the basis of this current research is to explore the experiences of physiotherapy independent prescribing, and the implications of this change in role and purpose on professional identity and practice.

1.2.4.2 Traditional musculoskeletal outpatient physiotherapy service

There are some examples of traditional outpatient physiotherapy services being run from GP surgeries, again usually with staff employed by a community or secondary care provider but being bought in to the GP practice on a sessional basis.

The key differences between these roles are outlined in Appendix B.

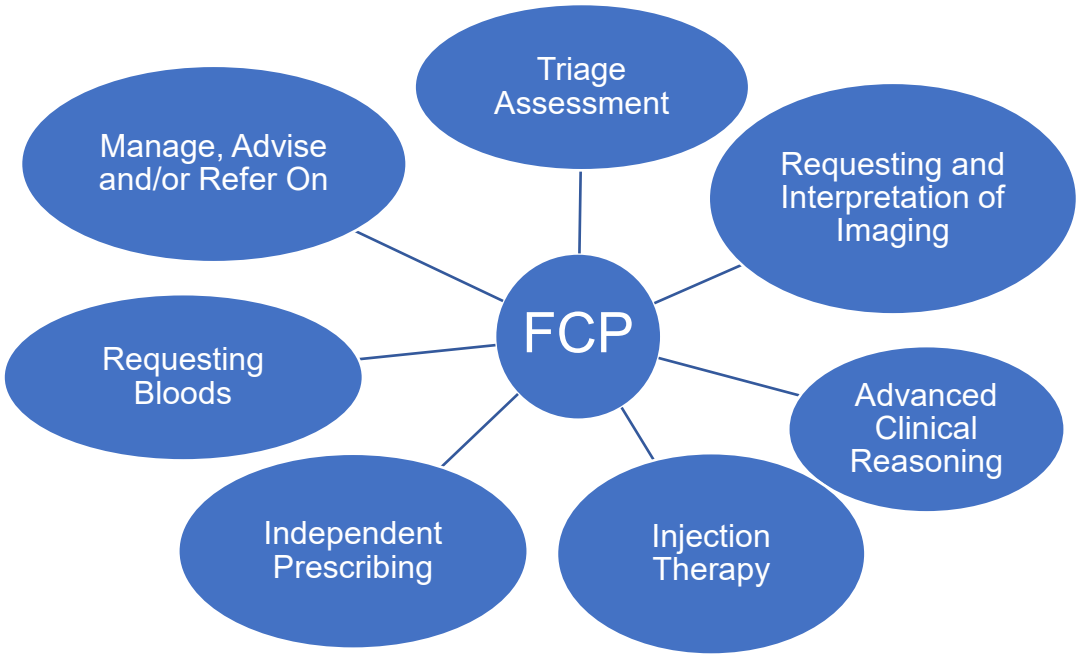

Figure 1.1 Physiotherapy First Contact Practitioner (FCP) role. Potential skills and attributes (Halls et al, 2020).

Figure 1.1 outlines the typical range of skills and attributes that may be required of the Physiotherapy FCP role in Primary Care (Halls et al, 2020). The independent prescribing (achieved by successful completion of a Masters' level non-medical prescribing course) is one of these additional postgraduate attributes associated with key competencies, a new area of autonomous practice and extra responsibility. This provides the focus for the current research whilst recognising its place within the broader contexts of the FCP role and the changing professional practices and structures in primary care, particularly within GP practices.

1.2.5 Terminology and frameworks

Multiple terminology is used in the literature related to the physiotherapy roles associated with independent prescribing. These include Extended Scope Practitioner (ESP), Advanced Clinical Practitioner (ACP), First Contact Practitioner (FCP) and First Contact Physiotherapist.

In the context of this research, First Contact Practitioners (FCPs) are physiotherapists, mostly with some additional skills and qualifications associated with advanced practice, although this varies considerably. Independent prescribing is an example of one of these additional competencies that moves the clinical aspect of their practice towards advanced practice.

For further details regarding extended scope and advanced practice – please see appendix B.

In 2018, the Musculoskeletal core capabilities framework for first point of contact practitioners was published (Health Education England, NHS England and Skills for Health, 2018), setting out the required competencies and providing a development framework for clinicians working in musculoskeletal areas, including physiotherapists. This framework in turn enables clinicians to move towards evidencing the musculoskeletal clinical pillar of the multi-professional framework for Advanced Clinical Practice in England.

Two points of note for clarity are important. Firstly, the musculoskeletal core capabilities framework is not just pertinent to physiotherapy or the clinical area of primary care but is multi-professional and addresses the range of aspects of musculoskeletal services across a range of sectors. Secondly, within this framework (potentially because of the range of roles it is designed to encompass), a decision was made by Health Education England (in collaboration with the working group) not to make independent prescribing a required capability, although there is a general pharmacotherapy capability within the Condition Management, Interventions and Prevention section (Health Education England, NHS England and Skills for Health, 2018).

1.3 Summary

During a major time of change within primary care in the NHS, driven by the NHS Long Term Plan (NHS England, 2019a), the formation of Primary Care Networks (NHS England, 2019a), and the general shortage of GPs (DOH, 2013; NHS England, 2014; NHS England, 2016; NHS England, 2017a; NHS England, 2019a, NHS England 2019b), opportunities and challenges exist for physiotherapists developing and moving into advanced practice roles such as First Contact Practitioner: acquiring new skills and encroaching on the professional boundaries of others, particularly the medical profession.

Physiotherapists by the nature of their work are potentially well placed to implement interventions and give advice to patients, carers and other organisations involved in their care (CSP, 2020a). Empowering patients via improving their care experience and choices is fundamental (CSP, 2005 in Kell and Owen, 2008; CSP 2020a). By considering experience and practice, this

research addresses skills acquisition, changing scope of practice, ongoing competency and governance issues, autonomy, accountability and self-regulation. It explores the reality of the journey for physiotherapists becoming prescribing Advanced Clinical Practitioners, often in the role of FCP, and thus will help to inform future provision. This research enables learning from the early adopters of physiotherapy independent prescribing so that issues raised, and lessons learnt, can be considered and addressed in a timely manner to inform and support future developments. This research aims to explore these aspects in reality and through the eyes of those at the forefront of the change in practice.

Whilst this research is set in England, and contextualised to UK legislation, it is worth noting three aspects related to international context.

Firstly, physiotherapy or physical therapy is a world recognised profession (World Confederation for Physical Therapy, 2019). “Physiotherapy education in most European countries enables physiotherapy to practice autonomously in their assessment, diagnosis, management and discharge of patients” (Long, 2019). Beyond Europe, the scope of work and the level of autonomy in the developed world is comparable to the UK (Webb et al, 2009; World Confederation for Physical Therapy, 2019).

Secondly, models of physiotherapy in primary care vary in Europe, with self-referral to physiotherapy being the norm in the Netherlands, Norway, Sweden, and the UK (Bury and Stokes, 2013; Long, 2019). Primary care models in Australia and Canada have similarities to those in the UK, albeit with different geographic and organisational structures (Noblet et al, 2018).

Thirdly, legislation enabling professionals such as nurses and/or pharmacists to become non-medical prescribers is gradually emerging in Western Europe and anglophone countries such as Australia, Canada, Sweden, Finland, and New Zealand, albeit with imposed additional legal restrictions (Cope, Abuzour and Tully, 2016). AHP international non-medical prescribing legislation is lagging behind nursing and pharmacy, but physiotherapists in particular are seeking to move the non-medical prescribing agenda forward in Australia. (Noblet et al, 2018; Noblet et al, 2019a; Noblet et al, 2019b).

Thus, the use of data from developed countries across the world such as Australia, New Zealand, Canada and Scandinavia to underpin this research is relevant.

Chapter 2 Literature Review

2.1 Introduction and nature of the review

This literature review chapter will provide an applied practice foundation for this research by exploring a range of literature related to physiotherapy independent prescribing, advanced practice, and professional identity. The aim is to explore the breadth and extent of evidence (Tricco et al, 2016) applicable to the potential experiences of physiotherapy prescribing, the First Contact Practitioner role (advanced practice) in primary care, and professional identity considerations during transition. The next chapter (Chapter 3) will explore the theoretical concepts of professionalism, evolution of professions and professional identity. Together Chapters 2 and 3 will provide a multi contextual underpinning to this research, both from practice-orientated and theoretical constructs.

Physiotherapy independent prescribing in FCP primary care is an emerging area of practice bringing together a range of concepts including independent prescribing, advanced practice and involving a potential professional identity shift during a time of change and transition. Therefore a decision was made to undertake three separate but complementary scoping literature reviews to embrace the multiple factors underpinning and influencing this new area of practice: specifically physiotherapy independent prescribing within an advanced practice (FCP) role at a time of change (new primary care service structures) and transition (new role). This current point in time represents a unique and novel experience for participants, and discovery of the implications for professional identity and practice.

Scoping literature reviews have been described by the Canadian Institute of Health Research as “exploratory projects that systematically map the literature available on a topic, identifying key concepts, theories, sources of evidence and gaps in the research” (Grimshaw, 2021. p34). In their seminal work on scoping reviews, Arksey and O’Malley (2005) identified examining the range, extent and nature of available research on a topic in order to identify gaps and aid planning as key reasons for a scoping literature review approach, with Munn et al (2018) adding their value in clarifying concepts. Scoping reviews are useful for ‘reconnaissance’ helping to “clarify working definitions and concept boundaries

of a topic" (Peters et al, 2015. p141) and potentially helping to inform policy, education, and research (Peterson et al, 2017).

2.2 Description and justification of the search strategy

Three separate scoping literature reviews were carried out informed by the guidance as outlined by the Joanna Briggs Institute (Peters et al, 2015). In summary this process involved: identifying review questions in line with the overall research objectives, establishing eligibility criteria and comprehensive searching to identify sources of evidence, selection of relevant sources of evidence (screening), extracting and charting results, and building conclusions and implications (Peters et al, 2015) to inform this research.

The following questions were asked of the literature in each of the 3 searches:

Search 1. What are the existing views on, and experiences of, physiotherapists being able to prescribe drugs?

Search 2. What has been the previous experiences of advanced or extended scope practice roles in allied health professions including the physiotherapy profession?

Search 3. How do allied health professions (AHPs) perceive professional identity during periods of change or transition?

For all searches the key terms were searched within the title or abstract with the Boolean operator "OR" used to maximise hits. Truncation (*) was used to capture various versions of key words.

Three main databases were selected for these searches which were undertaken in October 2019 (Search 1 and 2) and February 2021 (Search 3). The databases chosen were CINAHL, AMED and MEDLINE via EBSCO. There was some overlap, but these three databases were chosen as the most relevant to the search areas. MEDLINE covers all aspects of human medicine, and related biomedical science. AMED, the Allied and Complementary Medicine Database provides an alternative medicine database for physicians, therapists, medical researchers and clinicians looking to learn more about alternative treatments including physiotherapy. CINAHL is the world's most comprehensive nursing and allied health database, including amongst its sources, journals, conference proceedings and standards of practice.

For each of the searches, the findings were synthesised to characterise the literature (Peters et al, 2015) and identify key concepts (Grimshaw, 2021) that aligned with the review questions. This enabled exploration of the breadth and extent of the current evidence (Tricco et al, 2016), and its implications for practice and the current research (Peters et al, 2015).

2.3 Search 1. What are the existing views on, and experiences of, physiotherapists being able to prescribe drugs?

2.3.1 Description of inclusion/exclusion criteria. Search 1

For Search 1, the two world recognised terms for physiotherapists/physiotherapy were used alongside prescribe* (to include prescribing and prescriber) as these captured the concepts to be addressed in Search 1 question. Using the general term prescrib* did generate a large volume of literature related to the more general prescription of exercise or treatment which needed to be eliminated, but the use of independent or drug prescribe* may have been too narrow to capture the relevant literature.

Table 2.1 Search 1. Inclusion/exclusion criteria. What are the existing views on, and experiences of, physiotherapists being able to prescribe drugs?

Inclusion Criteria	**Exclusion Criteria**
Key word in title or abstract	Key word not in title or abstract
Key words - prescrib, physiotherap*, physical therap**	
English language	Not English language
Published after 1990	Published before 1990

2.3.2 Flow chart indicating the search outcome at each stage of the process. Search 1

Table 2.2 Search 1. What are the existing views on, and experiences of, physiotherapists being able to prescribe drugs?

Search outcome 8th October 2019.

Search 1. Search outcome						
Strategy	Search Strategy					
	S1. TI prescrib* or AB prescrib*					
	S2. TI physiotherap* or AB physiotherap*					
	S3. TI physical therap* or AB physical therap*					
	S4. S2 or S3					
	S5. S4 and S1					
Identification	MEDLINE		CINAHLPlus		AMED	
	Search Findings		Search Findings		Search Findings	
Total	Search number	Number of articles	Search number	Number of articles	Search number	Number of articles
	S1	111,831	S1	41,144	S1	2,176
	S2	16,606	S2	11,964	S2	4,112
	S3	19,877	S3	14,664	S3	4,544
	S4	35,632	S4	25,777	S4	8,458
	S5	1,018	S5	649	S5	207
	Selected	34	Selected	20	Selected	2
Screening	Screening total 1,874 Removal of exercise prescribing or prescribing of a programme of treatment, physical activity or self-management strategies. Selected total 56. Removal of duplicates and non-directly relevant.					
Eligibility	Final total 17					
	Selection of literature directly related to independent prescribing. Supplementary prescribing in physiotherapy literature not selected.					

2.3.3 Overview of scoping review included articles. Search 1

Table 2.3 Summary of the 17 articles included in the review of Search 1. What are the existing views on, and experiences of, physiotherapists being able to prescribe drugs?

Author(s) and publication date	Title
Bromley, J. and McIntosh, B. (2016)	Change and opportunity: Challenges for service delivery in physiotherapy.
Cope, L., Tully, M. and Hall, J. (2019)	An exploration of the perceptions of non-medical prescribers, when regarding their self-efficacy, when prescribing, and their willingness to take responsibility for prescribing decisions.
Costa, V. (2017)	Prescription medication by physiotherapists: a Brazilian view of the United Kingdom, Canada, Australia and New Zealand.
Hey, M. (2018)	The evolution of physiotherapist non-medical prescribers.
Holden, M., Whittle, R., Waterfield, J., Chesterton, L., Cottrell, E., Quicke, JG. and Mallen, CD. (2019)	A mixed methods exploration of physiotherapist's approaches to analgesic use among patients with hip osteoarthritis.
Kumar, S. Grimmer, K. (2005)	Nonsteroidal anti-inflammatory drugs (NSAIDs) and physiotherapy management of musculoskeletal conditions: a professional minefield?
Limb, M. (2009)	Another string to physiotherapy's bow.
Loughran, I. and Rae, G. (2015)	Physiotherapist prescribing in lower back pain: A case study.
Marks, D., Bisset, L., Thomas, M., O'Leary, S., Comans, T., Ng, S., Conaghan, P. and Scuffham, P. (2014)	An experienced physiotherapist prescribing and administering corticosteroid and local anaesthetic injections to the shoulder in an Australian orthopaedics service, a non-inferiority randomised controlled trial and economic analysis: study protocol for a randomised controlled trial.
Morris, J. and Grimmer, K. (2014)	Non-medical prescribing by physiotherapists: issues reported in the current evidence.
Noblet, T., Marriott, J., Graham-Clarke, J. and Rushton, A. (2017)	Barriers to and facilitators of independent non-medical prescribing in clinical practice: a mixed-methods systematic review.

Noblet, T., Marriott, J., Jones, T., Dean, C. and Rushton, A. (2018)	Views and perceptions of Australian physiotherapists and physiotherapy students about the potential implementation of physiotherapist prescribing in Australia: a survey protocol.
Noblet, T., Marriott, J., Jones, T., Dean, C. and Rushton, A. (2019a)	Perceptions about the implementation of physiotherapist prescribing in Australia: a national survey of Australian physiotherapists.
Noblet, T., Marriott, J., Jones, T., Dean, C. and Rushton, A. (2019b)	Perceptions of Australian physiotherapy students about the potential implementation of physiotherapist prescribing in Australia: a national survey.
Noblet, T., Marriott J. and Rushton, A. (2019)	Independent prescribing by advanced physiotherapists for patients with low back pain in primary care: protocol for a feasibility trial with an embedded qualitative component.
Nydam, K. (2012)	Gatekeeper, shopkeeper, scientist, coach?
Stenner, K., Edwards, J., Mold, F., Otter, S., Courtenay, M., Moore, A. and Carey, N. (2018)	Medicines management activity with physiotherapy and podiatry: A systematic mixed studies review.

2.3.4 Summary of the literature review findings. Search 1

As a new area of practice for physiotherapists, research findings and literature have begun to emerge around physiotherapists gaining the opportunity and rights to become independent prescribers of drugs. This scoping literature review will synthesise the existing views on, and experiences of, physiotherapists being able to prescribe drugs. Selected literature includes systematic literature reviews (e.g. Morris and Grimmer, 2014; Noblet et al, 2017; Stenner et al, 2018), primary data collection (e.g. Noblet et al, 2018; Noblet et al, 2019a; Noblet et al, 2019b; Cope, Tully and Hall, 2019) professional commentaries (Hey, 2018), and papers related to case studies, or groups of drugs (e.g. Loughran and Rae, 2015; Holden et al, 2019; Kumar and Grimmer, 2005). This review will present the findings under three main themes:

- Opportunities and progress made,
- Facilitators and barriers,
- Risks and responsibilities.

In relation to opportunities and progress made to date, Limb (2009) looked prospectively at the implications for independent prescribing rights utilising quotes from physiotherapists who led the successful DOH/CSP scoping project that underpinned the physiotherapy independent prescribing legislative changes in the UK. It was anticipated that independent prescribing would enable more expansion of physiotherapy self-referral with Marks (2009) noting that "independent prescribing is the best mechanism within a self-referral model, because it allows patients to receive all the care they need from the physiotherapist without delay" (Marks, 2009, in Limb, 2009, p1). The change and opportunity that arises as part of the emerging role of specialist physiotherapists and physiotherapy non-medical prescribing particularly in the context of the challenges posed by population change was noted (Bromley and McIntosh, 2016), as was decreasing the demand on the health system, safely fulfilling patient needs and providing the opportunity for more advanced prescribing autonomy within UK legislation (Costa, 2017).

Whilst the UK has achieved independent prescribing rights for physiotherapists, Australia is still lobbying for those rights. Back in 2012, Nydam noted that the Health Workforce Australia was proposing to further extend the list of practitioners eligible to prescribe to include physiotherapists, pharmacists and psychologists (Nydam, 2012).

A systematic literature review in relation to physiotherapy supplementary prescribing in Australia was published by Morris and Grimmer in 2014. The background context was in preparation for Australia's case for physiotherapy independent prescribing, hence inclusion in this review. From their review of the six included articles, Morris and Grimmer (2014) noted the importance of appropriate training and skills-based recognition and the need to overtly demonstrate prescribing effectiveness and safety. The literature review highlighted the relatively forward UK position in relation to non-medical prescribing, and the aspirations of the Australian physiotherapy profession to follow in the future.

Taking a different viewpoint on opportunity, Loughran and Rae (2015) presented a specific case study on a usually active 26-year-old female presenting with lower back pain and neuropathic leg pain. It detailed the presenting assessment findings and emergent prescribing issues occurring in

overall management, which were contextualised within the NICE guidelines for low back pain and the then relevant Single Competency Framework for all Prescribers (Royal Pharmaceutical Society, 2016). After minimal improvement over the previous 3 months, Gabapentin was prescribed by the physiotherapy independent prescriber, with 80-90% improvement in neuropathic leg pain after eight weeks and a return to work and normal activities. The authors concluded that prescribing by the physiotherapist enabled faster access to appropriate medicines and could be well integrated as part of specialist assessment and shared decision making. Doing so would avoid delay in getting a GP appointment for the patient, and reduce appointment load overall (Loughran and Rae, 2015).

Following on from the opportunities and progress to date, further exploration of the facilitators and barriers is prudent. Evaluation and demonstrating value have been highlighted as a necessity moving forward. Suggested research protocols have included a randomised controlled trial to investigate the clinical and economic feasibility of a physiotherapist undertaking patient selection, prescribing and delivery of sub-acromial corticosteroid and local anaesthetic injections as opposed to an orthopaedic surgeon (Marks et al, 2014), and a trial protocol to evaluate the effectiveness of independent prescribing for patients with low back pain by advanced physiotherapy practitioners in primary care (Noblet, Marriott and Rushton, 2019).

Looking more generally, Noblet et al (2017) undertook a mixed methods systematic review on the barriers and facilitators of independent non-medical prescribing in clinical practice in Australia. The aim was to develop a non-medical prescribing implementation framework from the qualitative themes and quantitative data emerging from the forty-three qualitative and seven quantitative studies. Themes identified were systems, education and support, personal and professional factors, and financial factors. Some specific findings included positive drivers towards non-medical prescribing such as increased job satisfaction associated with increased autonomy and improved patient care. Barriers included increased job stress and anxiety, safety risks, less time to do traditional role, and lack of recognition in terms of remuneration (Noblet et al, 2017).

More recently, Noblet et al, (2018), Noblet et al (2019a) and Noblet et al (2019b) undertook a multi-faceted study to gather views of physiotherapists and physiotherapy students in relation to the potential implementation of physiotherapist prescribing in Australia. Noblet et al (2018) outlined the survey rationale and process noting its aim to gather views from physiotherapists and physiotherapy students, against a backdrop of some conflict within the profession acting as a barrier to implementation of new clinical innovation (Noblet et al, 2018). Noblet et al (2019a) focussed their research on the views of Australian physiotherapists in relation to the potential implementation of physiotherapy prescribing in Australia whilst Noblet et al (2019b) collected student physiotherapist views. The stated overt remit was for the data to be used as a reflection of the professional landscape and as a guide to the Australian Physiotherapy Association, political and health leaders towards "successful implementation of physiotherapist prescribing in Australia" (Noblet et al, 2019a, p13).

Results in the qualified physiotherapists' survey (Noblet et al, 2019a) indicated that 79% believed that autonomous independent prescribing by physiotherapists should be introduced in Australia and 71.2% felt that they would like to train as a prescriber, particularly those working in the private sector. Additionally, 87% of physiotherapy students believed that autonomous independent prescribing by physiotherapists should be introduced in Australia, with 91% indicating that they would like to train as a prescriber (Noblet et al, 2019b). Anticipated benefits to physiotherapists prescribing mainly focussed around improved delivery of health services (80.1%) in the qualified workforce (Noblet et al, 2019a), and efficiency of service delivery (82.5%), improving consumer experience (63.7%) including timely access to relevant medicines (40.8%), and cost effectiveness (64.1%) in the student population (Noblet et al, 2019b). Similarly in Holden et al's (2019) study around views of approaches to analgesia in osteoarthritis (OA), 45% of physiotherapists in the questionnaire signalled they were interested in becoming a prescriber with the twenty one interviewees recognising the benefits to patients and GP workload of these practitioners becoming prescribers (Holden et al, 2019).

In relation to barriers, the survey of prospective views of Australian physiotherapists noted caution in relation to the level of responsibility being too

great (43.9%), physiotherapists not having adequate pre-knowledge to train as a prescriber (34.1%), and increased safety risk to patients (34.1%) (Noblet et al, 2019a), whilst students reported the level of responsibility being too great (63.6%), and the lack of pre-requisite knowledge as potential barriers to training as an autonomous physiotherapy prescriber (Noblet et al, 2019b). Other barriers noted in the literature include frustration at the restrictions on certain controlled drugs in the UK, particularly if working in pain services or a FCP role (Hey, 2018), and some reticence around the extra responsibility related to patient safety and the "legal consequences in case of harm" (Holden et al, 2019, p333) that it brought.

The research suggests that the physiotherapists were weighing up the advantages and facilitators with the disadvantages and barriers in making a choice to become a prescriber or not.

Within the review of the literature, a range of risks and responsibilities were associated both with being a physiotherapy prescriber and not being a physiotherapy prescriber within the realms of contemporary practice and medicines management.

In thinking of becoming a prescriber, risk and responsibility changes were anticipated. For example, concerns regarding the level of isolation within their work, and the potential lack of support mechanisms as a prescriber, caused less positivity towards prescribing from physiotherapists working in remote regions of Australia, even though they recognised the great value of physiotherapists being able to prescribe in such regions (Noblet et al. 2019a). Isolation has indeed been reported as a risk of being a prescriber. Hey (2018) reflected on his evolution from supplementary prescriber (in 2006) to independent prescriber (in 2015) and beyond, noting the loneliness and isolation of being one of the first of his profession to move into this area, and the need to take personal responsibility to engage in developing prescribing-specific governance processes and strategic workforce planning to support and enable others on the path to prescribing (Hey, 2018). At an organisational level, Hey (2018) identified the benefits of adopting strategic NMP roles within organisations, with Noblet et al (2017) also reporting the importance of paving the way for others to decrease professional isolation.

As a coping mechanism for the additional responsibility, Cope, Tully and Hall (2019) found a clear link between self-efficacy and the willingness to take responsibility for prescribing decisions in their study of non-medical prescribers on acute medical units in UK hospitals. Whilst only four of the 99 respondents were physiotherapists (as opposed to nurses or pharmacists) all (4/4) in the study were found to be fully responsible for their prescribing decisions, which was not the case for nurses (13/36) or pharmacists (2/27). All participants apart from three nurses were independent prescribers and thus should be fully autonomous in their prescribing (Cope, Tully and Hall, 2019).

Stenner et al (2018) undertook a systematic mixed study review in relation to medicine management activity with physiotherapy and podiatry. The findings indicated a large variation in quality of published research and reviews and also highlighted the range of prescribing and medicines management situations in which physiotherapists around the world find themselves. It was noted that the UK legislation is helpful in establishing a framework and boundaries within which physiotherapists can work with clear educational, competency and prescribing standards. The study suggests an area of ambiguity where physiotherapists are advising patients about medicines and are involved in administering medicines (both prescription and non-prescription) without clear underpinning medicines management processes (Stenner et al, 2018), reflecting Kumar and Grimmer's (2005) findings in relation to non-steroidal anti-inflammatory drugs (NSAIDS) and Holden et al's (2019) findings in the context of hip osteoarthritis. Of the 1646 responders to a questionnaire, only one physiotherapist was a qualified non-medical independent prescriber in Holden et al's (2019) exploration of physiotherapists' approaches to analgesic use amongst patients with hip osteoarthritis. However, 98% of the physiotherapists noted that they would consider analgesic use by their patients within consultations, although not through prescribing. Instead, referral to GP (83%), optimisation of currently prescribed medication (56%), and discussion about over-the-counter medications (33%) were reported. There was some anxiety related to the overall scope of practice for physiotherapists who were not prescribers in these latter aspects. Similarly, Kumar and Grimmer, (2015) also addressed the greyness of the professional scope of practice for physiotherapists (who are not prescribers) when advising on over-the-counter medicines, particularly in this case NSAIDs. The research was carried out in

Australia where “legislation precludes physiotherapists from prescribing, supplying or selling NSAIDs in their clinical settings” (Kumar and Grimmer, 2015, p70) but does protect the “physiotherapists from situations where their limited training in pharmacology could inadvertently place their patient at risk of greater harm when using NSAIDs as an adjunct to physiotherapy management” (Kumar and Grimmer, 2015, p70). That said, the actual delineation between the permitted general recommendations from the practising physiotherapists in Australia, about NSAIDs in their patient’s symptom management and the specific advice that would require onward referral to a GP or a pharmacist, is somewhat ambiguous with physiotherapists potentially putting themselves at risk of misadventure legal action. First Contact Physiotherapists working in rural areas or sport did indicate that they would welcome being able to prescribe NSAIDs, but would value a pharmacist making the decisions on dosage until they felt they had adequate knowledge for safe prescribing (Kumar and Grimmer, 2015).

This “identified a mismatch in many countries between client demand for medicines and medicines advice and the educational preparation and governance to support physiotherapists to meet this demand” (Stenner et al, 2018, p1338). Stenner et al’s (2018) conclusion recognises that whilst legislation is in place, the next stage for research in the UK is to both evaluate the impact of prescribing and to explore the views of key stakeholders (e.g. doctors, nurses, pharmacists and commissioners) regarding the changes in policy related to prescribing practice. This latter view aligns with this current research question.

2.4 Search 2. What has been the previous experiences of advanced or extended scope practice roles in allied health professions including the physiotherapy profession?

2.4.1 Description of inclusion/exclusion criteria. Search 2

In Search 2, both the group name and abbreviation for allied health profession(s)/profession(als), and the specifics of physiotherap(y)/physiotherap(ists) were used as search terms. The terms extended scope or advanced practice were both applied as, although there is

some difference in the detail, these terms are sometimes used interchangeably, and were both relevant to the research question set.

Table 2.4 Search 2. Inclusion/exclusion criteria. What has been the previous experiences of advanced or extended scope practice roles in allied health professions including the physiotherapy profession?

Inclusion Criteria	Exclusion Criteria
Key word in title or abstract	Key word not in title or abstract
Key words - Allied Health Profession, AHP, physiotherap*, physical therap*, extended scope, advanced practice*	
English language	Not English language
Published after 1990	Published before 1990
Allied health professions including physiotherapy	Pharmacy, nursing and/or medical profession

2.4.2 Flow chart indicating the search outcome at each stage of the process. Search 2

Table 2.5 Search 2. What has been the previous experiences of advanced or extended scope practice roles in allied health professions including the physiotherapy profession?

Search outcome. 29th October 2019.

Search 2. Search outcome	
Strategy	Search Strategy
	S1. TI Allied Health Profession* or AB Allied Health Profession*
	S2. TI AHP or AB AHP
	S3. TI physiotherap* or AB physiotherap*
	S4. TI physical therap* or AB physical therap*
	S5. TI extended scope or AB extended scope
	S6. TI advanced practice or AB advanced practice
	S7. S1 or S2 or S3 or S4
	S8. S5 or S6
	S9. S7 and S8

Identification	MEDLINE		CINAHLPlus		AMED	
	Search Findings		Search Findings		Search Findings	
Total	Search number	Number of articles	Search number	Number of articles	Search number	Number of articles
	S1	2,244	S1	1,663	S1	254
	S2	2,043	S2	360	S2	31
	S3	17,573	S3	15,533	S3	6,876
	S4	21,187	S4	18,837	S4	5,993
	S5	412	S5	151	S5	29
	S6	6,619	S6	8,841	S6	144
	S7	41,735	S7	35,219	S7	12,773
	S8	7,018	S8	8,983	S8	172
	S9	154	S9	170	S9	41
	Selected	30	Selected	31	Selected	2
Screening	Screening total 63 Removal of duplicates and non-directly relevant. Selected total 51 Further selection for relevance to this study e.g. elimination of emergency department and orthopaedics triage/diagnosis accuracy evaluations or those that focussed purely on clinical reasoning process of advanced practice.					
Eligibility	Final total 24					

2.4.3 Overview of scoping review included articles. Search 2

Table 2.6 Summary of the 24 articles included in the review of Search 2. What has been the previous experiences of advanced or extended scope practice roles in allied health professions including the physiotherapy profession?

Author(s) and publication date	Title
Chang, A., Gavaghan, B., O'Leary, S., McBride, L. and Raymer, M. (2018)	Do patients discharged from advanced practice physiotherapy-led clinics re-present to specialist medical services?
Colyer, H. (2004)	The construction and development of health professions: where will it end?

Dawson, L. and Ghazi, F. (2004)	The experience of physiotherapy extended scope practitioners in orthopaedic outpatient clinics.
Desjardins-Charbonneau, A., Roy, J., Thibault, J., Ciccone, V. and Desmeules, F. (2016)	Acceptability of physiotherapists as primary care practitioners and advanced practice physiotherapists for care of patients with musculoskeletal disorders: a survey of a university community within the province of Quebec.
Desmeules, F., Roy, J., MacDermid, J., Champagne, F., Hinse, O. and Woodhouse, L. (2012)	Advanced practice physiotherapy in patients with musculoskeletal disorders: a systematic review.
Downie, F., McRitchie, C., Monteith, W. and Turner, H. (2019)	Physiotherapist as an alternative to a GP for musculoskeletal conditions: for musculoskeletal conditions: a 2-year service evaluation of UK primary care data.
Fennelly, O., Blake, C., Desmeules, F., Stokes, D. and Cunningham, C. (2018)	Patient-reported outcome measures in advanced musculoskeletal physiotherapy practice: a systematic review.
Gosling, S. (2018)	Securing influence in the advanced practice agenda: enhancing opportunities for physiotherapy workforce development through engagement in multi-professional initiatives.
Griffiths, S., Taylor, C. and Yohannes, AM. (2012)	Conversion Rates and Perceived Barriers to Referral: Views of Extended Scope Physiotherapists in the Primary Care Setting.
Griffiths, S. (2012)	Demonstrating clinical quality and cost effectiveness: can extended scope physiotherapists rise to the challenge?
Holdsworth, LK., Webster, VS. and McFadyen, AK. (2008)	Physiotherapists' and general practitioners' views of self-referral and physiotherapy scope of practice: results from a national trial.
Kersten, P., McPherson, K., Lattimer, V., George, S., Breton, A. and Ellis, B. (2007)	Physiotherapy extended scope of practice – who is doing what and why?
Loughran, I. and Rae, G. (2015)	Physiotherapist prescribing in lower back pain: A case study.
Mabry, L., Notestine, J., Moore, J., Bleakley, C. and Taylor, J. (2019)	Safety Events and Privilege Utilization Rates in Advanced Practice Physical Therapy Compared to Traditional Primary Care: An Observational Study.

Masso, M. and Thompson, C. (2016)	Attributes of innovations and approaches to scalability – lessons from a national program to extend the scope of practice of health professionals.
McPherson, K., Kersten, P., George, S., Lattimer, V., Breton, A., Ellis, B., Kaur, D. and Frampton, G. (2006)	A systematic review of evidence about extended roles in allied health professionals.
Morris, J. and Grimmer, K. (2014)	Non-medical prescribing by physiotherapists: issues reported in the current evidence.
Morris, J., Grimmer, K., Gilmore, L., Perera, C. Waddington, G., Kyle, G., Ashman, B. and Murphy, K. (2014)	Principles to guide sustainable implementation of extended scope of practice physiotherapy workforce redesign initiatives in Australia: stakeholder perspectives, barriers, supports and incentives.
Oakley, C. and Shacklady, C. (2015)	The clinical effectiveness of the extended scope physiotherapist role in musculoskeletal triage. A systematic review.
Ryley, N. and Middleton, C. (2016)	Framework for advanced nursing, midwifery and allied health professional practice in Wales: the implementation process.
Saxon, R., Gray, M. and Oprescu, F. (2014)	Extended roles for allied health professionals: an updated systematic review of the evidence.
Sedgley, C. (2016)	Advanced practice in physiotherapy - a UK vision.
Skinner, EH., Haines, KJ., Hayes, K., Seller, D., Toohey, JC., Reeve, JC., Holdsworth, C. and Haines, TP. (2015)	Future of specialised roles in allied health practice: who is responsible?
Stewart, M. (1998)	Advanced practice in physiotherapy.

2.4.4 Summary of the literature review findings. Search 2

This scoping literature review explored the experiences of advanced or extended scoped practice roles in AHPs (including physiotherapy) and the underpinning considerations emerging. The literature searches specific to advanced practice/extended scope practice yielded a range of systematic literature reviews and primary data collections, all of which recognised that although it appeared that advanced and/or extended scope practice were valuable, there was an overall lack of specific measurable evaluation and that further research was required. The selected articles included some general

AHP perspectives (e.g. McPherson et al, 2006; Saxon, Gray, and Oprescu, 2014) and also some specific to physiotherapy musculoskeletal or primary care extended scope roles (Desmeules et al, 2012; Holdsworth, Webster and McFadyen, 2008; Kersten et al, 2007; Loughran and Rae, 2015; Morris and Grimmer, 2014; Morris et al, 2014).

The findings have been collated into three overall themes relevant to advanced /extended scope practice roles:

- Confidence in self, from others and the public,
- Purpose and sustainability,
- Evaluation and measuring impact.

The challenge to personal and professional confidence within advanced/extended scope roles has been noted in the literature (Dawson and Ghazi, 2004; Skinner et al, 2015) mainly associated with relationships with other professionals particularly medical teams, and training needs. Similarly, in advanced or extended scope roles, confidence from other professionals and the public in AHP's ability to carry out the roles, to have effective outcomes, and appropriately refer on is important (Holdsworth et al, 2008; Griffiths et al, 2012; Downie et al, 2019). For example, Holdsworth et al's (2008) primary data collection study aimed to establish views of physiotherapists and general practitioners on self-referral and scope of practice. The data were collected at the end of a self-referral national trial in Scotland (2003-2005) and utilised both qualitative and quantitative questions via a questionnaire to 26 GP surgeries, (64 physiotherapists and 97 GPs responded representing a 73% response rate). Levels of comfort with and confidence in physiotherapists acting as the first point of contact in self-referral was reported (96% in GPs and 94% in physiotherapists). More than 88% of physiotherapists and more than 63% of GPs identified benefits of physiotherapists being involved in monitoring and prescribing of non-steroidal anti-inflammatory drugs and requesting x-rays – although as can be seen from the percentages above, physiotherapists supported this more than GPs. Professional and public awareness of this change in role was identified as a key aspect to address for ongoing success (Holdsworth et al, 2008).

In relation to the purpose and sustainability of the advanced/extended scope roles, McPherson et al's (2006) literature review identified the importance of these roles in developing a flexible workforce. The opportunities were recognised as extensive for the individual professional, the patients, and to address health service drivers (Stewart, 1998; Colyer, 2004; Gosling, 2018). Additionally, the importance of service design and infrastructure to underpin the roll out and sustainability of advanced/extended practice was recognised (Stewart, 1998; Masso and Thompson, 2016; Ryley and Middleton, 2016; Sedgley, 2016).

Similarly, Kersten et al (2007) identified the main drivers for these roles as local or national service demands (34%) in their expanded literature review of physiotherapy extended scope of practice. More recently, Morris et al (2014) carried out a qualitative study in Australia to identify the principles to guide sustainable implementation of extended scope physiotherapy redesign initiatives. They wanted to understand the different perspectives of stakeholders, how to minimise barriers, optimise support available and identify the incentives. Key themes included the need for planning, marketing, addressing issues like barriers overtly, demonstrating value of service in terms of quality and safety, health and cost outcomes and developing, accrediting and delivering a curriculum to support the new scope of practice for the physiotherapists. Demonstrating an ability to translate a good idea into an established service (Morris et al, 2014) and engagement with the advanced practice agendas (Gosling, 2018) were crucial to success.

Some examples of evaluation do exist specific to musculoskeletal physiotherapy advanced/extended scope practice (Griffiths, 2012; Griffiths, Taylor and Yohannes, 2012; Oakley and Shacklady, 2015; Desjardins-Charbonneau et al, 2016; Fennelly et al, 2018; Downie et al, 2019) albeit other papers focus on more descriptive experiences and the relationships with medical team members, and training needs (Dawson and Ghazi, 2004). Some retrospective audits have been undertaken to ascertain the physiotherapists' ability to undertake these roles in terms of outcome. For example, 95% of patients did not re-present to specialist medical services for the same condition 12 months after discharge from an advanced physiotherapy led service (Chang et al, 2018). Demonstrating safety has also been evaluated (Mabry et al, 2019).

However, in contrast to these finding above, an overall theme for advanced and extended scope of practice was that although reviews of these roles were generally supportive, the findings were commonly descriptive or discursive (e.g. 76% of reviewed papers by Kersten et al (2007), in their review of extended scope of practice in physiotherapy) and overall, there was generally a lack of evaluation evidence or measurement of impact (Desmeules et al, 2012). Desmeules et al's (2012) systematic review tried to establish the impact of advanced physiotherapy practice in musculoskeletal disorders and suggested that physiotherapists in advanced physiotherapy practice roles provided equal or better care in the four emergent categories of diagnostic agreement or accuracy compared to medical providers, treatment effectiveness, economic efficiency or patient satisfaction. However, only 43% of the papers reviewed reached or exceeded the methodological quality rating threshold score of 70%, thus questioning the robustness and applicability in establishing the impact of these roles in musculoskeletal disorders (Desmeules et al, 2012). Challenges to demonstrating the value and worth of ESP services have included the difficulty in identifying validated, reliable, and relevant outcome measures that capture the breadth of roles and activities (Griffiths, 2012).

Extended scope roles in relation to paramedics, physiotherapists, occupational therapists, radiographers and speech and language therapists were reviewed to establish the evidence of the impact of these roles, particularly in relation to patients, health professionals and health services (McPherson et al, 2006). Conclusions from the reviewed 21 papers highlighted the lack of evaluation of health outcomes in relation to extended scope roles, or strategies to develop and support these roles in terms of education, support or mentorship (McPherson et al, 2006). Similarly, Saxon et al (2014) carried out an updated systematic literature review of the impact of extended roles in health care services, focussing on physiotherapy, occupational therapy and speech therapy. Seven years on from the original systematic review, there was still a lack of robust evaluations regarding impact of extended roles on patient outcomes, cost effectiveness, requirements, niche identification or sustainability (Saxon et al, 2014).

2.5 Search 3. How do allied health professions (AHPs) perceive professional identity during periods of change or transition?

2.5.1 Description of inclusion/exclusion criteria. Search 3

To address Search 3, the search terms were divided into three sections, professional identity; allied health professions as a group and as the individual professions; and relevant terms related to the concepts of change, transition, or workforce development. In this search, the HCPC recognised AHP professions were divided out and individually searched. The three sections were then combined to answer the search question posed.

Table 2.7 Search 3. Inclusion/exclusion criteria. How do allied health professions (AHPs) perceive professional identity during periods of change or transition?

Inclusion Criteria	Exclusion Criteria
Key word in title or abstract	Key word not in title or abstract
Key words - professional identity, allied health profession, AHP, physiotherap*, physical therap*, art therap*, biomedical scien*, chiropod*, podiatr*, clinical scien*, dietitian*, occupational therap*, operating department practitioner*, orthoptist*, paramedic*, practitioner psycholog*, prosthetist*, orthotist*, radiograph*, speech and language therap*, chang*, transition*, workforce**	
English language	Not English language
Published after 1990	Published before 1990
Allied health professions as a group and by individual AHP profession	Pharmacy, nursing and/or medical profession

2.5.2 Flow chart indicating the search outcome at each stage of the process. Search 3

Table 2.8 Search 3. How do allied health professions (AHPs) perceive professional identity during periods of change or transition?

Search outcome. 5th February 2021.

Search 3. Search outcome	
Strategy	Search Strategy
	S1. TI professional identity or AB professional identity

	S2. TI allied health profession* or AB allied health profession*		
	S3. TI AHP or AB AHP		
	S4. TI physiotherap* or AB physiotherap*		
	S5. TI physical therap* or AB physical therap*		
	S6. TI art therap* or AB art therap*		
	S7. TI biomedical scien* or AB biomedical scien*		
	S8. TI chiropod* or AB chiropod*		
	S9. TI podiatr* or AB podiatr*		
	S10. TI clinical scien* or AB clinical scien*		
	S11. TI dietitian* or AB dietitian*		
	S12. TI occupational therap* or AB occupational therap*		
	S13. TI operating department practitioner* or AB operating department practitioner*		
	S14. TI orthoptist* or AB orthoptist*		
	S15. TI paramedic* or AB paramedic*		
	S16. TI practitioner psycholog* of AB practitioner psycholog*		
	S17. TI prosthetist* or AB prosthetist*		
	S18. TI orthotist* or AB orthotist*		
	S19. TI radiograph* or AB radiograph*		
	S20. TI speech and language therap* or AB speech and language therap*		
	S21. TI chang* or AB chang*		
	S22. TI transition* or AB transition*		
	S23. TI workforce* or AB workforce*		
	S24. S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20		
	S25. S21 or S22 or S23		
	S26. S1 and S24		
	S27. S25 and S26		
Identification	MEDLINE	CINAHLPlus	AMED
	Search Findings	Search Findings	Search Findings

Total	Search number	Number of articles	Search number	Number of articles	Search number	Number of articles
	S1	2,540	S1	2583	S1	128
	S2	2,579	S2	2596	S2	268
	S3	2,413	S3	1010	S3	35
	S4	22,994	S4	21,804	S4	7,116
	S5	25,814	S5	25,147	S5	6,264
	S6	15,279	S6	6,995	S6	1,053
	S7	5,968	S7	1412	S7	50
	S8	135	S8	601	S8	64
	S9	2,020	S9	6,143	S9	724
	S10	22,855	S10	8,277	S10	453
	S11	5,364	S11	5,028	S11	75
	S12	12,175	S12	25,312	S12	8,329
	S13	74	S13	125	S13	4
	S14	256	S14	36	S14	1
	S15	6,389	S15	5,974	S15	74
	S16	328	S16	223	S16	48
	S17	327	S17	334	S17	84
	S18	192	S18	189	S18	62
	S19	180,915	S19	58,913	S19	3,722
	S20	2,824	S20	2,965	S20	481
	S21	2,665,102	S21	555,107	S21	29,660
	S22	391,745	S22	56,976	S22	2,565
	S23	25,067	S23	23,226	S23	54
	S24	299,203	S24	164,213	S24	26,851
	S25	2,990,177	S25	618,493	S25	31,732
	S26	205	S26	310	S26	74
	S27	72	S27	103	S27	18
	Selected	11	Selected	24	Selected	6
Screening	Screening total 193 Eliminated student identity					

	Eliminated inter-professional education and student identity. Selected total 41 Removal of duplicates and non-directly relevant
Eligibility	Final total 25

2.5.3 Overview of scoping review included articles. Search 3

Table 2.9 Summary of the 25 articles included in the review of Search 3, How do allied health professions (AHPs) perceive professional identity during periods of change or transition?

Author(s) and publication date	Title
Black, LL., Jensen, GM., Mostrom, E., Perkins, J., Ritzline, PD., Hayward, L. and Blackmer, B. (2010)	The first year of practice: an investigation of the professional learning and development of promising novice physical therapists.
Borthwick, A., Short, AJ., Nancarrow, SA. and Boyce, R. (2010)	Non-Medical prescribing in Australasia and the UK: the case of podiatry.
Britton, L., Rosenwax, L. and McNamara, B. (2016)	Occupational therapy in Australian acute hospitals: A modified practice.
Carra, KA., Fortune, T., Ennals, P., D'Cruz, K. and Kohn, H. (2017)	Supporting scholarly identity and practice. Narratives of occupational therapy academics.
Clouston, TJ. and Whitcombe, SW. (2008)	The professionalisation of occupational therapy: A continuing challenge.
Dallimore, RK. and Fiddler, H. (2018)	How physiotherapists acquire management skills as they transition into a managerial role.
Goh, NCK., Hancock, N., Honey, A. and Scanlan, JN. (2019)	Thriving in an expanding service landscape: Experiences of occupational therapists working in generic mental health roles within non-government organisations in Australia.
Hammond, R., Cross, V. and Moore, A. (2016)	The construction of professional identity by physiotherapists: a qualitative study.
Harvey-Lloyd, J., Stew, G. and Morris, J. (2012)	Under pressure. Role Transition: From student to practitioner.
Horghagen, S., Bonsaksen, T., Sveen, U., Dolva, A. and Arntzen, C. (2020)	Generalist, specialist and generic positions experienced by occupational therapists in Norwegian municipalities.

Hurst, KM. (2010)	Experiences of new physiotherapy lecturers making the shift from clinical practice into academia.
Kell, C. and Owen, G. (2008)	Physiotherapy as a profession: where are we now?
Lloyd, C. Kanowski, H. and Maas, F. (1999)	Occupational therapy in mental health: challenges and opportunities.
Mak, KH., Kippist, L., Sloan, T. and Eljiz, K. (2019)	What is the professional identity of allied health managers?
Malcolm, D. and Scott, A. (2011)	Professional relations in sport healthcare: workplace responses to organisational change.
Moores, A.and Fitzgerald, C. (2017)	New graduate transition to practice: how can the literature inform support strategies?
Munro, GG., O'Meara, P. and Mathisen, B. (2018)	Paramedic academics in Australia and New Zealand: the 'no man's land' of professional identity.
O'Shea, J. and McGrath, S. (2019)	Contemporary factors shaping the professional identity of occupational therapy lecturers.
Porter, J. and Wilton, A. (2019)	Professional Identity of Allied Health Staff.
Porter, J and Wilton, A. (2020)	Professional identity of allied health staff associated with a major health network organizational restructuring.
Rolfe, G. and Collins, J. (2016)	No green trousers? Maintaining professional identity in a non-occupational therapy role.
Schill, J. (2017)	The Professional Socialization of Early Career Medical Laboratory Scientists.
Thomas, Y. (2008)	Inspiration: moving forward when you do not see the steps.
Toal-Sullivan, D. (2006)	New Graduates' Experiences of Learning to Practice Occupational Therapy.
Tryssenaar, J. and Perkins, J. (2001)	From student to therapist: exploring the first year of practice.

2.5.4 Summary of the literature review findings. Search 3

Professional identity can be defined as the values, norms and behaviours, activities, and products of a group (Kell and Owen, 2008).

This scoping literature review focussed on the qualified AHP workforce, including the initial major transition point of graduating and taking up first professional post. It will explore:

- Evolution of identity at change or transition points,
- Implications of opportunity and fluidity,
- Workforce flexibility.

The development of professional identity is initiated during undergraduate studies particularly via placement experiences (Toal-Sullivan, 2006; Harvey-Lloyd, Stew and Morris, 2012). However, it continues to evolve over an individual's career. External changes such as new legislation and service reorganisation, or more individual changes such as role transition and individual changes in scope or focus of practice are key points where professional identity may be most challenged or evolve.

For the individual professional, there are key transition points within their career. Transition from graduate into the novice practicing professional is a pivotal point, as potentially is moving from clinician to lecturer, from clinician to manager, or into a new type of role. New role transition may include new scopes of practice, either to the profession and/or the individual. Prescribing within First Contact Physiotherapy is an example of this latter type of change thus potentially affecting professional identity.

The concept of transition is multifaceted and individual, influenced by many internal and external factors (Hurst, 2010). It will be influenced by the individual's prior experience and their future expectations, with the success in meeting the demands of the new role often being dependent on a person's knowledge and skills, and the social and professional support received to negotiate the ambiguity (Brown and Olshansky, 1997 in Hurst, 2010).

The first graduate role as an AHP professional may focus on developing knowledge, understanding, competence and thus confidence. Alongside and integral to this is professional socialisation, and development of professional identity as a professional practitioner as opposed to a student (Tryssenaar and Perkins, 2001; Toal-Sullivan, 2006; Black et al, 2010; Harvey-Lloyd, Stew and Morris, 2012; Moores and Fitzgerald, 2017; Schill, 2017). The literature has recognised that the expectation of today's graduates is high in relation to

learning the ropes (Black et al, 2010), fitting in, increasing their knowledge base quickly, and particularly in relation to radiography, becoming competent with the technology (Harvey-Lloyd, Stew and Morris, 2012).

Four consecutive stages of integration as a new occupational therapy or physical therapy professional in Canada were identified: transition, euphoria and angst, recognising and reconciling the realities of practice, and adaption (Tryssenaar and Perkins, 2001), whereby the idealism of the graduate was tempered by the reality of practice (Tryssenaar and Perkins, 2001), a process also described by Black et al (2010, p1759) as “professional inculturation”.

Black et al (2010) further developed this in their study of new physical therapists in the US and noted that the overall direction of growth through the clinical environment, workplace support, learning through experience, interaction with patients and colleagues, reflections and growing confidence all channelled inwards towards the self and their professional identity development. They specifically identified and developed a “Preliminary conceptual model representing the learning and development of the novice physical therapist during the first year of practice” (Black et al, 2010, p1763) with professional identity formation and role transitions as central.

Black et al (2010) also noted that gradually after one year, as their professional identity, confidence and competence became more conceptualised and established, these new professionals started to re-direct their learning and look more outwards as the evolution of their professional identity journey and career pathway began to gradually move from novice towards expert (Black et al, 2010). The novice physical therapists had become more “comfortable with who they were as individual therapists and team members, thus opening the door for thinking about who or what they might become in future” (Black et al, 2010. p1766), including beyond their practice to the social community outside of the clinic walls (Black et al, 2010). Conversely Schill’s (2017) study of early career medical laboratory scientists in the US, (a role akin to the biomedical scientist), noted that during years 2 and 3 post-graduation, “poor workplace culture was a key reason to leave the profession” (Schill, 2017. p18). Medical laboratory scientists (MLS) reported a high sense of professional identity in first year post graduation, self-identifying as members of the MLS profession but not fully having transitioned to full enculturation. As the challenges of navigating the

theory-practice gap decreased, the transition or enculturation stage of professional socialisation came to the fore, with an individual's experiences influencing the decision to remain or leave the profession (Schill, 2017). A particular frustration and influence on professional identity, that became apparent to the 2-3-year post graduation MLS participants at this stage, was the "negative image of the profession" (Schill, 2017. p21) portrayed by a subset of its members and the need for more positive attitudes by all to drive change.

The literature highlights the importance of structured support mechanisms (Black et al, 2010) to enable socialisation into the profession and a professional identity to develop alongside developing confidence, competence, knowledge and understanding. The suggestions included communities of practice (Black et al, 2010), preceptorship schemes (Harvey-Lloyd, Stew and Morris, 2012), clinical internships (Schill, 2017), formal supervision (Moores and Fitzgerald, 2017) and formal or informal mentoring (Black et al, 2001; Tryssenaar and Perkins, 2001; Toal-Sullivan, 2006; Harvey-Lloyd, Stew and Morris, 2012; Schill, 2017). These concepts are multi-faceted and have multiple aims including developing clinical reasoning, professional identity, an active approach to learning, and reflective practice (Moores and Fitzgerald, 2017). Moreover, the processes and outcomes of supervision can have a two-way effect both influencing professional identity and in turn being influenced by it (Moores and Fitzgerald, 2017). Additionally, non-structured ongoing informal support and role modelling from senior therapists has been identified as crucial for developing professional identity, through immediate support and feedback (Toal-Sullivan, 2006; Moores and Fitzgerald, 2017; Schill, 2017), creating underpinning collaborative approaches to learning within the work situation and context, to enable the new professional to develop the skills, knowledge and language of the workplace culture (Toal-Sullivan, 2006). Indeed, in Toal-Sullivan's study of six new occupational therapy graduates in Canada, the overall teams' knowledge and perceptions of occupational therapy, and the overall established nature of the service, directly influenced the participants' professional identity (Toal-Sullivan, 2006).

Another example of a key transition point is when practising AHPs transition into academia as lecturers (Hurst, 2009; Munro, O'Meara and Mathisen, 2018; Carra et al, 2017). Hurst (2009) found in her study of eight physiotherapy

lecturers in their first four years as lecturers that they reported feelings of uncertainty and inadequacy, despite having previous successful clinical careers and reporting being excited about and ready for the change, with the adoption of a new professional identity as a physiotherapy academic taking between 1.5 to 3 years (Hurst, 2009). Key challenges to professional identity as an academic were developing a dual professionalism as a physiotherapist and an educator with concerns about plausibility, credibility, and fears of being exposed as an inadequate teacher being strong (Hurst, 2010). Even though the role had a formal qualification and mentoring process (Hurst 2009), informal learning and peer support was noted as the most valued mechanism to support learning, enable professional socialisation and construction of new identity as higher education lecturers (Hurst 2009). Carra et al (2017) noted the importance of reflexive processes (including the occupation of blogging) focussing on doing, being and becoming in moving from a clinical to an academic identity in occupational therapy in Australia.

Similarly, in transitioning from a physiotherapy clinician to a managerial role, Dallimore and Fiddler (2018) recognised the complex, dynamic, flexible learning process involved, which often involved integration of managerial role demands with an existing clinical workload. Practicing critical reflection, and utilising support structures may preserve professional identity and enable individuals to juggle the dual role identity yet be active in change and improvement during role transition (Dallimore and Fiddler, 2018). Mak et al (2019) noted that allied health managers in their study were able to transition from clinical to hybrid-professional-manager with a positive, realistic and flexible approach, but that in successfully constructing their professional identity, AHP managers required certain personal skills and characteristics (Mak et al, 2019).

Moving from graduate to new professional is a transition from novice towards expert whereas the examples of clinician-to-lecturer and clinician-to-manager examine transition in the opposite direction, albeit not associated with a return to true novice status (Hurst, 2010). Participants in Hurst's (2010) study reported feelings of reduced self-esteem and disempowerment in the initial stages of transition and tended to err towards their primary identity as physiotherapists as a place of familiarity, comfort and confidence, viewing their identity as an academic as a second order role (Hurst, 2010). The balance towards academic

identity changed over time, but some remained rooted to their clinical identity throughout the first four years in post (Hurst, 2010). Indeed, paramedics transitioning from clinical to academia roles in Australia and New Zealand described being in a “no man’s land of professional identity” (Munro, O’Meara and Mathisen, 2018, p33), neither identifying with their deeply held clinical paramedic identity nor as a fully recognised academic (with a PhD), and “having feelings of doubt and anxiety as to the nature and location of their identity” (Munro, O’Meara and Mathisen, 2018. p33). “This ‘no man’s land’ of professional identity is consistent with the concept of an identity being self-determined, shaped by the individual and often in an environment of constant conflict” (Munro, O’Meara and Mathisen, 2018. p35).

Transitioning to new or changing scopes of practice can also cause periods of conflict in environment and approach, impacting on professional identity and leading to the development of a hybridised professional form (Clouston and Whitcombe, 2008). These complex changes within contemporary work settings create a greater need for clarity of purpose, vision and thus identity not just from within the profession but beyond (Clouston and Whitcombe, 2008). Interprofessional working and establishment of roles is very important, often leading to professions both exploring and contesting their traditional identity to establish collaborative practice alongside professional autonomy and status, as seen in Malcolm and Scott’s (2011) study of doctors and physiotherapists working in UK elite sport. Interestingly, the uniform worn may be inherent to the identity, either promoting interprofessional equity in terms of both physiotherapists and doctors wearing the same tracksuits (Malcolm and Scott, 2011) or in hindering identity when not wearing a recognised uniform (Rolf and Collins, 2016).

Sometimes the individuals choose or drive this change in role purpose or scope, or it may be linked with restructuring or healthcare reforms. Professional identity can be particularly affected during periods of organisational restructure, with attention and maintenance of professional identity being crucial to the psychological wellbeing of staff and leaders (Porter and Wilton, 2020).

Changing between generalist, specialist and generic positions can be a challenge to professional identity as seen in occupational therapy community-based reforms in Norway (Horghagen et al, 2020). Participants described their

positions “as being at an intersection between a generic, generalist and a specialist” (Horghagen et al, 2020. p142), causing a lack of clear definition and some frustrations, for example not being given the possibility by leaders to practice in line with their professional identity (Horghagen et al, 2020). One reported solution was to develop the generalist role as a specialist generalist, with the focus on the role of occupation in people’s everyday life being central (Horghagen et al, 2020). Role blending, inherent to generalist or generic roles, was a particular challenge to identity (Horghagen et al, 2020) as also seen in generic occupational therapy mental health roles in Australia (Lloyd, Kanowski and Maas, 1999; Goh et al, 2019) and in acute hospital roles (Britton, Rosenwax and McNamara, 2016). Modifying practice to keep relevant (Britton, Rosenwax and McNamara, 2016), keeping their occupational therapy lens, managing ambiguity and being able to use their profession specific skills enabled the occupational therapists to thrive in role post change and maintain their professional identity (Goh et al, 2019).

Porter and Wilton (2019, 2020) explored AHP identify across workforce structures in Australia prior to and after a healthcare workforce restructure (Porter and Wilton 2019; Porter and Wilton, 2020). AHP staff were integrated into the same clinical directorate as medical and nursing colleagues, adopting a matrix system of dual reporting to an AHP manager for professional governance and a more generic manager for operational management. Professional identity was viewed as strong across all AHPs both before and after the workforce restructure, although within this overall strong range, there was a statistically significant decrease post restructuring. Porter and Wilton (2020) suggest that the change in profession specific lines of report, particularly for those in bed based services, may have diminished components of professional identity post restructure, although the complexity of the multiple identities of these staff make it difficult to ascertain the actual influences (Porter and Wilton, 2020).

In relation to fluidity of the profession and its associated identity, Kell and Owen (2008) highlighted the unprecedented opportunities and challenges to physiotherapy, considering developments in science and technology and changes in health care design and delivery, enabling extension of boundaries of their practice. Through analysis of a wide range of discipline specific and generic literature, they explored the implication of the identity and professional

claim of physiotherapy (Kell and Owen, 2008). Kell and Owen (2008, p158) suggest that a “consequence of this rapid evolution is that physiotherapy is struggling to identify itself”. That said, they recognise the “dynamic nature of professions” as “a complex, subjective concept, which requires consideration of values, identities, and power” (Kell and Owen, 2008, p158). They highlight the need for reflection on what that means to individual physiotherapists, professional bodies, the state and wider society, particularly during times of significant change, by analysing physiotherapy’s history in the context of the broader issues. Citing Abbott (1988) and Schon (1992), Kell and Owen raise some thoughtful debates around the juxta-positions of academic knowledge and technological aspects of professions (evidence based practice), versus the artistry of intuitive judgement (linked with reflective practice); although they do agree that competent problem solving is fundamental to being a professional (Abbott 1988 and Schon 1992 in Kell and Owen, 2008).

Similarly, O’Shea and McGrath (2019) suggest that occupational therapy has always “struggled with its professional identity” (O’Shea and McGrath, 2019. p186), and is being currently challenged by the contemporary factors of neoliberalism and evidence-based practice, in terms of values, health and social care policy, ways of working, construction of knowledge and the interplay between evidence based practice and professional artistry (O’Shea and McGrath, 2019). Their work looked at how these changing contemporary factors are structuring occupational therapy lecturers’ identity and how this identity is in turn shaped within the Bourdieusian perspective of professional habitus, with habitus being the “all-encompassing contextualised and ritualised space we inhabit” (Bourdieu, 1990 in O’Shea and McGrath, 2019. P187). Findings indicated that a key factor in structuring their professional habitus was the tension between outcome driven practices and checklist criteria, and “teaching practices that promote and reflect professional artistry” (O’Shea and McGrath, 2019. p190). Strong structural drivers (such as application of evidence-based practice and managerial systems) influenced professional habitus, changing teaching and learning practices, challenging ability to express professional artistry, and leading to a sense of professional disempowerment (O’Shea and McGrath, 2019).

Furthermore, in relation to occupational therapy, Clouston and Whitcombe (2008) noted the dichotomy between its person centred approach and the medically dominated constructs and also a potential mismatch between the view that society holds of occupational therapy and how the professionals themselves construct their identity (Clouston and Whitcombe, 2008). They did however note that despite the professional identity and assumptions of occupational therapy being nebulous and incoherently defined, occupational therapists were strongly positioned to take advantage of shifting ideas and change (Clouston and Whitcombe 2008). Role changes linked with medical and social care developments have led to occupational therapy identity being mutable and its constancy being limited, a positive in today's contemporary practice (Clouston and Whitcombe, 2008).

Indeed, Thomas (2008) in her commentary on occupational therapy moving forward in meeting the needs of an increasingly inequitable and globalised world, proposed the concept of professional pluralism in developing a many-sided professional identity. Her paper, contextualised amongst New Zealand occupational therapists, highlighted the value of inspiration as a renewable energy source essential to professional wellbeing: creating the force that enables individuals to develop new ways of being, connect with professional artistry, expand practice and discover new ways of working, especially when "moving forward when you do not see the steps" (Thomas, 2008. p12).

More recently, Hammond, Cross and Moore (2016) explored how professional identity is constructed by physiotherapists themselves, identifying the fluid nature of professional identity across time and place, and the role of changing communities of practice, evolving attributes, beliefs, values and motives. This was further shaped by patients, workplace and institutional discourse, boundaries and hierarchies (Hammond, Cross and Moore, 2016).

Black et al (2010) developed this fluid and interactive concept of professional identity especially through change in noting that "there is a reciprocity inherent in the identity formation process: who you are becoming shapes what you know or come to know, and what you know shapes who and what you are becoming" (Black et al, 2010, p1769).

For AHPs, it has been recognised that there are challenges in terms of the multiple identities with respect to their own profession, their place in AHP

structures and inter-professional teams (Porter and Wilton, 2020). Yet, the uni-professional and multi-professional activities outside of traditional working boundaries and organisations create opportunities for that profession to define their own professional identity and growth rather than being defined by the organisation or more powerful groups (Clouston and Whitcombe, 2008).

In order to respond and embrace opportunities and the ongoing fluidity of change, workforce flexibility within and between professions is required. Pushing the allied health profession's professional boundaries, particularly into that of the medical profession, as a response to the need for greater workforce flexibility, was a specific focus of Borthwick et al (2010). Whilst focussed on podiatric supplementary prescribing, rather than physiotherapy independent prescribing, there are some applicable points raised relevant to the current research questions. Borthwick et al (2010) identify the dominance of the medical profession in their previous near exclusive right to prescribe, and how this is now being challenged with the advent of nursing and AHP prescribing rights, with the influence of health policy drivers, and the reality of workforce redesign (Borthwick et al, 2010).

This overview of how AHPs perceive their professional identity over periods of change or transition indicates the dynamic nature, the challenges apparent and the opportunities to be grasped. Having the courage to take risks (Thomas, 2008), drawing on inspiration (Thomas, 2008), and being willing to adapt yet getting support (either formal or informal) from others during the journey (Black et al, 2001; Tryssenaar and Perkins, 2001; Toal-Sullivan, 2006; Harvey-Lloyd, Stew and Morris, 2012; Moores and Fitzgerald, 2017; Schill, 2017) is inherent to nurturing and enabling evolution of professional identity during times of change or transition.

2.7 Summary and relevance to this research

Since the legislative change in 2014, there has been a time lapse whilst the first waves of physiotherapy independent prescribers became qualified, resulting in limited published research beyond the key exception of Loughran and Rae's (2015) case study related to low back pain and physiotherapy independent prescribing. Previous literature relating to supplementary prescribing does exist, with findings from that noting the importance of appropriate training and skills recognition, and the need to overtly demonstrate effectiveness and safety

(Morris and Grimmer, 2014). Since 2017, the amount and breadth of research published has steadily increased although minimal is specific to primary care physiotherapy musculoskeletal services. This therefore supports further review in relation to independent prescribing in general practice settings.

The review of advanced/extended scope of practice identified a lack of evidence of evaluation and although advanced/extended scope practice was generally welcomed and valued, there was little tangible measurable evidence to support it. Morris et al (2014) particularly noted the need to gain multiple perspectives and gather evidence of outcomes from a range of sources, in order to achieve a sustainable implementation of new areas of practice as part of workforce redesign. Morris et al's (2014) work therefore informs the proposed research which will aim to gather multiple perspectives of the experiences of physiotherapy prescribing, identifying the issues to be considered and addressed.

Getting buy-in from other professionals and the public through awareness raising was seen as crucial for the ongoing success of any new role (Holdsworth et al 2008; McPherson et al, 2006). GPs were particularly noted as having less buy-in in relation to aspects that were traditionally their remit. e.g. prescribing (albeit at this time supplementary prescribing), issuing of sick notes and requesting x-rays (Holdsworth et al, 2008). Physiotherapy independent prescribing may further encroach on the traditional remit of the medical profession, giving GPs less accountability but also less influence over their patients' medication. It is therefore important to explore the GP's professional views.

Kell and Owen (2008) specifically noted the need for physiotherapy as a profession to respond to the challenges of 21st century health care in the UK and across the world, exploring the sociology of "profession" and the impact on it from changing contexts. Professional identity was viewed as very fluid and dependent on multiple influences including time, place, evolving attributes, beliefs, values, motives, the workforce and boundaries (Hammond et al, 2015). Integrating independent prescribing into physiotherapy practice within primary care GP services will involve varying degrees of many of these factors and this may alter or challenge professional identity, both intrinsically and extrinsically. How the physiotherapists view their professional identity may influence the

development of their roles, and how they manage the uncertainty and change process to achieve long term success (or not) for themselves and the profession. This opportunity for physiotherapists to be independent prescribers is a contemporary development, supported by comparatively new legislation, with a relative dearth of directly related research. No published research has previously explored the implications of physiotherapy independent prescribing specifically on professional identity and/or practice in musculoskeletal management in GP practice.

Chapter 3 Theoretical Concepts of Professions

3.1 Introduction

Having reviewed the relevant and applied background literature related to prescribing, the changes to professional scope of practice in physiotherapy and the reported underpinning professional identity associations of the physiotherapy profession, it is now important to review the relevant theoretical concepts underpinning what conceives and defines a profession and how professional identity is created. This chapter will focus on a selected range of sociological theories including taxonomic classification, Foucault's power knowledge concept, Fournier's boundary concepts and neo-Weberian approaches to defining professions. These theories are helpful in identifying the processes and strategies of professionalisation, and associated professional identity, and are relevant when exploring evolution in professional scope of practice and new roles (van Mook et al, 2009; McNaughton, Chreim and Bourgeault, 2013; Nancarrow, 2015).

3.2 Outline definitions

The definition of the concept of a profession has various views and encompasses different interpretations, many of which are value laden (MacDonald, 1995). Collectively, the professions have been variously described as "a group of occupations the boundary of which is ill defined" (Eraut, 1994, p1) or a "vocation with a body of knowledge and skills (expertise) put into service for the good of others; the welfare of society" (van Mook et al, 2009, p82). Succinctly, Freidson (1970) suggested that a profession should be regarded as describing a type of occupational control. Alternatively, a profession can indicate competence, efficiency, altruism and integrity in a group of individuals in association with the possession of specific skills (Evetts, 2006; Rogers and Pilgrim, 2014) or representing "occupations based on advanced, or complex, or esoteric, or arcane knowledge" (MacDonald, 1995, p1).

Evetts (2006) articulated that "professionalism in occupations and professions implies the importance of trust in economic relations in modern societies" (Evetts, 2006, p518) and that the "notions of trust and professionalism have always been linked" (Evetts, 2006, p515). Indeed, within the early evolution of professions, Evetts (2006) noted that trust, an historically essential aspect of

professionalism, was viewed with scepticism at times, being seen instead only as a part of the ideological control mechanism of powerful occupational groups. Subsequently a return to emphasis on professionalism and trust has evolved since the 1990s particularly in the links between trust and its contributions to society and individuals (Freidson, 2001 in Evetts, 2006). Saks (2012) described professionalisation as a socio-political process driven by macro level power and interests in the market. Indeed, Larson (1977) used the term 'professional project' to describe the journey that each profession makes, as part of professional evolution, to secure and develop its influence and status aiming for improved social mobility and status as a result of a monopoly in the market for its services and crucially control over and recognition of its credibility with the public" (Larson, 1977, p38). Abbott (1988) highlighted that in relation to the state, each profession has a unique relationship, which in turn influences its negotiating power, autonomy, reward and occupational control, and ultimately determines its status.

Much of the theory underpinning professions, their development and their identity comes from the sphere of the sociology of professions with the premise of defining a profession being to help understand their remit, and how they operate and what they are about (Saks, 2012). Much of this work from sociological theorists documents their views on how the understanding of professions have evolved, is normally based on historical perspectives, and "often building on, or unashamedly deviating from, that posited by others" (King et al, 2018).

3.3 Taxonomic approach (encompassing trait and functionalist models)

One of the first approaches to defining a profession was a taxonomic approach (based on naming, defining and clarifying groups on the basis of shared characteristics). In this approach professions were seen as occupations or institutions possessing special characteristics (Evetts, 2006) and distinct competencies linked with knowledge and expertise (Kvancz, 2006), which in turn distinguished professions from lay occupations particularly due to underpinning trust (Evetts, 2006). Differentiation from other professions, rationality, autonomy, humanity towards the community, and associated altruism are defined characteristics (MacDonald, 1995; Saks, 2012) with the

emphasis on knowledge, expertise and higher educational base reflecting those of already recognised professions when compared to other occupations (Freidson, 1986 in Saks, 2012). The premise is of specialist knowledge and skills being applied by the professions in an ethical and altruistic way, with the reward being remuneration and social prizes such as autonomy (Larkin, 1983; Saks, 1983). The taxonomic approach encompasses the trait and functionalist models (Klegon, 1978).

3.3.2 The trait model

This is based on lists of attributes of professions, most of which include high levels of knowledge, expertise or special features, educational credentials and codes of ethics (Saks, 2012). The characteristic features, which include entry requirements and formal education, special skills and techniques underpinned by theoretical knowledge and altruistic motivation, are used during the gradual progression of occupations along a path to professionalism as a measure of progression (Saks, 1995). Indeed, this approach reflects how the Health and Care Professions Council (HCPC) fundamentally regulate their professions. However, Evetts (2006) suggested that this approach is fruitless as it does not convey an understanding of the power of specific occupations or the underpinning drivers and rationales in wanting to become a professional in a particular occupation.

3.3.2 The functionalist model

This focusses on the “functional relationship between professions and society” (Saks, 2012, p2). Greater position is granted in the social system according to the level of complexity of the knowledge and expertise of the profession, how esoteric it is and of what importance it has to society (Saks, 2012; Saks, 1995). However, this approach has been criticised in establishing characteristics that are assumed, and that they are “reflexively presenting professional ideology rather than reality” (Saks, 2012, p2). Roth (1974) noted that this focus on knowledge and expertise legitimises the dominance of professions, justifying their uniqueness without needing too much empirical analysis (Roth, 1974).

The criticism is that the taxonomic approach cannot be applied as simplistically as it implies as it does not take into account the nuances of professional standing in society and how professions overtly or subtly use knowledge,

expertise and special characteristics to legitimise their standing and status (Saks, 2012). In the context of the HCPC and its registration processes, it could be argued that both aspects are apparent with professional status being conferred via a taxonomic approach but exercised functionally.

3.4 Discourse of professionalism

Another approach as an alternative to the taxonomic model focusses on the discourse of professionalism (Saks, 2012) which goes beyond the taxonomic reification of expertise, knowledge and specific attributes in defining a profession, offering insights into the culture of a profession (Saks, 2012). A criticism of this approach is that it provides less precision in delineating professional boundaries and influencing policy (than neo-Weberian) or in considering the influence of knowledge and expertise (than taxonomic) (Saks, 2012).

3.5 Bourdieu's social world

Bourdieu "conceptualised the social world as a symbolic system made up of different lifestyles and status groups" (King et al, 2018, p2). Building on this, Bourdieu described three types of capital: economic, cultural and social (King et al, 2018), with the "term capital representing material resources of potential value or power, which when mobilised, or converted, confer social advantage" (Flemmen, 2013 in King et al, 2018, p2). Cultural and social capital are non-material resources that can also bring an influence and a power dynamic to professions (Borthwick, Boyce and Nancarrow, 2015). For example, social capital includes skills, information, knowledge and influence which when drawn upon and used in social networks becomes beneficial (King et al, 2018). Indeed, relationships and networks are crucial to the development of social capital with different types of relationship leading to different outcomes (King et al, 2018). This is relevant to the health setting where professionals, particularly doctors can reinforce existing power dynamics to access and mobilise their social capital by exploiting their status and powerful social networks (King et al, 2018). When the value and legitimacy of economic, social or cultural capital is established it is described as symbolic capital (Bourdieu, 1989). Symbolic power struggles can occur when groups and/or individuals challenge or impose their views on others particularly when one group has more power or is of a greater status (King et al, 2018).

3.6 Foucault's power-knowledge concept

Foucault's work relates, in this context, to the inextricable nature of the concepts of knowledge and power which Foucault expressed as a single entity, power-knowledge (Foucault, 1977). Within this, is the idea that as knowledge changes over time, the balance of power alters and more power is generated (King et al, 2018). Power-knowledge alongside the concept of disciplinary power (which includes the three components of hierarchical observations, normalising judgement and examination) (Foucault, 1977), represents Foucault's key theories around the power exerted by professions as a result of disciplinary or professional specific knowledge (Foucault, 1977; King et al, 2018).

3.7 Fournier's boundary work

Fournier's boundary work spans aspects of both Foucault and Weber. Boundary work comes in two parts according to Fournier (Fournier, 2000). Firstly, Fournier describes the establishment of the "professional field" in which the profession has expertise, exclusivity and can exercise authority (King et al, 2018). Some of the concepts from Foucault in relation to disciplinary knowledge and disciplinary power (Foucault, 1977) underpin and inform Fournier's concept of developing the professional field. Clear boundaries around this field are established based on a self-defined and independent knowledge base (Fournier, 2000). In time and with ongoing effort these boundaries are expandable (Nancarrow and Borthwick, 2005). The ongoing effort to establish and maintain professional boundaries forms the second part of Fournier's boundary work and aligns with the social closure work of Weber (King et al, 2018). Three types of boundaries are described by Fournier (2000) as needing to be constructed and maintained: the boundary between different professions (inter-professional boundaries); the boundary between the profession and the client; and thirdly, the profession and the market (Fournier, 2000). From a slightly different perspective, it was further highlighted that role boundary disputes can manifest at the "macro (higher or government), meso (professional association) and micro (local or workplace) levels" (King et al, 2018, p2).

Specific to primary care, McNaughton et al (2013) highlighted that whilst professional role flexibility was noted as key to efficiency and the utility of health care, there was an associated perception from some professionals that their

established role boundaries were under threat or even at risk of erosion. Role boundaries were challenged both in interprofessional interactions (affecting autonomy and collaboration), and in task distribution (giving rise to interchangeable or differentiated roles). McNaughton et al (2013) found that in order to facilitate collaboration and teamwork, empowerment of individuals to develop autonomy, rather than have interchangeable roles, actually enhanced collaborative interactions as energy was not being diverted to underlying power struggles (McNaughton, 2013).

3.8 Neo-Weberian (social closure) approach

Saks (2010, 2012) defends the neo-Weberian approach as the relevant way of analysing a profession, describing it “as based on a less broadly assumptive and more analytically useful definition of a profession centred on exclusionary closure” (Saks 2012, p1) which he believes moves the taxonomic approach, in particular, forward in a useful way. The neo Weberian framework is characterised by its emphasis upon those strategies employed by professions which are designed to advance social status and in which “professional groups are directly or indirectly conceptualised in terms of exclusionary social closure in the market place sanctioned by the state” (Saks, 2010, p887). The dynamic nature of the professions and the macro level socio-political influences characterise this approach (Nancarrow and Borthwick, 2005; Saks, 2010; Saks, 2012). The creation of legal boundaries with registers enables professions to mark out their position in the dynamic, changing and political world, particularly pertinent to power and interests, to gain or maintain their professional standing (Saks, 2012). Power is a key underlying notion within this model (Freidson 2001 in Evetts, 2006). Within the neo-Weberian approach, in creating bodies of included insiders and excluded outsiders, there is an assumption of privilege and better deals in society for those members of the professional groups associated with income, power and status (Parry and Parry, 2018). Entry to the professional group is still usually gained by obtaining relevant higher education credentials as in the case of the taxonomic approach to recognition, but in this neo-Weberian approach the coveted professional standing (achieved by exclusion of others from the group via legal boundaries) is crucial as the defining motive, more so than the knowledge and expertise. In the neo-Weberian approach, the educational certification of knowledge and/or expertise

is seen as a credentialing process rather than an absolute reflection of the substance of that profession (Saks, 2012). Within the neo-Weberian framework, Freidson (1994) described a profession as having lawful and structured autonomy over the origination of work and the judgements made within it, whereas Parry and Parry, (2018) describes a profession as a body of self-governing equals that have market control of particular services.

Although Evetts (2003) raises some concern of the ongoing relevance of the concepts of market closure, occupational power and professional projects in contemporary professional creation, evolution and establishment, Saks (2012 p4) describes the advantages of defining professions using the neo-Weberian approach as “manifold”. Saks (2012) further argues that utilising an empirical approach where assessment of the profession is based on, concerned with, or verifiable by observation or experience, rather than purely on knowledge and expertise, enables a more holistic, contextualised and less linear definition which is potentially more reflective of the competitive challenges and complex expectations of today’s society. It enables other underpinning factors associated with the development of professions to be included such as historical development and macro structure (Saks, 2012). It is important to widen out the definition recognising the journey, success and failure of professionalisation as fundamental to defining professions, and enables, in Sak’s view, an empirically fruitful and incisive method of analysing relevant occupations in the ever-changing dynamics of advanced societies (Saks, 2010). Additional to having a ‘corner on the market’ for services which are deemed unique by the tactic of exclusion, the acquisition of new spheres of influence through usurpation and encroachment is a characteristic, the result being that boundaries can be conceptually considered in a range of ways that may or may not be strongly related to knowledge and expertise (Saks, 2012). The ongoing flux and fluidity of these boundaries for some occupational groups in defining their profession is evident (Saks, 2012). Different factors underpin these boundary changes. For example, Barrett, Sellman and Thomas (2005) noted how professional boundaries can become more or less permeable through interprofessional working (Barrett, Sellman and Thomas, 2005 in Saks, 2012). Alternatively, Brint, (1994 in Evetts, 2011) had a view that within contemporary society, there has been a rhetoric shift towards expert professionalism from trusteeship professionalism. However, as can be seen here, the multiple ways in which

professional boundaries can be flexed, emphasises that a profession is defined more widely that just a primary function of its knowledge base. Further supporting these views, MacDonald (1985) highlights that this flux in direction and rapidity is underpinned by a number of factors such as history of the profession, political action by the professions within the context of the politics of the time, and changes in technology.

Saks, (2012, p6) noted that “part of this process may of course also involve shifts in the basis of professional knowledge and expertise, but the role and pace of such movement should not to be assumed; rather, it should be seen in a more holistic perspective centred on empirical investigation within the clear theoretical and methodological parameters of the neo-Weberian approach”.

Two facets within the neo-Weberian concept are of particularly relevance here and warrant additional exploration: social closure and professional dominance (Rogers and Pilgrim, 2014). Additionally, Parkin (1979) presented exclusion, usurpation and dual closure as three identifiable forms of closure.

3.8.1 Social closure

Certain physical or social attributes are used as a basis for eligibility or exclusion (Parkin, 1979; Macdonald, 1985), having the competitive effect of securing certain advantages for one group at the expense of others (Larkin, 1983), including professional registration (Macdonald, 1985). Larson (1977) noted the benefit of upholding high levels of indeterminate professional qualities, that is, those that escape rules, in comparison to knowledge and skills that can be taught, learned and coded in terms of rules as a strategy for achieving social closure (Larson, 1977). Nancarrow (2015) further describes these indeterminate professional qualities as those that do not fit the justification or definition of a competency (Nancarrow, 2015).

3.8.1.1 Exclusionary closure

Hugman (1991) identified that occupations utilise exclusionary means to preserve their skills and resources, in turn aiming to achieve a monopoly of certain forms of knowledge and practices (Parkin 1979). Power is drilled in a downward direction, to ensure the relegation of “inferiors” (Parkin 1979). Indeed, Borthwick et al noted that the medical profession’s use of exclusionary closure had hindered, but ultimately not prevented, podiatry achieving

prescribing rights (Borthwick et al, 2010), a concept directly applicable to physiotherapy and this study.

3.8.1.2 Usurpationary closure

Usurpationary tactics are utilised to undermine or resist exclusion and challenge the imposition of external boundaries, reflecting an effort towards achieving upward social mobility (Larkin, 1983; Hugman, 1991).

3.8.1.3 Dual closure

This represents the use of both exclusionary and usurpationary approaches, (Parkin, 1979). The multiple dimensions of closure incorporate knowledge, skills and credentialism, and includes closure both within (internal) and between (lateral) competing professions. As explored by Hugman (1991), an example of internal closure strategies (within a profession) is the development of assistants at one level and additionally, generalist and specialist within a profession, each differentiation defended on the basis of superior knowledge and skills of the subordinate. This is relevant to the current study of advanced practice within physiotherapy where multiple tiers of the professions are potentially developing, essentially encompassing higher status activities underpinned by educational post graduate credentials, which in turn can act as an exclusionary mechanism against generalists.

Lateral closure explores the conflicts and tensions between professions competing within the same area. In the context of independent prescribing professionals in primary care, this encompasses prescribing nurses, pharmacists, physiotherapists and paramedics, with the four professions mostly working as advanced practitioners and/or in FCP roles.

3.8.2 Professional dominance and professional autonomy

Central to professional dominance is the power associated with the closure mechanism applied, which in turn influences professional autonomy. Professional autonomy has been represented as the “legitimised control that an occupation exercises over the organisation and terms of its work” (Borthwick et al, 2010, p1). Freidson (1970) specifically refers to medicine’s autonomy in terms of its influence or ability to exercise power over others. Indeed, medicine is described as the exemplar of autonomous professions (Cruess, Cruess and Johnston, 2000; Borthwick, 2000; Britten, 2001; van Mook et al, 2009;

Borthwick et al, 2010) having historically been viewed as having the biggest level of freedom, particularly in control over content and terms of work, control and organisation of healthcare in the wider division of labour, powers of self-regulation, and liberty from external judgement (Freidson, 1970). This resultant high level of power and autonomy for medicine was associated with strong public recognition and prior to 1977, a remit to control and evaluate the work of professions allied to health such as physiotherapy. Indeed, in a 2005 Lancet article, it was noted that medical professionalism and power were being "jeopardized by a political culture that is hostile to any sort of power", "dimming the profession's flame" and "leading to an endemic demoralisation of doctors" (Horton, 2005, p1985). The unique ability of medicine to diagnose was part of this, as was prescribing (Britten, 2001; Nancarrow and Borthwick, 2005; Borthwick et al, 2010).

Larkin (1983 and 2002) specifically applied the neo-Weberian approach to the establishment of professions allied to medicine, emphasising both exclusionary and usurpationary strategies used to achieve professionalism status for these groups (Larkin, 1983, Larkin, 2002). Physiotherapy gained its autonomy in 1977 via the Department of Health memorandum (HC (77) 33), and independent prescribing rights via legislative changes in 2013 (via Statutory Instrument no 1855 Medicines: The Human Medicines (Amendment) Regulations 2013). These represent key milestones in physiotherapy increasing its professional profile within the medical professional dominance in healthcare (CSP, 2020b). That said, the CSP (2020b) noted that the journey has not been without challenges, with the profession being proactive in developing strategies and tactics to mould the division of labour and put forward its case, reflecting strategies originally outlined by Larkin (1983) in his concept of occupational imperialism. Occupational imperialism can be described as the inter-occupational dynamics often apparent in the creation, control and negotiation of boundaries during the division of labour, which in turn shape the status of a profession (Larkin, 1983). In the UK, some timely facilitation was provided by the demand on healthcare, healthcare legislation (CSP, 2013; NHS England, 2014; NHS England 2016; NHS England 2019a; NHS England 2019b; CSP 2020b) and government adopted healthcare reviews such as the Crown review of the prescribing, supply and administration of medicines (Crown, 1999). As a result of this, there has gradually been a shift in medical dominance (Borthwick

et al, 2010; Gabe, Kelleher and Williams, 1994 in Borthwick, 2000), underpinned by the need to develop a workforce capable of reacting to changing healthcare provision, by taking on new roles some of which have been historically within the exclusive domain of medicine (Nancarrow and Borthwick, 2005).

3.9 Professional identity

Integrated to the theory above is the development of professional identify which has been described as “dynamic” (Kell and Owen, 2008), fluid rather than static across time and place (Hammond, Cross and Moore, 2016; Neary, 2014) and as “the relatively stable and enduring constellation of attributes, beliefs, values, motives and experiences in terms of which people define themselves in a professional role” (Schein, 1978 in Ibarra 1999, p765). Professional identity is viewed as one’s professional self-concept forming over time (Ibarra, 1999) and enabling professionals to “gain insight about their central and enduring preferences, talents and values” (Schein, 1978 in Ibarra 1999 p765) through varied experiences and meaningful feedback. Strong professional identity is linked to social closure (Currie, Finn and Martin, 2009) and when particularly noticeable or prominent can be exceptionally impactful on the boundaries and differences between professions (Mitchell and Boyle, 2015). “Professional salience influences interprofessional group dynamics to reduce the potential for innovation by increasing the likelihood of conflict and hostility between members of different professions, which limits the potential for knowledge sharing and integration” (Mitchell and Boyle, 2015, p876).

Professional identity further describes “how we perceive ourselves within our occupational context and how we communicate it to others” (Neary, 2014, p14). Professional identity is “relational, and legitimacy has to be actively constructed and reproduced in relation to others” (Currie, Finn and Martin, 2009, p271). From an academic perspective, professional identity definitions have centred around observation of peers and work socialisation (Ibarra 1999), and shared experience (Larson, 1977). Professional identity is multifaceted encompassing how individuals view themselves, how society sees them, as well as how those individuals believe others perceive them (Neary, 2014). Thus professional identity could be regarded as the embodiment of the interface between the individual and their profession, combining “both one’s awareness of being a

worker doing a specific job and one's identification with the groups and social categories to which one belongs by virtue of one's job" (Mancini et al, 2015, p141) . It is thus a type of collective identity (Ashmore et al, 2004 in Mancini et al, 2015).

Some of these aspects are linked with sociological intra-group considerations beyond the individual, including with peers and society, and involve social comparison and group identification (Tajfel, 1981 in Mancini et al, 2015). Other aspects are from within the individual (intra individual), including the "motivational and cognitive processes that individuals put in place to meet their talent and their abilities" (Mancini et al, 2015, p141), and are more akin to the psychological approach to identity. Additionally, multiple identities have been raised as co-existing and influencing professional identity including personal identity and social identity (Mancini et al, 2015). Personal identity can be described as the character traits that an individual displays, or has attributed to them by others, whereas social identity is based on people's social roles and group memberships (Gecas, 1982).

Ibarra (1999) specifically explored how new roles can particularly challenge professional identity and require three tasks on the part of the professional to adapt to that transition. The first is "observing role models to identify potential identities", the second is "experimenting with provisional selves", and the third is "evaluating experiments against internal standards and external feedback" (Ibarra, 1999, p764). Ibarra proposed a useful conceptual framework in which "individual and situational factors influence adaption behaviours indirectly by shaping the repertory of possibilities that guides self-construction" (Ibarra, 1999, p764) of professional identity. Neary (2014) argues that the infrastructure around professionals can help to establish and support professional identity by "creating a shared sense of commonality amongst practitioners" (Neary, 2014, p14). In the context of this infrastructure concept, and the changing healthcare design and delivery involving extension of boundaries, Kell and Owen (2008) propose that the rapid evolution of physiotherapy, as it embraces the opportunities arising, has left the profession "struggling to identify itself" (Kell and Owen, 2008, p158). They further suggest professional identify and where the profession is at, is a "complex, subjective concept, which requires consideration of values, identities and power" (Kell and Owen, 2008 p158).

3.10 Summary

Role change and identity shift as part of the evolution of a profession are well documented both in the theoretical literature (e.g. Larson, 1977; Evetts, 2003; Saks, 2012; King et al, 2018) and the applied practice literature (e.g. McPherson et al, 2006, Hammond et al, 2016). The concepts of boundary pushing explored by Fournier (Fournier, 2000), which additionally overlaps with some aspects of both Foucault's knowledge power concept (Foucault, 1977) and Weber's notions of social closure, provide pertinent underpinning theory (e.g. Nancarrow and Borthwick, 2005; Borthwick et al. 2010; Saks, 2012; Welsh et al, 2014). Boundary pushing also encompasses the debate of what a profession may leave behind for others to take on if new skills and roles are grasped as part of the professional project (Larson, 1977).

Except for the taxonomic concept of exploring and defining professions, it is proposed that the theories presented in this chapter represent, "the dynamic nature of professions and their boundaries, which are susceptible to changing social influences and processes and the inevitability of role boundary competition". (King et al, 2018, p6)

Whilst the neo-Weberian approach is based on, concerned with or verifiable by, observation or experience rather than theory or pure logic, there has been some criticism that the actual rigor of this empirical evidence may be less thorough, apparent and operationally applied in practice (Saks 1983, in Saks, 2012) than the principles of the approach ideally require. The framework's contemporary relevance to society has also been questioned (Evetts, 2003). Saks (2012) however concluded that neo-Weberianism is one of the "most incisive approaches for understanding how professions are both defined and define themselves, including in terms of the role of knowledge and expertise" (Saks, 2012, p7).

Thus, the neo-Weberian concepts of social closure, boundary encroachment, autonomy and professional dominance, with the related links to the work of Foucault (1977) and Fournier (2000), can provide relevant underpinning theoretical structures for interpretation of this research specifically in helping to understand changes in the physiotherapy profession related to independent prescribing, advancing practice and new roles in primary care. Borthwick et al (2010) described prescribing as the "most distinctive task jurisdiction that

medicine has traditionally controlled" (Borthwick et al, 2010 p8). Thus, whilst there are many opportunities towards enhanced roles for AHPs as a result of necessary workforce flexibility and role substitution, the boundary encroachment especially in relation to the medical profession, in this case GPs, and the autonomy debates involved are particularly pertinent to this research.

Chapter 4 Methodology

4.1 Rationale

The rationale of this research was to explore the experiences and reality of physiotherapy independent prescribing and how it fits into the bigger picture of healthcare provision, particularly within the primary care setting and focussed to musculoskeletal health. Of interest were the implications of physiotherapy independent prescribing for professional identity and practice (service provision and patient care).

4.2 Research questions

- What are the experiences of musculoskeletal physiotherapy independent prescribing in primary care from the multiple perspectives of those involved?
- What are the implications for physiotherapy professional identity and practice?

4.3 Study aims

- To explore the experiences of musculoskeletal physiotherapy independent prescribing within primary care from the multiple perspectives of those involved (e.g. prescribing physiotherapists, General Practitioners (GPs), commissioners, consultant physiotherapists, physiotherapists who do not prescribe).
- To explore the implications of physiotherapy independent prescribing in primary care, for healthcare professionals, commissioners and patients.
- To identify and explore the views of independent physiotherapy prescribers (and other professionals working in primary care) on their change of role and purpose, and how these impact on their professional identity.
- To make recommendations to support future implementation of physiotherapy prescribing in musculoskeletal services in primary care.

4.4 Objective

Undertake a series of interviews to explore the experiences and implications of physiotherapy independent prescribing within primary care musculoskeletal services from the multiple perspectives of those involved.

4.5 Context

The focus of this research was in relation to musculoskeletal independent prescribing physiotherapists working in GP surgeries who manage conditions such as arthritis, acute and chronic injuries, and joint and muscle pain. The views of a range of stakeholders were sought including practitioners, managers and commissioners. The data collection was undertaken between October 2018 and May 2019 at a time of relative novelty for physiotherapy FCP services and roles, and also physiotherapy independent prescribing within them.

4.6 Theoretical frameworks underpinning research

4.6.1 Philosophical position and research methodology framework

This research is an example of applied qualitative research which uses critical realism as a philosophical and methodological framework (Fletcher, 2017). A qualitative research methodology was used to create rich, informed and insightful data. Critical realism was appropriate because of the research being embedded in clinical practice and specific to roles, experiences and views, with the outcome being to focus on and interpret experiences within the multifactorial context of primary care practice. The principles of critical realism arose in the 1970s from the work of seminal theorists such as Bhasker (1979). The 1990s saw further development of this framework by Sayer, Collier, Archer and Lawson (Archer et al, 1998; Fletcher, 2017). Critical realism has been described as “emerging out of the positive/constructivist ‘paradigm wars’ of the 1980s” (Denzin and Lincoln, 2011 in Fletcher, 2017, p181) and as a scientific alternative to both positivism and constructivism (Archer et al, 1998; Denzin and Lincoln, 2011 in Fletcher, 2017).

There is a continuum between social constructionism and direct realism with critical realism on that continuum between the two. Critical realists “assume that our data can tell us about reality, but they do not view this as a direct mirroring … (as participants) may not be fully aware of the factors that influence their approach” (Harper, 2012, p88). “One of the most important tenants of critical realism is that ontology (i.e. what is real, the nature of reality) is not reducible to epistemology (i.e. our knowledge of reality). Human knowledge captures only a small part of a deeper and vaster reality” (Fletcher, 2017, p182). Ontology in critical realism is stratified into three levels: empirical, actual and real (Fletcher,

2017), reflecting the several domains of reality (Danermark, Eksrom and Karlsson, 2019). Moreover, “mechanisms, events and experiences thus constitute these three overlapping domains of reality” (Bhaskar, 1998, p41). ‘Empirical’ relates to observed or experienced events, and whilst measured empirically, are understood and mediated by human interpretation and experience (Fletcher, 2017). Fletcher (2017) described this as “the transitive level of reality, where social ideas, meanings, decisions, and actions occur – but importantly these can be causal” (Fletcher, 2017, p183). The next level is the ‘actual’, whereby true occurrences or events happen whether we observe, experience, or interpret them or not (Fletcher, 2017). The final level is ‘real’, where causal structures or causal mechanisms exist to produce events to occur that in turn are observed or experienced at an empirical level (Fletcher, 2017). Critical realism aims to explain social events via reference to these causal mechanisms and in turn the implications on the ‘empirical’, ‘actual’ and ‘real’ levels of reality (Fletcher, 2017). Danermark, Ekstrom and Karlsson (2019) sum up the interrelations between these domains effectively: “One of these (domains) is that of structures and mechanism (the domain of real). These mechanisms sometimes generate an event (the domain of actual). When they are experienced, they become an empirical fact (the domain of empirical). If we are to attain knowledge about underlying causal mechanisms, we must focus on these mechanisms not only on the empirically observable events” (Danermark, Ekstrom and Karlsson, 2019). Indeed, Danermark, Ekstrom and Karlsson (2019) further argue that a fundamental task of research is revealing the causal mechanism that produce social phenomenon. Thus, critical realists view reality as “out there but access to it is always mediated by sociocultural meanings …. People’s words provide access to their particular version of reality; research produces interpretations of this reality” (Terry et al, 2017). Critical realists also argue that data does not explicitly or directly explain what might be driving, shaping or maintaining experiences and structures (Willig and Stainton Rogers, 2017; Danermark, Ekstrom and Karlsson, 2019), thus in order to make sense of the findings and to draw out concepts, there is a necessity to go beyond the text and explore other disciplines and other sources of evidence, adding a further layer of interpretation such as a broader historical, cultural, political and social context (Harper, 2012). Bhaskar’s (1979) view is that social structures are activity dependent, with the explanatory strength of critical realism in its search

for causation helping “researchers to explain social events and suggest practice policy recommendation to address social problems” (Bhaskar, 1979, p48 in Fletcher, 2017, p183). Danermark, Ekstrom and Karlsson (2019) highlight that the world is structured, differentiated, stratified and crucially changing, a complex combination supporting the critical realism approach to research by recognising the transitive nature of knowledge.

The critical realist approach is advocated for understanding “participants’ experiences as lived realities that are produced, and exist, within broader social contexts” (Terry et al, 2017), as demonstrated by Fletcher (2017) and Adams, McCreanor and Braun (2013) in their studies.

Shakespeare (1998, cited in Harper and Thompson, 2012 p6) recognised that “epistemological frameworks such as critical realism can be regarded as useful political interventions in and of themselves” and thus in a fast-moving world of primary care healthcare change and service/professional evolution, where policy is being shaped concurrent with changing practice, this critical realism approach was relevant to this research.

4.6.2 The knowledge framework

In recognition of the vital consideration of existing theory and critical engagement with the participant’s experience and knowledge (Bhaskar, 1979; Terry et al, 2007; Fletcher, 2017), the range and depth of knowledge framework was fundamental in shaping the research design (particularly interview questions and the coding of the data), and in developing the synthesised discussion of implications and recommendations. This enabled the research to encompass the broader historical, cultural, political and social contexts as the extra layer of interpretation expected in the critical realism approach (Harper, 2012). The theoretical frameworks around sociology of professionals and professional identity have been applied to this research (e.g. Larson 1977; Foucault, 1977; Fournier, 2000; Saks, 2012). This framework around identity is often in relation to the role of knowledge and expertise, new scopes of practice or changes in role and thus was relevant to this independent prescribing development within the physiotherapy profession. The effects of organisational and personal change (e.g Bandura, 1977; Nancarrow and Borthwick, 2005; Ibarra, 1999) were also drawn upon as part of the theoretical frameworks to inform this research.

Professional identity and role development research does exist within AHPs, in other contexts of new roles and new areas of practice and specifically within pharmacy and nursing in relation to prescribing. There is some work around AHPs taking on roles and tasks traditionally more akin to the medical profession e.g. Borthwick et al (2010), which has been directly drawn upon to inform discussion within this research.

4.7 Focus of research setting

It appeared that primary care settings, especially GP surgeries, were potential areas for the most change and impact mainly due to national health strategy focus and population need (NHS England, 2014; NHS England, 2017a; NHS England, 2019a), but it was also anticipated that these areas and working experiences would be the most challenging with a number of variables to identify and explore (NHS England, 2017b). Offloading GP workload and managing long term conditions in primary care (NHS England, 2014; NHS England, 2017a; NHS England, 2019a; NHS England, 2019b), and the “right staff with the right skills in the right place at the right time” quality focus (National Quality Board, 2016), are Department of Health priorities, enabling the current research to fit with the contemporary health agendas.

The research is novel as it is researching pioneering new practice and the implications for the professional and their practice – all aspects that were previously unknown.

4.8 Research design

4.8.1 Overview

Figure 4.1 outlines the research design stages.

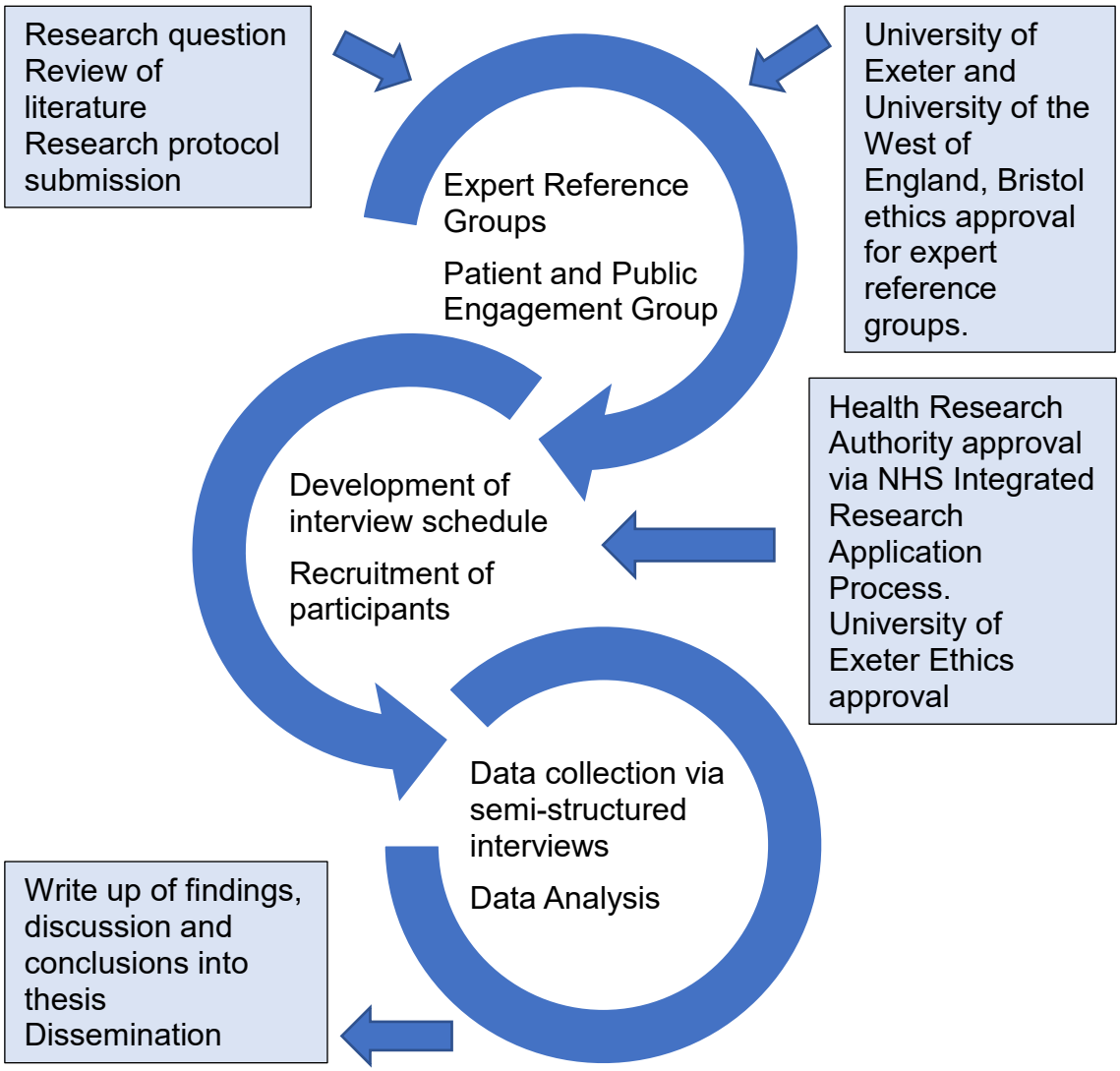

Figure 4.1 Research Design Overview

The research design involved development work in the form of expert reference groups and a patient and public involvement group. This was followed by the main data collection in the form of semi-structured interviews. Thematic analysis was used to analyse the findings prior to development of discussion and conclusions. Ethical and Health Research Authority Approval (IRAS 238300) was obtained as required. The critical realism approach informed the design of questions and interpretation of the data in the following ways. The critical realist approach highlights the importance of the "use of existing theory and critical engagement with participants' knowledge and experience" (Fletcher, 2017, p181), thus a range of applied and theoretical literature was used to inform the structure of the semi-structured interview questions alongside the findings of the expert reference group and the PPI group. The initial theory was used as a starting point for the research to facilitate a "deeper analysis that can support,

elaborate or deny that theory to help build a new and more accurate explanation of reality" (Fletcher, 2017, p184).

Thematic analysis within the critical realist framework was used (Terry et al, 2017). A critical orientation to thematic analysis aims to interrogate dominant patterns of meaning and creating a journey of discovery (Terry et al, 2017). This approach has been compared to an "archaeologist sifting through soil to discover buried treasures (with analysis being) the process of discovering themes that already exist in the dataset, or finding evidence for themes that pre-exist the data" (Terry et al, 2017, p3). Thus, a "flexible deductive process of coding and analysis was used that is consistent with CR ontology and epistemology" (Fletcher, 2017, p181). Whilst a hybrid approach was applied, the aim being to examine the experience and meaning at both semantic and latent levels (Terry et al, 2017), the primary mode of engagement with the data coding and theme identification process was semantic and explicit (Boyatzis, 1998) followed by a more latent approach to coding to explore the underlying patterns/stories in the data (Terry et al, 2017). The deductive approach to the data applied a code book approach, utilising predetermined codes elicited from the existing theory.

4.8.2 Development work for the research design

In addition to the comprehensive review of existing knowledge, including underpinning health policies and organisational structures, practice applied and theoretical literature, the development phase of the research project involved discussion with two expert reference groups and a Patient and Public Involvement (PPI) group to help shape the main body of the research and identify the question areas used in the semi-structured interview schedule.

4.8.2.1 Expert reference groups

Participants of a preliminary study (as part of the taught component of the doctorate) who had completed their non-medical prescribing programme at the University of the West of England (UWE), Bristol by December 2015 and who were working within the South West of England as physiotherapy independent prescribers in a variety of settings and specialities, were invited to take part in the expert reference groups. These UWE, Bristol alumni postgraduate students from the non-medical prescribing programme were all by then annotated by the

Health and Care Professions Council as independent prescribers and had experience of prescribing as part of their practice in a variety of settings and specialities albeit not directly within the MSk primary care setting.

The premise of the expert reference groups was to explore their experiences of prescribing and the emergent issues that they thought needed more in-depth investigation within the multiple perspective interviews planned in the main study. Prior ethical approval was sought and received from the University of Exeter and UWE, Bristol.

4.8.2.2 Patient and Public Involvement (PPI) group

PPI group input was also sourced in relation to the research design. Advice was initially sought via the People in Health – West of England PPI network and the Engaged Research Fellow, University of Exeter. Initial introductions were made via the latter to a group of PPI contributors who had worked on primary care research projects related to GP practice at the University of Exeter Medical School. All these contributors were members of PenPIG (Peninsula Public Involvement Group) which is the Peninsula Collaboration for Leadership in Applied Health Research and Care's (PenCLAHRC) service user involvement group.

An initial meeting was arranged in autumn 2017 as part of the development phase of the study. Five PenPIG members who had an interest in musculoskeletal and primary care research contributed to the development of the research. The remit of the PenPIG session was to help inform the scope and structure of the interview schedule for the main research question. The session was kept deliberately broad, with triggers used related to the overall research aims but also enabling considerable scope for the PPI group members to raise new areas for exploration in the proposed research. The field notes were written up and fed back to the PPI group for agreement and further comment prior to the full development of the research protocol and interview schedule.

4.8.3 Main study design

Fifteen semi-structured interviews were undertaken to explore the experiences of physiotherapy independent prescribing within primary care musculoskeletal services from the multiple perspectives of those involved (e.g. physiotherapists,

GPs, commissioners). The literature, expert reference group and PPI group informed semi-structured interview template was used. NHS England (2017b) noted that interviews offer a "rich source of insight into people's experiences, attitudes and beliefs". To support this, the researcher responsibility for facilitating a conversational space through interaction with the participants was recognised (Pazalla, Pettigrew, and Miller-Day, 2012). Additionally, in approaching interview design and quality, consideration was given to the approach taken and how it fitted with the study's design and aligned with "underlying theoretical and epistemological assumptions about the knowledge production" (Roulston, 2010, p202). The aim was for the use of open, non-leading questions, adopting a neutral role whilst carefully minimising researcher influence and bias. This represents the neo-positivist conception of the interviews as described by Roulston (2010), where data are often represented as themes underpinned by interview transcript extracts. Semi-structured interviews were chosen because they enabled the collection of individual participant's views, from their perspective and on their own terms (Frith and Gleeson, 2012), within a question structure that was underpinned by theory (aligning with the critical realist approach). Also, they enabled the organisation of an individual time with busy clinicians, and flexibility of face-to-face or telephone interviews. The logistics of getting a group of participants together across a diverse organisational and geographical footprint for a focus group was not deemed possible, with finding a time and place to meet everyone's needs a challenge (Frith and Gleeson, 2012).

4.8.3.1 Piloting

Prior to the main data collection, two pilot interviews were undertaken. One pilot participant was a physiotherapy lecturer who also worked part time as a FCP in a GP practice, and the other was a physiotherapy qualitative researcher. Feedback was sought from the pilot interviewees specific to the openness, clarity and structure of the interview and whether they thought the questions asked in the interview were both open to encourage hearing the participant's views and experiences but also focussed enough to address the research questions and generate the data required. Reflection on this feedback led to some adaption of language and re-phrasing of the interview questions.

Additionally, after the first two interviews from the main data collection, a review of the transcripts was undertaken by the researcher and the second supervisor to check the appropriateness of the questions being asked, any potential leading or bias in expression on the part of the researcher and specifically any further development of questions that might be required to obtain the depth of responses required. Following these feedback processes, further adaptions were made to the interview schedule prior to the rest of the data collection e.g. more specific questions about professional identity were incorporated.

4.8.3.2 Data collection

Semi-structured interviews were carried out by the researcher. The semi-structured interview schedules used in the main study included key points from the expert reference groups and the PPI group to underpin the interview structure. In total, 15 semi-structured interviews took place (excluding the pilot interviews) with participants from a range of professional and managerial roles who all had in common an interest in physiotherapy independent prescribing or musculoskeletal services in primary care. Multiple perspectives were explored in relation to experiences of physiotherapy independent prescribing, and how it was affecting practice and professional identity for all those involved.

4.9 Participant recruitment

Recruitment was by local and national purposive sampling. Purposive sampling (also known as selective, judgemental or subjective sampling) is a non-probability sampling technique relying on judgement of the researcher in selecting participants (Sharma, 2017) for a sample from a “sample universe” (Robinson, 2014, p27). Whilst prone to researcher bias (Sharma, 2017), the purposive sampling aim in this research was to enable participants from a range of professions, locations, and organisations to take part by selecting information-rich participants who would illuminate the questions asked (Patton, 2015). The selection criteria were that participants had an interest in or experience of either physiotherapy independent prescribing and/or primary care musculoskeletal services. This formed a homogenous sample by attempting to include participants with shared characteristics, thus enabling the research to focus on individual groups and aspects of a community (Bullard, 2014).

Recruitment occurred via networks such as UWE Non-Medical Prescribing Alumni, the Chartered Society of Physiotherapy (CSP) First Contact Physiotherapy Practitioner group, the South West Chartered Society of Physiotherapy Network and the South West Non-Medical Prescribing Leads forum.

Recruitment also occurred directly with National Health Service staff via existing UWE Bristol research routes within Bristol, North Somerset, South Gloucestershire Clinical Commissioning Group (BNSSG CCG) and the related Avon Primary Care Research Collaborative or directly via relevant GP practices. These routes of access to participants were all supported by the NHS Research and Development partner, BNSSG CCG. The initial contact to potential participants directly via the NHS was through a neutral contact who acted as a form of “gatekeeper”. This was a requirement of the Health Research Authority approval. In relation to these participants, an initial email (which incorporated the study information sheet and consent form) was sent to the identified gatekeeper contact within the NHS e.g. BNSSG R and D department, practice manager or departmental lead. This person then passed the information about the study onto potential participants on behalf of the researcher. The recipient of the email was invited (via the email and information sheet) to respond directly to the researcher. (Appendix C).

Sample size was defined by a combination of what was ideal and what was practical (Robinson, 2014). Alternatively, the researcher can make a judgement on theoretical saturation whereby it is assumed that further data collection will not bring an incremental benefit to the theory development process (Robinson, 2014). An ideographic sample size encompassing a realistic number of participants (15) was chosen. “Interview research that has an ideographic aim typically seeks a sample size that is sufficiently small for individual cases to have a locatable voice within the study and an intensive analysis…to be conducted” (Robinson, 2014, p29), whilst avoiding the researcher becoming bogged down in data and the participants becoming anonymous (Robinson, 2014).

4.9.1 Participants

There was a total of 15 participants, with some fitting into more than one descriptor groups (Table 4.1). The participants recruited included the following:

Table 4.1 Overview of background of participants.

Descriptor of background of the participants	Number of participants meeting this description	Participant number
Physiotherapy independent prescribers with a minimum of six months experience working in primary care within musculoskeletal (MSk) services.	Eight	Participants 3,7,8,9,10,11, 12,15
Physiotherapists who were not independent prescribers but who worked in primary care within MSk services.	Five	Participants 1,2,4,5,13
Consultant physiotherapists working within MSk services in the UK.	Three	Participants 1,2,3
Managers of MSk community/primary care physiotherapy services.	Three	Participants 1,3,13
GPs with an interest in MSk services or commissioning.	Two	Participants 6,14
Commissioners for MSk primary care healthcare.	Two	Participants 5,6
Representative from the professional body, the Chartered Society of Physiotherapy (CSP) or a related CSP special interest group/network.	One	Participant 13

4.10 Research procedure

Interviews were face to face, via telephone or via Skype. Once they were willing to participate, each participant was given an information sheet (Appendix D) and asked to complete a consent form (Appendix E) and participant demographics form (Appendix F). Interviews ranged from 35 to 70 minutes duration and were audio recorded and transcribed verbatim.

4.10.1 Interview schedule

Interview schedules related to each of the three main groups of participants were designed in line with Health Research Authority Approval (HRA) requirements. The interview schedules were similar in overall content but had context and language specific to physiotherapists, service leads or general practitioners. (Appendix G).

4.10.2 Data management

Consent forms and personal demographic information e.g. role and place of work were kept in paper form or audio recordings if telephone consent was gained. They were kept in a locked filing cabinet in a locked office at the University of the West of England or in a password protected file separate to the data if audio recording was used. Audio recordings were labelled by participant number, downloaded promptly and kept as audio files on a secure university computer which had a secure main drive for storage, and were encrypted and password protected. A transcription company recommended by the University of Exeter was used for initial transcribing. A confidentiality agreement was in place with the company and their secure audio upload facility used. Electronic transcriptions were identifiable only by participant number, were kept as files within this secure university drive and were password protected. Any reference to identifiable information, e.g. place of work, within the transcripts was removed by the researcher to protect anonymity and confidentiality after transcription and before analysis. Any interview transcript print outs were identifiable by participant number only and no personal data appeared on the transcripts in paper or electronic form. The subsequent write up was anonymised and great care taken for personal participant identification not to be possible due to organisational or contextual information. The researcher remains responsible for the coding, de-identifying, storing, accessing and archiving of the data.

4.10.3 Materials

Digital audio recorder, printing access, transcription equipment.

4.11 Data analysis strategy and process

Thematic analysis was chosen as the approach to analyse the data (Boyatzis, 1998; Braun and Clarke 2006; Braun and Clarke, 2013; Braun et al, 2014; Joffe, 2012; Willig and Stainton Rogers, 2017; Terry et al, 2017; Braun, Clarke and Hayfield, 2019). Whilst thematic analysis does not stem from a particular epistemological tradition and is a very flexible method, the approach used to carry it out needs to align with the chosen epistemological stance (Braun, Clarke and Hayfield, 2019).

Thematic analysis can also be a ““contextualist” method, sitting between the two poles of essentialism and constructionism, and characterised by theories, such

as critical realism, … which acknowledge the ways individuals make meaning of their experience, and, in turn, the ways the broader social context impinges on those meanings, while retaining “reality”” (Braun and Clarke, 2006, p81).

Thematic analysis within a critical realist framework was applied with experiences and meaning being examined primarily at a semantic level and secondarily, at a latent level (Boyatzis, 1998; Terry et al, 2019; Willig and Stainton Rogers, 2017). In this research, thematic analysis allowed identification of constructed themes and subthemes from the multiple perspectives of participants across several interviews (Braun and Clarke, 2006), whilst also enabling emphasis on both the explicit content of data (semantic, manifest) as well as data where themes were implicitly inferred (latent) (Joffe, 2012). Underpinning the analysis with the critical realism approach enabled consideration of the ways in which participants made meaning from experiences alongside the context and broader influences (Braun and Clarke, 2006; Terry et al, 2017; Willig and Stainton Rogers, 2017; Braun, Clarke and Hayfield, 2019).

Codes were identified related to interesting features in the data that related to the research questions. Boyatzis (1998, p63) describes a code as “the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon”. A theme, or unit of analysis captures something important about the data in relation to the research question and “represents some level of patterned response or meaning within the data set” (Braun and Clarke, 2006, p82). Development of themes requires interpretative analysis of the coded data to ascertain which arguments are made in relation to the questions being asked (Boyatzis, 1998).

Attride-Stirling (2001) noted the importance of clarity of the ‘what’, the ‘why’ and also the often omitted ‘how’ in the analysis of reports. In developing a theme, the issues of prevalence within the data in general and special participant data sets of certain codes was considered (Braun and Clarke, 2006). However, alongside this, the themes were not just chosen due to their proportion of the data that they represented or how many data sets they appeared in. Researcher judgement was applied during coding being mindful of the research questions to be answered. The approach was primarily deductive, which appropriately supported the critical realist stance and aligned with the researcher’s theoretical and analytic interests in the area, making it more

explicitly analyst driven (Braun and Clarke, 2006). This more critical rather than experiential orientation to thematic analysis seeks to interrogate dominant patterns of meaning and understand how the language is creating reality (Terry et al, 2017). Braun and Clarke (2006) further suggest that this deductive approach to thematic analysis lends itself to a more detailed analysis of some aspect of the data and less of a rich description of the data overall. That said, accounts that did not align with the dominant story were also retained (Braun and Clarke, 2006).

The level of theme identification was semantic or explicit rather than latent or interpretative level (Boyatzis, 1998). This level progresses the descriptive analysis to interpretation, attempting to theorise the patterns, their broader meanings and implications by incorporating the previous literature (Patton, 2002). This approach was wholly relevant to theorising the meaning of experiences and motivations within a specific context.

NVIVO was used as a tool for coding the data and managing the analysis (Jackson and Bazeley, 2019). Coding involved carefully reviewing the participant's words, highlighting individual words or phrases or annotating sections of the transcript with codes. Codes were initially developed deductively whereby key theories from the literature review were overtly considered in relation to the data to enable comparison of the findings to prior research to support, extend or challenge previous findings (Boyatzis, 1998). This deductive approach represents an analytic starting point that is more 'top down' whereby the researcher uses existing theories or concepts as a foundation for 'seeing the data', and determining what 'meanings' are coded and how codes are clustered to develop themes (Terry et al, 2017). Deductive codes from the research question and literature review themes that were applied to the interview transcripts included power, autonomy, knowledge, confidence, isolation, relationship with others, enablers, barriers. Additionally, coding was also used inductively from the raw data information (Boyatzis, 1998) to give a balance and identify new aspects that emerged from the data itself (e.g. deprescribing, opioid dependency, holistic conversations) (McNaughton, Chreim and Bourgeault, 2013). This meant that the initial list of codes from the theoretical frameworks and review of literature were treated as just that – initial

and provisional, with codes being added, changed, eliminated and supplemented with new codes as the data warranted (Fletcher, 2017).

These codes were then arranged into trees/branches to formulate nodes. Codes that were important to the data but potentially occurred less times were also included if they were important to the research area (Buetow, 2010). These represented alternative views to the majority or a context/profession specific experience of less frequency but still of key importance to the overall findings. Bazeley's (2007) approach to coding was applied where category was used for the descriptive level of coding and concept for the more abstract level (Bazeley. 2007 cited in Bazeley, 2009).

Through the coding, themes developed deductively from 'top down' relating to the research questions or the underlying theoretical frameworks, e.g. professional identity literature, whilst other themes were inductive or 'bottom up', i.e. emerging out of the data (Braun and Clarke, 2006). Whilst Braun and Clarke's approach to thematic analysis is reflexive and constructionist, they advocate that some of the broader principles can be applied across thematic analysis whilst recognising the different emphasis of the critical realist approach (Braun, Clarke and Hayfield, 2019). Whatever the approach, Braun, Clarke and Hayfield (2019) note that the process of building themes that have central organising concepts is fundamental to qualitative work as it allows for the organisation of material into trends, categories and common elements that are theoretically important.

Bazeley (2009) further highlights the importance of taking the thematic analysis to the final stage emphasising the need to improve interpretation, and to include divergent views and negative cases to challenge generalisations. Subsequently it is essential to write and present the outcomes of the analysis creatively to prompt deeper thinking and contextualise this with the substantive, theoretical or methodological literature (Bazeley, 2009).

4.12 Ethics

4.12.1 Consent

Written or audio consent was sought from all participants prior to participation (Appendix E). In the case of a telephone or Skype interview, an electronic signature was accepted on the consent form via email or an audio recording of

consent was taken prior to the interview. This was informed consent following the participant reading an information sheet and any discussion with the researcher for clarity.

4.12.2 Ethical approval and regulatory considerations

The expert reference group that took place in the preparatory work received ethical approval from the University of Exeter Psychology Research Ethics Committee (PREC) and the University of the West of England Ethics Committee. The latter was required as the participants in the expert reference group were alumni from the first two cohorts on the Non-Medical Prescribing Programme at the University of the West of England, Bristol who had become amongst the first to be annotated on the Health and Care Professions Council register as physiotherapy independent prescribers.

The main study required the following ethical approvals:

- Health Research Authority approval via the NHS Integrated Research Application System. IRAS project ID 238300, Protocol number 1718/29 (Appendix H)
- University of Exeter PREC approval eCLESPsy000800 v2.1 (Appendix I) following the successful outcome of the HRA approval.

Health Research Authority (proportionate review) via NHS Integrated Research Application System application was developed and submitted spring 2018 with all supporting documentation. As part of this, an NHS Research and Development (R and D) unit had to be identified as a partner. Bristol, North Somerset, South Gloucestershire (BNSSG) CCG became my NHS research R and D partner (Appendix J).

Sponsorship of the research by University of Exeter, as required by HRA was confirmed on 13th March 2018 (Appendix K). The HRA and Health Care Research Wales (HCRW) approval letter was received on 11th July 2018. IRAS ID 238300. Project 1718129. Sponsor University of Exeter (Appendix H). Subsequently the University of Exeter Psychology Research Ethics Committee (PREC) application was submitted in July 2018, as part of internal processes required for review of research activity. Agreement was confirmed on 16th August 2018 (Appendix I).

4.12.3 Consideration of possible ethical issues

It was stated in the ethics application that confidentiality would be respected unless there was a disclosure of serious concern e.g. clinical risk issue, patient safety issue. In such a case, this would have been reported via relevant channels under advice of doctoral research supervisor or field collaborator in line with University of Exeter Ethics and Governance processes. This did not occur.

4.13 Data Protection

This study is compliant with the requirements of the Data Protection Act 1998 and the General Data Protection Regulations (GDPR), that came into law from 25th May 2018, regarding the collection, storage, processing and the disclosure of personal information.

Personal information and data have been carefully collected, kept secure and maintained and has upheld the Act's principles. (Appendix L for additional GDPR information).

4.14 Evaluating the quality of the research

4.14.1 Validity of Coding

Validation of the coding is important in the critical realist's approach to thematic analysis. This was addressed via peer doctoral student colleagues reviewing anonymised excerpts of the transcripts to discuss coding accuracy (Terry et al, 2017), to help reduce researcher bias and increase trustworthiness as part of critical review and quality analysis processes.

Whilst coding accuracy is the focus for critical realism, and these latter concepts of researcher bias and trustworthiness may usually be more associated with social constructionist research, I believe it is important to consider these here within the broader qualitative paradigm of this research, whilst being aware of some boundary crossing in these areas.

4.14.2 Trustworthiness and authenticity of the research

Guba and Lincoln's (1994) concepts for quality in qualitative research as summarised by Treharne and Riggs (2015) was used as a basis for this, addressing the following aspects; credibility, transferability, dependability, confirmability and authenticity (Treharne and Riggs, 2015 in Rohleder and

Lyons, 2015). Credibility, transferability, dependability and confirmability have been grouped together as trustworthiness (Guba and Lincoln, 1994).

4.14.2.1 Credibility

It is important that the reader of qualitative research can have confidence in the process and findings to be able to assign credibility to the study (Lincoln and Guba, 1985). Participants welcomed the chance to discuss their experiences and fed back that it was good for them to take time for personal reflection and to distil their views as part of the interviews. They also welcomed the different perspective of this research to the objective evaluative work ongoing as part of the FCP role. Sharing the analysis key points with the participants would have further enhanced the credibility of my findings, illuminating what participants really believe, think and do (Roulston, 2010) by re-checking that the findings represented their experience. Member checking is suggested by Lincoln and Guba (1985) as a way of increasing credibility alongside peer debriefing. Engagement with peer debriefing was achieved as part of regular supervision and with research peers. The process of explaining and defending my actions and decisions was useful in making explicit aspects that “might otherwise remain only implicit” (Lincoln and Guba, 1985 p308). Peer debate helped to both develop my understanding and application of the method, and at the analysis stage to share interpretations of the data from samples of anonymised data. This last activity was invaluable in appreciating alternative readings of the data which I have subsequently incorporated into my own. Finally, presenting my research to peers and researchers within a range of organisations and interest groups enabled ongoing feedback about the process, helping me to make sense of my views and conclusions, and to ascertain whether they made sense to others.

4.14.2.2 Transferability

Transferability of findings is “in a strict sense impossible” (Lincoln and Guba, 1985, p316) yet it is important to enable the reader to take an overall view about whether transferability of findings to their context is possible. Providing “thick description” (Lincoln and Guba, 1985, p316) of the participants’ experiences can help inform the readers about how the findings resonate with their situation. In this research, the findings are potentially transferable to other primary care MSk settings as the physiotherapy MSk FCP role is being rolled out nationally

within primary care underpinned by consistent prescribing legislation and education, PCN structures and significant government funding. Some aspects of the research may also be applicable to other specialities (e.g. respiratory care, frailty, neurology) and settings (e.g. community care, pain clinics) in relation to physiotherapy independent prescribing.

4.14.2.3 Dependability

Dependability addresses whether similar findings would be produced if someone else undertook the research. Lincoln and Guba (1985) highlight that dependability is reliant on credibility and vice versa, noting the importance of offering up for scrutiny, both the process (dependability) and product (confirmability) of the research. These can effectively mirror an audit process and be achieved simultaneously by detailed accounts of the research data collection and interpretations, evidence of reflexivity, and synthesis with existing literature and reconstruction of themes into new knowledge. In this account, I have aimed to present a comprehensive and visible account of the research process, data and interpretations to help the reader determine whether the emerging story is complete, comprehensible and linked (Lincoln and Guba, 1985). Underpinning this, I have utilised the describe, compare, relate recommendations of Bazeley (2009) to avoid the garden path analysis risk and the 15-point checklist of criteria for good thematic analysis as recommended by Braun and Clarke (2006).

4.14.2.4 Confirmability

A study's confirmability is based on "the extent to which the data and interpretations of the study are grounded in events rather than the inquirer's personal construction" (Lincoln and Guba, 1985, p324). A criticism of the neo positivist approach to interviewing is that it does "not account for the researcher's part in the co-construction of data" (Roulston, 2010, p206). Another point to consider is the implication of interviewing fellow professionals and how this might influence the content of the data (Chew- Graham, May and Perry, 2002). It is important to consider if participants viewed me as a researcher, peer and confidante, expert, or judge and how the identity that participants may have attributed to me could influence the data, e.g. in terms of depth, focus, energy and a risk of shared conceptual blindness (Chew-Graham, May and Perry, 2002).

I have aimed for the findings of this research to be representative of the participant's responses and have sense-checked this by sample peer review of transcript extracts by other doctoral students at the University of Exeter and also through "critical friend" discussions during analysis with a physiotherapy academic peer who also has an interest in physiotherapy professional evolution. Through reflexivity and feedback from supervisors, I have attempted to overtly recognise the risk of bias. For me, an important aspect to address, has been the subconscious use of language as a physiotherapy professional both in the interviews and in the initial write up. This was particularly pertinent in relation to some of the physiotherapy participants as they potentially saw me as an interested, collaborative peer with whom they wanted to have a professional discussion and debate, rather than a stand-alone researcher trying to gather their views and opinions. Making sure that I represented the range of views, not just the homogeneity of the data was also important.

4.14.2.5 Authenticity

I believe this research represents a fair range of different viewpoints. This is due to the range of backgrounds of the participants and the different primary care settings in which they worked. The question of prevalence (Braun and Clarke, 2006) within a data set and space across the entire data needed thought in developing the codes and helping to shape the chosen themes. Contrasting views of participants were also included to ensure that balance was presented in the themes, and that a full picture of the aspects of the debate were represented. An example of this was the range of views of the place of physiotherapy prescribing within the FCP role.

4.15 Reflexivity

Self-awareness and reflexivity were important throughout the analysis to minimise researcher pre-judgement and bias. I analysed the data with focussed academic input as required from the second supervisor who is an experienced qualitative researcher from the University of Exeter.

Reflexivity has been described as vital and perhaps the most distinctive feature of qualitative research (Banister et al, 2011) with Wilkinson (1988, p493) describing it as "disciplined self-reflection at its simplest" and (Banister, 2011, p220) specifically as "constructive criticality" on the part of the researcher.

Reflexivity has also been defined as an “active acknowledgement by the researcher that his/her own actions and decisions will inevitably impact upon the meaning and context of the experience under investigation” (Horsburgh, 2003, p308). Thus, it is regarded as a part of quality evaluation of qualitative research. In relation to this research, two aspects of reflexivity, personal and functional, as developed by Wilkinson, (1988) were applied. This will be considered further in Chapter 6 Reflexivity.

Chapter 5 Data Analysis

5.1 Introduction

Demographic data of participants in this research includes the following: It is worth noting that some participants were part of more than one descriptor.

- Eight physiotherapy independent prescribers with a minimum of six months experience working in primary care within MSk services.
- Five physiotherapists who were not independent prescribers but worked in primary care within MSk services. Two of these also worked in private practice.
- Three consultant physiotherapists working in MSk services – one of whom was an independent prescriber and two of whom were not.
- Three managers of MSk community/primary care physiotherapy services – two of whom were also consultant physiotherapists and one of whom was the CSP representative.
- One physiotherapy representative from the professional body, the Chartered Society of Physiotherapy – who was also a MSk physiotherapy service manager.
- Two GPs with an interest in commissioning or MSk services.
- Two commissioners of MSk primary care services, one of whom was a physiotherapist (not an independent prescriber) and one of whom was a GP.
- Nine physiotherapists were working as FCPs (seven of whom were independent prescribers).

Participants worked across 15 different sites and 12 different organisations. All physiotherapists were employed by community or secondary care organisations (NHS or social enterprises), or self-employed (Participant 4). The physiotherapists employed as FCPs were all working as FCPs on a part time sessional basis on service level agreements, rather than being employed directly by the GP practices. Participants were working across the West and South West of England in a range of cities and towns, providing MSk services to urban and rural populations.

Physiotherapists were qualified between 1983 and 2007 (four in the 1980s, four in the 1990s and five in the 2000s). One GP qualified in the late 1970s and one in early 2000s. The physiotherapy banding of roles were Band 7 (three participants), Band 8a (four participants), Band 8b (three participants), Band 8c (two participants), and one self-employed. Five of the seven physiotherapy prescribers qualified in 2017, one in 2016 and one in 2015, and reported writing/issuing 2-10 prescriptions per month, except one participant who issued up to 20 prescriptions per month. The GPs reported their prescribing rate as over 300 per month.

A key has been used to indicate designations of participants.

P1 = Participant 1; P2 = Participant 2 etc.

PT = Physiotherapist; GP = General Practitioner.

IP = Independent Prescriber; Not IP = Not an Independent Prescriber.

These have been used to give clarity to the quotes in this chapter and appendix M.

In reviewing the data about the experiences of physiotherapy independent prescribing in musculoskeletal primary care, the analysis focused on the aspects specific to the implications for professional identity and practice. Four themes were identified each with their own subthemes. Two of the themes (Theme 1 and 2) addressed professional identity implications and two themes (Theme 3 and 4) related to practice implications.

The four themes were:

- Role Change and Identity Shift: pushing the boundaries. (Theme 1)
- Power and Autonomy: opportunities, challenges and conflicts. (Theme 2)
- Adaptability and Responsibility: pioneering physiotherapy independent prescribing. (Theme 3)
- The Unexpected Side Effects. (Theme 4)

Figure 5.1 summarises the themes and Table 5.1 expands on the themes by including the subthemes. Whilst there is some inter-relation and overlap between these themes, they will be explored in turn to enable clarity of argument, depth and context to be addressed in detail as a result of the

analytical process. The themes/subthemes have been identified from the interview data through thematic analysis (Braun and Clarke, 2006; Braun et al, 2014). These findings have additionally been contextualised and underpinned by theoretical frameworks related to professionalism and professional identity, and the applied practice and professional literature pertaining to prescribing, advanced practice and professional identity in health professions, particularly physiotherapy. These areas of underpinning literature have been explored in chapters 2 and 3 with professional identity from different perspectives featuring in both reviews.

Additional participant quotes related to the analysis chapter are in Appendix M.

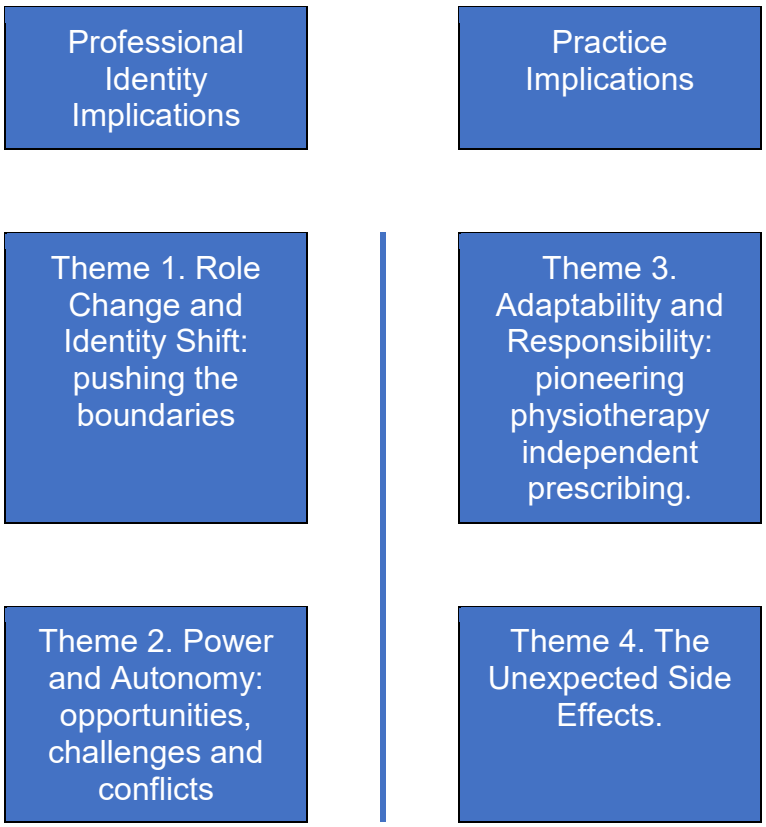

Figure 5.1 Themes.

Table 5.1 Themes and subthemes.

Theme	Subthemes
1. Role Change and Identity Shift: pushing the boundaries.	• Moving away from “traditional” physiotherapy professional identity and practice. • Pushing boundaries.
2. Power and Autonomy: opportunities, challenges and conflicts.	• Knowledge as power. • The relationship with General Practitioners (GPs). • Professional identity, recognition and status. • Credibility, trust and acceptance in professional autonomy. • Enablers and constraints.
3. Adaptability and Responsibility: pioneering physiotherapy independent prescribing.	• Expectations and drivers. • Early adopters as pioneers. • Vulnerability and risk. • Resilience and sustainability. • Promoting physiotherapy prescribing.
4. The Unexpected Side Effect.	• More focussed conversations leading to enhanced practice. • Deprescribing. • Engagement with drug dependency recognition and management.

5.2 Theme 1. Role Change and Identity Shift: pushing the boundaries

Two subthemes will be explored:

- Moving away from “traditional” physiotherapy professional identity and practice.
- Pushing boundaries.

5.2.1 Moving away from “traditional” physiotherapy professional identity and practice

This subtheme will explore and interpret three areas raised by the participants in this research:

- What “traditional” physiotherapy might embrace and mean.
- Their range of views on where independent prescribing fits within physiotherapy.

- "Traditional" physiotherapy versus "modernisation" of the profession.

Each profession has what may be regarded as a traditional remit and raison d'etre. In the case of physiotherapy, the premise has historically centred around the body, mainly with touch (Nicholls and Gibson, 2010; Nicholls and Holmes, 2012), and human function and movement (World Confederation for Physical Therapists, 2011; CSP, 2020a). A latter addition to this has been the empowerment of the patients via advice, health coaching and promotion of self-management strategies (Kell and Owen, 2008; NHS England, 2014; NHS England, 2019a; CSP, 2020a).

Within this research, physiotherapy prescribing was viewed as potentially fitting well with the natural evolution of the profession.

> *In this country we are so proactive as a profession that we have such great leaders that are telling us, "You can do this". It makes perfect sense to me that if you can treat a patient holistically then prescribing and medication is actually pivotal to that patient getting better quicker and in primary care. (P2/PT/Not IP)*

However, overall, a range of views in relation to where prescribing fits within the physiotherapy profession, specific to MSk primary care was raised by participants. Welsh et al (2014) noted that even when the "majority of respondents support the concept, the views of the "sceptics" are equally important" (Welsh et al, 2014, p9) particularly as change is not just about surmounting organisational and practical barriers (Welsh et al, 2014), hence the exploration of the range of views below.

Firstly, there was some concern, specifically from two participants who were very experienced physiotherapists and not planning to become prescribers, about physiotherapists getting carried away with prescribing without really thinking it through and having a potential to neglect their fundamental skills.

> *I'm going to be quite frank and honest, I think physiotherapy as a profession is getting carried away with prescribing, as if it is the be-all and end-all … that we are some super-human profession that can do everything… we see it as another extension to our skill set but my worry is that we are getting carried away … we're getting carried away with these new skills that are entering our potential opportunities … but neglecting what, I think, are our core skills. (P1/PT/IP)*

> *I don't know if we are spreading ourselves too thin because it's a big … you can't just learn about a few things. (P4/PT/Not IP)*

Recognising the reticence and why there was concern from two participants in particular about getting carried away is interesting and a reflection of some caution within the profession.

Secondly, a limited but important sceptical view of prescribing was presented by a participant (P4/PT/Not IP) just not seeing prescribing as part of a physiotherapist's remit, backed up by another participant (P3/PT/IP) reporting some reticence amongst fellow physiotherapists.

> *I don't know if it's the physio's place to prescribe, to be honest. I think we should more stick with what we've got and make that really good … so, for me as a physio, I don't want to be the drug dispenser, I want to fix the source and I really find with lots of medication it is just the plaster on top of the band-aid. (P4/PT/Not IP)*

> *Well we haven't got very many [prescribers]. We've certainly got some resistance to doing it from quite a lot of therapists who think it's not their role. It's really interesting. (P3/PT/IP)*

Thirdly, for some participants, prescribing was not a priority for them. For one physiotherapist working in a GP practice this was due to a long-established link with the GPs and for another, other aspects of the intervention were more important.

> *I think the important thing is sound clinical reasoning and your communication with the patient … .That is more important than the ability to prescribe something or stick a needle in somebody. But actually, we get carried away with our ability to prescribe or stick a needle in somebody. (P1/PT/Not IP)*

Linked with the discussion about what the priority for physiotherapy in MSk primary care services are, there was potentially some questioning of the necessity of physiotherapists prescribing including from one GP.

> *I would rather that they [physiotherapists] a) be able to treat, b) order the appropriate investigations, c) access to the psychological therapy part of things – I think that's really important, smoking cessation, weight, and diet. That's more important to me than being able to prescribe. If they could do that, I'm happy to prescribe. If they want to prescribe, fine, on a limited set of drugs, whatever. But if I were to employ somebody, that is what I would be more interested in, because that is actually population changing … changing people's quality of life, then life expectancy. (P6/GP/IP)*

This quote could be interpreted as this GP wanting to maintain priority over what GPs see as their core medical profession skill of prescribing and not give it up to the physiotherapists, as reflected by Britten (2001) and Borthwick et al

(2010). Alternatively, this quote from participant 6 (P6/GP/IP) could be more realistically and fairly interpreted as focussing on the contemporary needs of population health, and the range of advice and interventions that a physiotherapist can offer. This aligns with a preventative, holistic and public health focus of primary healthcare (NHS England, 2014; NHS England, 2019a), reflecting the GP's open-mindedness to, and vision for, primary care collaborative professional working as part of contemporary primary care practice in meeting population and health needs. This is reflected in the following view.

> *The only response [I've] had is a very positive one … we can manage the patients more completely without having to bother them [the GPs], effectively. (P8/PT/IP)*

Finally, the majority of physiotherapy participants had the view of prescribing specific to this primary care setting and First Contact Practitioner role as a valuable added extra rather than a necessity.

> *I think it [prescribing] would be a real asset to the [FCP] post. I think it would be quite a useful thing to have, although perhaps not essential. (P8/PT/IP)*

> *Prescribing gives you another bow to your arrow … and I think sometimes it means that you can be more efficient in that one consultation, so you might save a patient having to go for a GP review or just be dealing with the patient there and then and they don't have to come back to collect a prescription, etc. So, it makes you more efficient but I don't think it's the be-all and end-all. (P10/PT/IP)*

Additionally, the debate arose on whether independent prescribing was an additional skill or replacing "already existing ones". Contrasting views were made about the risks of replacing exercise and touch, the cornerstones on which physiotherapy identity are based (Nicholls and Gibson, 2010; Nicholls and Holmes, 2012), with prescribing and the need to move forward with the times and demands (whether that includes prescribing or not).

> *As physiotherapists, I think we are at risk of losing our key identity and core skills … . We are getting carried away with independent prescribing … . We're more inclined to want to have this string to our bow than making sure that we've got all the nuts and bolts and the basic skills honed. (P1/PT/Not IP)*

> *I just think of it [prescribing] as another tool in my box. Completely, I don't find it a problem and I think the roles are blurring so much anyway. I think that very traditional view of physio is outdated*

> *anyway … I think we don't do anywhere near enough prevention. I think that's the thing we have to embrace the most and I think then it's about self-management programmes, advice, education. We'll always have to do a bit of treatment and stuff, but that old-fashioned model of dependency has to go, I think. (P3/PT/IP)*

The evolution of the profession was seen by some as modernisation of the profession although there was considerable reluctance from one physiotherapy participant (P1/PT/Not IP) about leaving the nuts, bolts and basic skills of MSk physiotherapy practice behind. The reported evolution encompassed a move towards prevention, health coaching and self-management and a move away from a "traditional" and "old fashioned model" of mobilisations, manipulations, and dependency, albeit all aspects are recognised within the CSP Professional Framework (CSP, 2020a). In discussing this move of approach within the profession, prescribing was articulated as an option within the journey, and one that several physiotherapy participants wanted to embrace. That said there was some worry about the uncertainty that came with this evolution particularly related to the range of views of what was "old fashioned" and what were core skills of physiotherapy.

> *But I think that's where the danger is, that things are starting to overlap so much. Yes, we kind of lose a little bit our traditional roles and I think there's positives with that but there's also a lot of dangers. (P7/PT/IP)*

Illustrating this move away from the traditional physiotherapy role towards a model of physio with a distinct skill set working within the traditional location of a GP, there was already evidence of a change in approach to practice for the First Contact Practitioners. Adapting the approach to patient assessment and management was seen as a necessary change both for the role and for the prescribing.

> *In a 20-minute consultation you've got to be able to get to what the patient's concerns are, try and make that patient-centred as well and I think that for most of us, we previously had longer consultations. I have learned a lot around agenda setting, really getting to the point of what patients want and what they feel is the problem and using that as a starting point for the consultation, rather than a more rigid physio, subjective and objective examination. I think that's probably been a big learning point. (P11/PT/IP)*

Adopting different language to describe their work, e.g. consultation illustrates the shift in nature of the FCP practice role, and how prescribing may be

integrated into the intervention. Consultation can be argued to not be as inclusive as shared decision making, so potentially realising the views of those participants who had raised concerns about prescribing being a priority for physiotherapists at the expense of what they saw as core skills, like joint decision making, self-management and health coaching.

5.2.2 Pushing boundaries

> *I'm always a great believer in pushing boundaries. (P1/PT/Not IP)*

This subtheme will explore two main aspects relevant to the data: vertical boundary pushing of physiotherapists into the territory of the medical profession as a result of physiotherapists becoming independent prescribers, and the resultant potential release of activities from the physiotherapy profession to others.

In this research, several participants articulated the opportunity to boundary push and encroach on the role of others, partly as a natural evolution related to healthcare demands, and partly as a proactive push of boundaries by the physiotherapy profession. Stanley and Borthwick (2013) had presented the concept of "competitive acquisition" (Stanley and Borthwick, 2013, p298) of roles in extending the boundaries of a health profession. Participants in this research mostly articulated this acquisition of roles as being opportunistic and proactive rather than competitive per se.

> *It makes perfect sense when our GP practice are overworked and, capacity wise, I mean, they are really struggling, that it makes sense that somebody has that medical knowledge that can look at that patient holistically, why not start pushing the boundaries. (P2/PT/Not IP)*

The concepts of vertical boundary pushing (Fournier, 2000; Nancarrow and Borthwick, 2005; Borthwick et al, 2010; Saks, 2012; Welsh et al, 2014), encroaching on some of the skills and attributes traditionally held by the medical profession was recognised in this study, but lateral boundary pushing ((Nancarrow and Borthwick, 2005; Borthwick et al, 2010; Welsh et al, 2014) in overlapping with other professions was not mentioned, despite prescribing pharmacists and nurses often being in a GP practice. This was probably because physiotherapists saw themselves in a musculoskeletal (MSk) niche of practice that mainly overlapped with the GP workload.

> *They're [prescribing physiotherapists] pushing boundaries and sometimes in a good way, because clearly there are issues with primary care in terms of GPs' knowledge and expertise to manage MSk problems. (P1/PT/Not IP)*

> *Our roles and responsibilities are increasing year on year on year. Our boundaries are merging. So, for example, as physios, we don't just do exercise prescription, we do manual therapy, we do cortisone injections, we are now investigating, we are now writing sick notes, we are doing ergonomic assessments. So, our professional boundaries are merging into other roles, we are nabbing bits of GP roles. (P2/PT/Not IP)*

The use of the word "nabbing" could be interpreted as snatching or stealing something away (in the case of prescribing) from others (GPs) supporting the competitive acquisition of prescribing literature (Freidson 1970; Britten, 2001, Borthwick et al 2010). However, participant 2 (P2/PT/Not IP) has previously positively justified role expansion in the context of untenable GP workloads. Also, this concept does not fit with the physiotherapy participants' experiences, with acquisition of roles being viewed as proactive and opportunistic rather than competitive. Within the concept of boundary pushing, participants recognised independent prescribing as representing a bigger than usual jump into a new area for physiotherapy and in a uniquely different direction. It directly impinged on "the most distinctive task jurisdictions that medicine has traditionally controlled" (Borthwick et al, 2010, p8), impinging on the "physician's right to diagnose, cut and prescribe" (Freidson, 1970).

> *I think, initially, you certainly felt that you were stepping way outside of our traditional scope, more than with any other course, or any other extended skill, fracture clinic, pulling wires out, injections and all that kind of thing. That seemed pretty physio-ish. (P15/PT/IP)*

In pushing the boundaries, experience and confidence enabled a more informed approach to the necessary risk taking of a new skill acquisition as seen in Moffatt, Goodwin and Hendricks (2018) findings. Dealing with the risk associated both with prescribing and the First Contact Practitioner role was noted. Risk will be further explored in relation to vulnerability in practice (in Theme 3, Ch 5.4.3) as will the role of confidence and experience in building resilience (in Theme 3, Ch 5.4.4). However, in this context, the pushing of the boundaries may link risk with moving into first contact triage roles and from protocol protected prescribing seen in Patient Group Directives (PGDs) to full autonomy of action with independent prescribing.

The first time we write a prescription is terrifying. (P3/PT/IP)

I think to start off with, because you are quite insecure and you want to make sure that prescription is correctly written, you are quite slow and you often want to double check that you are not doing anything that's going to be unsafe for the patient. (P7/PT/IP)

Linked with the concept of boundary pushing of a profession during its evolution is a recognition that there are often aspects of the role that need releasing (Nancarrow and Borthwick, 2005; Borthwick et al, 2010). Even though a few participants were concerned about the physiotherapy profession "giving up" their core skills in moving into prescribing FCP roles, some participants were beginning to recognise this potential need within physiotherapy.

I think of the real opportunities in physio, I think First Contact Practitioner is one. I think using technicians and sports therapists to deliver some of our group programmes in the community is a real opportunity but supported by physiotherapists. I think we are trying to do too much of it ourselves and there just aren't enough of us to cope with that level of demand … . We need to think creatively … . It's having that professional confidence I think to be able to say we're willing to let that go. (P5/PT/Not IP)

This quote raises the potential need for the physiotherapy profession to give up some tasks and remits and enable others to push into the traditional boundary of their profession. This relates to vertical substitution in boundary change as described by Nancarrow and Borthwick (2005) and is raising the question of whether as physiotherapy moves its boundary vertically towards medicine via prescribing, then should others (e.g. therapy workers, exercise professionals) move into the lower areas in the professional boundary for physiotherapy (Nancarrow and Borthwick, 2005; Borthwick et al, 2010)?

5.3 Theme 2. Power and Autonomy; opportunities, challenges and conflicts

5.3.1 Knowledge as power

Before becoming a prescriber, Hey (2018) likened his sense of asking patients about medications in a fairly basic manner and then not being in a position to respond, to opening a can of worms and causing patient confusion or offence as it was not followed up or discussed further. Foucault's power-knowledge theory (Foucault 1977) presented the connection of increasing knowledge to increasing power as a profession. However, in this study, the new and

additional knowledge, as a result of becoming a physiotherapy independent prescriber, was reported by prescribing physiotherapy participants as facilitating a new sense of empowerment from within, and a greater competence and confidence as a practitioner.

> *What you get from the prescribing course, which is amazing, is that pharmacological knowledge and a lot of your skill is in just knowing that stuff, it gives you different conversations with GPs, … with consultants, it makes you look completely different at your patient because you look at them as a whole much more because you understand their medication, all the stuff that they are taking … I think it completely changes how I look at people … having the knowledge is really, really useful. (P3/PT/IP)*

> *I think, before, a physio … could be on the fringe of discussing medication as part of pain management but not actively involved. So, I think having done the training, … you go back to physiology, you look at pharmacology, there's a lot more understanding starting with polypharmacy and the interactions of drugs. So, it's just a creeping competency which then spills over … I suppose into confidence when you are dealing with a patient, that you are not umming and erring, this is something that you now know and understand, and you can understand the place that medication may have in their management. (P12/PT/IP)*

Thus, the focus on knowledge for participants was in terms of what a difference that made to their practice, including more informed recognition of co-morbidity and health complexity.

> *You realise that the patients are perhaps more vulnerable than you previously thought because of the drugs they are on, although they might not be MSk related … I think although you kind of knew that to some extent already as a physio, I think having done the prescribing makes you think about … the effect of those drugs on the musculoskeletal system and the whole system which makes you sometimes a little bit more hesitant and thoughtful. (P7/PT/IP)*

Interestingly the word "power" was not actually articulated by physiotherapy participants but was indirectly expressed as feeling more secure in role. It was not clear if the participants were not comfortable thinking or articulating power associated with prescribing knowledge as a concept and whether that was linked to the culture of the profession, the stage it is at, or the individuals involved. Knowledge changes over time have been directly linked with alterations in the balance of power, with more power being generated along with the knowledge base (King et al, 2018) but perhaps the key factor here is time, as physiotherapy prescribing is still in its relative infancy.

The general practice prescribing battleground on which the “cause of clinical autonomy is defended” (Britten, 2001, p478) did not emerge as an overt reality in practice, although exploration of the relationship between physiotherapists and GPs by the participants, yielded some subtle points needing exploration in relation to power.

5.3.2 The relationship with General Practitioners (GPs)

The GP shortage and associated workload crisis has been well documented (DOH, 2013; NHS England, 2014; NHS England, 2016; NHS England, 2017a; NHS England, 2019a; NHS England, 2019b; Holden et al, 2019) and there is a view that MSk physiotherapists, as First Contact Practitioners (Moffatt, Goodwin and Hendrick, 2018, Goodwin et al, 2020), and additionally prescribers are ideally placed to fill some of that void (Downie et al, 2019). This was reflected in the data.

> *The GPs are more than happy for anything that makes their life easier. (P12/PT/IP)*

> *I can see there’s a huge potential there because as we keep reading every day, GPs are completely snowed under, so any help would be gratefully received. (P14/GP/IP)*

Prescribing is perhaps one of the most identifiable skills of a doctor, directly linked to their professional identity and status (Freidson, 1970; Britten, 2001; Nancarrow and Borthwick, 2005). Indeed, Borthwick et al, (2010) noted concern from GPs about other professionals taking on skills that were traditionally the remit of the doctor, but in this research, this did not appear to be overtly the case.

This may be linked to a “needs must” approach with the GP resourcing crisis (DOH, 2013; NHS England, 2019a; NHS England, 2019b) and healthcare strategies which promote increased provision and workforce flexibility including advanced practice (NHS England, 2017a; NHS England, 2019b). Comments were made about potential GP opinions of physiotherapy prescribing.

> *I think we are in such early days. What I’m not confident about is actually how well received it is by medics. (P5/PT/Not IP)*

> *I think some of the GPs would maybe question my role in terms of why I was doing that when traditionally that’s their role, but I haven’t come against that. (P2/PT/Not IP)*

> *Discussing with medical colleagues, they do hold physiotherapists in quite good stead as experts in the field and obviously my area is musculoskeletal medicine where GPs traditionally haven't had great education and knowledge. We are really held in good regard and I enjoy that. (P12/PT/IP)*

However, it is also important to explore the specific views of the GPs in this research on physiotherapists taking on prescribing, a remit that was traditionally theirs (Freidson, 1970; Britten, 2001; Nancarrow and Borthwick, 2005). The two GP participants themselves were generally openminded about physiotherapists moving into to the First Contact Practitioner role and prescribing.

> *I've always been extremely impressed by the standard of physios that I have come across. I think the profession are very highly trained and probably underutilised in many respects. I see them [prescribing, injecting etc] as a very good use of your skills or an additional use of your skills more than anybody really. (P14/GP/IP)*

> *I'm trusting the fact that they [Physiotherapists] are autonomous … GPs moan about everything. They moan about everything being laid on their shoulders, but at the same time, they don't want to let it go. You've got to learn to let it go. Letting it go is trusting it. I'd rather somebody autonomous would make that decision. As long as I'm not getting sued for it … GPs get too hung up on, 'it's my patient,' it's not that, it's, 'how are they going to get better as quickly as possible?'. That's what matters to the patient. (P6/GP/IP)*

These positive views from GPs contrast with those found by Borthwick et al (2010). This might be due to a passage of time since Borthwick et al's research, the more pressing GP staffing crisis in the NHS, and increased general acceptance by GPs of a number of other health professions being able to prescribe. This could be attributed to the medical professions accepting that there are some aspects of their profession that they need to give up in lieu of the vertical substitution as part of the boundary pushing that they themselves may be undertaking (Nancarrow and Borthwick, 2005).

However, behind the general positivity there were a few indications that the medical profession was not quite so all-encompassing and comfortable as might be initially perceived. Indeed, some power interplays and trusting others was noted by GP Participant 6 (P6/GP/IP), recognising in his GP colleagues, some difficulty in relinquishing that power by letting go and not having full control over every aspect of their patient.

Despite his support of physiotherapy and their role in rehabilitation, GP Participant 6 (P6/GP/IP) voiced some concerns in relation to drug dependency issues, and the importance of GPs specifically and exclusively managing these patients and their prescribing in MSk conditions (to be discussed later in Theme 4. Ch 5.5.3). An element of power interplay could also be attributed to GP Participant 14 (P14/GP/IP), raising anxiety that physiotherapists taking the entire management of MSk patients (including prescribing) might deskill GPs reflecting findings by Moffatt, Goodwin and Hendrick (2018).

> *In terms of the competency, and the ability to do it and the positives in terms of reducing to a certain extent the workload of the GP and, as I said, the ability of an appropriately trained physio to do it, I haven't got a problem at all. It's just my only concern is around … . And it's not about the prescribing either specifically, it's about the physio seeing the musculoskeletal problems and taking it away from the GP. (P14/GP/IP)*

Whilst recognised as a new skill that would impinge on the traditional medical domain (Britten, 2001), prescribing was not seen as the first priority by a physiotherapist whereby it was by a GP.

> *it's a core skill for GPs, isn't it, prescribing … a core skill for a physiotherapist is assessing things really well and exercise. (P5/PT/Not IP)*

> *I think prescribing, if you're a GP and you're a medical background, is one of your first thoughts of management. I think as a physiotherapist it's not my first thought of management. (P11/PT/IP)*

This potential focus on prescribing by the medical profession aligns with the concept of Foucault's primary disciplinary power where "power is exerted on the basis of disciplinary or profession specific knowledge" (King et al, 2018, p4).

5.3.3 Professional identity, recognition and status

> *I'm talking about a personal journey … that … has sealed where I am as a clinician and how I perceive and portray myself. (P12/PT/IP)*

Hammond, Cross and Moore's (2016) review of physiotherapy professional identity noted the ongoing, dynamic process in which physiotherapists "make sense and (re) interpret their professional self-concept based on ongoing attributes, beliefs, values and motives" (Hammond, Cross and Moore, 2016, p711). It is thus important to explore the social and psychological processes influencing how individuals develop or modify their professional identity and

image (Ibarra, 1999; Hotho, 2008; Caza and Creary, 2016), including how they embrace the external as well as individual internal factors that contribute to professional identity.

> *I think we are ideally placed and we have the right skills, but I think it's very easy for us as a profession because personally the personalities that we are … we are quite proactive and independent and we are keen to learn and we want to do so much and we really think that we can change things and we can be so amazing but, in a way, that's to our disadvantage, because I think we undervalue ourselves and the value that we can actually have, and I think if we do that then other people will undervalue us as well and just expect us to just do it. (P7/PT/IP)*

Welsh et al (2014) also noted that in relation to role change, deeply entrenched values, underpinned by professional identity are crucial. Examples of this included feeling part of a team or being recognised for their role and status. Participants indicated the following when asked if prescribing made them feel any different from a professional identity perspective.

> *I think that what it has made me feel is more empowered to do a more wholesome job with the patient. I don't think it has changed my perception of my esteem or in other people's eyes or in my eyes, really. (P10/PT/IP)*

> *Yes, I think it probably does. It's an advanced practice skill, isn't it? It's taking you beyond what you would traditionally consider to be a physiotherapist. So yes, I think it does make you feel, I don't know, more senior perhaps, is the right way to put it. I don't know. (P8/PT/IP)*

Feeling integrated into the team was also identified as important for professional identity reflecting Ibarra's (1999) work on role transition.

> *What I've also learned from working in a GP practice, quite intimately with GPs, I think when we go in as a physio and do physio, we are not quite so … you weren't quite so integrated as I feel I am now. (P10/PT/IP)*

Four aspects of professional identity, recognition and status will be explored further: identification as a "cheap" GP or specialist MSk advanced practitioner; standing amongst and view of other professionals; patient views; and finally, recognition and title.

5.3.3.1 "Cheap" GP or specialist MSk advanced practitioner

Following on from the discussion about the relationship with GPs, how the prescribing physiotherapists positioned themselves, and were positioned in

primary care, was an important topic of discussion for the participants in relation to their professional identity and status. Professional identity is recognised as a "complex, subjective concept, which requires consideration of values, identities and power" (Kell and Owen, 2008, p158). Courtenay, Carey and Stenner (2010) had previously noted non-medical prescribing leads' concerns about non-medical prescribers like physiotherapists being promoted politically as cheap alternative prescribers to medical prescribers (doctors), rather than focussing on them bringing enhanced skills and knowledge to be able to enhance patient access to care (Courtenay, Carey and Stenner, 2010).

One physiotherapy participant (P10/PT/IP) was comfortable being viewed as a "pseudo" GP specific to the MSk category of patient and saw prescribing as fundamental to that.

> *If you are going to go in and be a pseudo GP for a category of patients, you have to have everything in your toolkit that a GP would be doing. Otherwise, economically and time-management wise, it's a rather ineffective service, potentially. So prescribing is paramount in all of that. (P10/PT/IP)*

However, the more prominent view within this data was recognition of the risks and concerns of being viewed as "cheap", "pseudo" or "mini" GPs.

> *The physios I've spoken to who have done it, I think they only see it as an opportunity and I don't think it means that they lose their professional identity as a physiotherapist, because I think there's a risk there as well that suddenly we become sort of mini GPs and actually we've got our own skill set and our own identity as a profession, so I think we just need to be careful of that. But certainly, the ones I've spoken to who have done it don't feel like that. (P5/PT/Not IP)*

Fundamental to this and raised strongly by participants, especially those doing the role, was the view that the role and identity of a prescribing physiotherapist in an FCP role was actually different to a GP.

> *What we shouldn't become is just cheap doctors … I still think we should focus on maintaining longer appointments with patients because I think 15 minutes with anybody you are limited what you can do and it will be more of a push … you'll be pushing injections or pushing a pill or something rather than actually trying to get to the root cause of the problem, which is where we have a great understanding as a profession I think. (P9/PT/IP)*

Appreciation of the complexity of GP caseload and the broad role of the GP was apparent. However, there was a strong suggestion that the role of

physiotherapy in the FCP role in primary care was similar, but crucially different, to that of a GP. The physiotherapists viewed themselves as MSk specialists with some additional general skills rather than a generalist with some specialist skills reflecting findings in similar situations with other professions taking on additional specialist skills (Nancarrow and Borthwick, 2005). This differentiated the GPs as being more able to take on the complex multimorbidity nature of their caseload but gave the physiotherapist a clear identity and role delineation as the MSk specialist, who could fully and autonomously manage the MSk patients in primary care, including the parts of that case management that a GP might have historically undertaken e.g. prescribing, ordering investigations. The physiotherapists viewed their expertise and specific skill as a physiotherapist in MSk contexts as more developed than their GP colleagues e.g. assessment, advice, exercise prescription, injection therapy but noted that the prescribing component was more as a novice than as an expert.

> *If you were a GP and you had a physiotherapist who could do all of the things that you can do in one speciality and you know it's a speciality where there's high demand, which we know there is for MSk, I think … that would be a very attractive offer. And I think what you've also then got in the physio is the other things that they can offer that patient, so all the self-help advice, all of the exercise, stuff that they can add in that a GP is going to be less skilled at doing. (P5/PT/Not IP)*

> *You [as a physiotherapist] are the more skilled version [for MSk patient management] for investigations, for interpretation of those investigations, for pathways, for assessment and clinical examination. I would say, we ought to be, and I think I am, better than the alternative. For prescribing, there is absolutely no way you can come anywhere near [laughing] better than the alternative. You've got a practice full of pharmacists, a practice full of advanced nurse practitioners and GPs. It is great that we can do our basic level of prescribing, but we are not necessarily there to advance the GP [prescribing] service. (P15/PT/IP)*

This developed an emerging view of physiotherapists working in MSk FCP roles as prescribers: as specialist therapists in MSk (being able to offer many skills at a higher level than the GP) with additional generalist skills that enabled a holistic and comprehensive service, but which were relatively novice compared with the GP. Prescribing was particularly described in this way.

> *We probably need to think we are specialists with some general skills rather than saying we are generalists, because then we are just another GP. But we are not quite a GP, because we don't have the*

skills and the training that they have, and we would probably need that sort of training. (P7/PT/IP)

I think what we offer in First Contact Practitioner … as an advanced practice, is a more skilled alternative to the existing service. I think that is probably a little bit unique in the advanced practice roles that we have gotten into. (P15/PT/IP)

Hilferty (2008, in Kell and Owen, 2008) had highlighted the interplay between the culture of a profession, its position and its power but warned against risk of fragmentation within a profession through specialization. Illustrating this potential, the prescribing skill set within a MSk specialist area creates a certain exclusionary power which aligns with the neo-Weberian social closure concept associated with specialism (Saks, 2012), and reflects Parry and Parry's (2018) view of professions creating and exercising market control over particular services.

5.3.3.2 Standing amongst other professionals

Views almost unanimously indicated the importance of prescribing in order for physiotherapists not to be left behind or lose professional standing with other professionals whether that was in terms of value, communication or respect.

I think when nurses became independent prescribers and therapists weren't, I think it put us at a disadvantage to nursing and I think it's re-established that equality. (P3/PT/IP)

I felt very strongly that the nurses having prescribing rights had really made physiotherapy second class citizens in a lot of areas and narrowed some of our opportunities. (P3/PT/IP)

This concept directly aligns with the neo-Weberian stance of exclusionary social closure as a way of winning and legitimising much coveted social standing. Saks (2012) highlighted how "we live in a dynamic and competitive world of macro political power and interests, in which occupational groups gain and/or maintain professional standing based on the creation of legal boundaries that mark out the position of specific occupational boundaries" (Saks, 2012, p4). The participant quotes above clearly indicate how the historical inconsistency in prescribing rights, and thus the exclusionary closure of nursing over physiotherapy as prescribers, created a discrepancy in standing and status of one profession over the other.

5.3.3.3 Patient views

The patients' pragmatic perspective around a changing role was recognised. The reported patient expectations and views were generally positive and accepting, although the physiotherapist being able to prescribe was not necessary the priority for the patient in their physiotherapy intervention, but rather seen as a bonus.

> *I think the way we approach things, and I suppose they have that little bit more time with us as well, they feel that you listen to them and that you care and that you actually explain things to them and therefore they're happy, they are probably more compliant with taking medication that we prescribe, potentially, than the GPs. (P7/PT/IP)*

Convenience and access for the patient was viewed as important.

> *I think it's that right place, right time, thing for patients. (P3/PT/IP)*

Some patients did not seem to register that it was a different professional providing their prescription which also aligns with Goodwin et al's (2020) findings of a lack of patient awareness of the FCP role.

> *I don't think they really register that this is something a bit strange, for a physio to be doing that. (P15/PT/IP)*

Overall, acceptance from patients and colleagues was important to the physiotherapy prescribing participants and developed into further discussions around recognition and title.

5.3.3.4 Recognition and title

Professional status and standing are often used in an interchangeable way in the literature, with trust from patients and the community being regarded as inherent in professional status (Collier, 2012; Cooper, Delany and Jenkins, 2016). Status per se was not viewed as vital by one participant.

> *For a physio that is physio by heart, that [prescribing] wouldn't be about status. (P4/PT/Not IP)*

However, related to status and standing amongst other professionals is the debate on recognition and title in line with responsibility, professional autonomy and educational status. This aspect did raise some interesting points.

> *You are trying to justify that, yes, this is an 8A role, because I am taking – not discarding the GP out of the picture [laughing] – but pretty much, with these MSK patients, full management, and*

> *investigation, prescribing, referring on, injecting, the whole picture, taking the overall management of that. (P15/PT/IP)*

The recognition for the breadth and complexity of GPs workload and responsibility meant that the physiotherapists did not expect to be remunerated or viewed in the same way as the GPs. As already discussed, they viewed themselves as specialist physiotherapists with crucial additional general transferable skills (such as prescribing) and as such wanted to be recognised and remunerated in line with this, most notably as an NHS 8A banded physiotherapist. This Band 8A rate is more cost effective than paying a GP but was not viewed as being remunerated as a "cheap" GP by participants, as they saw the roles as not directly comparable.

> *I think a Band 6 can quite happily work in a physiotherapy role in the GP practice, but I would question whether a Band 6 has the clinical decision-making to sit in front of a patient as a First Contact. I think that would be putting them in a very vulnerable position … I think if you want to be Band 8 then that's when prescribing comes in. It's the last tier, to me, because it's not a core physio skill and all the rest of it sort of is, now. But we need to be moving in that direction, so I think the intensity of it all and the knowledge that you need. (P10/PT/IP)*

The importance of status (and associated social closure of being a prescriber) is apparent here in prescribing being seen as the "last tier". The concept of specialisation and experience being regarded as a mark of professional standing and growth reflects Bennett and Grant's (2004) and Cooper et al's (2016) findings in relation to specialist physiotherapists in Australia, and is additionally illustrated below in Participant 12 (P12/PT/IP) seeing themselves as being more than "just a physiotherapist" and highlighting the link to decisions based on "medical evidence".

> *I have finished my advanced practice Master's. I refer to myself as an advanced practitioner. So, I am in some ways more than, if you like, just a physiotherapist. I am quite happy to fly the flag of advanced practice and make people aware that my decisions are informed by medical evidence that I'm not just sticking to the way that we have always done things. (P12/PT/IP)*

Neary (2014) had noted that having a job title that articulated clarity of role, was often linked with individuals reporting a stronger professional identity.

> *So, we went down an APP [Advanced Physiotherapy Practitioner] title [for the role] … . And we had a whole discussion about it, about whether it was important to have physiotherapy in the title, whether it changed their sense of identity or whether advanced practitioner was*

> *sufficient … . We felt if physiotherapy was introduced to the title straightaway it might alter patients' perceptions that they might get more active physiotherapy treatment as opposed to that diagnostic triaging and limited intervention that would happen within the APP role. (P13/PT/Not IP)*

This discussion above also mirrors Ten Hove's (2016) assertion of the importance of a job title not causing any confusion, protecting the public and reflecting the actual job. However, Participant 13 (P13/PT/Not IP) (quote above) perhaps noted more overtly the need to manage patient perceptions and had chosen, in contrast to Ten Hove's argument of keeping physiotherapy in a job role title due to the nature of it being valued, protected and recognised (Ten Hove, 2016), not to have physiotherapy on the name badge. This decision highlighted the debates around identity and the importance of perception from others, including visible indications such as name badges. With professional identity being viewed as linked to social closure (Currie et al, 2005), identifying with a specific primary group is important. However, in this case, albeit related only to one group of GP practices, the prescribing physiotherapists wanted to not highlight their physiotherapy profession and were choosing to promote the specific multi professional construct of advanced practitioner particularly to patients. This was to potentially mitigate against any patient perception of GPs being the more legitimate or established choice (Moffatt, Goodwin and Hendrick, 2018; Goodwin et al, 2020). Interestingly, Cooper et al (2016) found that specialisation was not perceived as highly, in terms of professional standing, by patients in Australian MSk services, as it was by the physiotherapy professionals themselves.

Hey (2018) highlighted the need for those with the experience of emerging advanced roles to step up to more strategic roles, to influence the agenda and not to undersell themselves as a physiotherapy profession and as prescribers, as was apparent in the quote below.

> *I think it [Prescribing] is a massive extra component to being a physio and I think we should be rewarded for it and we should be acknowledged for it because I think … is it a 20% or 30% shortage of GPs at the moment and I think that might even get worse, who knows. So, I think physios being First Contact Practitioners will get more prominent, … I think we should not undersell ourselves, and it [non-medical prescribing] is a massive course. I think it's a really valuable course. (P9/PT/IP)*

5.3.4 Credibility, trust and acceptance in professional autonomy

Building on the previous sub theme of professional identity, recognition and status, all aspects important from an individual perspective, are the concepts of credibility, trust and acceptance. These latter aspects could be regarded as more external to the individual but highlight the complex interplay (and overlap) between the multiple influences involved in professional identity.

Increased confidence was reported as a fundamental outcome of developing prescribing skills as part of advanced practice.

> *If anything, what the prescribing really does, it gives me more confidence to look at the whole person and face it as a whole rather than just saying, well I'll just focus on this part of you, because that's what physios do. At the moment I'm loving my job and, yes, … it gives me more confidence as a clinician, for sure it does. (P9/PT/IP)*

This confidence was underpinned by knowledge and experience, enabling an adaption of approach and leading to more self-reliance and ultimately the social prize of more autonomy (Larkin 1983, Saks 1983).

> *The training requires you to become deeper and more holistic in your thinking, so you take a different view. So, I think it makes you, yes, more advanced, I would say, I think is a good word, in your practice. It doesn't make you any better perhaps in treating, … but it does give you a slightly different approach. Yes. I suppose I feel a bit more confident as a person in my practice. (P7/PT/IP)*

> *From a communication point of view, a great deal more confidence in being able to be self-reliant. (P12/PT/IP)*

Credibility was also important for participants as part of professional autonomy. This aligns with and builds on the neo-Weberian concept of social closure (Saks, 2012), the initial stage of which for independent prescribing is annotation by the HCPC as a prescriber.

> *I still think it's great that it's a Master's equivalent module and I still think it needs to be held in very high academia really because I think we need that to prop up our professional values and autonomy. (P2/PT/Not IP)*

Ibarra (1999) had noted that individuals in new roles must "convey a credible image long before they have fully internalized the underlying professional identity" (Ibarra, 1999, p764) or feel competent in their new roles (Ibarra, 1999) and these participants appeared to be reflecting that. The rigour and credibility of the Masters' level non-medical prescribing course was highlighted. However,

aligning with and working towards achievement of the supporting frameworks for this advanced practice in musculoskeletal care, namely the multi-professional framework for advanced clinical practice in England (Health Education England, 2017) and the musculoskeletal core capabilities framework for first point of contact practitioners (Health Education England, NHS England and Skills for Health, 2018), was not mentioned by the participants. This may indicate that the participants were actually exploring development of their professional identity in a way that was more akin to the professional identity theoretical literature rather than the applied practitioner literature.

Enhanced conversations (explored further in Theme 4. Ch 5.5.1) were not just restricted to the patients but also included colleagues, linking to feelings of credibility and respect.

> *I think it's given us more autonomy, more opportunity to do different roles. It gives you more credibility with the doctors when you speak to them, more respect, which I think is all good … they understand that you are speaking to them as an equal and you can have an equal conversation. (P3/PT/IP)*

There was the sense of a new and exciting era whilst recognising the extra responsibility and trust that went with it as a profession.

> *Yes, absolutely. it's both sides, increased rights and responsibility. You are doing more and it's great. It's great for me as an individual because I like that progression. Great for the profession, because again, it's just highlighting what skills we have as a profession; but there is that actually daunting element and I think as we are doing more and we are accepting more responsibility we've always got to be quite aware of the potential risks that that brings with it to make sure that we are being safe all the time and our training is adequate, etc. (P8/PT/IP)*

Autonomy is fundamental to being a professional (Grant, 2013) and being independently autonomous in decision making and evolution of practice via prescribing was viewed as aligned to this premise. Indeed, it has been argued (almost exclusively related to the medical profession and in 1997), that "prescribing represents a clear example of clinical autonomy, and the right to prescribe medicines is a major component of clinical freedom" (Davis, 1997 in Britten, 2001, p479).

> *Particularly in the use of prescribing, it's the autonomy of it. I think physios definitely have a very strong professional identity more so I*

would think than a lot of other allied health professionals. (P2/PT/Not IP)

Stepping up to a new opportunity with pride and excitement was apparent, reflecting the inherent strive for professions to evolve (Larson, 1977; Saks, 2012).

It's really quite exciting, again. It's putting physiotherapy again, I think, probably another step up. It shows off the potential of the profession, which I think is absolutely brilliant. So, it's very exciting. It's quite daunting because it's a massive amount of work and it's extra responsibility. (P8/PT/IP)

Overall, a sense of value and of having some control of what was happening was important for the pioneers.

I think it's been really valuable doing it … I hope it [independent prescribing] has been very helpful for patients. It certainly made me feel happier, more comfortable in my job and for me that is quite important. I think it has been very useful for patients that I've given a prescription to, that haven't had to wait for that prescription. (P10/PT/IP)

I think as a profession we are becoming very respected by the people who see us. (P7/PT/IP)

Increased job satisfaction from prescribing was important to the participants reflecting findings by Noblet et al (2017) although it was more about doing a wholesome job per se.

Whether independent prescribing for physiotherapy is viewed as a natural evolution of the profession as part of advanced practice, or as a bigger than usual jump in a uniquely different direction to that previously experienced, it appears to be assimilated by participants that evolution of a profession is ongoing and inevitable, reflecting views akin to the professional project concept (Larson, 1977).

Within this professional journey concept, it is recognised that the change and clarification/synthesis of what it means for the profession becomes accepted with time and familiarity.

I think physiotherapy will remain instrumental to my practice, but I see our scope continuing to extend as it has done for the last 40 years. (P12/PT/IP)

Things are changing. They have changed a lot since I have been working as a physio, and they changed again. I don't think it takes that many years, actually, for the perception to change. (P15/PT/IP)

Moving from the current trailblazers to established roles and practices within this specific context was the priority for those involved.

If you are going to do it, you have to do it very properly. I think it is brilliant, … I think it's great. I think, in five years, if you want to be doing FCP in a big way, you want to be doing it half the time, or a full-time role, you need to embrace it. You need to be injecting, prescribing, really taking full ownership. (P15/PT/IP)

The need for time and support was noted to gain acceptance, establish role and create a sustainability of individuals to develop into it.

Nurse prescribing took ten years to reach the point where it is. I don't expect to have everything on my plate straightaway, I'm fully appreciative that this takes time and confidence and the support of both pharmacy and medical professionals for us to develop our practice, but that's where I see it going. (P12/PT/IP)

I think the [physiotherapy] primary healthcare team will expand and will evolve and will become pivotal to the success of the NHS over the next, I don't know, 5, 10, 15 years. (P12/PT/IP)

There was some recognition of risks to autonomy in term of others encroaching on role by lateral boundary pushing.

I think we just have to be a bit careful because there's a lot of professions out there that are going into advanced practice. So I think we have to really promote ourselves … I think otherwise we run the risk of being taken over, our role particularly perhaps in that first contact GP setting by other clinicians like pharmacists who want to get in there or paramedics perhaps, for example, who might be good first contact from an acute trauma kind of thing. (P7/PT/IP)

As already discussed, from the physiotherapists' viewpoint they saw themselves as primarily vertically pushing boundaries into the remit of medicine by prescribing rather than laterally pushing boundaries into pharmacy, nursing or paramedic prescribing (Theme 1, Ch 5.2.2.). That said they were aware of the risk of lateral boundary pushing from other professionals and demonstrated an element of concern and protectionism in relation to this.

So, I think we need to be able to demonstrate that we are safe and effective as prescribers. We need to make sure that we are putting ourselves in the most useful positions to use our prescribing skills, which arguably is the First Contact Practitioner role. (P8/PT/IP)

This risk from other professions was being mitigated by the participants, and the physiotherapy profession as a whole: focussing on the specialist MSk remit in primary care, thus ring-fencing their scope of practice from others, effectively creating a profession specific social closure (Nancarrow and Borthwick, 2005; Borthwick et al. 2010; Saks, 2012; Welsh et al, 2014) within the primary care setting. This supported the building of credibility and trust in this area of practice, thus facilitating and eventually underpinning the establishment of greater professional autonomy specific to MSk management in primary care.

5.3.5 Enablers and constraints

The mixed experiences and feelings of enablement and constraint, jostling directly against each other within the reality of clinical practice, were well reported by participants. Two main constraints represented tangible barriers that in the participants' view needed challenging now or in the near future for independent prescribing in this setting to move forward. These particularly applied to the physiotherapy profession in this primary care setting and the MSk clinical speciality. The constraints were access to relevant IT systems, and the permitted physiotherapy prescribing formulary (particularly related to Controlled Drugs).

> *Obviously, I sound frustrated, and almost like I think it's [physiotherapy independent prescribing] not worthwhile. I don't want to come across like that. I am frustrated by the SystmOne issues, I am frustrated by the Controlled Drug issues. I think that from our physiotherapy service point of view, I think it is very difficult for us to put people through that training if it is not going to offer something wonderful. I think we need to be careful about how we roll that out. (P15/PT/IP)*

Reflecting findings from Noblet et al's (2017) barriers and facilitators systematic review, one of the crucial pragmatic aspects of adapting to being an independent prescriber in primary care in this study, was challenges in access to the GP practice IT systems (most commonly SystmOne and EMIS): both from the perspective of electronic prescribing logistics and also on occasions, access to patient notes. The crucial role of the IT systems for safety of drug interactions, dosages and co-morbidities was noted.

> *The problem is … the fact that HCPC registration isn't recognised by some of the systems … the system won't recognise the HCPC pin, it will only recognise nursing or medical pins, registrations. (P13/PT/Not IP)*

Frustrations were regularly articulated related to being empowered to prescribe by gaining the qualification and HCPC annotation, yet having that autonomous power eroded by an external system-based constraint, in terms of not having access to appropriate IT systems. This indicates that adding in electronic prescribing access has not moved forward significantly in line with need since Moffatt, Goodwin and Hendrick's (2018) findings where full access was achieved to electronic patient records in physiotherapy-as-first-point-of-contact services.

Additionally, the second external constraint discussion point that was particularly important for participants was related to the formulary and accepted Controlled Drugs and how this affected the ability to adapt and grow as a prescriber.

> *My experience of the [non-medical prescribing] course was that it was a relatively arduous process, as I think it needs to be, and should be. My experience of actually using it, I think it is very limited, in this role. We seem to prescribe predominantly what is over-the-counter medication. (P15/PT/IP)*

There were ongoing debates around the constraining and moving goal posts of physiotherapy accepted Controlled Drugs legislation, including the April 2019 update. These made the physiotherapy prescribers feel that on paper they had been awarded the opportunity of developing a new skill and responsibility, yet in reality their credibility to make difficult decisions, and their autonomous clinical reasoning, was being undermined by imposed and externally shifting controls. Building on Noblet et al's, (2017) findings, about limited formulary being a barrier, (albeit their findings being mainly related to other non-medical prescribers such as nurses and pharmacists), there were additional frustrations coming through in this research that the physiotherapy profession was being more overly-legislated in comparison to other prescribing professions in relation to the Controlled Drugs that they could prescribe, and were thus being treated differently to other prescribing professions.

> *Obviously, there are quite a lot of professional restrictions, … in terms of what you can prescribe. I mean, to be honest that is probably the biggest thing that holds you back. (P11/PT/IP)*

> *I have been prescribing myself now for 2.5 years having qualified. It's something that I think is incredibly useful for the role. I probably prescribe less than I thought I would but I think some of that is hampered by our formulary at the moment, especially in MSk*

medicine with the Controlled Drugs that we do have available, and the loss of Gabapentin and Pregabalin, in my opinion, is absolutely a step backwards. (P12/PT/IP)

Hey (2018) noted his frustration in relation to what Controlled Drugs physiotherapists could independently prescribe, noting it as particularly restrictive to physiotherapy FCPs "trying to offer seamless, effective and efficient care without duplication" (Hey, 2018, p160). The frustration around not being able to prescribe Codeine in particular was very apparent.

The third frustration, as it were, is the limitation with controlled drugs. And when you look at the controlled drug list that we have access to, some drugs on there which are much stronger and have much higher potential for risk and abuse than Codeine that we are allowed to prescribe, it seems very odd that we are not able to use Codeine. (P8/PT/IP)

Most participants also indicated a frustration about the additional April 2019 legislation reclassifying Pregabalin and Gabapentin within the Controlled Drugs legislation (CSP, 2019). This had a particular implication in relation to management of neuropathic pain.

So, I'm still using Amitriptyline, but it's not useful in all circumstances, so anybody with any cardiac history or previous poor problems with it, we can't use it. Gabapentin was normally fine. Yes, I'm missing it off my formulary. (P12/PT/IP)

A sense of a waiting game and stagnation of the ability to move physiotherapy independent prescribing forward and potentially change current low prescribing rates was in place, especially with a Controlled Dugs review not likely in the near future as a government priority. This was viewed by participants as external legislation (CSP, 2018; CSP, 2019) curtailing the physiotherapy professional journey associated with independent prescribing, when legislation (CSP, 2013) had given it momentum in the first place.

If it was prescribing on its own, I'm not sure at the moment with the formularies that we've got that I would say to another clinician that this is worth a year of your time [to undertake the non-medical prescribing course] … I think I would say to somebody else that maybe we need to wait until government has released the formulary for it to be really, really effective … . It does need to evolve, and it does need government to be changing what's going on for us and using us as credible healthcare professionals. (P12/PT/IP)

It's nonsensical; the list that we have, and the list that we don't have…and Gabapentin and Pregabalin, similarly. (P15/PT/IP)

The ultimate success and sustainability of prescribing in MSk primary care was seen to depend on the removal of the constraints around the formulary. Johnson's vision of patients having a more streamlined and efficient service, getting the medicines they needed immediately (Johnson in CSP, 2012) was not yet panning out in reality. This was summarised by Participant 12 (P12/PT/IP):

> *We are seen as ultimate professionals until perhaps, we want to prescribe something that's on the fringe and then we have to go running back, kowtowing to perhaps a medic or a prescribing pharmacist for permission to do something in our clinical practice. It just seems to be quite a step backwards … I think it will … . Obviously perhaps government are a little preoccupied at the moment with some other things that they may be doing. It's going to change. The nursing formulary changed … . I do think they [the CSP] are pivotal. (P12/PT/IP)*

Participant 15 (P15/PT/IP) summed up the range of feelings and the current impact on the developing role of the physiotherapy independent prescribing within the MSK First Contact Practitioner roles in Primary Care.

> *However, I am very positive, … I think if you want to do it properly then you need to have all of the skills. Prescribing is one of those skills. In that regard, I am very positive. We just need to iron out some of these issues, get all of these bits sorted out, make sure we have got enough to prescribe, enough of what the patients require. We are able to deliver safely and effectively and work out ways in which we can keep up to speed. But yes, although I have negativity in my tone, I am actually pretty positive about the whole thing. (P15/PT/IP)*

Having analysed the data, the identified concepts in Themes 1 and 2 lent themselves towards the theoretical literature pertaining to professionalism, professional identify and the professional journey. Aligning with the thoughts of Participant 15 (P15/PT/IP) above, Themes 3 and 4 expressed the data findings in terms of applied practice and the implementation of physiotherapy independent prescribing in MSk primary care by individuals within the primary care health system.

5.4 Theme 3. Adaptability and Responsibility: pioneering physiotherapy independent prescribing

Within individual accounts and across the interview set, a range of expectations were articulated about physiotherapy independent prescribing particularly within

First Contact Practitioner (FCP) roles in primary care. The result was a sense of personal and professional responsibility being articulated by all participants to recognise the opportunities and issues, to explore what the future would look like, and to recognise that in whatever direction this evolved, the need to get it right for future generations of physiotherapists and for the patients it would affect. Adaptability within practice was viewed as fundamental, especially in the changing overall structure of primary healthcare (NHS England, 2019a; NHS England, 2019b). The concept of being pioneers of new practice was apparent throughout, even if the views across the data set showed some debate on direction of travel or how physiotherapy prescribing in primary care might pan out in the longer term. Participants who were current prescribing physiotherapists in an FCP role articulated most about the adaptability and responsibility of being the first cohort of prescribing physiotherapists in an FCP role. However, the pioneering concept was also explored by other participants: FCP physiotherapists who were not additionally qualified to prescribe; physiotherapy consultants; service managers; commissioners of primary care services; and General Practitioners (GPs). Whilst the views of the prescribing physiotherapists demonstrated similarities, there were some alternative views particularly from physiotherapists who were not prescribers.

The following five subthemes have been identified:

- Expectations and drivers.
- Early adopters as pioneers.
- Vulnerability and risk
- Resilience and sustainability.
- Promoting physiotherapy prescribing beyond the physiotherapy profession

5.4.1 Expectations and drivers

The consistently positive expectations of the Chartered Society of Physiotherapy, the Department of Health, NHS England and Health Education England (CSP 2012; CSP, 2013; DOH, 2013; NHS England, 2014; NHS England, 2016; NHS England, 2017a; NHS England, 2019) were noted with some frustration by physiotherapy consultant participants in particular, in that it

was not as balanced as it could be and was not underpinned by empirical evidence.

> *I'm slightly annoyed with the CSP. Purely because their 'one size fits all' approach doesn't work, which is what they are promoting, really, with no due respect for existing services. (P1/PT/Not IP)*

The participants themselves had a wide range of views about their expectations, challenging the unilateral views of the CSP, DOH and NHS England. Some viewed independent prescribing as an opportunity for physiotherapy and a 'must have' in the role of FCP, whereas others viewed independent prescribing as an additional tool in the physiotherapy toolbox but not an absolute necessity. Furthermore, two physiotherapists thought independent prescribing was not the remit of physiotherapy or agreed with it in principle but showed some reticence in relation to the extra responsibilities it brought.

> *I think independent prescribing is a wonderful adjunct to physiotherapy. When you are looking at the patient holistically, it makes perfect sense to be able to give them the adjuncts to be able to get them to move again. (P2/PT/Not IP)*

However, Participant 2 (P2/PT/Not IP) also added.

> *For me, it's useful to be able to prescribe but actually not essential because I have that GP backup, … so for me, personality wise, it works better that I have the support and the safety net of working with a GP as a prescriber. (P2/PT/Not IP)*

Mixed views also came from Participant 3 (P3/PT/IP) within their interview:

> *I don't think it's essential, but I think if you want to achieve the full benefit of the 'first contact' philosophy which is very much around saving money and time … So, if the therapist, which is what they have to do at the moment, go and find a GP, get our scripts signed off, that's time consuming and it takes the GP's time … , so it's not efficient. (P3/PT/IP)*

Noblet et al (2018) had reported conflict within a profession as a potential barrier to clinical innovation implementation, and thus a rationale for their prospective study on physiotherapy professions' views and perceptions on future prescribing rights in Australia. Similarly, the emerging view from this current research, particularly from the physiotherapists involved, reflected a range of opinions and created professional debate, which did not reflect or align with the more unilateral vision of government and professional, statutory and

regulatory bodies (PSRB) (CSP 2012; CSP, 2013; DOH, 2013; NHS England, 2014; NHS England, 2016; NHS England, 2017a; NHS England, 2019a).

5.4.2 Early adopters as pioneers

Within the setting of primary care practice, the physiotherapy participants were early adopters for their roles as First Contact Practitioners and also as a physiotherapy prescriber in that setting (if they had undertaken the non-medical prescribing course). Not all the physiotherapy practitioners in this early adopter role of FCP were prescribers. Commissioners, service managers and GPs interviewed were involved in shaping primary care services, in decision making about the remit of First Contact Practitioner roles, and the position of postgraduate competencies such as prescribing as part of these roles. The physiotherapy prescribing practitioners were regarding themselves and being viewed by others as pioneers in the practice development, yet there was considerable uncertainty associated with being a pioneer. Ibarra (1999) highlighted that the development into new roles requires experimentation with "images as trials for possible professional identities" (Ibarra, 1999, p765). Although these "provisional selves" (Ibarra, 1999, p765) are transient and temporary solutions, they bridge a gap between current capacities and self-conceptions and "possible selves" – that is what attitudes and behaviours individuals believe may be expected in the new role and "what one might become, would like to become or fears becoming" (Markus and Nurius,1986). Building a repertoire of possible selves (the role identities an individual is trying to assume) is followed by experimenting with various provisional selves (incorporating strategies to get to possible self, such as imitation of others or true to self/authenticity strategies) (Ibarra, 1999). The notion of "provisional selves" thus builds on but differs from the notion of "possible selves" (Ibarra, 1999, p765), with "provisional selves" being a series of trials by an individual to explore, select and discard possibilities they have considered to construct professional identity in role transition (Yost, Strube and Bailey, 1992).

> *We are kind of finding ourselves in a little bit of a vague existence. (P7/PT/IP)*

> *I think we are really in the infancy of prescribing for physios at the moment … I mean, the numbers are still really low nationally, so it's not normal yet. So, I think it has to become more widespread and more normal. (P3/PT/IP)*

This also aligns with Hey's reflections on becoming an independent prescriber, in which he likened negotiating the HCPC annotation processes and NHS Trust requirements to actually prescribe as "a pretty new and an untrodden path for a physiotherapist" (Hey, 2018, p159). That said, a sense of opportunity not to be missed was evident, tempered with a need to be capable of taking on the challenge.

> *So, the ones I've met who have done it, I think they were incredibly proud, and I think they can see the opportunity. I think we are in such early days. (P5/PT/Not IP)*

> *I think you need to have that more advanced skill in diagnosis to be able to then be an effective independent prescriber. That's my take on it. (P1/PT/Not IP)*

Capability to undertake the prescribing responsibility was particularly relevant when considering practitioner resilience, and sustainability of independent prescribing, a subtheme discussed later in this theme.

Being a pioneer came with personal feelings of pride, conviction and responsibility although the participants in these roles were also reflective and insightful to the pressures, expectations, adaptions, opportunities and constraints that they were facing as professionals paving a new path.

> *I think there's a real role for physios sitting in primary care and helping the GPs with the flow of patients that are coming through with musculoskeletal. And if they can independently prescribe then they can actually fulfil that role more fully than they can if they then have to ask the GP to do prescriptions. (P5/PT/Not IP)*

This reflected previous findings by Hey (2018) who at once described prescribing as a physiotherapist, as opening "the gates to the privilege and pleasure of prescribing in our specialised roles" (Hey, 2018, p158), followed quickly by hitting a wall of panic from being bombarded with the reality of legal ramifications and responsibility (Hey, 2018).

5.4.3 Vulnerability and risk

The reality of translating physiotherapy prescribing into practice generated a range of mixed views and experiences.

> *I think the biggest thing for me is about the transition from going to a course, doing a course and actually, how do you do this. So, it's not just about the understanding, but the logistics. As I said, the most frustrating thing for our colleagues – and it may have been because*

> *we were the first ones, the guinea pigs of it – was actually how do we make this happen in primary care? It was really hard, and we spent a lot of time ringing different people, trying to get advice. We went to the CSP, they weren't really that sure. (P11/PT/IP)*

In their systematic review of independent non-medical prescribing Noblet et al (2017) highlighted stress and anxiety as a barrier to independent non-medical prescribing in clinical practice, although the included studies almost entirely related to nursing and pharmacy independent prescribing. Whilst not related to prescribing directly, Dawson and Gazi's (2004), also found stress and pressure to be a reality in relation to experiences of physiotherapy extended scope practitioners in orthopaedics outpatient clinics. However, stress and anxiety were not identified as major issues for participants in this research, although like Dawson and Gazi's (2004) study, frustration for various reasons, often beyond the control of the individual, was highlighted. Only two participants (prescribing physiotherapists) noted stress and anxiety as a particular feature with Participant 10 (P10/PT/IP) putting it in the context of being mitigated by advanced clinical reasoning skills.

> *It is pretty stressful. It is pretty full-on. It is pretty lonely. (P15/PT/IP)*

> *Well I think you need to be at a level, in terms of clinical reasoning, that you are going to cope. Because it's really stressful and you are far more vulnerable than in any other job role I've ever been in before, in terms of your professional governance. So, I think you have to have really advanced clinical reasoning skills. You have to have good knowledge about interventional pathways of management … it's being exposed to anything that comes through the door which, when the triage system is such that a patient may call up and be booked into the clinic on a basic set of screening questions … . So, we all know there are 'MSk masqueraders'. (P10/PT/IP)*

Vulnerability was an aspect that warrants further exploration. Fineman's vulnerability theory recognises vulnerability as a "characteristic that positions us in relation to each other as human beings and also suggests a relationship of responsibility between the state and their institutions and the individual" (Fineman, 2010, p1). In the literature, vulnerability studies largely relate to four areas: vulnerability of individuals within society (Fineman, 2008; Fineman, 2010; Fineman, 2012); personal vulnerability sharing by practitioners with patients (Mirow, 2003; Malterud and Hollnagel, 2005; Malterud, Friedriksen and Gjerde, 2009; Davenport and Hall, 2011); vulnerability associated with role transition (Ibarra, 1999); and vulnerability associated with risk, particularly litigation

(Meyers, 2001). Individuals in this current study noted vulnerability as an individual in a changing system. Ibarra (1999) recognised the vulnerability experienced during role transitions. Fineman's vulnerability theory further highlighted that whilst vulnerability is universal, human vulnerability is experienced uniquely by each of us, making it particular to the individual (Fineman, 2008). It is also largely influenced by the quantity and quality of the resources we already possess or can command (Fineman, 2008).

Vulnerability was directly linked to the risk-taking associated with the independent prescribing and influenced by the level of support and governance processes in place in individual organisations, reflecting finding of Dawson and Ghazi (2004) in relation to extended scope practitioners. Supporting this, Holden et al (2019) reported caution amongst physiotherapists to the extra responsibility and "legal consequence in case of harm" of prescribing (Holden et al 2019 p337). Wider literature also addresses vulnerability in relation to risk of mistake or litigation, particularly in the medical profession, with some focussing on the need to reduce vulnerability to claims by appropriate risk management (Meyers, 2001). Whilst avoiding litigation claims was not the focus of prescribing physiotherapy participants in this study, they were concerned about the support networks, medicines management risk and governance in place whilst working in GP practices on sessional service level agreements and in the future for the new Primary Care Networks.

> *I think prescribing is a big thing because I think the position you put yourself in is quite at risk: you have an awful lot of responsibility to take on board when it comes to screening patients, and I think the consequences of you doing something not right, I don't think we are going to be quite as supported as perhaps a GP is going to be, I think we are more vulnerable and therefore I think we are actually taking a greater risk than GPs are. (P7/PT/IP)*

It has been highlighted that recognition and acceptance of shared vulnerability can lead to better relationship building within teams that support opportunities for creativity, fulfilment, innovation and growth, paradoxically making vulnerability an essential characteristic of building resilience in healthcare teams (Fineman, 2012, Delgado et al, 2020). Delgado et al (2020) suggested the value of communities of practice in supporting vulnerability and building resilience by combining tacit and explicit knowledge to foster emergent knowledge (Delgado et al, 2020), gaining competencies and expertise, decreasing organisational and

geographical barriers, and reducing professional isolation (Wenger, 2000 in Delgado et al, 2020), all pertinent aspects identified by participants in this study.

The acquisition of prescribing knowledge and competencies through a HCPC validated Master's level non-medical prescribing course is a requirement to become a physiotherapy independent prescriber (HCPC, 2020). However, participants in this research felt that crucial additional aspects of the success of becoming a prescriber were clinical experience, patient mileage and being comfortable in their own ability. Moffatt, Goodwin and Hendrick (2018 p126) had highlighted physiotherapists' view of the importance of clinical experience in enabling patients "to navigate their therapeutic journey in a more efficient manner", as had Noblet et al (2017) in relation to successful prescribing, albeit mainly in relation to nurse prescribing.

> *The thing we've learned the hard way is, if you send somebody on prescribing too soon and they are not a good diagnostician, they are not a good prescriber … [we need to] know that you can make a clinical reason and decision as to what is wrong with this patient and a plan before you start giving them some medicine. (P3/PT/IP)*

Clinical experience and patient mileage were directly associated with reported confidence in prescribing ability and decision making. This could be interpreted as a level of self-efficacy associated with time and experience, which reflects Mandy, Saeter and Lucas's (2004) positive correlation between length of time since qualification and self-efficacy in Norwegian physiotherapists. Self-efficacy refers to an individual's belief in his or her own capacity to execute behaviours necessary to produce specific performance attainments, thus reflecting the degree of one's feelings about one's ability to accomplish goals (Bandura, 1977; Bandura, 1986). Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behaviour and social environment (Bandura, 1977; Bandura, 1986). Indeed, the value of self-efficacy in willingness to take responsibility for prescribing decisions has already been noted by Cope, Tully and Hope (2019) in relation to non-medical prescribers in acute medical units in the UK, albeit it with only four out of ninety-nine participants being physiotherapists. The highlighted importance in clinical mileage in this current research could be regarded as an underpinning contributor to the reported self-efficacy. Clinical mileage could also enhance "the use of intuitive judgement (professional artistry) to translate the "messy indeterminate" (p53) problems of the real world into well-formed problems" (Schon, 1992 in Kell and Owen, 2008

p160), facilitating competent problem solving. It may also underpin the resilience concept explored in the next subtheme.

> *The bit again which is difficult to quantify is patient mileage, is pattern recognition and perhaps being able to read between the lines in consultation. It's simple observation of patients, perhaps thinking of the things that the patients haven't thought of themselves and I think you only get that when you've had a bit more experience. So, a bit difficult to quantify but sort of advanced clinical reasoning processes I suppose. (P8/PT/IP)*

Associated with vulnerability and risk, Hey (2018) had specifically noted how much he had learnt on his early prescribing journey but how lonely and isolating it can be as the first one in your organisation to go down a new professional path. Noblet et al (2017) also found that addressing feelings of isolation and lack of support structures including governance was crucial for supporting the individuals within the working system. These concerns were reflected in this data set.

> *It can be quite lonely, and I think you need people of a certain level who are able to work independently. I know a few areas are looking at central hubs [PCNs] so you may have a number of physios working in that area all in primary care … . That might be a more sustainable way forward without isolation and would be more encompassing of different grades of staff. (P12/PT/IP)*

Supporting this, in their prospective views study, Noblet et al (2019a) reported less positivity towards the potential introduction of physiotherapy independent prescribing from those working in rural areas of Australia, due to professional isolation and lack of support mechanisms. Delgado et al (2020) specifically explored the role of team and communities of practice in managing vulnerability in healthcare professionals and building resilience. It was unclear to most participants in this research as to how these peer support networks might form within PCNs, particularly if roles were isolated, but was a consideration for long term sustainability (discussed in next subtheme – resilience and sustainability. Ch 5.4.5).

Tempering this vulnerability and risk taking was an enjoyment of being part of new practice, of taking ownership, being pioneers and embracing a sense of making a difference and moving things forward.

> *I enjoy feeling as if I'm at the fighting edge, if you like, of physiotherapy and the changes that are going ahead. (P12/PT/IP)*

5.4.4 Resilience and sustainability

A combination of personal resilience and establishing a clear career pathway was viewed as crucial to sustainability of prescribing in MSk primary care roles. The resilience aspect was related to being more comfortable in own ability, feeling less vulnerable and more able to take risks, all aspects previously explored. Resilience has been defined as “the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress” (American Psychological Association, 2014 in Delgado et al, 2020, p3). Delgado et al (2020) noted resilience as a remedy for vulnerability, albeit an incomplete one, as highlighted in Fineman’s vulnerability theory (Fineman, 2008; Fineman, 2010). Having opportunity to develop knowledge, clinical experience and patient mileage over a number of years was recognised as fundamental to becoming a prescribing physiotherapist. Within creating a sustainable physiotherapy staff development pipeline, building resilience in individuals, establishing support networks, and managing workloads was seen as vital.

> *So you are increasing the number of people that you need in your pipeline, but we felt it [a sessional GP slot] was a more sustainable way to deliver a service and we’ve seen people who have been out in primary care and worked fully in primary care and they are burning out, just as the GPs did, because they are exhausting sessions, the volume that you are getting through. (P13/PT/Not IP)*

Moderating the hours of work in primary care to be on a part time basis to avoid burnout was suggested by Participant 13 (P13/PT/Not IP), directly relating both to the findings of Kirwan and Armstrong (1995), which indicated that full time GPs had significantly higher chance of burnout than part time colleagues, and to Mandy, Saeter and Lucas’ (2004) finding that 53% of their sample of Norwegian physiotherapists were working less than full time, as a potential explanation of low levels of burnout in Norwegian physiotherapists.

General Practitioner burnout and attrition has been well documented (Chambers, 1993; Kirwan and Armstrong, 1995; Soler, Yaman and Esteva, 2007; O’Dea et al, 2017), with key aspects being workload and job satisfaction (Soler et al 2007), the nature of frontline role (Chambers, 1993; O’Dea et al, 2017), and isolation (Chambers, 1993). Burnout was first suggested by Freudenberger (1974) as physical and emotional exhaustion related to work. Burnout has been defined as having three components, emotional exhaustion,

depersonalisation of others, and lack of personal accomplishment (Maslach, 1976), with approximately 50 % burnout risk being reported amongst UK GPs in 2015 (Staten and Lawson, 2017).

Within the physiotherapy profession, burnout has also been recognised (Mandy, Saeter and Lucas, 2004; Sliwinski et al, 2014; Bainbridge, Davidson and Loranger, 2017; Fennelly et al, 2018b). Of specific relevance to the current research is the relationship between self-efficacy and burnout in Norwegian physiotherapists (Mandy, Saeter and Lucas, 2004) and the risk of burnout in advanced physiotherapy practitioner roles (Fennelly et al, 2018b). This current research indicates that lessons can be learnt in clinical experience and patient mileage (already explored) and its potential role in development of self-efficacy in prescribing. Participants in this research were aware of the need to avoid going along the same path as GPs in terms of professional attrition and burnout.

The importance of raising the profile of physiotherapists being able to prescribe to key stakeholder and commissioners was viewed as central to securing the long-term sustainability of prescribing physiotherapy MSk primary care services and aligned with Goodwin et al's (2020) findings in relation to the FCP role. These comments also reflected Middleton's initial comments back in 2013, around the importance of influencing local commissioners in significant service redesign (DOH, 2013).

> *I think it depends how they commission the MSK services completely. So, there's a sustainability and transformation plan project looking at musculoskeletal services across Britain at the moment and they have to decide how to commission that service. It will be completely dependent on the service that they commission. (P3/PT/IP)*

The literature supports this concern. Gosling (2018) highlighted the importance of influencing the advanced practice agenda, and Sedgley (2016) outlined the need for clarification of advanced practice role and terminology in physiotherapy. Noblet et al (2017) also found that political motive, government funding and strategic/cohesive planning were identified as system factors in the barriers to, and facilitators of, independent non-medical prescribing in clinical practice. The importance of a structure and system underpinning the advanced practice role as a pipeline was highlighted in this current research, aligning with McPherson et al's findings on the importance of education, support and mentorship strategies in developing new scope of practice roles (McPhersons et

al, 2006). In relation to the implications for the first contact role and prescribing, the situation was summarised in the contemporary context of the current practice situation.

> *I think probably at the moment the thing needs to be in bringing people up to this skill level and perhaps backfilling physio departments. I feel that we have absolutely asset-stripped some of our physio departments at the moment of all the senior clinical specialist level staff and it's going to take a number of years for that void to be filled. So, I think getting people into first contact roles is absolutely great, get them established and as things change with the formulary then start to look at releasing to prescribe at that time. (P12/PT/IP)*

Enabling staff working between multiple centres across the MSk pathway was seen as advantageous but how it would work within the structure of Primary Care Networks (NHS England, 2019a) was unclear.

> *We just felt actually it was a sensible model because a) it would keep clinicians from feeling too isolated, b) it would stop them deskilling in terms of their core musculoskeletal skills and c) it keeps them tied in with the MSK pathway developments that are going on. So, there's been a benefit for primary care because they've got clinicians who are kept up to speed … but we are retaining some of that skill set within our core services to help support and develop the pipeline. (P13/PT/Not IP)*

In summary, sustainability of the professional pipeline for prescribers was primarily around developing opportunities for individual physiotherapists to gain a broad and MSk specific knowledge and experience to underpin progression towards advanced practice roles in MSk primary care and acquisition of post graduate qualifications such as prescribing. The MSk Capability Framework (HEE, NHS England and Skills for Health, 2018) could be highly relevant, having been developed to "provide clarity both on the standards expected of first point of access MSk service delivery and the knowledge, skills and behaviours that practitioners need to develop and demonstrate" (HEE, NHS England and Skills for Health, 2018, p6). It is worth noting however that the MSk Capability Framework does not require prescribing to meet the clinical pillar of advanced practice in MSk, but rather requires an overview of pharmacotherapy knowledge. Thus, according to the MSk Capability Framework (HEE, NHS England and Skills for Health, 2018), becoming an independent prescriber is not a requirement or expectation, but rather an added extra for advanced practice roles in MSk. The uncertainty of where prescribing fits within MSk advanced

practice reflects the participants range of views in this current study, in relation to whether or not prescribing was a priority, a necessity or an added extra within MSk primary care roles, particularly the FCP role.

5.4.5 Promoting physiotherapy prescribing

In addition to building personal resilience in individuals and developing a Continuing Professional Development (CPD) supported career pathway, the sustainability of independent prescribing was also directly linked to promotion beyond the physiotherapy profession. Most physiotherapy participants saw promoting physiotherapy prescribing and informing others as pivotal for long-term success and establishment of prescribing in FCP roles undertaken by physiotherapists, in line with findings from Holdsworth et al, (2008) and Morris et al, (2014). Morris et al, (2014) had highlighted specifically the need to overtly demonstrate prescribing safety and effectiveness in their review of the evidence base related, at the time, to supplementary prescribing. The early adopters of independent prescribing in primary care in this study, saw their remit as bigger than demonstrating safety and effectiveness, and needing to include marketing physiotherapy prescribing as pioneering practice.

> *I think most people, when I say I do prescribing, they are like, "Really?" Most of them have very little knowledge that physios do it … . So I think we could publicise it more. (P9/PT/IP)*

This concern about the lack of understanding by others was further supported in that physiotherapists being able to independently prescribe was not well understood by the two GPs interviewed even though they both had a specific interest in MSk services in primary care and/or input into commissioning, albeit at varying levels.

> *I've never even heard about it [physiotherapists prescribing] until this. (P6/GP/IP)*

> *I suppose … who are we trying to educate? Are we trying to educate the GP or trying to educate the general public or are we trying to educate other members of the MDT? I think if it's GPs, we need to stop sending them back to them for that [prescribing]. I think if it's general public, we can do that through marketing or whatever. But thinking about how do we push this message, I suppose the first thing we've got to ascertain is who we are trying to push it to rather than just push it … . So, it's great that we have those stories in Frontline [physiotherapy professions' magazine] that physios are doing that, but maybe we should be putting that to a wider audience. (P9/PT/IP)*

Abbott noted, “society must trust and witness the profession’s strive for academic knowledge to demonstrate the rigour, clarity and scientific logic of the work undertaken” (Abbott, 1988 in Kell and Owen, 2008, p160). Ibarra (1999) had additionally noted that career transitions provided an opportunity to renegotiate both private and public views of self. Also relevant to this current research, McPherson et al’s literature review highlighted the value of promoting extended scope roles as key components of a flexible workforce (McPherson et al, 2006). Participants in the current study believed that physiotherapy professionals were primarily promoting to themselves and not to wider society, including other health professionals and patients. Thus, the need to promote physiotherapy independent prescribing beyond the physiotherapy profession was clearly articulated, directly supporting Holdsworth et al’s recommendation of increasing professional and public awareness of the change in role as key to success (Holdsworth et al, 2008) and Goodwin et al’s (2020) view that in relation to patients, traditional approaches to advertising can be invisible.

5.5 Theme 4. The Unexpected Side Effects

This theme brings together concepts emerging from prescribing that participants noted as unexpected yet important and subtly influential to the contemporary practice of physiotherapy independent prescribing in musculoskeletal primary care services, albeit difficult to quantify. One actuality for the physiotherapy prescribers in this research, was that they were not prescribing as much as they had anticipated with the majority issuing between two and three prescriptions (FP10s) per week. If they were also qualified to inject as part of their musculoskeletal management, they may issue a handful more. Typically, they reported the following.

> *Doing an FP10, probably once or twice a week, and then injections, so, so variable but probably on average two or three a week. (P8/PT/IP)*

> *I’ve prescribed in that, looking at my stats, about 1 or 2% of patients only. Partly that is because, … there is a fair chunk of patients, I am seeing that have been to a GP first and then moved across. (P10/PT/IP)*

Additional to this lower than expected prescription volume, some additional unanticipated aspects emerged from the data. Whilst not directly central to the clinical procedures of prescribing, these “unexpected side effects” were

reported as wholly relevant as they changed the experiences and application of prescribing and, in the participant's view, had enhanced practice by changing their focus, perspective and/or insight.

These unexpected side effects have been arranged into three sub themes:

- more focused conversations;
- deprescribing;
- engagement with drug dependency recognition and management.

5.5.1 More focused conversations

Within Stenner et al's (2018) systematic review on medicines management activity, it emerged that there was a high patient demand for information about medicines from physiotherapists within musculoskeletal care, with physiotherapists reporting involvement in administration (not prescribing) of both prescription-only and non-prescription medicine. Concerns were raised of a "mismatch in many countries between client demand for medicines and medicine's advice, and the educational preparation and governance to support physiotherapists to meet this demand" (Stenner et al, 2019, p1338). Kumar and Grimmer (2005) specifically noted this in relation to NSAID advice from physiotherapists in Australia and the risk of ambiguity in scope of practice when giving advice as a non-prescribing physiotherapist.

However, moving forward in the UK, education and legislation now underpins an increased level of medicines management activity through prescribing for the increasing number of physiotherapy practitioners choosing to undertake the extra non-medical prescribing qualification.

In this research, whilst there was some frustration at the number and range of prescriptions that in reality most physiotherapy independent prescribers in primary care were actually writing, there was a view about how the knowledge and understanding gained through becoming a prescriber was being applied to the interaction with the patient (whilst not always resulting in a prescription), and how it was actually changing the physiotherapist/patient relationship and enhancing practice in a range of ways.

> *I guess the thing I would say to people is it's not the prescribing, it's the knowledge of drugs, it's the advice people get. So many people come to clinic and they have been in the system a long time … and*

> *they are still not using drugs appropriately, effectively. Or they are using too many of them. They often want a conversation about drugs … . And so I've used it [prescribing] an enormous amount there, on a better footing than ever conversations were had before. So, I think, from a point of view of imparting information to patients, that has probably been the biggest take I've had from it. (P10/PT/IP)*

Hey (2018) had noted that prior to becoming a physiotherapy prescriber, he had asked about medications that patients were on but had not "delved too deeply as it was not seen to be anything to do with physiotherapy" (Hey, 2018, p158). This current research identified how prescribing skills were changing conversations. Participants who were prescribers reported more focussed and informed conversations that, in their view, enhanced practice and optimised rehabilitation.

> *I do a lot of talking about medication, … . And that's part of the prescribing as well. I think that's easy to forget. It's not just about putting pen to paper and prescribing, it's about advising about the medication and about making sure that they are compliant and they are taking it the right way, so they get the therapeutic effect … . And I think a lot of time they don't get that at all from the GPs. (P7/PT/IP)*

Slightly longer appointments than GPs and ability to spend time making sense of information from other practitioners improved overall physiotherapy engagement with the patient, but the level and context of those conversations were directly attributed to the non-medical prescribing knowledge and remit.

> *Although you haven't prescribed it, you often have that conversation of, "Actually well I think you probably would benefit from it," and explain why, … . So it is often that conversation which you wouldn't be able to have if you didn't have those [prescribing] skills. (P7/PT/IP)*

However, within this context there was no available evaluation of whether the patients did change their behaviour or become more compliant with their medication taking. Previous research has indicated that between 30-50% of people do not take their medication as doctors intend, and it is not possible to predict who may or may not comply (Donovan, 1995 in Britten, 2001). That said, participants viewed conversations about prescribing as an instrumental aspect of holistic care and as enabling the patient to engage with a change process, by being informed and empowered.

> *So, all the time I think physios are explaining to patients that they need to use medication better to allow them to then do the rehab. For me, that's the message. So I think the whole holistic thing isn't about*

> *not using medication at all, it's about how do you use medication to allow the patient to go on a self-management journey rather than saying to the patient I'm going to give you this and it's going to make you better? For me, that's the key bit of that information. (P5/PT/Not IP)*

> *It does give you that broader perspective. Does that mean that I interact with the patient differently? Probably not, but it probably means that I might ask additional questions that I hadn't asked before doing the prescribing course, so around the general health, smoking, drinking, I might go into more detail about other medication conditions and the impact that might have from a musculoskeletal or a rehab perspective. (P8/PT/IP)*

> *Because the physiotherapist is really well placed at that point in time to engender change, … because at that time they engender change behaviour, to have a little chat with them, to have that input. And it's all about little nudges. Nudge, nudge, nudge, nudge, nudge, nudge. Keep on nudging. (P6/GP/IP)*

However, it was recognised that it was hard to quantify the value of these altered conversations and insights and use it to justify physiotherapists becoming prescribers, especially when the current reported actual prescription writing rate was generally low. Indeed, Schon (1992) noted that the "application of accounting logic is unable to capture the artistry of professional practice" (Schon,1992 in Kell and Owen, 2008, p161) with greater value being given to measurables such as visible, technical elements of a profession within the implementation of the effectiveness agenda (Broadbent and Laughlin, 1997).

> *And that's the kind of grey area, that's the shadow and the hidden stuff that you won't see unless you scrutinise my notes. Where I document, I'll advise them for this or advise them for that. (P7/PT/IP)*

Noblet, Marriott and Rushton (2019) have previously highlighted the anticipated challenges in evaluating prescribing outcomes specific to primary care, albeit it as part of a prospective perceptions survey of physiotherapists in Australia. Similarly, Desmeules et al (2012) noted the lack of evidence for advanced practice roles in musculoskeletal disorders and Saxon, Gray and Oprescu (2014) highlighted how difficult it is to evaluate extended scope roles, particularly in relation to patient outcomes, cost effectiveness, niche identification and sustainability. Niche identification may be of particular relevance to physiotherapists establishing the impact of prescribing in primary care, yet specifically demonstrating the difficult to measure impact of focussed conversations on enhancing practice remains a challenge.

> *It's interesting isn't it? … for me, the actual physical prescribing is not a big thing that I feel I need. I don't think it's a necessity; I think it's useful. But for me it's the understanding of actually having those conversations around medication and actually deprescribing. Or not so much deprescribing but talking about alternatives … I will often use an analogy about trying to stimulate the endorphins through exercise as opposed to using morphine. So, it has given me more confidence in those conversations, probably, than if I hadn't done that. (P11/PT/IP)*

This quote around discussions during physiotherapy, potentially informing patients about alternatives or actually taking patients off of medicines, leads directly into the next unexpected side effect sub themes – deprescribing itself.

5.5.2 Deprescribing

Whilst the range of drugs actually prescribed by the physiotherapists in the MSk primary care setting was described by participants in this study as fairly limited, a key reported role for physiotherapy independent prescribers was deprescribing, underpinned by a combination of confidence in having more focussed conversations and an ability to explore alternatives with patients.

> *Deprescribing is something that we perhaps get involved with rather than prescribing and being able to step down medication because we have got other skills that we can offer a patient other than medication or investigation. (P12/PT/IP)*

> *My first thought is keep people moving, public health, that is definitely my first thought. So, I don't think it changes that, but it does give me a bit more confidence to talk about an area where I may have skimmed over before and actually be able to go through and have conversations about questioning patients' beliefs … . So, it's not suggesting they take something else but actually suggesting well if you are taking that still, do you think you need it? And I think previously I would have always stayed away from those conversations because I didn't really understand what, necessarily, was going on and why they were taking those drugs. (P11/PT/IP)*

Deprescribing painkillers was seen as a particular remit for physiotherapist working in MSk primary care.

> *So, painkillers, people get started on things and people forget. People have no idea why they are taking medications. (P3/PT/IP)*

> *We talk about drugs that they could modify or get rid of, quite honestly. (P10/PT/IP)*

Limitations of deprescribing of some painkillers directly linked to the related reported frustrations of prescribing constraints of the same drugs, and are

directly akin to the existing Controlled Drugs permitted for physiotherapy independent prescribing (CSP, 2018) and the supplementary legislation in April 2019 which added some additional restrictions (CSP, 2019). The impact of Controlled Drugs legislation has been previously explored within Theme 2. Ch 5.3.5. (enablers and constraints). It additionally featured in a different context within the next unexpected side effects subtheme: engagement with drug dependency recognition and management.

5.5.3 Engagement with drug dependency recognition and management

The emergent UK drug dependency and opioid addiction debate (Britton, 2019) featured in discussions of the experiences of physiotherapy independent prescribing from the prescribing physiotherapists' perspective but also from one GP. Two aspects were apparent: firstly, the need to recognise it as an issue that all health professionals in primary care had to work together to address and support the patients involved. Secondly, it provided both a context and a cause to the frustrations articulated around the Controlled Drugs legislation, particularly pertinent to physiotherapists working as prescribers in the musculoskeletal speciality within primary care. The legislation about the accepted Controlled Drugs list (CSP, 2018) (which both features and omits certain pain medication relevant in musculoskeletal care) and the additional changes (April 2019) (CSP, 2019), brought this to the forefront of participants minds.

> *I think as you go through the course, you are very aware of what these limitations are going to be, in terms of the Controlled Drugs. Our main area of prescribing is going to be very much analgesic. So, it's all about those, Tramadol not included, Codeine not included, therefore Co-codamol and every other derivative not included. That is an issue, because they are so common, and I would very rarely want to go to the top of the ladder with Morphine. So, that, I was anticipating going through the course, but in practical terms, I guess you don't realise that until you are actually doing so. (P15/PT/IP)*

There was a realisation that as musculoskeletal specific practitioners in primary care, the nature and accessibility of the role of FCP prescribing physiotherapist placed these individuals and the physiotherapy profession increasingly in the frame for addressing and contributing to the management of this crisis.

> *I have concerns … at the moment I have never had to have that conversation [about drug dependency with a patient] because it's already been done. (P7/PT/IP)*

There was an acceptance amongst the prescribing physiotherapists of the need to be more conscious of the risk of drug addiction, including awareness of patients manipulating the system to get multiple prescriptions. That said, it did not decrease the frustrations around the limited Controlled Drugs permitted to be prescribed by physiotherapists. The restrictions around Codeine prescribing were most commonly articulated.

> *Oh, it's just this whole, ridiculous, Controlled Drugs thing. It's just nonsensical that you can prescribe liquid Morphine and Dihydrocodeine, but you can't prescribe Codeine and Tramadol. It's just all over the place. Gabapentin is on that list as well. (P10/PT/IP)*

One participant who was a GP (P6/GP/IP) was particularly concerned about the opioid addiction crisis, not because there was any concern about physiotherapy being able to safely prescribe, but because of the current crisis that GPs were facing and the potential for manipulation of the system by addicted patients to illicit more prescriptions for drug misuse.

> *That's the only thing: abusive drugs. Pain relief is a minefield for the abuse of drugs. That's the problem. What I don't want is another agency coming in and then ten years down the line, we find out that there are shedloads of people on Diazepam for chronic back pain … I don't want somebody else going back to the beginning of what we were doing. (P6/GP/IP)*

> *We have handled this really, really badly historically as GPs, and I don't see another actor getting involved in that situation being a benefit. So, I think physios should be protected so they don't get burnt by all the other stuff that's going on. (P6/GP/IP)*

The other GP participant (P14/GP/IP) was less concerned.

> *I don't see that's a problem because, again, I haven't got any concerns about the physios doing it, provided they are properly trained. It's just like having another doctor in the practice, from my point of view, from that aspect, and as long as they are following practice protocols and liaising with the other members of the team, that's no different than a new doctor coming in. (P14/GP/IP)*

The uncertainty of the patient story was also recognised.

> *I think one of the most scary things as a prescriber when you are prescribing Controlled Drugs is not knowing if somebody has taken something else illicitly. (P3/PT/IP)*

Some potential solutions were raised in relation to enabling physiotherapists to prescribe the Controlled Drugs by restoring them to the acceptable Controlled Drugs list but with some mechanisms for safety.

One prescribing physiotherapist summarised the importance of considering the addiction but did a reality check on the actuality in terms of management.

> *I think, yes, there is addiction, and dependence, and that people don't realise that they are dependent on it, absolutely. But I don't think that is a huge part of what I see. I think often, with those patients, there is a big note on their SystmOne [GP clinical IT system] that says, 'Only to be seen by their personal GP. Nobody to prescribe this,' and they have got their eye on it. (P12/PT/IP)*

> *I did see somebody yesterday who has had a history of addiction, various things, and I was wondering if he was going to come in asking for all sorts of things. I very much steered away from the drug management with him, and actually, he was fine. That is the way I would tend to play that. If I had anybody who I felt was at risk, who had had a history of addiction-type problems, I am not going to prescribe just because I can … I need to know where my competency starts and ends. (P12/PT/IP)*

This indicated a sense of professional responsibility towards the drug dependency debate by the physiotherapists that they had not previously considered. However, there was a measured pragmatic view noted in addressing this moving forward, with ideas about how this could be managed being presented by the physiotherapists. Within the eyes of the physiotherapy participants in particular, these ideas challenged permitted CD legislation, their acceptance of the constraints it imposes and how it affects their practice and prescribing choices specific to the MSK primary care setting. That said, it is necessary to recognise the alternative view of one GP who wanted to maintain more control in relation to patients at risk.

5.6 Summary

This analysis chapter identifies the key implications for professional identity and practice emerging from the experiences of physiotherapy independent prescribing in musculoskeletal primary care. This research has indicated that there are a number of benefits, challenges and ongoing considerations around the practice of physiotherapy independent prescribing in musculoskeletal primary care (specifically as First Contact Practitioners) particularly as this emerging opportunity for the physiotherapy profession moves forward and

develops in line the NHS long term plan (NHS England, 2019a) and the GP current contract reform requirements (NHS England, 2019b). During these legislative and structural changes within primary care, the health professionals involved are in an arena of service and professional change, uncertainty, personal, professional and organisational debate.

Chapter 6 Reflexivity

Doctoral education and learning involves entering a space of uncertainty, letting go of old views, embracing threshold concepts of learning and engaging with acquisition and understating of troublesome knowledge (Meyer and Land, 2005; Perkins, 1999).

6.1 Introduction

This research, education and personal journey has been at once exhilarating and at times exhausting. There have been frustrations and challenges that have called upon my highest levels of organisation, problem solving, critical thinking, resilience and tenacity. Alongside this have been a significant number of times when I have felt very privileged to have the opportunity to carry out this research, to hear participants' views, work with my supervisors and field collaborator, and to dedicate time and mental space exploring and understanding new learning both related to the research process and the research questions. At the beginning of this D.Clin.Res. programme, our peer group called ourselves "Odyssey" as we felt we were on a long, exciting journey of discovery. That personal, educational and research journey has been immense, generating new and timely data findings very relevant to contemporary healthcare practice, and in the process pivotal to developing me as a person, professional and educator. This chapter will explore through reflexivity, some key aspects that I have chosen around that journey.

6.2 Personal reflexivity

Personal reflexivity as developed by Wilkinson, (1988) was applied and involved me thinking about my personal interests and values and how they were influencing, consciously or subconsciously, the research process from outset to conclusion.

Threshold concepts of learning (Meyer and Land, 2005) have been characterised by being:

Transformative: which leads to changing the learner and the way they see the world and understand something. This involved acknowledging who I was at the start and why I had the initial interest in the research area, and who I am now when both myself and the world around me has changed considerably (Banister

et al, 1994). Personal reflexivity was relatively easy in the sense of being at the forefront of my mind as I regularly found myself pondering and soul searching about my feelings, choices and direction of travel as I tried to balance family, work, research and personal wellbeing. I recognised that I was being mentally stimulated, personally stretched, and yet generally enjoying every minute of it. It is worth noting that there were points, mainly associated with lack of time support from my employer, when I thought I would never get to the end point and felt vulnerable in my own abilities and suitability. However, the net result has been an exponential increase in personal self-efficacy alongside an ability to be more efficient, analytical, balanced and considerate of the whole picture.

Integrative: which brings together pieces of a picture, clarifying where each fit together into the overall picture. After my first draft of analysis, where I have fully immersed myself in the data and had unwittingly used some expressions that to my supervisors indicated empathy with some of the findings, I was told to stand back, be more objective and look from afar. Moving between these two places of being highly involved in the data and research, and then stepping back, was challenging but has been very important for me in seeing more clearly the overall complex picture, not just in this research but in relation to overall healthcare provision and education. It has really helped me understand the complexity of things, not to take situations at face value and the importance of expression and choice of words when articulating my findings.

Irreversible change is the third characteristic worthy of exploration here. As a Chartered Physiotherapist, I have strengths in my ability to problem solve, evaluate a situation using assessment findings, evidence base and clinical reasoning, and to be a calculated risk taker in order to enable individuals to push their own boundaries. As an academic leader, my role is to develop and translate strategic goals into action, enabling academics to be proactive and creative and to enable us all as a team to make a difference to our students and practitioners, by being completer finishers. In leading teams of academics, I usually do not need to get involved in the specific detail or ‘micro-manage’, but instead set a clear direction and then enable and develop very capable individuals to do their job well. However, this research process has made me have to work with the detail and be very specific, forcing me to stop and look at all the theory underpinning, the specifics of the ethics requirements, and the

data findings and the rigour involved in writing it all up. This has been a juxtaposition to my natural proactive, collaborative, big picture, problem-solver approach, and facilitated in me, development of a different skill set and a more encompassing, intuitive outlook. It has sometimes been uncomfortable, and at times I have found it frustrating, when usually I would just rather have "cracked on". It has opened my eyes to how intellectually challenging good research is, the level of sustained resilience and self-discipline required, and how lonely it can be, especially for someone used to being extremely interactive with other people. That said, it has made me more resilient, self-sufficient, independent and indeed thoughtful aligning my odyssey fully with the concept of troublesome knowledge (Perkins, 1999) – in which learning has the ability to unsettle someone enough that they leave their prevailing views or frames of reference behind even if the journey is uncomfortable.

Supporting this reflexivity (Finlay, 2002) throughout was a reflexive diary using Boud's triangular reflective model of "What, so what, what now?" (Boud, Cressey and Docherty, 2006; Ghaye and Lillyman, 2014). This was updated regularly with notes throughout the process (see excerpt in Appendix N). The entries were often very personal, journaling the challenges both within the research and alongside professional and family life. Points included where resilience and tenacity were called upon, alongside the light bulb moments where clarity appeared in my mind or a concept was understood. In parallel with this, detailed notes on discussion points and actions from supervision meetings were kept: helping the development of me as an individual. This facilitated reflexivity as I went through the journey and focussed the path along the stepping-stones to completing the research, achieving a doctorate (Trafford and Leshem, 2008) and creating a subsequent dissemination/publishing plan. During the thesis write up stage, I also went back to my reflective weblog, submitted to the University of Exeter for the Clinical Research Leadership module in July 2016, and took time to reflect on where I was then and where I am now as an individual learner, researcher, professional and academic. One example is that at that time I identified strongly with Ghaye's description of NHS work cultures as primarily busy-busy, all doing and no reflecting, with individuals not creating enough gaps between knowing and doing, between thinking and acting (Ghaye, 2005). This journey has made me overtly remember to stop, think deeper, and be more selective and strategic on where I focus my attention

and energies, the net result being, I believe, more profound and efficient outputs and more attention to my personal and professional wellbeing.

6.3 Functional reflexivity

Functional reflexivity was overtly addressed by a ‘continuous, critical examination of the practice/process of research to reveal its assumptions, values and biases’ (Wilkinson, 1988 p495). It has been divided into three sections; the ethics process, the research process and how my background or values may have shaped, directed or given purpose (Ghaye and Lillyman, 2014) to my research.

6.3.1 The ethics process

As an academic working for a university there were some operational aspects that needed to be overcome in undertaking clinical research. The NHS Health Research Authority (HRA) ethics process via the Integrated Research Application System (IRAS) was challenging in its volume, intensity and in the requirement to have a NHS Research and Development (R and D) partner signed up to support the research and be the gatekeeper to access to NHS staff participants. This took several approaches via networks and professorial colleagues at a time when the R and D departments were undergoing organisational change. My tenacity was further challenged when the General Data Protection Regulation became law in May 2018, soon after I submitted my HRA ethics, and I was required to add extra evidence of data protection processes.

6.3.2 The research process

Reflexivity has been applied to a multitude of concepts, processes and decisions throughout my research journey. Within this thesis, I am going to focus on two aspects of the research process, interviewing and data analysis.

Setting up, piloting and implementing interviews is a skilled process. Interviews from multiple perspectives meant that flexibility was required around the approach to the interviews, whilst keeping some parity of structure between participants. Also, keeping participants focussed on physiotherapy independent prescribing within the larger First Contact Practitioner (FCP) roles and Advanced Clinical Practice (ACP) discussions was sometimes difficult with me

having to clarify whether their views were specific to independent prescribing within these roles or the roles in general.

During the analysis, Braun and Clarke (2006, p80) note the “importance of clarity on process and practice of method as vital”. Overt attention to not consciously or sub consciously anticipate what you think you might find as a researcher needs constant reflection. For me, the process of coding via NVivo enabled me in some ways to stand back and observe what I was seeing in the transcripts. So, whilst I was immersed in (and totally interested in) the data, the actual process of selecting and highlighting relevant and interesting extracts from the data and deciding on how they should be coded helped. I surprised myself at how much my initial coding evolved and aggregated with other initial codes. This led to synthesis of final themes that were not initially apparent, and which as a researcher, I had not anticipated but which crucially captured important points in relation to the research question. That said, Braun and Clarke (2006 p84) note that a researcher “cannot free themselves of their theoretical and epistemological commitments, and data are not coded in an epistemological vacuum”.

6.3.3 Me as a researcher, a physiotherapist, an educator and an academic leader

During data collection, I was aware of the collegiate nature with which some participants occasionally spoke with me as if I was ‘one of them’ and thus understood or empathised with what they were experiencing and expressing. They were all aware of my professional background as a physiotherapist (albeit with a critical care speciality), an academic and someone interested in advancing practice and professional evolution. The participants were also interested in these aspects by the nature of their roles (whether physiotherapists or GPs), and having volunteered to participate, were engaged with the topic areas and wanting to contribute to my research. I therefore had to make sure I kept as neutral as possible, including highlighting that I was not a prescriber myself, and that I was not directly involved in the non-medical prescribing programme at my university. With my clinical speciality being critical care, as opposed to MSk, I believe I could be more detached as I did not have pre-conceived views or a ‘vested interest’ in prescribing having to be part of

MSk primary care practice, although I do need to recognise my interest in and positivity towards advanced practice opportunities in physiotherapy.

Throughout, I had to be mindful not to let undue unconscious bias creep in. For example, review feedback of my first draft of interview schedule highlighted a few questions that may have been leading in their structure. I then changed this, but in my first pilot interview, I was frustrated that I did not get enough in-depth and meaningful data that answered my research questions. The interview process was somewhat stilted and superficial, as I was so keen not to 'agenda set' or ask probing questions that might lead or influence answers, but the result was banal data that were not addressing the research questions. I discussed this at length with one of my supervisors around the balance between not leading and getting the data you need to answer the questions. My supervisor was clear in the need to actually get from an interview what you want by making sure that if the participant is not providing you with relevant data, you need to directly ask the questions so you do get the answer, bearing in mind how you ask the questions is not intentionally or unintentionally loaded in any direction towards an expected answer. As I progressed through the second pilot and subsequent interviews, my confidence and competence as an interviewer increased, with the flow becoming increasingly natural, yielding rich data with less input and direction from myself. I was however aware of the collaborative tone of some of the language used by participants, and the need to step back and look at data critically, and to be as objective as possible during the write up. I found the juggling between being immersed in the data as part of the coding and analysis, and then the stepping back to look in on it for representing a realistic and responsible view of the findings, involved me regularly reflecting and thinking, reorganising my data and following it up with further exploration and reading. This iterative process was at once enlightening and very interesting, but also mentally challenging and time consuming. Throughout I felt a strong sense of personal responsibility to do justice to the participants who had volunteered their time and views.

Chapter 7 Discussion

7.1 Introduction

The discussion chapter will further distil the salient findings and identify future professional identity and practice impacts, enabling further research and practice recommendations to be suggested.

7.2 Summary of key findings

7.2.1 Problem statement and main research questions

The rationale of this research was to explore the experiences and reality of physiotherapy independent prescribing particularly focussed to musculoskeletal health and primary care. Of specific interest was the implications of physiotherapy independent prescribing for professional identity and practice (service provision and patient care).

The research questions were:

- What are the experiences of musculoskeletal physiotherapy independent prescribing in primary care from the multiple perspectives of those involved?
- What are the implications for physiotherapy professional identity and practice?

7.2.2 Key findings – Experiences of physiotherapy independent prescribing

Many of the physiotherapy practitioners in the primary care settings were being, or will be developed, into First Contact Practitioner (FCP) roles and there was an indication from this research that prescribing is a useful part of the toolbox of competencies and knowledge to underpin and enhance these roles. However, being an independent physiotherapy prescriber was not seen as essential by all participants, at least not in the initial stages of the FCP roles being established. A strong clinical and knowledge base of MSk assessment and management options was viewed as crucial, with an ability to undertake safe, effective triage assessment as “must haves”. Additionally, the ability to communicate clearly, effectively and sensitively with the patient, work collaboratively in shared decision making, coaching and advising was seen as fundamental. Thereafter advanced level skills including non-medical (independent) prescribing, injection

therapy and image interpretation were viewed as additional attributes to further enhance the level, coherence and effectiveness of practice. There was debate about the risk, opportunity and necessity of moving away from “traditional” physiotherapy into new areas of practice like prescribing, and whether prescribing was an opportunity for personal and professional challenge, a change of approach for physiotherapy, and/or part of a natural modernisation journey for the profession.

In this research, those who were physiotherapy independent prescribers were prescribing less frequently than anticipated but articulated other ways in which they were using their prescribing knowledge and competencies, namely: more focussed conversations with patients, a holistic approach to rehabilitation, and deprescribing. Frustrations were apparent, particularly around empowerment and autonomy: linked primarily with legislative parameters around physiotherapy independent prescribing, IT access, professional development pathways, and sustainability within a changing primary care environment.

7.2.3 Key findings – Implications for professional identity. (Themes 1 and 2)

A range of views of physiotherapy independent prescribing was expressed – from reticence (getting carried away, not a priority) to “another string to the physiotherapy bow” and “an opportunity not to be missed”. This potentially reflects different places for different people in their professional development and views, and a wider professional debate of “traditional” versus “modern” physiotherapy and where that fits in the professional project journey (Larson, 1977) for physiotherapy. (Theme 1)

Vertical boundary pushing into the GP arena of prescribing was recognised with prescribing within the MSk specific FCP role seen as “nabbing” key aspects of the GP role. Additionally, there was a view that as a new scope of practice, prescribing was potentially moving further out of the comfort zone and scope of practice than previously for physiotherapy. (Theme 1)

Prescribing physiotherapists positioned themselves as Specialist MSk Advanced Practitioners with additional generalist skills such as prescribing: thus creating a specific niche, differentiating themselves from being “cheap” or

“pseudo” GPs, and withstanding horizontal boundary pushing from other prescribing professions such as nurses and paramedics. (Theme 2)

Frustration around autonomy and ability to make own decisions due to covert and overt external constraints (IT access, permitted physiotherapy prescribing formulary, Controlled Drugs legislation) emerged. (Theme 2)

7.2.4 Key findings – Implications for practice. (Themes 3 and 4)

The opportunities and challenges as a pioneer of new practice (prescribing) were identified, with the further complexity of doing this as part of new roles (First Contact Practitioner) in a changing primary care landscape (Primary Care Networks) providing additional context. The pride of being at the forefront of innovative practice was articulated but also the isolation, responsibility and risk that can be experienced as a physiotherapy independent prescriber working in GP practices.

To mitigate this isolation, responsibility and risk, the relationship between vulnerability and resilience building was developed (Theme 3) alongside the impact of clinical experience and patient mileage in prescribing self-efficacy and potential avoidance of burnout. (Theme 3)

Strategies for long term sustainability of prescribing within FCP roles were identified including development pathways for physiotherapists into the MSk advanced practice roles and the promotion of physiotherapy independent prescribing beyond the physiotherapy profession to other healthcare professionals, healthcare commissioners, patients and the public. (Theme 3)

Unexpected side effects of more focussed conversations, deprescribing and engagement with the drug dependency debate were presented, all of which were linked by participants to enhancing their practice but were very difficult to measure or evaluate. (Theme 4)

7.3 Interpretations and implications of the findings related to professional identity. (Themes 1 and 2)

7.3.1 The professional journey for physiotherapy in the context of prescribing

In the professional project, Larson (1977) highlights that there are stages of progression of a profession, with autonomy and power being implicit. The

importance of professional autonomy was recognised within this research. However, the opportunities and experiences of physiotherapy independent prescribing in the primary care setting were not panning out as expected.

Two factors were of note: the mixed views on both the place, and value of independent prescribing in FCP roles. The participant group presented a range of contrasting opinions about traditional physiotherapy, modernisation of physiotherapy and new scopes of practice such as prescribing, forming an inherent debate on the professional journey for prescribing within physiotherapy. The variation of role development views within the profession and the challenges of the professional journey progress towards integration of independent prescribing in MSk primary care (primarily by legislative practicalities not enabling progress e.g. Controlled Drugs, HCPC pin not being recognised by GP clinical systems for prescribing), resulted in external controls affecting prescribing and professional autonomy, and a potential slowing up of the progress of professional evolution.

The legislative change in 2013 and promotion/rhetoric for the physiotherapy profession, and healthcare in general, had been extremely positive (CSP, 2013; DOH, 2013), yet the frustrations around the reality of independent prescribing being more externally controlled than anticipated, with a subsequent compromised freedom of practice, was evident. Being excluded from being able to prescribe the full range of drugs (including relevant Controlled Drugs), and having that control applied externally, altered some of the decisions made by the physiotherapists in that they had to compromise to find a workable solution. This led to a frustration that the professional development, progression and evolution of identity was being curtailed by external constraints linked with subsequent legislation and was therefore not fully possible. This resonates with reported views from the medical profession in the mid-1990s when hospital business managers were given overarching organisational power by government. This challenged the traditional power and autonomy of the medical professions because these business managers could partially influence the medical profession's decision making due to the decisions of doctors needing to be aligned within a structured, confined business model of healthcare particularly in order to gain funding (Horton, 2005). It was reported that the

result was a demoralisation and dimming of the medical professions' flame (Horton, 2005).

7.3.2 Vertical boundary pushing and creation of MSk specialist niche

Fournier's boundary work (Fournier, 2000) firstly describes establishment of a professional field, which overlaps with Foucault's power-knowledge concept (Foucault, 1977). In relation to prescribing, and indeed the associated role of FCP, this professional field was not fully established yet. However, by identifying themselves as MSk specialists in primary care, the physiotherapists were trying to establish their professional field and thus the boundaries around it. In considering the second aspect of Fournier's boundary work, (expanding, establishing and maintaining of those boundaries), the work of Weber related to social closure is also relevant (Saks, 2012).

With prescribing being traditionally seen as the remit of the medical profession (Britten, 2001; Borthwick et al, 2010), the boundary pushing exhibited was mainly vertical and directly impinging on the medical profession (Nancarrow and Borthwick, 2005). Independent prescribing was viewed as further outside the comfort zone of physiotherapy, in terms of vertical boundary pushing, than other aspects of advanced practice. That said, there was a clear wish from physiotherapy prescribing participants to be viewed as a specialist MSk advanced practitioners, with the vertical boundary pushing being part of gaining additional post graduate skills of advanced practice, e.g. prescribing, but also taking on the MSk workload of GPs and creating a niche of MSk speciality for themselves. Nancarrow and Borthwick (2005) noted that "the difference between vertical substitution and specialisation is subtle. Vertical substitution occurs across disciplinary boundaries, unlike specialisation, which occurs within a profession" (Nancarrow and Borthwick, 2005, p910). Independent prescribing within primary care represents an example of vertical boundary pushing into the traditional remit of the GPs. However, in addition there was also clear focus on the specialisation concept within the physiotherapy profession, driven by how the physiotherapy participants viewed themselves and wished to be viewed by others. This is specifically linked with independent prescribing itself, and the additional responsibilities this brings, but also attributable to the FCP role in general and the professional boundary pushing nature of both aspects within

evolving MSk advanced practice (prescribing, injection therapy, interpreting investigations). This represents intra-professional boundary pushing and has the effect of creating social closure and essentially creating a multi-tier structure within a profession. Specific to physiotherapy, Kell and Owen (2008) noted the dangers of dividing along lines of speciality, particularly in relation to professional fragmentation, and promoted the need to embrace the range of attributes, level of practice and different perspectives of practice within a profession. Within primary care, this physiotherapy MSk specialism concept mirrors a similar model of specialist practice: the General Practitioner with Special Interests (GPSIs) role (Nancarrow and Borthwick, 2005; Currie et al, 2009). Currie et al (2009) highlighted that the introduction of new roles such as GPSIs raised concerns within the medical profession about GPSIs deskilling the GP holistic generalist perspective on patient care. This specialism role for GPs alongside a generalist one challenged traditional professional identities and affected traditional closure strategies, potentially leading to intra-professional fragmentation, internecine strife (Freidson,1994) and suspicion even within professional ranks (Currie et al, 2009).

Lateral (or horizontal) boundary pushing (Nancarrow and Borthwick, 2005) was not particularly highlighted, as participants saw their prescribing remit as specific and mainly related to advanced musculoskeletal management, and thus not overtly overlapping with other non-medical prescribing professionals such as pharmacists and advanced nurse practitioners. There was a view that if prescribing was not embraced by physiotherapy as part of FCP roles, then horizontal boundary pushing could be exhibited by other professions e.g. paramedics into the physiotherapy MSk remit of acute injury. This does however contradict some of the participants thoughts on the unique skill set of physiotherapy in MSk and the specialist niche of their role. Horizontal boundary pushing has not been associated with increases in power, income or professional status whereby both vertical boundary pushing, and specialism have been (Nancarrow and Borthwick, 2005).

By creating a specific remit as MSk specialists with prescribing competencies, social closure to protect both inter-professional and intra-professional boundaries of professional practice was evident – especially when linked with the advanced practice status of FCP. This is further enhanced by the other

aspect of social closure associated with prescribing: HCPC annotation as a prescriber.

King et al (2018) further highlighted that disputes associated with role boundary expansion, establishment and maintenance can develop, manifesting themselves at the “macro (higher or government), meso (professional association) and micro (local or workplace) levels” (King et al, 2018, p2). Examples of boundary disputes in this research included Controlled Drugs legislation at a macro level, and at a meso level, debate over the direction of travel for the prescribing professional project journey. At a micro level, establishing the MSk specialist role niche and IT access challenges created potential boundary disputes.

7.3.3 Autonomy and power as prescribing physiotherapists

“Processes of change may be contested or consensual between professions and are tied up with issues of power, status and control” (Currie et al, 2009, p270).

In considering autonomy, Foucault’s power knowledge (Foucault, 1977) concept was more silent in terms of overt articulation and discussion. Indeed, participants in this research did not overtly talk about power – avoiding the use of the word and demonstrating restraint or politeness in acknowledging its role in their experience, professional identity and practice. However, it was integral to the situation of a number of participants: from a personal basis as expressed by their frustrations of not being able to prescribe as frequently or as widely as anticipated; their wish to show their worth in the difficult to measure unexpected side effects; and from GPs, as an important aside, on wanting to maintain some power in their role linked with drug dependency management and in not becoming deskilled in MSk. From a more global perspective, power was inherent in views and concerns related to how physiotherapy prescribing might pan out in terms of commissioning of services, establishment of and recognition of prescribing within primary care roles, and sustainability of staff resource. Essentially, there was evidence of a greater power battle than the physiotherapists might admit, even if it was not fully related to inter-professional competition or acceptance within the workplace, but more with legislation and infrastructure of opportunity.

The dominance of the medical profession within health professions, and the traditional medical domain of prescribing, represented an inevitable area of debate, and an area of potential challenge in relation to physiotherapists realising autonomy as prescribers. However, within this research, there was evidence of changing times, with more overall acceptance from the medical profession being directly articulated by, and reported second hand by, participants of all professions. Overt power struggles associated with prescribing were not evident. The areas of slight concern raised by the two GPs were around the potential for physiotherapy to get embroiled (and played off against other professionals) in the complex patient demands of prescription drug addiction, or for some GPs to become deskilled in MSk care: this latter aspect reflecting findings of Moffatt, Goodwin and Hendrick (2018). This may be interpreted as those GPs trying to exercise some covert power, control and boundaries over the prescribing remit. However, overall there was an acceptance of change, as articulated in the NHS Long Term Plan (NHS England, 2019a), the GP contract reform (NHS England, 2019b), and new NHS structures (PCNs), and a realisation that GP workloads were not sustainable currently or in the longer term (NHS England, 2019b).

Indeed, the main battle for autonomy was linked with the governmental "conflicting" legislation. The award of physiotherapy independent prescribing rights (in 2013) was a dynamic world-first, representing enabling action towards new practice and professional autonomy (CSP, 2013; DOH, 2013). However, this was tempered by additional legislative controls on Controlled Drug (CD) prescribing for physiotherapists at the time, and more latterly hampered by the reclassification of selected analgesic medicines in 2019 (CSP, 2015; CSP, 2019) – preventing physiotherapists being able to prescribe them. These pieces of state legislation posed the main external challenge to physiotherapy prescribing autonomy. It caused significant frustration amongst physiotherapy participants that they were not being recognised, valued, trusted or given the remit as a professional to make difficult or controversial prescribing decisions (particularly around analgesia), within their scope of practice, and as fully qualified practitioners but were instead having external "state driven" controls applied. There was evidence that the nature of the current limited accepted Controlled Drug list was particularly pertinent to this area of research (MSk in primary care). Indeed, echoing this, Britten (2001) noted that any "medicolegal

categorisation of pharmaceuticals represents one aspect of government control over prescribing and sets absolute limits to clinical autonomy" (Britten, 2001 p481).

7.4 Interpretations and implications of the findings related to practice. (Themes 3 and 4)

7.4.1 Role adoption and adaption

Abbott (1988) highlighted both an objective and a subjective component to professional work: with subjective work further divided into identifying a problem (diagnosis), creating inference via reasoning, and then acting on the problem most commonly in the form of treatment. Abbott argued that this sequence is what gives professional practice its identification (Abbott, 1988). In relation to the professional practice of FCP prescribing physiotherapists in primary care, this latter aspect of treatment has changed considerably with traditional hands-on or hands-off treatment being replaced by triage, advice (plus or minus prescription) and if required onward referral. Thus, a different model of intervention to that historically practiced by physiotherapists has been created. The FCP role requires a different approach to traditional physiotherapy intervention and, as articulated by participants, prescribing within this role has required considerable experience, advanced clinical reasoning and a change in approach to their consultation to carry out appropriately and confidently. Associated with these attributes, self-efficacy has also been identified as a factor in influencing an individual's competency to prescribe (Cope, Tully and Hall, 2019), with self-efficacy being defined as an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments (Bandura 1977; Bandura, 1986; Cope et al, 2019). Crucial to achievement of this potential self-efficacy in this research, was confidence associated with clinical experience and patient mileage. Connected with improving self-efficacy and confidence was the avoidance of burnout, with recognition and management of isolation and vulnerability associated with risk of prescribing also identified as needing attention. Potential solutions included part time roles in primary care and opportunities to work across the MSk pathways.

It is well established that identity changes accompany career transitions (Ibarra, 1999) and with experience, individuals develop their “understanding of that new role and refine their emerging notions of who they want to be in that role” (Bandura, 1977 in Ibarra, 1999, p765). Ibarra’s model of Adaption in Role Change (Ibarra, 1999) is particularly pertinent to consider. This is underpinned by the premise that new situations induce people to draw from, elaborate, or create new repertoires of possibilities which may in turn markedly change aspects of one’s professional identity (Ibarra, 1999). Three tasks are influential in developing professional identity in new roles. The first is the identification of a role model. This was difficult for the prescribing pioneers as there were limited others in role, and as independent prescribing was relatively new to the profession, few individuals who were experienced physiotherapy prescribers. GPs and prescribing nurse practitioners were not fully applicable as role models: they were working differently as prescribers in generalist roles. These physiotherapy practitioners were focussing on MSk care as a speciality and area of expertise, mirroring more closely with GPSIs in MSk care, again a group with relatively small numbers. The second task of role adaption identified by Ibarra (1999) is development of provisional selves as a way to achieving possible selves. In this research, there was frustration of external constraints to achieve possible selves and reduced trust, freedom and autonomy in experimenting with provisional selves using a full range of prescribing decisions. Some evidence of mixed views (within the physiotherapy profession of direction of travel) with prescribing, compounded this by creating professional identity uncertainty. Concern was raised that in future long-term sustainability, the gaps and steps involved between provisional selves and possible selves of MSk prescribing advanced practice may be increased. To mitigate this, the importance of gaining clinical experience within a cross organisational MSk pathway for staff development, to bridge the gap, was strongly promoted. Ibarra’s third task in adaption to role change is evaluating experiments against internal standards and external feedback (Ibarra, 1999). Within the reality of low prescribing rates, the challenges of how to demonstrate, through evaluation, the potentially practice-enhancing hidden side effects such as more holistic conversations were highlighted.

7.4.2 Evaluation of physiotherapy independent prescribing within MSk primary care roles

Within a traditional target and clinical outcomes structure, justifying and evaluating the prescribing within these FCP roles was reported as a challenge particularly as the actual prescribing rates were perceived as low. The biggest surprise for the physiotherapists was the “added extras” emerging as a result of the knowledge, competence, and confidence of becoming an independent prescriber. These were not directly related to the actual prescribing process but were nonetheless enhancing their practice. In some ways, this helped to mitigating against the accepted Controlled Drugs legislation and IT systems frustrations, giving intrinsic value to the hard work of becoming a prescriber, and being a prescribing trailblazer for the profession.

Participants who were prescribers reported a sense of a greater level of enhanced practice and increasingly focused conversations which were more holistic and informed, particularly with patients but also with other practitioners. The more inclusive approach to healthcare was facilitated from the level of knowledge and holistic multi-system learning obtained from the prescribing postgraduate Masters’ level programme. This had a side effect beyond the physiotherapist being able to prescribe safely. These conversations were more complex than previous and facilitated a greater shared and informed management journey: embracing the patient centred care and shared decision-making ethos promoted as a bedrock of the profession (CSP, 2020), and enhancing and underpinning the rehabilitation and self-care journeys of patients.

A concern from the Public and Patient Involvement (PPI) group, in the preparatory work up of this research, was that by becoming prescribers, the physiotherapists would lose their ethos of exercise prescription and progression, activity coaching and motivation, and self-care facilitation by bringing a new skill into their practice that was traditionally viewed as the remit of medics and deductive in management of health problems. However, whilst the use of prescribing was recognised as more akin to a medical approach by the physiotherapy practitioners, the additional medical knowledge around prescribing had actually given practitioners greater confidence to approach and help the patient in a holistic way, using prescribing to create a situation where

patients were more enabled to participate in their own rehabilitation and care. This links well with Schon's description of professional practice as artistry in which professional practice uses intuitive judgement (professional artistry) to translate the messy unspecified problems of the real work into tangible well-formed problems (Schon, 1992 in Kell and Owen, 2008).

It is difficult to quantify engagement with social responsibility of the prescription drug addiction agenda and more holistic conversations within a target focused healthcare (Nancarrow and Borthwick, 2005) when the number of scripts and more measurable patient outcomes would probably have more credence. Demonstrating and measuring these indeterminate factors is difficult. Indeterminate factors have been described as those that are outside the rules and thus do not fit into the definition of a competency (Larson, 1977; Nancarrow, 2015), and which could be regarded as part of the artistry of a profession. These factors are described as unexpected side effects within this thesis and were highly recognised by participants.

With a metric being the prescription writing rate and range (and with most of the participants prescribing on average under five scripts per week), making the case for additional physiotherapists to undertake the costly and time consuming non-medical prescribing course was currently difficult. Even though the participants were clear that becoming an independent prescriber had enabled them to deal more effectively with the complexities of primary care patients through a greater understanding of multi-pathology and poly-pharmacy, enhancing their practice particularly through conversations and optimising progression rate and effectiveness of rehabilitation by understanding the patient's general health status more, it was difficult to directly attribute this to the prescribing in a measurable way. This research has contributed new knowledge about the reality of physiotherapy independent prescribing in MSk primary care and the implications for professional identity and practice (Appendix O).

7.4.3 Sustainability of physiotherapy independent prescribing

Managing vulnerability and risk of burnout, increasing self-efficacy and building resilience in order to empower and enable individual physiotherapy prescribers and create a sustainable future pathway of prescribing development of staff and services, emerged was a key concept from the analysis. In order to address this, an individual and systems approach was suggested. Development and

resourcing for individuals (resilience, self-efficacy, clinical mileage), and the healthcare system (promotion of physiotherapy beyond the physiotherapy profession, prescribing IT access, CD drug legislation changes, evaluation evidence of prescribing specifically within FCP roles) are required. A potential vehicle for enabling support of this bilateral approach may be establishment of prescribing communities of practice. Delgado et al (2020) advocated that communities of practice can increase the confidence and resilience of a healthcare team and its individual members by enabling space for recognising and sharing experience of vulnerability (Nissim, Malfitano and Coleman, 2019 in Delgado et al, 2020), guiding each other through real-life problems, learning to support meaning and professional identity for day-to-day practice, and potentially utilise emergent informal knowledge for institutional strategic development (Delgado et al, 2020). Whilst communities of practice are more overt than informal peer support, Delgado et al (2020) believes that they provide an environment that is safe, non-hierarchical, and conducive to trusting communication, enabling sharing of vulnerability to be connective and generative and potentially reducing clinician's sense of isolated responsibility (Delgado et al, 2020). In light of physiotherapy prescribers seeing themselves as being pioneers and boundary pushers, as relatively isolated in their roles and working in a changing healthcare structure of individual GP practices developing into PCNs, consideration of local communities of practice specific to prescribing practice for support of vulnerability and resilience may be beneficial both now and in the longer term.

Sustainability of future generations of prescribers was also a key concern for the participants, recognising the risks of prescribing FCPs "asset stripping" traditional physiotherapy MSk services. The very recently published 'First Contact Practitioners and Advanced Practitioners in Primary Care (Musculoskeletal): A Roadmap to Practice' (HEE, 2020), should provide a robust educational framework to underpin the career development pathway to FCP roles and beyond into Advanced Clinical Practitioner. The requirement for independent prescribing within this 'Roadmap to Practice' framework is more flexible, aligning with the 'Musculoskeletal core capabilities framework for first point of contact practitioners' (Health Education England, NHS England and Skills for Health, 2018), which does not make independent prescribing a required capability, although there is a general pharmacotherapy capability

within the Condition Management, Interventions and Prevention section (Health Education England, NHS England and Skills for Health, 2018).

7.5 Summary of contribution to professional identity theory

Many of the findings of this study resonate with the theoretical frameworks related to the sociology of professions associated with the professional project journey (Larson, 1977) that happens with new knowledge and responsibilities, new legislative or operational opportunities, and/or proactive pushes from within a profession. Throughout this research, these discussions have been related to implications for professional identity and practice. There is particular evidence of vertical boundary pushing, intra-professional specialisation, of a strive for autonomy and shifts in professional identity, alongside the challenges of power and trust as part of advanced practice (independent prescribing) and a different novel approach to physiotherapy practice (First Contact Practitioner). The context of these findings is specific to MSk practice in primary care. Whilst direct power struggles between the physiotherapy and medical professions over prescribing were less apparent than previous theory, external power manifested itself differently. The progression of prescribing was further affected by external controls of legislation (namely accepted Controlled Drugs) and uncertainty about sustainability within the currently developing, evolving and radically different health structures of UK primary care.

The external view of physiotherapists getting independent prescribing rights, increased autonomy and increased flexibility did not reflect the reality for the pioneers particularly around the frustrations of IT and Controlled Drugs. Partial opportunity and trust were in place, but the resultant scope of practice was one in which the individual could not prescribe certain drugs. Thus, the view emerged of independent prescribing not being crucial to the FCP role currently due to enactment of it not actually being as anticipated, in fact quite limited in terms of prescribing prescription rates, scope and autonomy. The challenges of evaluating perceived enhanced practice associated with more focused conversations and deprescribing were clearly articulated.

The career progression opportunities afforded by prescribing as part of a specialist MSk physiotherapist role were recognised, alongside the physiotherapy participants articulating a rationale as to why they should not be regarded as “pseudo” or “cheap” GPs, but instead as MSk specialists with

prescribing attributes. This “MSk specialists with prescribing attributes” role could be regarded as a comfortable position currently, perhaps due to the established parameters of MSk practice in the FCP role (HEE, NHS England and Skills for Health, 2018) and a sense of control over the nature and scope of practice. Of course, this view may not be the only view, and evolution of primary care may in the longer term require physiotherapists to be more flexible and open to less of a musculoskeletal niche speciality. Becoming more akin to a “pseudo” GP as scope of physiotherapy practice in primary care increases, or becomes more generalised, may be the next step of the professional project journey. This is perhaps dependent on increased confidence, competence, self-efficacy and autonomy, more risk taking and boundary pushing (both vertically and horizontally), and a workforce infrastructure to support it all.

7.6 Summary of impact for practice

The professional boundaries were being pushed particularly in a vertical direction, in line with evolution of professions but the façade, the prestige and the opportunity for the physiotherapy profession and their patients did not fully match the reality. A reported priority emerged of the need to get all aspects of a change in professional boundary in place. This included, not just the fundamental legislation (licence for physiotherapists to prescribe) and the non-medical prescribing education, but also establishment of societal trust and respect, realistic and enabling supplementary legislation (accepted Controlled Drugs for physiotherapists), public recognition and sustainable resources, educational pathways and service infrastructures. The view was that these were all needed to enable consolidation, recognition, growth, establishment and sustainability of physiotherapy independent prescribing within MSk primary care. Challenges needing to be addressed included practical issues such as prescribing IT access and clinical system recognition of the HCPC professional pin, legislative changes to accepted Controlled Drugs and establishing the professional profile and FCP skill set of prescribing within PCNs. Medium term attention was needed in relation to recruitment strategies, post graduate education and succession planning, all underpinned by sustainable funding and commissioning. Solutions to address many of these aspects included the promotion of physiotherapy independent prescribing in patient care and convenience, including creating data to evidence and underpin physiotherapy

prescribing outcomes and practice and also urgently focussing on achieving prescribing scope and practice pertinent to MSk primary care. Within MSk primary care, the accepted Controlled Drugs list and the challenges in access to relevant IT were pivotal in undermining the physiotherapists' sense of control and participants were realistic in recognising that until this was resolved, there were significant frustrations impeding progress of the service and patient care, and personal self-efficacy of the prescribing physiotherapists involved.

Helping to drive and influence a public consultation review of permitted Controlled Drugs that physiotherapists can prescribe, notably Codeine, Gabapentin and Pregabalin was a priority for this particular group of physiotherapy participants in this specific role and setting. Indeed, in a very timely way, on 15th October 2020, NHS England opened a "Consultation on proposed amendments to the list of controlled drugs that physiotherapists can independently prescribe across the United Kingdom" (NHS England, 2020), specifically noting review of Codeine Phosphate, Tramadol Hydrochloride, Pregabalin and Gabapentin. This consultation will close on 10th December 2020 (NHS England, 2020)

7.7 A model for physiotherapy independent prescribing in MSk primary care

From analysis and discussion of this research, a model for physiotherapy independent prescribing in MSk primary care has been developed. This represents both the implications for professional identity and practice at this current time, in terms of progress of the physiotherapy prescribing professional project. The scene is contextualised against the professional journey of physiotherapy to prescribing and includes a recognition of the First Contact Practitioner roles as these are so related to the prescribing debate in the MSk primary care setting. Specific to this research, the journey so far is then conceptualised into successes and challenges and includes future recommendations emerging from these. The recommendations will be further expanded upon in section 7.10.

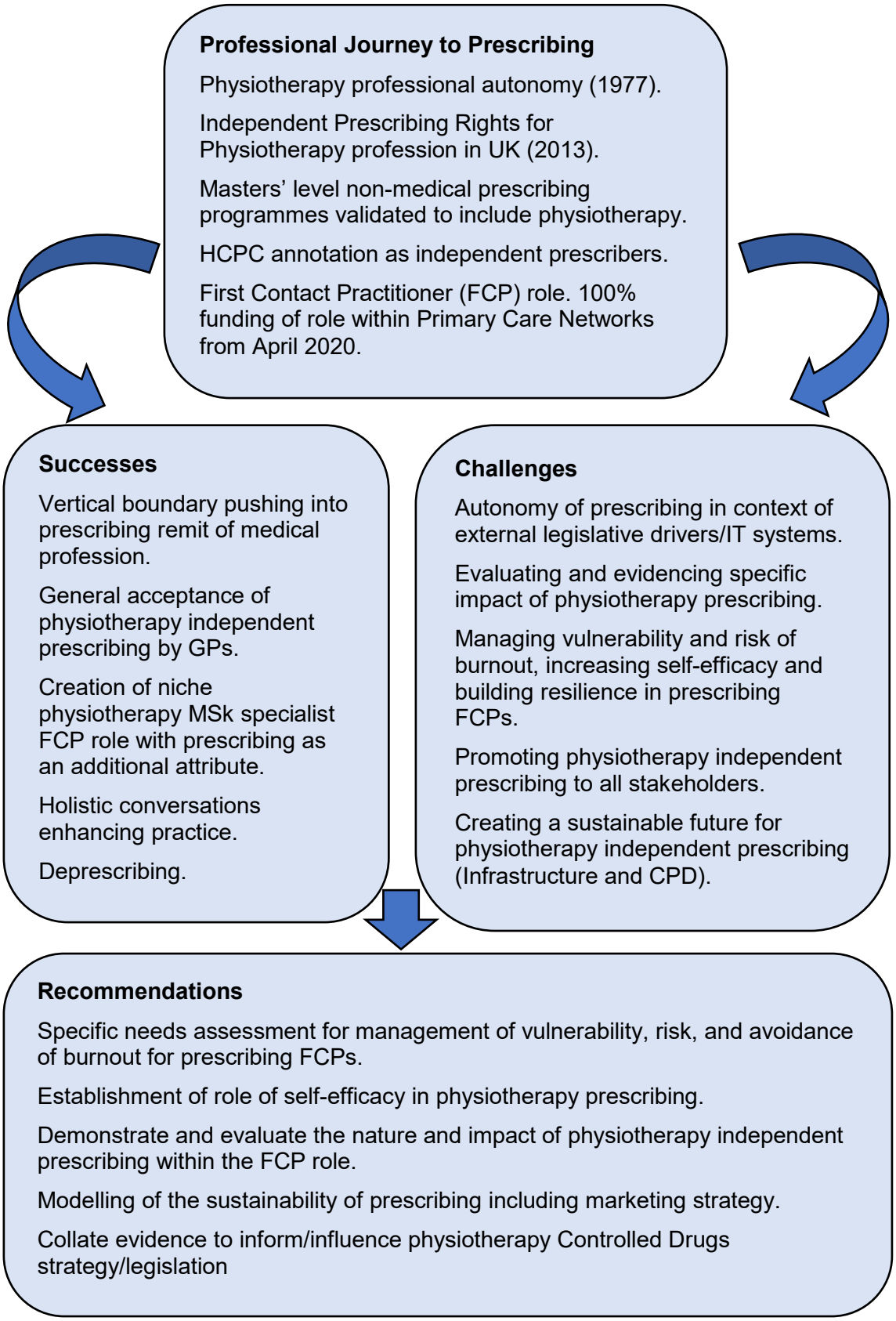

Figure 7.1 Model for Physiotherapy Independent Prescribing in MSk Primary Care

7.8 Timeliness of research and impact of COVID 19

The timing of the research was pertinent as just prior to the data collection, the NHS Long Term Plan (NHS England, 2019a) and specifically sweeping changes to primary care (NHS, England, 2019b) were published, the physiotherapy accepted Controlled Drugs legislation changes were announced (CSP, 2019) and during data collection phase, implemented. During write up, an increase from 70% to 100% funding for the physiotherapy FCP role in primary care as part of funding for PCNs was announced (NHS England and BMA, 2020) with prescribing supported as a postgraduate advanced practice educational component of these roles for physiotherapists. This positioned the research in a contemporary setting and strengthened the rationale for investigation, at a micro level, of personal and professional experiences within the wider context.

The COVID 19 pandemic occurred during write up phase so did not affect data collection. However, development of the Primary Care Networks was postponed until October 2020, some FCP practitioners were temporarily redeployed, and MSk working practices changed to remote consultations. The impact of this on prescribing ability, confidence, decisions and practice in the short, medium and possibly longer term is yet to be determined, but with a degree of continuance of remote consultations, some impact is anticipated.

7.9 Acknowledging the limitations

7.9.1 Size of study

Whilst there were 15 participants from a range of professions and perspectives, interviewing more GPs may have provided some additional richness to the data and illustrated whether there was any overt evidence of the traditional medical power dominance in relation to prescribing so strongly articulated in previous literature (Britten, 2001; Borthwick et al, 2010).

7.9.2 Range of participants

With a relatively small participant number, there was risk of homogeneity of the participants or data collected. Whilst there was an attempt to gain multiple perspectives via interviewing managers and commissioners as well as GPs and physiotherapists, there were limited participant numbers in each group. Patients were also not included as participants although the importance of their

experiences and views of primary care have been considered previously (Goodwin and Hendrick, 2016; Morris, 2020) albeit not specific to prescribing. Increasing the range and numbers of participants further would have provided additional perspectives and potentially enhanced findings.

There was generally homogeneity of data findings from the prescribing physiotherapists, including their frustrations but less so from the physiotherapists who were not prescribers. Specific attention was given during write up to represent the full range of views across all participants in relation to prescribing. However, it does need to be recognised that overall, there are some particular perspectives that have emerged, and other views may be presented in a larger study with a more varied participant group.

7.9.3 Research Design

The purposive sampling approach utilised was as proposed and agreed within the Health Research Authority and University of Exeter PREC ethical approvals. On reflection, a more robust purposive sampling framework could have been pre-planned and applied (Sharma, 2017) that overtly included defining a sample universe, deciding on a sample size, selecting a sample strategy, and describing the sample sourcing strategy (Robinson, 2014).

With the advent of more access to, and familiarity with IT systems following the COVID pandemic, a focus group online via a medium such as Microsoft Teams would be an alternative option to semi-structured interviews in the future. Whilst sometimes difficult to keep the group on topic and uncomfortable for some participants, a focus group can create multiple lines of communication, and sharing of experiences and difficulties by participants within a potentially supportive environment, with the dynamics of the group decreasing the researcher influence, stimulating discussion, allowing elaboration and evaluation of contributions, and a greater prominence of the participant's voices (Frith and Gleeson, 2012).

Whilst thematic analysis within the critical realist framework was applied (Boyatzis, 1998; Terry et al, 2017; Willig and Stainton Rogers, 2017; Braun, Clarke and Hayfield, 2019), this could have been further structured using the descriptors of 'demi-regularities', 'abduction' and 'retroduction' (Fletcher, 2017). This analysis process would involve identifying the main empirical findings

(described as demi-regularities), followed by ‘abduction’ (or theoretical renaming of them) in which the empirical findings are redescribed using the theoretical concepts (Fletcher, 2017). The final stage ‘retroduction’ utilises the strategy of inference in its analysis, focussing on causal mechanisms and conditions, with the key outcome of successful ‘retroduction’ being to “modify, support, or reject existing theories to provide the most accurate explanation of reality” (Fletcher, 2017, p190).

7.9.4 Risk of researcher bias

As with all qualitative research, researcher bias and influence will exist. Participants were aware of me as a physiotherapy educator with an interest in advanced practice, and some of the language they used during interviews was subtly inclusive of me within the professional group. During all processes, I have endeavoured to address this overtly, and short pauses throughout writing up stage, have enabled me to step back and look as objectively as possible at the data and represent it in as transparent a way as possible. Two examples of this are, the possibility of some covert power issues lingering within the positive language used, and the interplay between vulnerability associated with risk taking and role isolation, and self-efficacy associated with patient mileage and clinical experience. These led me to recognise that there were individual aspects as well as structural ones that needed to cohere for longer term sustainability of prescribing. (Please see Chapter 4 Methodology and Chapter 6 Reflexivity for more discussion)

7.10 Recommendations for practice

Having demonstrated the experiences of physiotherapy independent prescribing from a range of views within primary care, the following recommendations are made:

Table 7.1 Recommendations for practice.

Further exploration of specific needs assessment in relation to management of vulnerability, risk, and avoidance of burnout for prescribing FCPs working in primary care settings.
Consideration of communities of practice.
Establishment of role of self-efficacy in prescribing associated with patient mileage and clinical experience, and how this can be developed and

maintained across the MSk pathway. Relevant to consideration in context of new PCN structures.
Explore how practice and clinical reasoning decisions are having to be adapted due to the impact of the accepted Controlled Drugs legislation. Collate evidence to inform/influence policy and legislation.
Debate about how individuals may influence the wider system of public consultation and legislative change from ground roots experience. N.B. Public consultation for review of controlled drugs that physiotherapists can independently prescribe across the UK announced 15th October 2020. (NHS England, 2020)
Clear marketing strategy specific to MSk prescribing in primary care beyond the physiotherapy profession.

7.11 Recommendations for future research

Table 7.2 Recommendations for future research.

Explore the role of self-efficacy in avoiding burnout in prescribing physiotherapists in MSk primary care.
Identify and evaluate the needs for, and role of, local cross-organisational communities of practice specific to prescribing in MSk primary healthcare.
More micro level research into the implications of intra-professional boundaries developing within physiotherapy as a result of some physiotherapists becoming prescribers and regarding themselves as MSk specialists in primary care.
What are the outcomes achieved from increased pharmacological knowledge and ability to consider patient's medicine without prescribing?
What is the value or not of prescribing, particularly the reported unexpected side effects, (e.g. enhanced conversations, deprescribing) on patient care within MSk primary care?
Explore the models and impact of physiotherapy prescribers working within wider multidisciplinary teams across a PCN.
Modelling of the sustainability of prescribing within advanced practitioner roles and the ongoing physiotherapy resource and development required to meet the advanced practice requirements of the FCP role appropriately in line with NHS England and the BMA's vision for Primary Care Networks.

7.12 Dissemination

A poster presentation of the PPI development work was presented at the World Congress for Physical Therapy in 2019 (see Appendix P). Two further abstracts have been submitted to the World Congress of Physiotherapy for 2021 (see

Appendix Q). Time buy out has been secured to write a peer reviewed article in spring 2021. For further dissemination plan details see Appendix R.

7.13 Conclusion

Abbott (1988) highlighted that professions operate as part of an interdependent system, with changes and developments in activity in one professional group having an impact on or in turn being constrained by others within or outside the system (Currie et al, 2009). It is well established that evolution into new roles, such as prescribing within primary care, requires a negotiated adaption in which individuals strive to improve the fit between themselves and their work environment (Schein, 1978 in Ibarra, 1999). Whilst the physiotherapy practitioners were empowered by their prescribing qualification and HCPC professional annotation, they were frustrated about their work environment and legislative scope of practice externally curtailing their professional project journey progress (Larson, 1977). This was especially in terms of Controlled Drug legislation, IT access frustrations, support of risk, and uncertainty of how Primary Care Networks and MSk care pathways would develop to maintain sustainability of prescribing in MSk advanced physiotherapy provision in primary care in the future. It has been noted that career development identities are “often provisional, even makeshift until they have been rehearsed and refined by experience” (Ibarra, 1999, p767), a factor that needs consideration in establishment of the identity of these relatively new roles and the place of prescribing within them. Professional identity can be regarded as the embodiment of the interface between the individual and their profession (Mancini et al, 2015). The required new skills, behaviours, attitudes and patterns of interactions can produce fundamental changes in self-definitions (Schein, 1978 in Ibarra, 1999) as shown in this research by the desire to be recognised as MSk specialists with prescribing as an additional attribute. This unique cornering of the market as a MSk specialist with generalist additional prescribing skills and attributes is using the tactic of exclusion by social closure, with the acquisitions of new spheres of influence through usurpation and encroachment being characteristic. Vertical boundary pushing into the remit of GPs underpinned this concept.

It has been recognised how continuity and change exist in dynamic tension, confronting people with the challenge of learning “how to accomplish their

identity amidst a new set of threats" (Weick and Westley, 1996, p448). The participants in this research highlighted the importance of demonstrating the impact physiotherapy independent prescribing had on enhancing their care alongside the difficulty of evaluating that when prescription writing rate was low.

Challenging external constraints, respecting the debate between "traditional" and "modern" physiotherapy and the place of prescribing within that, creating professional identify and sustainability as prescribers without professional fragmentation alongside the pride in, and opportunity for, advancing practice and the profession all represented the current cross roads location in the ongoing professional project journey for physiotherapy independent prescribing.

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Appendices

Appendix A: Prescribing legislation – additional information

Prescribing legislation – additional information

The CSP (CSP, 2018) publishes to its members the list of Controlled Drugs that a physiotherapy independent prescriber can prescribe, taken directly from the Home Office list. From June 2015, HCPC annotated independent physiotherapy prescribers were given the authority to prescribe from the following limited list of seven Controlled Drugs: the opioids, Morphine (oral and injectable), Fentanyl (transdermal), Oxycodone (oral), and Dihydrocodeine (oral) and the benzodiazepines, Temazepam (oral) Diazepam (oral), Lorazepam (oral) (CSP, 2018).

In April 2019, a change occurred to the UK Home Office Controlled Drugs list that was particularly relevant to physiotherapists working as independent prescribers in musculoskeletal services. Two drugs Gabapentin and Pregabalin, both used in the management of neuropathic pain, were reclassified as Schedule 3 Controlled Drugs under the Misuse of Drugs Regulations (2001) and Class C of the Misuse of Drugs Act (1971). This followed a public consultation and advice from the Advisory Council on the Misuse of Drugs and was a direct result of concerns about misuse of these two drugs (CSP, 2019). This meant that prescribing physiotherapists are no longer permitted to prescribe these drugs.

The Misuse of Drugs Act 1971 classifies controlled drugs into three categories, Class A, Class B and Class C with Class A deemed potentially the most harmful, thus carrying the greatest level of control. The list of medicines considered controlled drugs and the class is determined by the Home Office and reviewed regularly. The Misuse of Drugs Regulations manage the detail and restrictions applicable to controlled dugs in practice. The Regulations set out five Schedules which each controlled drug falls into, with greatest restrictions to those medicines in Schedule 1. All prescribers are bound by the regulations which also determines any restrictions applicable for each individual profession (CSP, 2018).

As useful context for this research, two drugs will be briefly outlined here as examples. Tramadol, an opioid used to treat moderate to severe pain (NHS, 2019) was re-classified to a Class C, Schedule 3 drug in June 2014. Codeine, an opioid also used to treat mild to moderate pain (NHS, 2019) is a Class B Controlled Drug in either Schedule 2 or 5 according to its strength. Both drugs

can only be prescribed by any professional with full Controlled Drugs (CD) prescribing rights (e.g. GPs but not independent prescribing physiotherapists).

The reclassification of Gabapentin and Pregabalin, both used in the management of neuropathic pain, as Schedule 3 Controlled Drugs under the Misuse of Drugs Regulations (2001) and Class C of the Misuse of Drugs Act (1971), brought them directly in line with Tramadol. This followed a public consultation and advise from the Advisory Council on the Misuse of Drugs and was a result of concerns about misuse of these drugs (CSP, 2019). This meant that prescribing physiotherapists are no longer permitted to prescribe these drugs. For this to change, the drugs would need to be “re-classified” by the Home Office usually underpinned by a public consultation or added to the list of Controlled Drugs permitted for independent prescribing by physiotherapists as Controlled Drugs. The professional bodies and/or NHS England can lobby for this consultation to take place (CSP, 2019).

Appendix B: Key additional information about FCP and traditional physiotherapy roles, and the Advanced Practice and Extended Scope Roles

Key differences between First Contact Practitioner (FCP) and traditional physiotherapy roles in primary care musculoskeletal (MSk) physiotherapy.

First Contact Practitioner (FCP)	**MSk Physiotherapist providing "traditional" outpatient service within a GP setting**
Advanced practice MSk physiotherapist usually working at NHS Band 8a level (but occasionally Band 7).	Senior MSk physiotherapist usually working at NHS Band 6 or 7.
Triage assessment of patients coming directly to the physiotherapist in a GP practice. Focus – holistic and MSk.	Receives referrals from GP or First Contact Practitioner. Focus more specific to MSk.
Advanced MSk practice knowledge/skills/post graduate qualifications that may include injection therapy, non-medical prescribing (independent prescribing), social prescribing, ordering and interpreting investigations e.g. x-rays.	Enhanced musculoskeletal clinical assessment and management skills beyond graduate level. May be working towards more advanced practice and post-graduate additional qualifications.
One off appointment, triage and manage/refer on. (Mirror model of GP intervention in primary care)	MSk specific assessment, advice and possibly a course of treatment/management.
20-minute appointment (typically)	30-45-minute appointment (typically)

Extended Scope and Advanced practice

Extended Scope Practitioners historically may have become very specialist to one area of the body, for example the spine, whereas Advanced Practice in primary care requires an overall MSk specialist with the skills of added diagnostics etc (Langridge, 2015 in Clews, 2015).

The term Advanced Practice has more recently become well established and accepted with professional groups describing relevant clinicians as Advanced Clinical Practitioners (Health Education England (HEE), 2017). To support this work, the NHS published a "Multi-professional framework for advanced clinical practice in England" (HEE, 2017) in recognition of new solutions being required to meet the changing needs of the population and the required healthcare delivery. To support these changing circumstances, there is an acceptance of

the need for “new ways of working, new roles and new behaviours” (HEE, 2017). The framework presents the requirement of Advanced Clinical Practitioners to be able to demonstrate underpinning specialist competencies alongside the core capabilities expected of an Advanced Clinical Practitioner across the four pillars of practice, namely: clinical practice; leadership and management; education; and research. The framework seeks to provide clarity around the role expectation irrespective of professional background, health and care setting, subject area or job role. In addition, it presents the employer’s responsibilities in relation to educational and support requirements, for example staff development, and the clinical and organisational governance required of them.

Appendix C: Initial email template

Initial contact email – Semi-structured interviews

Dear Sir or Madam

As you may be aware, I am a physiotherapy lecturer and Associate Head of Department of Allied Health Professions at UWE, Bristol. I am also currently undertaking my Doctorate in Clinical Research via the University of Exeter.

My research title is: - **The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.**

As physiotherapy independent prescribing moves forward as part of emerging advanced practice, I aim to explore the reality, views and experiences of physiotherapy independent prescribing in greater depth, from multiple perspectives and focussed specifically on musculoskeletal (MSk) services in primary care. From this, I aim to identify the implications on professional identity, education and practice and subsequently draw out conclusions and recommendations for the future.

I am looking at this from multiple professional and organisational perspectives, not just from the perspective of physiotherapy prescribers. Your input would be valuable due to your expertise in primary care MSk services and/or independent prescribing in physiotherapy.

Therefore, you are invited to participate in a semi-structured interview (maximum one hour) to explore this research question. This can either be face to face or over the telephone and will be at a mutually convenient date and time.

Please see and attached information sheet with further details alongside a consent form. If you are able and willing to participate, please can you confirm to me via email by DATE

If you have any further queries, please do not hesitate to contact me.

Regards,

Jacqueline Mullan

IRAS 238300 Version 01. 06.03.18

Appendix D: Participant information form

Participant Information Sheet. Individual Interviews

Study Title

The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.

This study is the final part of a Doctorate in Clinical Research at the University of Exeter.

Development of this research involved a small expert reference group of physiotherapy independent prescribers and a Patient and Public Involvement Group being asked to identify issues and considerations in relation to physiotherapy independent prescribing that they believe needs more exploration, thus helping to shape the content and structure of his research.

You are being invited to take part in an interview as part of this research. Before you decide, it is important for you to understand why the research is being conducted and what it will involve. Please read the following information and discuss it with others if you wish. Please contact me if there is anything that is not clear or if you would like more information. Please take time to decide whether or not you wish to take part. Thank you for reading this.

The purpose of the study is the explore the following research questions

- What are the experiences of musculoskeletal physiotherapy independent prescribing from the multiple perspectives of those involved?
- What are the implications on physiotherapy professional identity, education and practice?

Why have you been chosen as a potential participant?

You have been chosen for one or more of the following reasons: -

- You are in a role in which you are working as an independent prescriber.
- You are in a role directly involved with physiotherapy advanced practice, General Practitioner (GP) primary care services or commissioning.
- You have a specific interest/experience in this area of work.

The general aim is to recruit approximately 15 participants, including the following: -

- Four physiotherapy independent prescribers with a minimum of six months experience working in primary care within musculoskeletal (MSk) GP services.
- Two physiotherapists who are not independent prescribers but who work in primary care within musculoskeletal (MSk) GP services.
- Two consultant physiotherapists working with MSK services in the UK.
- Two managers of MSk community/primary care physiotherapy services.
- One GP employing and working alongside independent prescribing physiotherapists for a minimum of six months.
- One GP not employing or working alongside independent prescribing physiotherapists.
- Two commissioners for musculoskeletal primary care healthcare.
- One representative from the professional body, the Chartered Society of Physiotherapy (CSP) or a related CSP special interest group/network.

What will it involve?
If you decide to take part, you will be invited to attend a one to one interview (either face to face or via telephone).

Initially you will be asked to complete a consent form and a short demographics sheet indicating key aspects of your role e.g. current job role, whether you are an independent prescriber or not, who your employer is in terms of NHS, private or other. This should take less than 5 minutes to complete.

The subsequent interview will be audio recorded in order to allow transcription and analysis of themes at a later date. Date and time will be arranged so it is mutually convenient.
Recordings will be numbered and passed onto a transcription company for transcription.

If you are willing to participate, please contact Jacqueline Mullan, the researcher to discuss completing the consent and demographics form electronically or on paper copy, and to make arrangement for an interview. The interview will either take place face to face at a venue of your choice or by telephone/Skype. It may take up to one hour.

Remuneration
Unfortunately, there is no remuneration for your time available, but any travel expenses will be reimbursed.

Deciding to participate or not
Whilst your contribution to this research would be valued, it is up entirely your decision about whether or not to take part. If you do decide to take part, you will still be able to withdraw from the study at any time up until the point of publication without giving a reason.

Advantages and disadvantages of taking part
There are no direct benefits to you for taking part although you will be contributing to doctoral level research around independent prescribing in physiotherapy and what it means for professional identity, education and practice. There are no anticipated disadvantages of taking part in this study.

General Data Protection Regulation – How will my information be kept confidential?
The University of Exeter processes personal data for the purposes of carrying out research in the public interest. The University will endeavour to be transparent about its processing of your personal data and this information sheet should provide a clear explanation of this. If you do have any queries about the University's processing of your personal data that cannot be resolved by the research team, further information may be obtained from the University's Data Protection Officer by emailing dataprotection@exeter.ac.uk or at www.exeter.ac.uk/dataprotection

Anonymity and Confidentiality
Personal data (including the voice recordings) will be kept electronically via encrypted/password protected secure drives or in a locked filing cabinet in a locked staff office at UWE, Bristol until the end of the study and will then be securely destroyed. At the interview point, you will be assigned a unique ID number and thereafter this will be used on the transcript, in data analysis and in any write up of the findings. Recordings with this unique ID number will be passed onto a transcription company for transcription. Transcripts from the interviews will be stored and labelled under that number. All information/comments that you make will have your name and personal details removed so that you cannot be recognised from it.

The depersonalised data will be stored for up to 5 years electronically via encrypted/password protected secure drives or in locked filing cabinet (separate to personal data) in a locked staff office at UWE, Bristol. After this time, it will be securely destroyed. No individual participant will be identifiable in any publication arising from this research with great care taken to remove any organisational or circumstantial detail that could identify a participant.

All discussions within the interview are confidential with the exception of a serious disclosure related to clinical risk/patient safety. If this situation should arise, there will be a requirement of the researcher to highlight this through appropriate channels.

Dissemination of results
The results will be written up and disseminated either via a conference presentation and/or a peer reviewed article. You will not be identified in any report/publication. Direct quotations will be used in the write-up and any subsequent publications/dissemination. A copy of the final report will be made available to you through your neutral recruitment point (via an administrative contact)

Researcher Information
The researcher, Jacqueline Mullan is a staff member of the Department of Allied Health Professions, UWE Bristol and a post graduate student at the University of Exeter.

Raising any concerns
Whilst undertaking the study any questions or concerns should be discussed with any of the following: -

- Jacqueline Mullan, the researcher, Jacqueline.mullan@uwe.ac.uk
- Professor Nicola Walsh.(Research field collaborator via UWE, Bristol) Nicola.walsh@uwe.ac.uk
- My supervisor at the University of Exeter is Dr Ian Frampton; if you have any concerns he can be contacted on (01392) 722420, and his address at the university is :- Dr Ian Frampton, Washington Singer Laboratories, University of Exeter, Perry Road, Prince of Wales Road, Exeter, EX4 4QG. Email: i.j.frampton@exeter.ac.uk
- If you have any complaints or queries regarding the conduct or ethics in this study, please contact; -
    - University of Exeter Ethics and Governance Office, Lafrowda House, St Germans Rad, Exeter. EX4 6TL. http://www.exeter.ac.uk/cgr/researchethics/
    - Dr. Lisa Leaver, Chair of the Research Ethics Committee, School of Psychology, University of Exeter on the above address, telephone number: (01392) 724641 email l.a.leaver@exeter.ac.uk

If you require further information please contact,
Jacqueline Mullan, Room 2J06, Glenside Campus, Blackberry Hill, Stapleton, Bristol. BS16 1DD. Jacqueline.mullan@uwe.ac.uk Tel 0117 328 8859/8427

Thank you for considering taking part in this study – it is much appreciated. Should you decide to consent you will be given a copy of the information sheet and a signed consent form to keep.

Jacqueline Mullan

Appendix E: Consent forms

IRAS ID: 238300 Sponsors Number: 1718/29

Study Group – Physiotherapists

CONSENT FORM

Title of Project: The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.

Name of Researcher: Jacqueline Mullan

Please initial box

I confirm that I have read the information sheet dated 04.07.18 (version 1.1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my legal rights being affected. ☐

I understand that relevant sections of the data collected during the study, may be looked at by individuals from regulatory authorities. I give permission for these individuals to have access to my data. ☐

I understand that participation involves taking part in an interview that will be audio recorded using a code number so that my identity and confidentiality is protected in any write up. ☐

I authorise the researcher to utilise the findings of this research provided that my anonymity is maintained, and my identity is not be revealed in any publication/dissemination of research outputs. ☐

I understand that the information collected in this study may be used to support other research in the future and may be shared anonymously with other researchers. ☐

I agree to take part in the above study. ☐

Name of Participant	Date	Signature
Name of Person taking consent	Date	Signature

When completed, 1 copy for participant, 1 copy for researcher.

IRAS 238300 Version 1.1 04.07.18

IRAS ID: 238300 Sponsors Number: 1718/29

Study Group – Service Managers

CONSENT FORM

Title of Project: The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.

Name of Researcher: Jacqueline Mullan

Please initial box

I confirm that I have read the information sheet dated 04.07.18 (version 1.1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my legal rights being affected. ☐

I understand that relevant sections of the data collected during the study, may be looked at by individuals from regulatory authorities. I give permission for these individuals to have access to my data. ☐

I understand that participation involves taking part in an interview that will be audio recorded using a code number so that my identity and confidentiality is protected in any write up. ☐

I authorise the researcher to utilise the findings of this research provided that my anonymity is maintained, and my identity is not be revealed in any publication/dissemination of research outputs. ☐

I understand that the information collected in this study may be used to support other research in the future and may be shared anonymously with other researchers. ☐

I agree to take part in the above study. ☐

Name of Participant	Date	Signature
Name of Person taking consent	Date	Signature

When completed, 1 copy for participant, 1 copy for researcher.

IRAS 238300 Version 1.1 04.07.18

IRAS ID: 238300 Sponsors Number: 1718/29

Study Group – General Practitioners

CONSENT FORM

Title of Project: The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.

Name of Researcher: Jacqueline Mullan

Please initial box

I confirm that I have read the information sheet dated 04.07.18 (version 1.1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my legal rights being affected. ☐

I understand that relevant sections of the data collected during the study, may be looked at by individuals from regulatory authorities. I give permission for these individuals to have access to my data. ☐

I understand that participation involves taking part in an interview that will be audio recorded using a code number so that my identity and confidentiality is protected in any write up. ☐

I authorise the researcher to utilise the findings of this research provided that my anonymity is maintained, and my identity is not be revealed in any publication/dissemination of research outputs. ☐

I understand that the information collected in this study may be used to support other research in the future and may be shared anonymously with other researchers. ☐

I agree to take part in the above study. ☐

Name of Participant	Date	Signature
Name of Person taking consent	Date	Signature

When completed, 1 copy for participant, 1 copy for researcher.

IRAS 238300 Version 1.1 04.07.18

Appendix F: Participant demographics form

UNIVERSITY OF EXETER

Participant Demographic sheet. Individual interviews

Study Title

The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.
Please could you take the time to answer the following questions?

ID Number

What is your current job title?

Do you work for:- (please tick all that are relevant)

- NHS ☐
- Private ☐
- Other – please specify

How long have you been in your current job/role?

What NHS banding is your job/role? (if applicable)

What is your profession or background?

When did you qualify as the profession named above?

Are you an independent prescriber? Yes/No

What year did you get the independent prescribing qualification?

Are you prescribing within your current work/role?

How many scripts would you issues per week on average? – please state number

Anonymity and Confidentiality

All details provided here will be kept locked away in a filing cabinet in a locked staff office at UWE Bristol for the duration of this research project. (no more than 2 years). After this time, it will be securely destroyed. No Individual participants will be identifiable in any publication arising from this research study.

Thank you
Jacqueline Mullan

IRAS 238300 Version 02. 02.03.18

Appendix G: Interview schedules

Topic Guide for Physiotherapy Independent Prescribing in Primary Care. Post supervision 28th November 2018

General Practitioners

Information Leaflet, Consent and Demographics form.
Background information on interview.

Opening

Confirm background information with the participant.

Overview

Can you briefly outline your current role and responsibilities?
Can you tell me about your experiences in relation to independent prescribing in physiotherapy?

Prescribing in Musculoskeletal Primary Care

Can you describe where you think independent prescribing currently fits within musculoskeletal primary care services including your own practice?
What are your views on physiotherapists being able to independently prescribe in musculoskeletal primary care services?
What in your opinion are the implications of multiple professionals seeing patients as prescribers in primary care? *(Potential prompts, GP, Nurse, Pharmacist, and podiatrist)*

Professional Identify

How do you think being an independent prescriber affects professional identity?
- How do you think it affects how they feel and think about their job/themselves?
- How do others see them? (Patients/colleagues)
- How do you feel as a GP about your professional identify having physiotherapists being able to independently prescribe?
- What is the driver behind becoming an independent prescriber? (Job satisfaction, career enhancement or other)

How does being a physiotherapy independent prescriber influence how they work and interact with you as a GP?
What are your views on how other professionals work with and interact with physiotherapists as an independent prescriber?
Prompts – Relationship within team, altered conversations with others, Recognition /remuneration, incentives, feeling valued, altered pressures and responsibility, autonomy, conflict, competition.
How important do you think professional identity will be in influencing the evolution of independent prescribing and related roles?

Implications for Practice

How do you think physiotherapy independent prescribing in primary care can affect practice and patient experience?
What are your opinions on how roles and services are evolving in the context of physiotherapy independent prescribing?
Potential prompt – context of first contact practitioner roles?

The Patients' Perspective

What do you believe patients think about physiotherapy independent prescribing in GP practice?
What do you think is important from a patient perspective?
Potential prompt – most important aspect of an intervention for them, any thoughts about processes, procedures or communications required,)

What is your opinion on how prescribing fits alongside the ethos and practice of physiotherapy?

Further explanation if required – physiotherapy (touch, holistic, self-empowering, physical, quality of life and coaching in self-care,) and prescribing (medical model, reductionist, passive) or

Touch could be regarded as the primary distinguishing factor of Physiotherapy – how does this fit alongside prescribing?

Implications for Education

What strategies do you think are needed to support independent prescribing and the related roles in terms of education, support and mentorship?

As a GP, what are your main educational priorities in relation to developing staff in these roles?

How do you think these educational needs can be best met?

The Future

What is your vision for the future of MSK Physiotherapy independent prescribing?

How do you think physiotherapists can influence and shape the future?

What and who else do you think will be most influential in the future developments – Why and how?

What are your views off independent prescribing within the advanced clinical practice agenda?

What are your opinions on the long-term sustainability of independent prescribing in physiotherapy?

Closing: - Thanking re information given, reflection on what was said and other questions?

Consent: reiterate confidentiality and thank.

Topic Guide for Physiotherapy Independent Prescribing in Primary Care. Post supervision update 28th November 2018

Independent Physiotherapy Prescribers

Information Leaflet, Consent and Demographics form.
Background information on interview.

Opening

Confirm background information with the participant.

Overview

Can you briefly outline your current role and responsibilities?
Can you tell me about your experiences in relation to physiotherapy independent prescribing?

Prescribing in Musculoskeletal Primary Care

Can you describe where you think independent prescribing currently fits within musculoskeletal primary care services?
What are your views on physiotherapists being able to independently prescribe in musculoskeletal primary care services?
What in your opinion are the implications of multiple professionals seeing patients as a prescriber in primary care? *(Potential prompts, GP, Nurse, Pharmacist, and podiatrist)*

Professional Identify

How does being a Physiotherapy independent prescriber affect your professional identity?

- How does it affect how you feel and think about your job and yourself?
- How do others see you? (Patients/colleagues)
- How are you respected?
- What is the driver behind becoming an independent prescriber? (Job satisfaction, career enhancement or other)

What is important to you as an independent physiotherapy prescriber?
How does being an independent prescriber influence how you work and interact with other professionals? How do you engage with others?
What are your views on how other professionals work with and interact with you as an independent prescriber?
Prompts – Relationship within team, altered conversations with others, Recognition /remuneration, incentives, feeling valued, altered pressures and responsibility, autonomy, conflict, competition.
What do you think are GP views on physiotherapists becoming independent prescribers?
How important do you think professional identity will be in influencing the evolution of independent prescribing and related roles?

Implications for Practice

How do you think physiotherapy independent prescribing in primary care can affect practice and patient experience?
What are your thoughts on how your practice has evolved since becoming an independent prescriber?
What are your opinions on how roles and services are evolving in the context of physiotherapy independent prescribing?
Potential prompt - context of first contact practitioner roles?

The Patients' Perspective

What do you believe patients think about physiotherapy independent prescribing in GP practice?
What do you think is important from a patient perspective?

Potential prompt – most important aspect of an intervention for them, any thoughts about processes, procedures or communications required,)

What is your opinion on how prescribing fits alongside the ethos and practice of physiotherapy?

Further explanation if required – physiotherapy (touch, holistic, self-empowering, physical, quality of life and coaching in self-care,) and prescribing (medical model, reductionist, passive) or

Touch could be regarded as the primary distinguishing factor of Physiotherapy – how does this fit alongside prescribing?

Implications for Education

What strategies do you think are needed to support independent prescribing and the related roles in terms of education, support and mentorship?

What are your main educational priorities in relation to your role as an independent prescriber?

How do you think your educational needs can be best met?

The Future

What is your vision for the future of MSK Physiotherapy independent prescribing?

How do you think physiotherapists can influence and shape the future?

What and who else do you think will be most influential in the future developments – Why and how?

What are your views off independent prescribing within the advanced clinical practice agenda?

What are your opinions on the long-term sustainability of independent prescribing in physiotherapy?

Closing: - Thanking re information given, reflection on what was said and other questions?

Consent: reiterate confidentiality and thank.

Topic Guide for Physiotherapy Independent Prescribing in Primary Care. Post pilot update 4th Oct 2018

Service Leads

Information Leaflet, Consent and Demographics form.
Background information on interview.

Opening

Confirm background information with the participant.

Overview

Can you briefly outline your current role and responsibilities?
Can you tell me about your experiences in relation to independent prescribing in physiotherapy?

Prescribing in Musculoskeletal Primary Care

Can you describe where you think independent prescribing currently fits within musculoskeletal primary care services including your own?
What are your views on physiotherapists being able to independently prescribe in musculoskeletal primary care services?
What in your opinion are the implications of multiple professionals seeing patients as prescribers in primary care? *(Potential prompts, GP, Nurse, Pharmacist, and podiatrist)*

Professional Identify

How do you think being an independent prescriber affects professional identity?
- How does it affect how they/you feel and think about your job/yourself?
- How do others see you? (Patients/colleagues)
- How are you respected?
- What is the driver behind becoming an independent prescriber? (Job satisfaction, career enhancement or other)

How does being a physiotherapy independent prescriber influence how they work and interact with other professionals? How do they engage with others?
What are your views on how other professionals work with and interact with physiotherapists as an independent prescriber?
Prompts – Relationship within team, altered conversations with others, Recognition /remuneration, incentives, feeling valued, altered pressures and responsibility, autonomy, conflict, competition.
What do you think are GP views on physiotherapists becoming independent prescribers?
How important do you think professional identity will be in influencing the evolution of independent prescribing and related roles?

Implications for Practice

How do you think physiotherapy independent prescribing in primary care can affect practice and patient experience?
What are your opinions on how roles and services are evolving in the context of physiotherapy independent prescribing?
Potential prompt – context of first contact practitioner roles?

The Patients' Perspective

What do you believe patients think about physiotherapy independent prescribing in GP practice?
What do you think is important from a patient perspective?
Potential prompt – most important aspect of an intervention for them, any thoughts about processes, procedures or communications required,)
What is your opinion on how prescribing fits alongside the ethos and practice of physiotherapy?

Further explanation if required – physiotherapy (touch, holistic, self-empowering, physical, quality of life and coaching in self-care,) and prescribing (medical model, reductionist, passive) or
Touch could be regarded as the primary distinguishing factor of Physiotherapy – how does this fit alongside prescribing?

Implications for Education

What strategies do you think are needed to support independent prescribing and the related roles in terms of education, support and mentorship?
As a service lead, what are your main educational priorities in relation to developing your staff in these roles?
How do you think these educational needs can be best met?

The Future

What is your vision for the future of MSK Physiotherapy independent prescribing?
How do you think physiotherapists can influence and shape the future?
What and who else do you think will be most influential in the future developments – Why and how?
What are your views off independent prescribing within the advanced clinical practice agenda?
What are your opinions on the long-term sustainability of independent prescribing in physiotherapy?

Closing: - Thanking re information given, reflection on what was said and other questions?
Consent: reiterate confidentiality and thank.

Appendix H: Health Research Authority (HRA) approval

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Mrs Jacqueline P Mullan
Associate Head of Department of Allied Health Professions
University of the West of England
Coldharbour Lane,
Bristol
BS16 1QY

Email: hra.approval@nhs.net
Research-permissions@wales.nhs.uk

11 July 2018

Dear Mrs Mullan

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.**
IRAS project ID:	**238300**
Protocol number:	**1718/29**
Sponsor	**University of Exeter**

I am pleased to confirm that **HRA and Health and Care Research Wales (HCRW) Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

IRAS project ID	238300

The sponsor contact for this application is as follows:

Name: Pam Baxter
Tel: 01392 723588
Email: p.r.baxter2@exeter.ac.uk

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **238300**. Please quote this on all correspondence.

Yours sincerely

Rekha Keshvara
Senior Assessor

Email: hra.approval@nhs.net

Copy to: *Ms Pam Baxter*
Ms Lindsey Lacey, Avon Primary Care Research Collaborative/Bristol CCG

IRAS project ID	238300

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Public Liability Insurance]	Version 1	31 October 2017
HRA Statement of Activities [Statement of Activities]	1	11 July 2018
Interview schedules or topic guides for participants [Semi structured interview outline]	1	18 April 2018
IRAS Application Form [IRAS_Form_03052018]		03 May 2018
IRAS Application Form XML file [IRAS_Form_03052018]		03 May 2018
IRAS Checklist XML [Checklist_03052018]		03 May 2018
Letter from sponsor	Version1	13 March 2018
Letters of invitation to participant [Email Template]	1	06 March 2018
Other [CV Dr Janet Smithson]	Version1	07 March 2018
Other [Additional Public Liability information]	Version 1	21 November 2017
Other [CV Prof Nicola Walsh]	Version 1	07 March 2018
Participant consent form [Consent Form Service Managers]	1.1	04 July 2018
Participant consent form [Consent Form Physiotherapists]	1.1	04 July 2018
Participant consent form [Consent Form General Practitioners]	1.1	04 July 2018
Participant information sheet (PIS) [Participant Information Sheet]	1.1	04 July 2018
Referee's report or other scientific critique report [Proposal feedback University of Exeter]	Versions 1	25 January 2018
Research protocol or project proposal [Research Protocol]	1.0	18 April 2018
Summary CV for Chief Investigator (CI) [CV Jacqueline Mullan]	Version 1	29 March 2018
Summary CV for student [CV Jacqueline Mullan]	Version 1	29 March 2018
Summary CV for supervisor (student research) [CV Dr Ian Frampton]	Version 1	29 March 2018

Appendix I: University of Exeter PREC approval

University of Exeter PREC approval

16.08.18
Application ID: eCLESPsy000800 v2.1

Title: The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.

Your e-Ethics application has been reviewed by the CLES Psychology Ethics Committee.

The outcome of the decision is: Favourable

Appendix J: Research and Development Confirmation

Research and Development Confirmation

Study Title: The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.
APCRC reference: 2018-033
IRAS ID: 238300
Sponsor: University of Exeter

Thank you for notifying of this study. As stated in the HRA approval letter we are not required to confirm capacity and capability for this study.
We understand Health Research Authority (HRA) approval has been granted for this research on **11th July 2018**.

Please accept this email as confirmation that you are now able to commence this research.

Please follow HRA processes if it is proposed to make any future amendments to the study and when the research is concluded.

May we take this opportunity to wish you every success with your research.

Best Wishes,

Lindsey Lacey
R&E Governance Support
Research and Evidence Team
NHS Bristol, North Somerset & South Gloucestershire CCG
South Plaza
Marlborough Street
Bristol
BS1 3NX

Tel: 0117 9002225
Email: lindsey.lacey@nhs.net
www.bnssgccg.nhs.uk
www.apcrc.nhs.uk

Appendix K: Research Sponsorship Letter

RESEARCH ETHICS AND
GOVERNANCE OFFICE

Lafrowda House
St Germans Road
Exeter
Devon
EX4 6TL

Telephone +44 (0)1392 723588
Web www.exeter.ac.uk

13th March 2018

Project title:	'The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.'
Sponsor's Reference:	1718/29
IRAS ID:	238300
Chief Investigator:	Mrs Jacqueline P Mullan, Associate Head of Department of Allied Health Professions, University of the West of England, Coldharbour Lane, Bristol. BS16 1QY

Dear Jacqueline,

I confirm that the University of Exeter will act as lead sponsor for the above study, undertaking its responsibilities as outlined in Health Research Authority's 'UK policy framework for health and social care research' (v3.2,10/10/2017). The University will ensure that the necessary insurance cover for professional indemnity and public liability are in place before the study commences.

Before participant recruitment commences, the appropriate HRA, ethics and NHS R&D approvals must be in place; please ensure that I have received copies of any correspondence or approval letters.

As Chief Investigator, you are responsible for the management and conduct of the study and are expected to deliver the project in accordance with the University's Code of Good Conduct in Research (http://www.exeter.ac.uk/research/inspiring/about/goodpractice/).

The primary responsibility for the following lies with the Chief Investigator:

- Establishing and maintaining a Master File and Site Files as appropriate throughout the life of the study. Please find a suggested index attached for information.
- Ensuring that the researchers, students or others involved in conducting the project have the necessary training, experience, qualifications, support and supervision to carry out their tasks.
- Ensuring that all amendments to the study have received appropriate ethical review and R&D approvals. In cases where it is unclear if the amendment is minor or substantial, I will be responsible for making the judgement. Please contact me to discuss potential amendments at the earliest opportunity.
- Providing annual, progress or end of project reports to Research Ethics Committees, funders and others as required. Please ensure that I receive copies of all reports.
- Reporting adverse events or breaches of protocol or good practice, should they occur (a template adverse event report form is available at http://www.hra.nhs.uk/resources/during-and-after-your-study/progress-and-safety-reporting/ . You must ensure that I am informed of adverse events or breaches as soon

as possible after they occur and **always within 24 hours** of the incident. If required, I will take responsibility for ensuring that the event or breach is reported to the NHS REC, funder or other appropriate organisation within 15 days of the incident.
- Appropriate dissemination of the findings
- Satisfactory storage of any personal data and archiving of study material

Please note that announced or unannounced monitoring visits may be conducted either as part of the University's routine research governance audit process or in response to a specific concern or incident. The University reserves the right to withdraw sponsorship and take any action necessary to ensure the safety of participants if it believes that the Chief Investigator is not fulfilling their obligations.

Please do contact me at any time if you have queries or concerns, for additional support or to discuss any aspect of your project.

Yours sincerely,

Pam Baxter
Senior Research Ethics and Governance Officer

Direct line: 01392 72(3588)
Email: p.r.baxter2@exeter.ac.uk

I declare that as Chief Investigator for the above named study I, or my nominated delegate, will carry out my responsibilities as outlined above.

Signature of CI

Date 09.04.18

Appendix L: Additional GDPR information as part of HRA approval

General Data Protection Regulations. Additional Information

Additional information submitted to Health Research Authority as part of NHS Ethics application.

Personal information and data were carefully collected, kept secure and maintained.

This has been achieved by the following:-

- The personal demographic information, (e.g. name, contact details, role and place of work) and consent forms have been kept in paper form or audio file in the case of telephone interviews. The information has been kept in a locked filing cabinet in a locked office at the University of the West of England or on a password protected computer file. The demographics information and informed consent information has been kept separately to each other to protect participant confidentiality. Personal details have only been sought in terms of contact information and outline professional background/context of work in the participant demographics form. This has been kept confidential and only known to the researcher and first supervisor as relevant. Some of this personal information reflects that already available in the public domain e.g. place of work, profession.
- Each participant was assigned a unique code which has enabled creation of depersonalised data where the participant's identifying information has been replaced by an unrelated number.
- The data and the linking code have been kept in separate locations with the use of a locked filing cabinet (personal identifying information and assigned code) and encrypted digital files within password protected folders and storage media (data). Audio recordings have been labelled by participant number only and kept in audio files on a secure university computer which has an encrypted drive for storage and is password protected. An encrypted memory stick has also been used to store depersonalised data during analysis and write up. All access has been password protected.
- A GDPR compliant transcription service already used by the University of Exeter (Devon Transcription Service) was used for transcription. A non-disclosure agreement was agreed prior to uploading audio files to their secure system. Audio files were only identifiable via a participant code

number as was the resultant transcript. An electronic version of the transcripts has been kept within the University of the West of England secure encrypted drive or on an encrypted memory stick. All access was password protected. Any reference to identifiable data raised by the participant during the interview was removed after transcription and before any printing to protect anonymity and confidentiality.

- The researcher was the only person with full access to the data. Excerpts of anonymised data were made accessible to the research supervisors at the University of Exeter, and the research mentor/field collaborator at the University of the West of England to support the researcher's doctoral studies. Selected anonymised excerpts of data were also shared with doctoral peer groups at Exeter University as part of critical review and quality analysis processes.
- Any subsequent write up has been anonymised and great care taken to remove any organisational or circumstantial detail that could identify a participant.
- Personal data will be kept until the end of the study and then securely destroyed. Anonymised data will be kept for 5 years in a password protected secure drive.
- The researcher of the research will be the data custodian until the end of the doctoral studies when the research supervisor at the University of Exeter, Dr Ian Frampton will become the custodian.

All the above were agreed by the HRA approval process. IRAS 238300

Appendix M: Additional participant quotes related to analysis chapter

Additional quotes to underpin Chapter 5. Analysis of the Data.

Theme 1. Role Change and Identity Shift: pushing the boundaries

5.2.1 Moving "away" from traditional physiotherapy professional identity and practice.	*We are getting carried away with being pseudo doctors and leaving behind or neglecting, perhaps, our basic skill set. (P1/PT/Not IP)* *I think there are lots and lots of physiotherapists out there who would provide a very, very good service to patients as a first contact practitioner, as an advanced practitioner … So, I think it is important that they can request investigations, I think it is important that they should be able to independently diagnose musculoskeletal conditions. I think the independent prescribing bit is an added extra. I don't think it's a necessity because there are ways around it. (P5/PT/Not IP)* *I think my concern is that you are diluting the expertise if you are asking people to go out there and so-called be this expert across a broad range of conditions … our abilities to do what we would say is our core skill, i.e. exercise prescription, is still lacking. (P1/PT/Not IP)* *I think of this more as an advanced practitioner than I do as a prescribing practitioner. (P12/PT/IP)* *There's a massive push of pathways in primary care to go to self-care. (P2/PT/Not IP)* *It's not just the painkillers, the anti-inflammatories and the steroid injections. You have to know how that all interacts with all the other medication a patient might be on or the chronic diseases. (P4/PT/Not IP)* *I know with this first contact practitioner role everybody seems to be getting carried away with this. (P1/PT/Not IP)* *I do less mobilisation and manipulations, and I have done on those courses in the past, than I've ever done because actually what I try to do is … the whole thing about life coaching and health coaching and looking at patient's sleep and their relaxation, their food and all that, I probably spend more time on that than I would on what we would traditionally be taught. (P9/PT/IP)*

	I think the challenge as a physio when you start prescribing is that you kind of have to change your whole consultation style, you have to almost think straightaway of prescribing so you know where to take the consultation and the assessment, partly because of time because we are not allowed to do e-prescriptions yet. (P7/PT/IP) *To be honest, because the GPs, they have that pin and I can immediately go up and speak to the duty doctor within minutes … I like that because I have the doctor's backup of it, that we've then looked at the full medical information and we've made a joint decision on the analgesia. (P2/PT/Not IP)*
5.2.2 Pushing boundaries.	*So, I think for our identity we need to have a very clear boundary as to what we still deem as physiotherapy but also try and make those extended roles our own. (P2/PT/Not IP)* *I think at the time, it was felt by my colleagues that this was…quite a big step out of the normal, traditional physiotherapy. I was the first one to do it here. So, yes, I think my colleagues felt, 'Blimey, this is quite different. Best of luck. You go and be the guinea pig.' But actually, now, I don't think that is the case. (P15/PT/IP)* *What do we really prioritise as physio intervention for musculoskeletal and what can we allow others to do knowing that they've got the backup of physio? (P5/PT/Not IP)* *I can see the education of long-term condition management, so pain management, early moderate knee/arthritis patients being managed more in the community, so in non-healthcare settings by health trainers and perhaps even technicians but not necessarily by MSK physios … [as part of this], I think it's [physiotherapy independent prescribing] going to become more important and I think there will be more independent prescribers. (P8/PT/IP)*

Theme 2. Power and Autonomy: opportunities, challenges and conflicts.

5.3.	
5.3.2 The relationship with GPs.	*I would have said the vast majority of GPs I've come across are very complimentary about physios, it's a huge role, we've historically worked with physios. I don't quite know there's an appreciation the amount of training that you have had. (P14/GP/IP)* *I think it's just a little bit tricky in the sense of getting the acceptance from the wider health professions, particularly the GPs I think, of them getting that acceptance that we are quite capable and I think that will come in time, I think so. I think they don't have a choice. (P7/PT/IP)* *If you asked every GP practice if they wanted a physiotherapist that could prescribe, that could do injections and radiology, they'd bite your hand off, but actually I don't think there are that many people available that have that skill set and knowledge to be able to do that. (P1/PT/Not IP)* *We talk about drugs a lot, but they're not actually that important. They're just a thing that looks important because doctors can do them and nurses can do them, but they're not as important as rehab. (P6/GP/IP)* *You've [Prescribing physiotherapist] made that decision. You can discuss it with them [GPs], but then we're equals We're doing this [prescribing] as equals. That's fine. Professional to professional … . Do it. Whatever. (P6/GP/IP)*
5.3.3.1 "Cheap" GP or specialist MSk advanced practitioner.	*It's kind of GP level really. They want a cheap doctor. (P3/PT/IP)* *The worries attached to me is then the first contact practitioners become a mini-GP and that's the big discussion, isn't it? We don't want to become those GPs, we don't want to be the doctor, so you've got to leave something to the doctors otherwise you are becoming a little doctor. (P4/PT/Not IP)* *It's really important that we actually turn around and say, yes, we should be first contact physios. but we should do it within our time frame…We*

	shouldn't see them [patients] every ten minutes because you are just asking for a cheap doctor again. (P9/PT/IP)
5.3.3.3 Patient's views.	*I've not really had anyone question it. I mean, some people are quite pleased, and they will often say, "Oh that's good, you can prescribe as well." (P11/PT/IP)* *So, our patients here, our experience is that they love having a clinician that's able to deal with their particular problem. So, I think if it was in more GP practices, I think independent prescribing would again be more part of that package of care for that patient. (P2/PT/Not IP)* *Patients, I've not had any problems, they take everything very on board and understand and I think as physios in this surgery we are very respected. (P7/PT/IP)* *There will be patients who will be perfectly happy … as long as they see somebody, because in many areas they can't see anybody, a human being, they just get a voice and they only get a phone call from the GPs, so the fact they see a hands-on practitioner, I suspect the majority will be absolutely delighted, but there will be a few who will grumble and say, "Well I really wanted to see the GP" (P14/GP/IP)* *They are quite used to getting prescriptions from nurse practitioners for antibiotics, etc. I don't know if they just see us as another one of them, (P11/PT/IP)*
5.3.3.4 Recognition and title	*We also had a discussion with the clinicians about whether their name badge should have physiotherapy on it. So actually, they just are called advanced practitioners...I think the feeling was that patients are less worried about it, about what the actual clinical background is as long as there are assurances that these people are competent to do the role. So, the name badge within the practice is advanced practitioner, they introduce themselves as an advanced physiotherapy practitioner, but it's just to manage the perceptions of the patient about what will happen within that intervention. (P13/PT/Not IP)*

5.3.4 Credibility, trust and acceptance in professional autonomy.	*We want to make sure that we are leaders rather than being followers. So, it's making sure that everything we do is backed up by evidence and discussion. (P2/PT/Not IP)* *It gives me more confidence, put it that way. As a clinician, it definitely gives me more confidence and rather than just writing down the drugs that they are getting, actually trying to listen to them and almost … I can almost pre-empt what they are going to be on when they are telling me. (P9/PT/IP)* *Professional development, interest, always been keen to do more, learn more and it was quite an exciting area of development for the profession as a whole, so to have had that opportunity was really useful. (P8/PT/IP)* *If it comes on board and physios are ensconced in primary care and are genuinely first contact practitioners and take on pseudo-GP roles, then probably having some prescribing qualification of some description is probably going to be, in the long term, probably an important thing. A bit like injections when we started doing them in the mid-90s, I think. It was, "Oh blimey," you inject, and you were some super-human physio if you can inject. Whereas now a lot of our musculoskeletal, well virtually – all our ESPs [extended scope practitioners] – can inject. (P1/PT/Not IP)* *In fact, now, there is about five of us in our department that have gone on to do that after I have. I was the first, but now, I don't think they've seen it as so odd, because I had done it. (P15/PT/IP)* *So, when I tell anybody what I do, I think it's fantastic. I'm really proud of what we've become as a profession because management of the patient in primary care is so important … I think having a role like this is really forward-thinking. (P2/PT/Not IP)* *I think as with everything, the more years that this has become established for, the less it feels out of the ordinary. Unless you are the first, I don't think it is particularly seen in that way. (P15/PT/IP)*

5.3.5 Enablers and constraints. Physiotherapy independent prescribing IT access.	*On a practical point of view, I have also got a lot of frustrations with SystmOne, which is the system we use at the GP practice. We don't have the electronic prescribing ability, we are not recognised on SystmOne's system as prescribers, as physio prescribers. There has not been a way to get past having to write paper prescriptions. This all takes time … . You don't need these delays in the system, and inefficiencies in the system. (P15/PT/IP)* *So, my concern always, with physios having independent prescribing, is not fully knowing the patient's past medical history, having access to the patient's past medical history, because information systems, computer systems, are still not linked up. So, we don't have access to EMIS, which is what most of the GP practices are on. (P1/PT/Not IP)* *I feel like nothing has changed; nothing has really improved in any of that [IT access] since I have been starting to look at the course or have been qualified. (P15/PT/IP)* *It wasn't just EMIS. I think nationally SystemOne, … I know other people use, and I think they had exactly the same problems. I think from an MSK point of view, once they said to you, you're qualified, great, this is what you're going to do; go and do it … . But actually, I thought we were going to be walking around with these pads of FP10s and that wasn't going to happen … . The primary care team were saying well yes, that's fine, we'll use EMIS, so get yourself set up on EMIS. That wasn't straightforward. So, it's those bits that no-one tells you about. (P11/PT/IP)* *We have managed to find workarounds, or we think we have, and my colleagues who now are prescribing elsewhere think they found a solution, and I said, 'No, this is the solution we thought we had found.' You go to the CCG, and they say, 'No, that's not valid. That is not a legal prescription, because you are adding 0s or taking away 0s from our number …' So, there doesn't seem to be a workaround. Obviously, we need to be pretty careful about not finding these funny workarounds, but actually making sure we are all above board and we are doing everything kosher.*

	I think all of this will happen, but it's fairly new. (P15/PT/IP) *Apparently, SystmOne have got it top of their priority list. There is no evidence of that whatsoever, for me. I haven't seen any change in that … . Our professional registration number is just not recognised. There are not enough digits, essentially (P15/PT/IP)*
5.3.5 Enablers and constraints. Physiotherapy independent prescribing and Controlled Drugs legislation.	*We have been put in a position to serve a patient, to release a little bit of time from a GP but were constrained in our ability to do that to the fullest of our ability. (P12/PT/IP)* *Amitriptyline is one of the group of those four in the neuropathic pain NICE guidelines, and it's fine … but I think often, people don't tolerate one, and then you can switch and try a different. Now, I don't have that option. (P15/PT/IP)* *There are still times when I've got to go to the GP colleagues and say look, can you prescribe this lady some Codeine for her night pain, and I think that having gone through the course and not being able to prescribe that, yet be able to prescribe some of the benzos and things like that I think is bizarre, really. (P11/PT/IP)* *For the first time I'm actually recording when or when I haven't prescribed Codeine and there must be at least one, perhaps two episodes every single day where a patient is now disadvantaged because I can't prescribe or deprescribe or alter a dose … . We see a lot of neuropathic pain. (P12/PT/IP)* *[Not having the option of Gabapentin or Pregabalin]. That is a shame, because where we are trying to be able to manage these patients, and looking to manage that whole side of things, we can't. (P15/PT/IP)* *I think that will help, because I think that is a more common way to move up through the pain ladder, the analgesic ladder. Tramadol, I am not sure. I think it would be good if that got included, and gabapentin and pregabalin, similarly. (P15/PT/IP)* *I would be amazed if Codeine and Tramadol, Codeine certainly, doesn't get put onto the list of*

	Controlled Drugs that we are able to prescribe. (P15/PT/IP) *I think it's frustration. Whether I would use the wider choice or not I really don't know, but if someone comes in and they want a repeat prescription of codeine, I can't do that for them. (P10/PT/IP)* *I think there should be a point at which we can say let's broaden it out and let's crack on … It would certainly have to be legislated. (P10/PT/IP)*

Theme 3. Adaptability and Responsibility: pioneering physiotherapy independent prescribing.

5.4.1 Expectations and drivers.	*I think yes, it [independent prescribing] does fit within our profession, because our profession is so broad, and so in positions like mine, … it becomes almost essential, not completely but almost essential … it does bring with it value in that you can use it as another tool to try and manage exacerbations or to facilitate rehab, but again having that wider awareness of other conditions can help guide you in your rehab process. (P8/PT/IP)* *If you are working in primary care and you have that knowledge, you have all of those clinical governance options then it makes perfect sense to be independent prescribing. (P2/PT/Not IP)* *I think in a traditional MSK role, it's certainly not essential. (P8/PT/IP)* *We've recently done a trial on first contact physio out in GP practices and I think it's essential that those physiotherapists can prescribe otherwise it's not really time saving or cost saving for the GP practice. (P3/PT/IP)* *So, embedded into advanced practice I think is absolutely essential. (P12/PT/IP)*
5.4.2 Early adopters as pioneers.	*I find it a very rewarding aspect of my whole clinical care, if you like, and I am very pleased that I had the opportunity to do it and I do think it adds such value to a patient contact. (P12/PT/IP)* *I did all of the advanced practice training really instigated by myself and all done as a Band 6, so I had everything in place when an 8a position became available. (P8/PT/IP)* *I think, I probably am reasonably up for a challenge and some new ways of working. I have always had an interest in drugs … I have got an interest in pharmacology and that medical side of things, but at that time, again, the thought of prescribing was absolutely never on the table. (P15/PT/IP)* *You are expected to assess them. Assess them, make sure there's nothing strange going on or*

	something that needs to be referred on. You are supposed to find your clinical impression, you are supposed to advise them, give them some exercises and advice and talk about medication and prescribe if you feel that you need to put pen to paper. (P7/PT/IP) *I did all of the advanced practice training really instigated by myself and all done as a Band 6, so I had everything in place when an 8a position became available (P8/PT/IP)*
5.4.3 Vulnerability and Risk.	*So, they need to have diagnostic skills in the first place and then therapeutic skills which are the traditional physical treatments that the physios will do. I think it's a logical extension to do the pharmacological treatments as well as part of the whole thing, I can't see why not. (P13/PT/Not IP)* *You're in a room, there's not really much of a team out there … . Do you get three times the amount of people, because everyone wants to do just a bit-part job, to get through the prescribing? How do you then backfill for the traditional physiotherapy side of things? I think there is definitely an issue with that. Yes, it's not simple at all. (P15/PT/IP)* *Where are these people going to come from … it's advanced practice, and it's all this excitement and everything else. Actually, as I said, I think it would be a brave person who does this full time. I am not entirely convinced that you are going to get a horde of people that are crying out to do this full time. It is pretty stressful. It is pretty full-on. It is pretty lonely. (P15/PT/IP)* *I'm the frontline responder for MSK, so any patient with musculoskeletal problems, instead of seeing a GP, will see me directly. So, the role has grown and evolved … . But in order to take the profession forwards, I think we need to invest in our staff more, the skill set needs to be higher to enable independent prescribing to take off and then also the safety nets behind it. I think the course is very good at doing that and it sort of hammers home how careful you need to be. (P2/PT/Not IP)* *Although it's reasonably established now, I think on the whole, we are relatively new at this. I think*

	we need to show a good track record. (P15/PT/IP)
5.4.4 Resilience and Sustainability.	*It might be an old-fashioned view. I still think there's real benefit in them [physiotherapy graduates] doing all of the rotations at a junior level and part of that, particularly if you are looking at advanced practitioner roles in primary care, is if you've worked in respiratory and you've worked in neuro, you'll start to pick things up, but if you've only ever worked in MSk, I genuinely don't think you would be quite so keen-eyed on picking up some other things. So, I think in terms of developing really good advanced practitioners, there's still a role for that really generic rotation both at student and junior level. (P5/PT/Not IP)* *I think good clinical experience of working across the MSK pathway, for me, is the crux of what actually is important in that first contact role, especially from an MSK perspective(P10/PT/IP)* *So, in terms of scaling up, it does mean that you have to have more bodies. (P13/PT/Not IP)* *You will have GPs wanting to recruit but actually it takes a long time in your clinical profession to get to that point clinically and unfortunately those traditional steps going up through the NHS and learning your experience are not really happening anymore because of budget and funding cuts, so you have almost an elite bunch of physios that have come through that system that have all of that knowledge and that skill set but there's not enough to go round for all of the GP practices. (P1/PT/Not IP)* *What we are trying to do now is have a group of clinicians that are called advanced practice physiotherapists that can actually work across all those areas … in terms of ED [emergency department], interface clinics, primary care. Because the jobs are very much similar, it's just depending on the context of where you are, the environment, depends on your decision-making, really. (P11/PT/IP)*
5.4.5 Promoting physiotherapy prescribing.	*We don't shout loud enough. I don't know why we are not able to promote ourselves more. I honestly don't know because I've always been there and I think come on, talk about us, we are*

	great, and we are that last person that gets that patient to where they are going to be: the one that follows them through from the beginning to the end a lot of the time, and take that time, and have those skills to do that which a lot of professions don't and so why we drop off the radar, I don't know. So, I think as a profession we need to shout louder, … . Poor marketing skills. There you've got it. (P7/PT/IP) *We need to put our heads up there and say, "Where are we? Why are we not there? Put posters up," because that's what marketing does. (P7/PT/IP)* *There was one chappie [GP] that didn't actually understand the difference between practice physiotherapist and hospital physiotherapist. We do have a little bit of a battle that is ongoing that they think we are treating their patients rather than signposting and managing the same way that they would. There is still such a lot of education to do, but also to the wider population. There's a lot of public education that needs to carry on evolving. (P12/PT/IP)* *It still amazes me that in this day and age and looking at the role we have within healthcare in general that all you hear about in the news is nurses and doctors. (P7/PT/IP)*

Theme 4. The Unexpected Side Effects.

5.5.1 More focussed conversations	*If somebody is really struggling and you can give them something that gives them some relief so that they can then actually break that cycle of pain, you hear physios having those conversations all the time. I would be shocked to hear a physio say, "I'm going to give you this and off you go," without anything else. It absolutely has to be, "I'm going to give you this so that you can do that". Yeah. (P5/PT/Not IP)* *The really great thing is that I feel much more confident to talk to patients about, even if it is over-the-counter medication; how they should use it, when I would be wary of using it, when I would be wary of a patient looking at those drugs, interactions with other medications they're on, a greater awareness of those other medications that they are on. (P15/PT/IP)* *They want more education. And actually … compliance increases massively with education. Education is a massive component of why people will take their medication or don't take their medication. (P9/PT/IP)* *The less easy to quantify gives perhaps a better awareness of other conditions and how they are being managed…That gives you an idea perhaps of the wellness of the patient outside of the musculoskeletal context. (P8/PT/IP)* *They often want a conversation, if we have reached a point where there is no intervention, about medical management of their condition. (P10/PT/IP)* *And I think a lot of time they don't get that at all from the GPs and therefore they come, "Ah well I've stopped taking it because it's not working," and then to have that understanding why it's of benefit, it's to enable exercises sometimes so that they can get through this period. (P7/PT/IP)* *So then they often already have the prescription, I hope, and have said, "Okay, well I'll go home and I'll start taking that then," and, "I'll see you in two weeks' time and we'll see how you get on," for example. (P7/PT/IP)* *Most of my patients have multiple symptoms. It's not just multiple joint pain, it's fatigue, it's*

	headaches, etc., etc., and actually just thinking about looking at their polypharmacy and how it might be impacting on them…So that's how I'm using the course at the moment, that actually it was a bigger insight to how drug interactions work. (P9/PT/IP) *For example, a patient who is on antihypertensives, which I think most of our patients tend to be, knowing which medication they are on can give you a guidance as to how bad their hypertension is. (P8/PT/IP)* *So, I now understand it and I know where it may be relevant but also, I can say to patients, well alternatives to this … . (P11/PT/IP)* *At the moment most of our patients have actually been seen by a doctor before, so they've already got that … . Sometimes they come and you say, "Oh I can see the GP prescribed you x, y, and z," and they say, "Oh yes, but I'm not taking it," and you are like, "Okay, well why?" "Oh well I wasn't sure. I just don't like taking them. I don't know why I should take it, I'm just managing anyway," and then you have that conversation. (P7/PT/IP)* *I write it down and explain to them why they are taking the non-steroidals at the moment, they'll say, "Well nobody has ever told me I should be doing them, because I was just taking them when I felt I needed to". So actually, a little bit of understanding. (P9/PT/IP)*
5.5.2 Deprescribing	*I did all of the advanced practice training really instigated by myself and all done as a Band 6, so I had everything in place when an 8a position became available. (P8/PT/IP)* *I think there's a huge role in deprescribing and I would say I personally probably do quite a lot of that, take people off drugs rather than put them on it. (P3/PT/IP)*
5.5.3 Engagement with opioid dependency recognition and management	*Let's just say they're [the prescribing physiotherapists] are completely independent … but what I would be keen on is for there to be a list of drugs that they can prescribe without having to talk to the doctor about; and there should be a list of drugs they could prescribe but they need to talk to a doctor first, or run it by somebody first.*

	Still the autonomy stays with them, but I think there should be that checks and balance. (P6/GP/IP) *But the whole thing is slightly odd, how it has all come about. I think we can prescribe Fentanyl and Morphine and things – I never have done – but not Codeine. That really makes it difficult for us, in terms of the pain ladder, the analgesic ladder, and also what patients have been on, and they might want to continue. You're almost, either, having to not utilise what you can do independently, and ask the GPs to further prescribe Codeine, or switch them onto Dihydrocodeine, because that is what is accessible to us. I think that is unacceptable, really. It is not ideal. (P15/PT/IP)* *The problem is when you're prescribing, the idea is managing pain, and they're doing their exercises, and they keep having more co-codamol, more tramadol; this is what we've been doing, but we're coming out of that. (P6/GP/IP)* *It seems logical that we are moving into a first contact practitioner role, … having prescribing is essential really because you are likely to see more acute conditions which will require analgesics perhaps more readily, so the limitation we are going to have there is our access to Controlled Drugs and principally Codeine because that's probably the one that's going to be prescribed most commonly. (P8/PT/IP)* *But that only works better if one person, even within this practice, we try and make sure that if people are on abusable drugs, they only see one person…you're hitting a wave of the other side of the opioid crisis and over-prescribing and chronic pain. (P6/GP/IP)* *In those cases, I am almost always going to discuss with the GP, or even just tell them that I think they need to telephone review with their GP later and arrange that and let them decide what they think is best. I think we have to know. I need to know where my competency starts and ends. (P12/PT/IP)* *And I think because we are where we are, ... It's just this point in time – I don't think it should be forever – but at this point in time, there should be*

	an agreement that these drugs that are abusable. Pain is something you can't prove. And you should be very careful about it. Anything else, do what you like. (P6/GP/IP) *Yes … if we are talking about general practice here, I think once the doctors realised that opioids were being monitored, they are quite savvy and managed to move over towards Gabapentin once that was released from licence. I think it's overprescribed, overused, it's used not in neuropathic pain, it's used very, very early on. Where we wouldn't as physios use it, patients are already on it...so I appreciate something has to be done about it, but I feel that we have been scapegoated by it [Gabapentin] not being … included as an accepted CD for physiotherapists. (P12/PT/IP)* *If someone was in pain … to me Tramadol is not something that I would be pushing anybody from my family to start taking, let alone a patient. (P11/PT/IP)* *I would choose Amitriptyline because my ability to follow up patients is limited, and Amitriptyline is a drug which perhaps doesn't have to be monitored quite so closely as Pregabalin and Gabapentin. So, I haven't used [Pregabalin and Gabapentin] as much, so it [April 2019 legislation change] won't affect me as much as Codeine does. (P8/PT/IP)* *So, I'm happy if a physio has a … . We agree that they have a restrictive drug list…not because I don't think that they could do it appropriately, but some of these things are being abused and you need to keep a very close eye on who's using it (P6/GP/IP)*

Appendix N: Excerpts of reflexive diary

Reflexive Diary using Boud's triangular reflective model of "What, So what, what now?" (Boud, Cressey and Docherty, 2006; Ghaye and Lillyman, 2014)

	What?	So What?	What Now?
Oct 2017	Meeting with Jo Wellsman (PPI lead Exeter University) and discussion of PPI group and input and practical considerations.	Advised to keep open structure and let PPI group go with it. Maybe gradually focus triggers as it progresses. e.g. What do you think about physiotherapy independent prescribing? What are your experiences of physiotherapy? What would your expectations be of Physiotherapy in relation to GP practice/MSk? What questions do you think needs asking in relation to this research from a patient perspective? Need to reflect on my default need as a novice to have a level of control for this PPI process versus letting the process/discussions go with the flow and seeing what emerges to get most out of it.	Email from Jo to key group members to introduce myself (completed 19.10.17) Email follow up from myself to set up. (completed 20/10/17) Organisation of payment of travel costs etc Set up outline agenda but not be too prescriptive/structured whilst also getting the answers related to my research – balance

	What?	So What?	What now?
4.10.18	Grappling with fully identifying the theoretical framework to use but now appreciate that this is fundamental to doctoral level research.	Discussions within qualitative research to help see how data fits to the theoretical framework Need to add to new knowledge to be doctoral level research Use data from study to add to body of theoretical	Clarify the following concepts: - Using the theoretical framework of **professional identify in changing healthcare** ? Sociology of Professions ? Saks

	Beginning to understand how this will fit with the data and the complexities of moving back and forth between the data and the theory to move the theoretical framework and knowledge in this area forward and to make sense of what the data is telling us. This will need to happen throughout analysis and write up stage and is a fluid process underpinned and driven by the theoretical framework and the data collected in this study Process involves firming up ideas or unpacking ideas in the theory by using the data and comparing it against the theory	knowledge or explain knowledge further or refute aspects of theory Theoretical framework needs to be starting point against which the data is compared rather that find the data and then make it fit. Importance of asking the right questions to get the answers I need – develop the interviews schedule via piloting e.g. write up – In my dataset – this supports, contradicts, adds or explains x, y or z in the theory. Unpick why something may or may not be showing in the data – evidence not there *(e.g. conflict between health professionals on impingement of boundaries of roles – if not there, why not? – e.g. progressing of healthcare, needs must due to GP crisis, is it there or subliminal rather than overt?)* – must come from and be driven by data though, not researcher personal opinion or personal agenda. Unpick why something may or may not be showing – sometimes subtly e.g. in team working dynamics or subliminal hierarchy in professionals	Need to firm up. Explanatory framework – a framework that already exists. Data are new evidence to move body of theory and understanding of it forwards. Think about “the rub” in the data – what different people think about a certain thing. Different perspectives on same thing – explore and unpack.

	What?	So What?	What Now?
26.10.19	Evolution of themes as the analysis develops. Importance of stepping back and thinking about what is actually being said and what it means (look back at supervision record with JS)	Evolution of draft theme - **taking ownership**. Further analysis is yielding two more specific aspects of taking ownership – dealing with vulnerability and risk taking. Evolution of theme - Sustainability and succession planning. The concern is actually about building individual resilience, avoiding burnout and creating a supportive and developmental structure for staff to develop through the pipeline. Supports the knowledge, clinical mileage and experience concepts raised as crucial building blocks for a prescriber in FCP	Explore the literature on vulnerability and risk taking to develop analysis of this point There appears to be an individual aspect to sustainability and a structural organisational aspect which needs to cohese for longer term sustainability and succession planning.

Appendix O: New knowledge contribution

Generation of new knowledge

What was already known about this topic	What this thesis adds
UK legislation in 2013 to award physiotherapists independent prescribing rights after completion of master's level non-medical prescribing course.	This legislation was not as empowering as envisaged particularly in relation to primary care as many of the relevant and preferred drugs for prescribing in this setting are affected by the additional accepted Controlled Drugs legislative caveats. This represented a conflict between the legislations, with physiotherapy choices and practice being directly affected.
Physiotherapy independent prescribing as part of FCP roles in MSk primary care promoted by DOH and CSP as pivotal in addressing GP shortages and improving one stop patient care.	Actual prescribing rates relatively low < 5 per week Implementation challenges: - • Lack of access to IT prescribing systems using the HCPC pin. • Accepted Controlled Drugs for physiotherapist limiting scope of practice, affecting clinical reasoning decisions and effectiveness of prescribing and being a major source of frustration for the physiotherapists.
Traditional medical dominance of prescribing, leading to potential inter-professional conflict and battles for autonomy in light of the vertical boundary pushing from physiotherapists to prescribe.	General acceptance of physiotherapists prescribing in primary care within the medical professions. Some potential covert power issues from GPs, manifested as concerns about deskilling in MSk and wanting to retain control over patients at risk of drug dependency. Power control was instead being exhibited by the state in the form of dis-enabling legislation being imposed around Accepted Controlled Drugs.
Risk of being regarded as a "cheap" or "pseudo" GP as a prescribing physiotherapist in a First Contact Practitioner role.	Physiotherapists view themselves, and wish to be viewed, as Specialised MSk physiotherapists working at advanced practitioner level with additional generic skills of prescribing, rather than "cheap" or "pseudo" GPs.
Outcome measures of prescribing linked with volume (prescription rate) and breadth (prescribing audits	Emerging unexpected side effects of prescribing are more valuable outcomes (in the view of physiotherapy

of prescribed drugs by medicine management teams).	prescribers) but are difficult to measure and evaluate. • Enhanced holistic conversations • Deprescribing. • Engagement with the drug dependency/opioid addiction debate and management.
Sustainability of any professional project into new areas of practice is a challenge.	The need to: - • focus promoting physiotherapy prescribing outcomes information and evaluative data towards GPs, Primary Health Networks and commissioners to increase awareness of developing roles, increase physiotherapy profile, secure prescribing resources and staff development, establish service and employee structures. • Move away from prescribing/FCP good practice sharing within the physiotherapy professions to wider promotion to public and patients. • Need to influence policy by gaining support for another public consultation and legislative change around the accepted Controlled Drugs for physiotherapy.

Appendix P: World Congress of Physical Therapy 2019 poster

Getting your Drug Prescription from a Doctor or a Physiotherapist. A patient view of what is important to them.

Jacqueline Mullan (1,2,) and Ian Frampton (1)

1. University of Exeter, UK. 2.University of the West of England, Bristol. UK

Presented at the WCPT Congress 2019, Geneva, Switzerland

Introduction

- The Physiotherapy profession gained independent prescribing rights in the UK in August 2013 – a world first.
- To become an independent prescriber, physiotherapists undertake a post graduate non-medical prescribing programme.
- Successful completion leads to annotation as an independent prescriber on the UK Health and Care Professions Council (HCPC) register.
- Implementing this change into practice could:-
  - Revolutionise physiotherapy working practice with positive impact on patient care. (1)
- The opportunity and timing for the change was optimal:-
  - Increasing demand on General Practitioners (GPs). (1,2,3)
  - The growing number of people requiring treatment especially for long term conditions. (1)
- Patients can now see their physiotherapist for their total care encompassing assessment, advice, drug prescription, treatment and rehabilitation.(2,3)
- Physiotherapy Independent prescribing potentially supports the evolving healthcare agenda, multi-professional advanced practice and the offloading of workload for doctors in primary care. (2,3)
- Unclear what the patient's views might be.

Purpose

The purpose was to identify what needed consideration from a patient view in relation to receiving a prescription from a physiotherapist instead of a doctor as part of their care in a general practice/primary care setting.

Participants

Peninsula Public Involvement Group (PenPIG) in association with the University of Exeter Medical School. This patient and public interest (PPI) group have a specific interest in primary care and general practice research, the changing roles of professionals and the implications for patient care and experience.

Method

A discussion meeting took place between five members of the PenPIG and the researcher.

The concept of physiotherapists as independent prescribers was introduced.

Group encouraged to explore their views, debate the impact and evolve the discussion as they felt important in relation to:-

- their healthcare needs and views.
- their experiences with physiotherapy, primary care and GP services.

Field notes were taken by the researcher which were subsequently agreed by the group as an accurate reflection of discussions.

Salient points highlighted in collaboration with the group.

Results

The results from the PPI group are presented below:-

Specific to Prescribing

- Clear national and local patient information on the qualification, role, purpose and scope of physiotherapy independent prescribing (to raise patient and public awareness).
- Safety and governance considerations/processes in relation to complex medical or drug history.

Results

General

- Continuity of care, personal contact, adequate consultation time and ability to trust the practitioner who is prescribing for them is most important irrespective of profession.
- Prescribing not to replace the fundamental aspects of physiotherapy that they valued e.g. treatment, exercise, advice, coaching, self-management.
- Importance of addressing any tension with doctors in relation to reduction in their responsibility and control over overall patient care.
- The PPI group noted that their understanding of the underlying ethos of physiotherapy (holistic, self-empowering, physical, quality of life and coaching in self care) and prescribing (medical model, reductionist, passive) did not fit together naturally for them and they wondered how it would in turn fit for physiotherapists themselves.

References

1. Department of Health, (2013). Millions of patients to benefit from easier access to medication and fewer trips to hospital.
2. National Health Service (NHS) England, (2019). The NHS Long Term Plan. https://www.longtermplan.nhs.uk/wp-content/uploads/2019/01/nhs-long-term-plan.pdf
3. NHS England, (2019). Investment and Evolution . A five year framework for GP contract reform to implement the NHS Long Term Plan. https://www.england.nhs.uk/wp-content/uploads/2019/01/gp-contract-2019-20.pdf

Discussion & Conclusions

The PPI group were open minded about physiotherapy independent prescribing and were not concerned about which professional prescribed their medication in primary care as long as:-

- They, as the patient, received appropriate information about the rationale and usage of their medication.
- There was timely access and continuity of care from one practitioner (Physiotherapist or GP).
- They did not miss out on the traditional physiotherapy treatment, rehabilitation, support and advice at the expense of the physiotherapist spending time prescribing.

Recommendations

Findings were used to provide a patient and public perspective in the design of the interview schedule for the following study:-

The experiences of physiotherapy independent prescribing in primary care: implications for professional identity, education and practice.

Clear patient view message to consider in service evolution and advanced practice:– physiotherapy independent prescribing as an adjunct to physiotherapy not as a replacement.

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Appendix Q: Submitted abstracts to World Physiotherapy Congress 2021

Reference:
ABSTRACTS-WCPT2021-00606
Title:
THE EXPERIENCES OF PHYSIOTHERAPY INDEPENDENT PRESCRIBING IN MUSCULOSKELETAL PRIMARY CARE IN THE UK; IMPLICATIONS FOR PROFESSIONAL IDENTITY
Type:
Platform presentation
Presenters:
J. Mullan[1], J. Smithson[2], I. Frampton[2]
[1]University of the West of England, Allied Health Professions, Bristol, United Kingdom, [2]University of Exeter, Clinical Education Development and Research, Exeter, United Kingdom
Presentation format:
Platform presentation
If your abstract is accepted, and there isn't room to include it in the programme as a platform presentation, would you prefer a printed or e-poster presentation?
Printed poster presentation
Primary topic:
Primary health care
2nd Topic:
Service delivery/emerging roles
3rd Topic:
Musculoskeletal
Background:
Legislative and professional practice changes in the UK now mean that physiotherapists who have successfully completed a post-graduate non-medical prescribing programme are able to autonomously and independently prescribe relevant drugs to assist in patient management. This means that patients no longer need to get their prescription from a doctor and can instead see a physiotherapist for their total care encompassing assessment, treatment, rehabilitation, drug prescription and advice. Whilst this supports the evolving healthcare agenda, advanced practice and the offloading of workload for doctors in primary care, it is unclear how professional identity is being impacted.
Purpose:
The purpose was to identify the implications of the role change and identity shift for physiotherapy practitioners as they push professional boundaries into the remit of General Practitioners and embrace additional responsibilities as independent prescribers within primary care musculoskeletal (MSk) practice, often as MSk First Contact Practitioners (FCPs).
Methods:
Fifteen semi-structured interviews of physiotherapy and medical practitioners working in MSk primary care. Thematic Analysis. Ethical Approval via the UK Health Research Authority was acquired.
Results:
The key themes identified were: -
Role Change and Identify Shift: Pushing the boundaries: -
Vertical boundary pushing into the prescribing remit of the medical profession was viewed as an opportunity to advance practice, and provide comprehensive and timely patient care. However, some debate arose about the direction of travel of becoming prescribers away from "traditional physiotherapy".

Power and Autonomy; Opportunities, challenges and conflicts: - Prescribing knowledge brought additional confidence and pride. The power relationship with GPs was crucial, with physiotherapists keen to create a niche as specialist MSk physiotherapists with additional prescribing attributes, rather than being viewed as “cheap” or “pseudo” GPs. Credibility, trust and acceptance in professional autonomy as prescribers was important with considerable reported frustration around prescribing IT access challenges, and particularly the constraints to prescribing practice from UK permitted physiotherapy accepted Controlled Drugs legislation, seeming to undermine the opportunity and autonomy from the original prescribing rights legislation.

Conclusion(s):

Power challenges as part of professional identity establishment were generally not apparent with good acceptance of physiotherapy as independent prescribers from colleagues and patients. Creating a specialist MSk prescribing practitioner remit encouraged professional identity development by establishing status and recognition, and social closure as a profession. However, the evolution of professional practice and autonomy was being curtailed by two main constraints, IT access to relevant systems and the permitted prescribing formulary (particularly related to Controlled Drugs)

Implications:

Professional identity evolution is a dynamic process involving ongoing interplay from within individuals (values, motivations) with external factors such as their environment, relationships and practice. Prescribing was viewed as pushing physiotherapy professional boundaries and challenging identity perhaps more than previous new scopes of practice. Opportunities existed, yet IT access and the permitted prescribing formulary represented visible and tangible barriers to autonomy, credibility and status of physiotherapy prescribers. In the participants view, these needed challenging urgently for independent prescribing in the MSK primary care setting to move forward.

Abstract text size:

Words: 481 of 500

Keywords

Keyword 1:

Independent prescribing

Keyword 2:

Primary care

Keyword 3:

Professional Identity

Funding acknowledgements

Funding acknowledgements: Self-funded

Ethics approval

Did this work require ethics approval: Yes

Institution: NHS Health Research Authority

Ethics committee: HRA and Health and Care Research Wales (HCRW) Approval

Ethical approval number: 238300

Reference:
ABSTRACTS-WCPT2021-00607
Title:
THE EXPERIENCES OF PHYSIOTHERAPY INDEPENDENT PRESCRIBING IN MUSCULOSKELETAL PRIMARY CARE IN THE UK: IMPLICATIONS FOR PRACTICE
Type:
Platform presentation
Presenters:
J. Mullan[1], J. Smithson[2], I. Frampton[2]
[1]University of the West of England, Allied Health Professions, Bristol, United Kingdom, [2]University of Exeter, Clinical Education Development and Research, Exeter, United Kingdom
Presentation format:
Platform presentation
If your abstract is accepted, and there isn't room to include it in the programme as a platform presentation, would you prefer a printed or e-poster presentation?
Printed poster presentation
Primary topic:
Service delivery/emerging roles
2nd Topic:
Primary health care
3rd Topic:
Musculoskeletal
Abstract text
Background:
Legislative and professional practice changes in the UK now mean that physiotherapists who have successfully completed a post-graduate non-medical prescribing programme are able to autonomously and independently prescribe relevant drugs to assist in patient management. This means that patients no longer need to get their prescription from a doctor and can instead see a physiotherapist for their total care encompassing assessment, treatment, rehabilitation, drug prescription and advice. Whilst this supports the contemporary healthcare agenda of a shift towards primary care and multi-professional advanced practice as First Contact Practitioners, the specific implications of physiotherapy prescribing rights and practice as part of this is unclear.
Purpose:
The purpose was to explore the experiences of physiotherapy independent prescribers as pioneers of new practice to identity the implications for practice specific to musculoskeletal services within UK primary care settings.
Methods:
Fifteen semi-structured interviews of physiotherapy and medical practitioners working in musculoskeletal (MSk) primary care. Thematic Analysis. Ethical Approval via the UK Health Research Authority was acquired.
Results:
The key themes identified were: -
Adaptability and Responsibility. Participants viewed themselves as pioneers proudly paving the way for future prescribers. Individuals identified vulnerability, isolation and dealing with risk associated with the responsibility of independently prescribing as potential issues but noted patient mileage and

clinical experience as vital to mitigate these, potentially by improving self-efficacy as prescribers.
The Unexpected Side Effects. These represented areas of practice that physiotherapists had not previously anticipated as part of their new prescribing practice remit. Three areas were identified; more focused conversations leading to enhanced practice directly as a result of prescribing knowledge and competencies; deprescribing; engagement with opioid dependency recognition and management.
Conclusion(s):
Establishing and evaluating the impact of prescribing within the First Contact Practitioner role was important to underpin practice and influence service provision.
Building prescribing self-efficacy and resilience of individuals (including support networks, and managing risk and workloads to avoid burnout) in parallel with creating a career structure for future pipelines of appropriately experienced, competent and confident prescribing MSk practitioners was seen as vital for long term sustainability.
Implications:
Prescribing practice in the UK is relatively new. Early adopters of this in MSk primary care identified the need to establish prescribing impact and worth within the First Contact Practitioner roles, particularly around the difficult to measure aspects such as enhanced practice via more holistic conversations that they attributed directly to their prescribing knowledge and competency.
To support individuals, assessing the needs for management of vulnerability, risk and avoidance of burnout alongside establishing the role of clinical experience in self-efficacy in physiotherapy prescribing is required.
For a sustainable future, attention is needed both to facilitate and support current prescribing physiotherapy pioneers, but also to create a career pathway for an ongoing pipeline of appropriately experienced and qualified prescribing MSk physiotherapists. Information sharing and marketing of the role of physiotherapists as prescribers to patients, the public and other health professionals was also identified as important for raising awareness and securing commissioning of services and funding.
Abstract text size:
Words: 489 of 500

Keywords
Keyword 1: Independent Prescribing
Keyword 2: Primary Care
Keyword 3: Practice
Funding acknowledgements
Funding acknowledgements: Self-funded
Ethics approval
Did this work require ethics approval? Yes
Institution: NHS Health Research Authority
Ethics committee: HRA and Health and Care Research Wales (HCRW) Approval
Ethical approval number: 238300

Appendix R: Dissemination plan details

Dissemination Plan

A brief final report of the findings will be made available to participants.

The Peninsula Patient Involvement Group (PenPIG) via the University of Exeter were involved in the overall research plan and development. This patient group has also indicated a keenness to be used as a conduit for dissemination – via their meetings and their publications. Indeed, an abstract related to the PPI work was presented as a poster at the World Congress for Physical Therapy in Geneva in May 2019 as part of the Primary Care strand. This was entitled 'Getting your drug prescription from a doctor or a physiotherapist. A patient view of what is important to them'.

Peer reviewed journal publications (e.g. Physiotherapy, Journal of Health Service Research and Policy) and/or Chartered Society of Physiotherapy (CSP) Frontline will be primary targets for dissemination.

Poster or platform presentations will also be submitted to national and international conferences for the physiotherapy profession e.g. Physiotherapy UK, World Congress of Physical Therapy.

National and south west groups, e.g. CSP Education Forum, national and local service user groups, South West Allied Health Professions Forum, South West Non-Medical Prescribing Forum, will provide a route for dissemination of findings. Specific Health Science and Research Networks will also be a vital source of dissemination. These could include the National Institute of Health Research (NIHR) and the Collaboration for Leadership in Applied Health Research and Care (CLAHRCs), Bristol Health Integration Teams (HITs), and the GP primary care networks as they form and consolidate.

The research will also feed back into future curriculum development of undergraduate BSc (Hons) Physiotherapy, post graduate non-medical prescribing programmes and the creation of continuing professional development (CPD) courses to support new prescribers and help enable them to demonstrate ongoing competence to the Health and Care Professions Council (HCPC). This work will also inform the development of the MSc Advanced Practice traditional and apprenticeship routes.