PATIENTS' EXPECTATIONS, EXPERIENCES, AND SATISFACTION WITH MUSCULOSKELETAL PHYSIOTHERAPY

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PhD

2017

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A thesis submitted in partial fulfilment of the requirements of the University of Northumbria at Newcastle for the degree of Doctor of Philosophy

Research undertaken in the Faculty of Health and Life Sciences

December 2017

Abstract

Musculoskeletal conditions are highly prevalent and result in a significant burden to individuals, the NHS, and the wider economy. Most treatment is delivered in primary care by physiotherapists and general practitioners. The patient experience has been linked to clinical outcome and service quality across healthcare, but there has been little research in musculoskeletal physiotherapy. This study used a mixed methods sequential approach to explore patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy.

Phase one was a systematic review and narrative analysis exploring the existing literature and measures. A quality assessment was conducted using the CASP criteria to identify relevant articles. A range of common dimensions was identified that focused on interpersonal or service factors. Although service factors appeared more common, interpersonal factors appeared to provide data that was more useful. Satisfaction was typically used as a proxy for direct experience, however, lacked any sound theoretical construct to explain this. No suitable measure of patient experience was identified for use with musculoskeletal physiotherapy.

Phase two involved semi structured interviews with patients to explore their expectations, experiences, and satisfaction. The majority of references were made to direct experiences of care, and this produced the richest data. Dimensions previously reported in the literature as satisfaction were actually described in terms of experiences or expectations. The findings from the interviews appeared to support the need for a new questionnaire to measure patient experience, rather than satisfaction.

Phase three was the development of a patient reported experience measure, specific to musculoskeletal physiotherapy. There were no differences in overall experience between demographic groups including gender, age group, employment status, problem area, and referral source. Condition durations over 24 months showed small but significant differences in the global dimensions ($p > 0.05$). A model of patient experience of musculoskeletal physiotherapy was proposed, based on the findings from the three phases. This proposed model included the dimensions of patient experience evaluated in the measure.

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Acknowledgements

I would like to thank the many people that have supported me throughout this journey of professional and personal development. Without their guidance, support, and love, it would not have been possible.

I would like to thank my supervisors. Firstly, Professor Nicola Adams, who has provided direction, inspiration, and encouragement throughout. Secondly, Dr Nick Caplan, who helped develop the research methods and refine the thesis. Thirdly, Dr Derek Jones, who provided valuable contributions in the developmental stages.

I would like to thank all of the patients and staff in the NHS. Without the willingness of the patients to take part and the staff to contribute, this research would not have been possible. I would also like to thank the Chartered Society of Physiotherapy Charitable Trust for their generous Educational Award of £1500.

I would like thank, perhaps most importantly, my family. Their love and support has been constant. Without it, I would not have completed this journey. Thank you to my parents, who have always believed in me, and have given me every opportunity I could have hoped for. Thank you to my wife and children, who have provided me with the motivation to keep going, and continued perspective about what really matters in life. The journey goes on.

Author's declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas, and contributions from the work of others.

Any ethical clearance for the research presented in this thesis has been approved. Approval has been sought and granted by the Faculty Ethics Committee on 5 September 2013 (RE15-11-121413) and the National Health Service Research Ethics Committee on 14 May 2014 (14/WM/0102) updated on 18 February 2016 (14/WM/0102).

I declare that the Word Count of this Thesis is 61,118 words.

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Chapter One: Background literature review

This chapter presents the background literature review. This focuses on musculoskeletal conditions and the development of the patient experience movement. The core components of the patient experience including expectations, experiences, and satisfaction are explored in more detail. The research aims for this study are then proposed, to address the gaps evident in the current literature.

1.1 Introduction

"It is easy to devise a simple questionnaire on patient satisfaction, and when asked, most patients in general practice will obligingly complete it. Yet when the responses are analysed, the findings are often singularly unhelpful. According to the questionnaire, most patients are satisfied, but in most practices, receptionists and other staff often receive grumbles from patients. It would seem that the questionnaire has failed to elicit patients' true level of satisfaction. How can measurement of patient satisfaction be improved?" - Baker (1997, page 201)

Assessing how patients' experience their healthcare still remains a challenge, 20 years since Baker (1997) summed up the patient satisfaction paradox. It is known that patients' are not universally satisfied with their healthcare, yet, there is an abundance of surveys that show satisfaction levels to be consistently high. Although there has been criticism within the literature, these survey results still appear to be accepted by clinicians and policy makers alike, but serve only to maintain the status quo. A suitable method of capturing the patient experience, in a meaningful manner, still seems elusive.

Musculoskeletal conditions are prevalent and their impact is pervasive. They are the most common cause of severe long term pain and physical disability, and they affect hundreds of millions of people around the world. They significantly affect the psychosocial status of affected people as well as their families and carers." - Woolf and Pfleger (2003, page 646)

Musculoskeletal conditions affect many people and cause significant physical pain, psychological suffering, and functional limitations. They create a huge

burden for individuals, health services, and economies alike. Although musculoskeletal conditions are a major cause of disability, their management does not have a high priority because they are rarely fatal, are considered irreversible, and are associated with old age (Woolf and Akesson, 2001). A better understanding of how patients' experience their healthcare would help the design and delivery of better services for patients with musculoskeletal conditions.

1.2 Musculoskeletal conditions

Musculoskeletal conditions are perhaps best thought of as an aegis for a wide range of common diagnoses. They are a diverse group with regard to their pathophysiology, but are linked anatomically and by their association with pain and impaired physical function (Woolf and Pfleger, 2003). There are over 200 types of musculoskeletal conditions (Parsons and Symmons, 2010), which include those that affect the bones, joints, periarticular structures, and muscles; such as arthritis of all kinds, systemic disorders of connective tissue, back pain, bone diseases such as osteoporosis, soft tissue rheumatism, and regional and widespread pain (Woolf, 2007). Some are of acute onset and short duration, but many are recurrent, or lifelong disorders (Woolf et al., 2010). The causes of musculoskeletal conditions are equally diverse and include mechanical problems, injuries at work or during leisure time, age associated changes, or inflammatory diseases (Woolf, 2007). Many are affected by lifestyle factors such as obesity and lack of physical activity (Woolf and Pledger, 2003; Woolf et al., 2010).

Internationally, musculoskeletal injuries have a prevalence of up to 68% (Casserley-Feeney et al., 2008). At any one time, 30% of adults in the United States (US) are affected by joint pain, swelling, or limitation of movement, and nearly everyone will suffer at some point (Woolf and Pfleger, 2003). The ratio of men to women who consult their general practitioner (GP) is 1:1.3. In a community survey in the United Kingdom (UK), the most common sites of pain were back (23%), knee (19%), and shoulder (16%), and the majority of subjects had pain in more than one site (Urwin et al., 1998). The prevalence of many of these conditions increases markedly with age (Woolf et al., 2010). With an increasing life expectancy, the prevalence of musculoskeletal conditions can be expected to increase, leading to a rise in consultation rates and GP workloads, and an

increase in demand for services, especially from elderly patients (Parsons and Symmons, 2010). Almost one-third of people aged over 75 have a significant musculoskeletal problem (Urwin et al., 1998).

While no cure exists for the majority of musculoskeletal conditions, there has been an expansion of medical and surgical management techniques that have the ability to reduce pain and suffering (Woolf et al., 2010). Preventive measures and effective treatments are now available that can significantly improve the outcome of musculoskeletal conditions (Woolf and Akesson, 2001). Despite this, the appropriate management of many of these conditions is still poorly understood in primary care, and indications for referral to secondary care and for physiotherapy are not clearly defined (Urwin et al., 1998). Perhaps as a result, musculoskeletal conditions including lower back pain, neck pain, and osteoarthritis, and other musculoskeletal disorders, account for the highest rate of disability adjusted life years (Murray and Lopez, 2013). The World Health Organisation (WHO) have identified that musculoskeletal conditions are a major burden on individuals, health systems, and social care systems, with indirect costs being predominant (Woolf and Pfleger, 2003).

The importance of musculoskeletal conditions is often under appreciated. For the individual, joint pain, swelling, or limitation of movement are the predominant features (Woolf et al., 2010). Pain is the most prominent symptom and the most important determinant of disability in patients with osteoarthritis (Woolf and Pfleger, 2003). Locomotor disability rises to almost 50% in those aged over 75 (Urwin et al., 1998). Although most people present with self limiting conditions (soft tissue rheumatism, chronic widespread pain, arthralgia) (Parsons and Symmons, 2010), some are chronic, and in rare cases, they can be life threatening (Woolf, 2007). Overall, these factors can result in a considerable burden for the individual, with two in five people limited in their everyday activities (Woolf, 2007).

There is also a significant burden on the health and social cares services. These direct costs were associated with prevention, detection, treatment and rehabilitation, and care in the community (Woolf et al., 2010). An estimated 9.9% of gross domestic product (GDP) was spent on healthcare in the UK (Appleby, 2016). This equated to a total healthcare expenditure of £185 billion in 2015, of

which, spending by the National Health Service (NHS), local authorities, and other public bodies was £147 billion (79.5% of total expenditure) (ONS, 2017). Spending on musculoskeletal conditions varies significantly across the UK, with the average spend ranging from £670 per head to just £237 (ARMA, 2010). A major hip procedure costs on average £7800, and major knee procedure is £4471.

Musculoskeletal conditions were the second most common reason for consulting a doctor, and in most countries, they constituted up to 10 to 20% of primary care practice (Urwin et al., 1998; Woolf, 2007). With an ageing population and the expected increase in the prevalence of musculoskeletal conditions, additional demands will be placed on the healthcare sector. An increase in NHS spending in line with national income, even assuming NHS productivity keeps pace with the rest of the economy, would not be enough to maintain health output per capita (Crawford and Emerson, 2012).

In addition to the individual burden and direct healthcare costs incurred, the wider economy is also adversely affected by musculoskeletal conditions. These indirect costs result from the limitation of usual activities, chronic physical disability, and lost work productivity (Woolf et al., 2010). Work related musculoskeletal conditions alone contributed to an estimated 8.8 million working days lost each year, at an average of 16 days per case (HSE, 2016). Of the 9.6 million people that had a musculoskeletal condition in the UK, 6.5 million were of working age (ARMA, 2006). Musculoskeletal disorders accounted for 34% of all working days lost due to work related ill health (HSE, 2016). Approximately a quarter of people (around half a million) receiving disability payments were as a result of the pain and disability result from a musculoskeletal condition (Parsons and Symmons, 2010).

To address the huge burden to society caused my musculoskeletal conditions, the Department of Health (DH) published ‘The Musculoskeletal Services Framework: A joint responsibility: doing it differently’ (MSF) (DH, 2006). This was developed after broad engagement with a huge number of voluntary organisations representing patients, NHS staff (including GPs, consultants, nurses, allied health professionals, commissioners), the independent sector, and many professional groups (ARMA, 2010). The MSF recognised that people with musculoskeletal conditions needed high quality support and treatment ranging from simple advice

to highly technical, specialised medical, and surgical treatments (DH, 2006). The purpose of the MSF was to promote a redesign of services, exploit existing skills, and develop new roles, in an attempt to provide better outcomes for people with musculoskeletal conditions (ARMA, 2010). The historical lack of access to appropriate services has meant that factors that predict chronicity in common disorders, such as back pain, cannot be addressed sufficiently early, compounding their social and economic impact (Madison et al., 2004). Despite this, findings from ARMA (2010) indicated that the MSF has been poorly implemented in some areas, and while there were pockets of good practice, the implementation of key parts of the MSF has remained variable, and had led to uneven standards of treatment.

Although the provision and quality of services was variable, an estimated 93% of care for musculoskeletal conditions was provided in the primary care setting by general practitioners and physiotherapists (Casserley-Feeney et al., 2008). In secondary care, a range of different specialities can be involved in the management of patients. Due to the national variability of provision and long waiting times, patients are often referred to an inappropriate health professional, and referred twice or more for the same problem (Maddison et al., 2004). To address this, initiatives such as nurse led rheumatology clinics; demand management and prioritising primary care referrals; acute rheumatology services; triage of orthopaedic referrals by trained physiotherapists; and rheumatology telephone helplines; have been developed in the past (Roberts et al., 2003). Initially described in the MSF (DH, 2006), many areas have developed interface clinics, run by specially trained physiotherapists and general practitioners. The key service design features have involved specialist multidisciplinary teams, moving care to locations outside secondary care hospitals, which have helped pathways stretch across primary and secondary care (Bernstein, 2009). This has meant that many patients with musculoskeletal problems have received faster and more appropriate care in the community, with reduced waiting times to start active management (Bernstein, 2011).

In many cases, people with uncomplicated musculoskeletal conditions require simple advice and physiotherapy, rather than the highly technical, specialised medical, and surgical treatments. Since the creation of these interface clinics, 73% of organisations providing physiotherapy have reported an increase in demand

affecting waiting times (CSP, 2013). Despite this reported increase in pressure, the mean number of face to face appointments was 4.26 in 2012 (CSP, 2013) compared with 3.31 in 2010-11 (CSP, 2011). Holdsworth et al. (2007) found a mean referral rate to physiotherapy of 53.5 per 1000 population, and the CSP (2011) found a mean of 11669 referrals per service. These findings indicated that physiotherapy services provided a significant amount of the care for people with musculoskeletal conditions.

1.3 The development of the patient experience movement

The growing demand on healthcare systems across the world, coupled with the financial constraints placed on them, means that clinical effectiveness and cost efficiency are more important than ever (Crawford and Emmerson, 2012; Woolf, 2007). Over the last decade, policy has emphasised the importance of a good patient experience as a cornerstone of high quality health and social care in the UK (Staniszewska and Churchill, 2014). Indeed, from April 2015, all NHS patients attending any type of healthcare facility in England have been invited to report back on their experiences using a variant of the friends and family test (Coulter et al., 2014). Initiated in April 2013 (NHS, 2013), data collection now includes inpatients, accident and emergency, maternity, outpatients, ambulance (patient transport), mental health, community, general practice, and dental services. This is, in part, the culmination of a policy set out in the Griffiths report (BMJ, 1983). The report recommended that the experience and perspectives of patients and the community should be central to the approach of managing, planning, and delivering healthcare services. The recommendation on 'patients and the community' stated:

13. "The management board and chairmen should ensure that it is central to the approach of management, in planning and delivering services for the population as a whole, to:

13.1. ascertain how well the service is being delivered at local level by obtaining the experience and perspectives of patients and the community: these can be derived from community health councils and by other methods, including market research and from the experience of general practice and the community health services;

13.2. respond directly to this information;

13.3. act on it in formulating policy;

13.4. monitor performance against it;

13.5. *promote realistic public and professional perspectives of what the national health service can and should provide as the best possible service within the resources available" — (BMJ, 1983, page 1393)*

This report left a deep impression about the importance of listening to patients (Avis, 1997), and was the first time that a clear policy statement was made on the inclusion of patients' experiences in the planning and delivery of the NHS. The Griffiths report (BMJ, 1983) highlighted the need to explore the experiences and perspectives of patients and the community, in an attempt to influence service development and delivery. Peoples' emotional and practical responses to illness and the responsiveness of health providers and systems to their needs is crucial, both because it matters hugely to all users of healthcare and because it has a direct influence on the other dimensions of quality (Coulter et al., 2014). More recently the Government white paper 'Equity and excellence: Liberating the NHS' (DH, 2010) has enshrined these principles. It stated that patients would be at the heart of everything would oversee decisions about their own healthcare, and that there would be a focus on clinical outcomes that really mattered to patients.

Putting patients at the centre of their care and delivering patient focused outcomes requires healthcare providers to better understand the patient perspective. Careful observation, measurement, recording, interpretation, and analysis of patients' subjective experiences are essential to appreciating what is working well in healthcare, what needs to change, and how to go about making improvements (Coulter et al., 2014). In many cases, survey methods have been used, and there has been a proliferation of patient satisfaction surveys in an attempt meet the desire for increased patient representation and participation (Williams et al., 1998). Sitzia and Wood (1997) estimated that more than 1000 studies were conducted annually, and more recently, Coulter et al. (2014) identified a range of regularly ongoing health and social care surveys (Figure 1.1). These surveys typically cover topics such as access and waiting times, provision of information, communications with health or social care professionals, quality of the physical environment,

involvement in decisions, support for self care, coordination of care, health status, and quality of life.

Figure 1.1: Regular national healthcare surveys carried out in England

Care Quality Commission (CQC) National Patient Experience Surveys
General Practice Patient Survey
National Cancer Patient Experience Survey
National Health Service Staff Survey
VOICES Survey of Bereaved People
Patient Reported Outcomes of Selected Surgical Procedures
Adult Social Care Survey
Adult Social Care Carers Survey
CQC Social Care User Surveys

The importance of listening to patients as an aspect of quality can be attributed to, in part, the growth of consumerism in healthcare (Avis, 1997). The growth of the consumer society, coupled with the explosion in information available on the Internet, is creating more empowered patients, a phenomenon acting to increase the responsiveness with which health services are delivered (Nolte and McKee, 2008). Most people will be familiar with requests to complete a satisfaction survey across many areas of daily life. Indeed, anyone who has stayed in a hotel, flown in a plane, or bought something online will know that they are likely to be chased for feedback on the experience, usually during, or shortly after, the event (Coulter et al., 2014). This is also an increasingly familiar scenario for patients. The rationale behind this translation is likely to be 3-fold: firstly, surveys in questionnaire form are considered relatively cheap and easy to conduct; secondly, a distrust of qualitative research and ‘soft’ data; and thirdly, a desire for information in quantitative form in order to facilitate performance monitoring (Williams, 1994).

The emphasis on consumerism in the public services is based on the added value of ‘getting close to the consumer’, and that a better knowledge of the patient perspective could lead to more efficient healthcare policies (Scherer et al., 2010). The measurement of patient satisfaction yields information about consumers' views in a form which can be used for comparison and monitoring (Avis et al., 2007). In addition, patient experience data can be used to benchmark hospital performance, monitor effectiveness of interventions, establish hospital rankings

and secure funding for research and innovation (Beattie, et al., 2015). Despite this, a lack of effort appears to go into understanding and using the data, and there is little evidence that the information has led to improvements in the quality of healthcare (Coulter et al., 2014). One possible reason for this, is that clinicians often ignore survey evidence. Indeed, findings from the nationally organised GP survey often engendered defensive reactions from the profession, with suggestions that sometimes results are mistrusted (Asprey et al., 2013). Despite the widespread use of satisfaction surveys, there is still little empirical research in most clinical areas, and further research to investigate the proposed links with quality of policy, service, and clinical outcome is required.

Although there has been a consistent approach to the use of patient satisfaction surveys derived from consumer satisfaction, the concept and validity of patient satisfaction itself remains unclear. Typically, consumers are generally well people who enjoy elevated status by their potential to purchase goods or services (Torpie, 2014). Typically, patients are not well, and with musculoskeletal conditions are often in pain and physically disabled. The patient status is greatly reduced and that renders them vulnerable, frightened, medicated, exhausted and confused, yet in spite of these limiting factors, patients sometimes have to make important, often complex, decisions in a short time frame (Torpie, 2014). Further, while consumers have the option to purchase goods, patients use of healthcare services is often involuntary due to illness. Given these differences, the consumer model does not appear to apply to the patient model.

One limitation identified, is the lack of an adequate theory to explain the meaning of patient satisfaction. This affects how it should be measured, and how the findings should be interpreted (Baker, 1997). Avis et al. (1995) also argued that current approaches to measuring satisfaction may not be grounded in the values and experiences of patients, and therefore satisfaction surveys could actually be denying patients the opportunity to have their opinions included in the planning and evaluation of healthcare services. Williams (1994) suggested that many satisfaction surveys provide only an illusion of consumerism, producing results which tend only to endorse the status quo, and Tritter (2009) concluded that the rhetoric of greater public involvement in shaping public services can be described as really only mimic consumerism. Patient satisfaction surveys do not assess an

independent phenomenon but, in a sense, actively construct it by forcing service users to express themselves in alien terms (Williams, 1994). The simplicity of using patient satisfaction questionnaires was also criticised by Avis et al. (1997). Furthermore, high satisfaction ratings do not necessarily mean that patients have had good experiences, rather, they may reflect attitudes such as 'they are doing the best that they can' (Williams, et al., 1998).

Figure 1.2: Theories of patient satisfaction

(1) Discrepancy and transgression theories of Fox and Storms advocated that as patients' healthcare orientations differed and provider conditions of care differed, that if orientations and conditions were congruent then patients were satisfied, if not, then they were dissatisfied.
(2) Expectancy-value theory of Linder-Pelz postulated that satisfaction was mediated by personal beliefs and values about care as well as prior expectations about care. Linder-Pelz identified the important relationship between expectations and variance in satisfaction ratings and offered an operational definition for patient satisfaction as "positive evaluations of distinct dimensions of healthcare". The Linder-Pelz model was developed by Pascoe to take into account the influence of expectations on satisfaction and then further developed by Strasser et al. to create a six factor psychological model: cognitive and affective perspective formation; multidimensional construct; dynamic process; attitudinal response; iterative; and ameliorated by individual difference.
(3) Determinants and components theory of Ware, propounded that patient satisfaction was a function of patients' subjective responses to experienced care mediated by their personal preferences and expectations.
(4) Multiple models theory of Fitzpatrick and Hopkins argued that expectations were socially mediated, reflecting the health goals of the patient and the extent to which illness and healthcare violated the patient's personal sense of self.
(5) Healthcare quality theory of Donabedian proposed that satisfaction was the principal outcome of the interpersonal process of care. He argued that the expression of satisfaction or dissatisfaction is the patient's judgement on the quality of care in all its aspects, but particularly in relation to the interpersonal component of care.

The five commonly used patient satisfaction theories were summarised by Gill and White (2009) (Figure 1.2). They were predominantly developed in the early 1980s, but despite their regular use, have seen little development or validation since. The expectancy-value theory proposed by Linder-Pelz (1982a) was developed to include further psychological factors, but the theory has remained unchanged.

The consistent theme within each theory was that satisfaction was seen as a function of the relationship between expectations and experiences. If personal orientations, conditions, dimensions, sense of self, or preferences (essentially expectations) were met or exceeded by the provider orientations, conditions, dimensions, or interpersonal relationships (essentially all experiences), the result was satisfaction. If the conditions were not met, the result was dissatisfaction. This means that the level of satisfaction is heavily reliant on the patients' expectations, and therefore not a direct measure of the patients' views and perspectives.

Another criticism is that satisfaction continues to be used interchangeably with, and as a proxy for, perceived service quality, which is a conceptually different and superior construct (Gill and White, 2009). There does not appear to be any clear justification for this usage. Satisfaction is relative to expectation (Goldstein et al., 2000), and changes when expectation changes. Quality, the standard of the service, or the standard of the treatment is likely to be relatively constant. If a level of quality is set, then this remains the same regardless of the level of satisfaction. According to Goldstein et al. (2000), the level of satisfaction is likely to change as expectations develop, whereas the level of quality is more likely to be fixed. This would make satisfaction a poor measure of quality, as the rating would change based more on expectations rather than the quality of the service received.

Policy makers worldwide are increasingly interested in gathering patient experience data, to assess providers against a range of performance indicators and to stimulate quality improvement (Ahmed et al., 2014). While policy has attempted to place patient experiences at the heart of care, significant challenges still remain before patient experience is fully integrated conceptually and organisationally (Staniszewska and Churchill, 2014). Although a large amount of effort goes into capturing patients' feedback on experience, usually during or shortly after their care, a disproportionately small amount of effort appears to go into making use of the data. Coulter et al. (2014) proposed that there is little evidence that this type of information has led to improvements in the quality of healthcare. A possible reason for this is that clinicians often ignore survey evidence (Asprey et al., 2013). Coulter et al. (2014) believed a more concerted attempt was now required to make use of the evidence, suggesting that it is

unethical to ask patients to comment on their experiences if these comments are going to be ignored.

White (1999) suggested that patient satisfaction surveys should address three key areas. Firstly, quality issues (i.e., is the patient satisfied with his or her medical care), secondly, access issues (i.e., is it easy to make an appointment or get a referral), and thirdly, interpersonal issues (i.e., other physicians and staff caring and compassionate). Overall questions such as “Overall, how satisfied are you with your physician?” (White, 1999), and “How likely are you to recommend our service to friends and family if they needed similar care or treatment?” (NHS, 2013), were also common. This oversimplification of patient satisfaction into one derivative question has been criticised within the existing literature, and is one of the potential reasons for consistently high ratings in patient satisfaction surveys (Baker, 1997; Williams et al., 1998).

For the first time commissioners in England are working together to set a national level of ambition to improve experiences of care (Staniszewska and Churchill, 2014). Although there are now several ‘off the peg’ patient satisfaction questionnaires for use, these have been designed to measure satisfaction with medical consultations, hospital care, and nursing, many of these questionnaires lack a well developed conceptual model (Avis, 1997). Further, the methods and approach previously used across healthcare appear to lack consistency and demonstrate significant flaws (Avis et al., 1995, Avis, 1997; Avis, 2003; Cohen et al., 1996, Fitzpatrick, 1991a; Fitzpatrick, 1991b; Fitzpatrick et al., 1992; Fitzpatrick and Boulton, 1994; Fletcher et al., 1992; Fung and Cohen, 1998; Gill and White, 2009; Sitzia, 1999). If patient experience data is to be used to improve quality of care in hospitals, it needs to be reliable and valid, yet usable in practice (Beattie et al., 2015). The underpinning theories and methods for measuring patients’ experiences still require further research. Indeed, Gill and White (2009) suggested that there is an urgent need for differentiation and standardisation of satisfaction and service quality definitions and constructs, and argued for research to focus on measuring perceived health service quality. Studies to date have tended to focus on patients’ expectations, experiences, and satisfaction. These concepts have typically been studied as the core components of the overall patients’ experience, and are discussed in more detail here.

1.4 Components of the patient experience

1.4.1 Patient expectation

An expectation is either a strong belief that something will happen or be the case in the future, or a belief that someone will or should achieve something (Apple, 2017). Expectation and hope should not be used synonymously because they are conceptually quite different, as expectation is cognitive and hope is motivational (Barron et al., 2007). Expectation requires some degree of knowledge, possibly due to previous experiences, thus, allows for a weighing up of the probability of success or failure (Barron et al., 2007). Whereas expectations are cognitive, satisfaction is an affective state, and although attempts have been made to link them, a complete theory is lacking (Baker, 1997; Linder-Pelz, 1982a). In most studies, expectations are typically considered as a before treatment state of mind.

The terms preferences and beliefs are also used in studies that look at the patients' mindset in advance of an event. Beliefs are defined as assumptions about reality that serve as a patients' perceptual lens, or a 'set' through which events are interpreted, shaping an individual's understanding of his or her environment or situation (Foster, 2007). Preferences are the expression of values for alternative options, and often in healthcare they relate to a specific treatment, choice of service, or choice of location (Foster, 2007). Expectations, preferences, and beliefs are all cognitive.

Expectations, preferences, and beliefs are based on the perspective that a person has of the world, and their interaction with the world (Metcalfe and Klaber Moffett, 2005). They are unique to each patient and they are affected by a range of personal and social influences. Social influences such as sociodemography, social norms, group pressures, and equity, are often strong enough to outweigh personal influences such as experience, information, interest, emotions, and perceived consequences of outcomes (Thompson and Suñol, 1995). They are based on knowledge or information gained, irrespective of the nature and accuracy of the source (Metcalfe and Klaber Moffett, 2005).

Patients' expectations influence all aspects of care, and physiotherapists need to identify the unique attributes if quality of care and the best possible outcome are to be achieved (Barron et al., 2007). Each person seeking care will have different expectations. It is important to recognise that individuals are living with their condition, so their family and broader life need to be taken into account insofar as they affect healthcare experience (NCCC, 2012). Patients' beliefs and expectations are powerful contributors to the effects of care, and they can either enhance or reduce the effect of the therapeutic interventions, and thereby influence subsequent outcome (Thomas et al., 2004). Barron et al. (2007) also suggested that adopting a patient centred approach and identifying patient expectations could lead to improved patient satisfaction, improved adherence to treatment, and reduced risk of litigation. The awareness of patient differences in clinical practice is crucial for healthcare providers to meet or fulfil patients' expectations and should, therefore, always be considered to achieve effective and efficient treatment (Peersman et al., 2013). Physiotherapy guidelines (CSP, 2005; CSP, 2012) have recommend an assessment of the patients' expectations relating to both their treatment and their condition. There does not appear to be a clear consensus on the effects of expectations on clinical outcomes, and despite the apparent importance of assessing patients' expectations, there is little empirical evidence of their role in musculoskeletal physiotherapy.

Expectations have many facets. In a narrative review, Thompson and Suñol (1995) described of the concepts, theory, and evidence of expectations as determinants of satisfaction. Based on literature from healthcare services, management, marketing, psychology, sociology, and social policy; four types of expectations were proposed:

"Ideal: this may be referred to as an aspiration, desire, want or preferred outcome, as they are all essentially concerned with an idealistic state of beliefs, which match the user's perspective of the potential for a service

Predicted: this is variously described as the realistic, practical, or anticipated outcome, and in this sense matches what users actually believe will happen in a service encounter. These are likely to result from personal experiences, reported experiences of others, and other sources of knowledge such as in the media

Normative: this is taken to represent what should or ought to happen, and could be equated with what users are told, or led to believe, or personally deduce that they ought to receive from health services. It is related to a subjective evaluation of what is deserved in a situation, and to some extent is also a socially endorsed evaluation

Unformed: this state occurs when users are unable or unwilling, for various reasons, to articulate their expectations, which may be because they do not have any, or find it too difficult to express, or do not wish to reify their feelings, due to fear, anxiety, conformity to social norms, etc. This may be just a temporary phenomenon prior to experience and the gaining of knowledge. It may include "taken for granted" attributes of care" — (Thompson and Suñol, 1995, page 130-131)

Thompson and Suñol (1995) concluded that there may be a large degree of unformed or vaguely formed expectations at the outset of care. May (2001a) also suggested that patients may not always have clear expectations of healthcare. It may also be the ability of the patient to articulate a treatment preference, not the preference itself, that is associated with better outcomes (Thomas et al., 2004). Expectations may also only take shape and meaning as care progresses (Thompson and Suñol, 1995), or they may be fluid over time. Foster (2007) proposed that it is reasonable to assume that preferences develop or change as the result of treatment experiences, or other influences such as the opinions of healthcare practitioners, friends, or family.

Although the idea of unformed expectations may seem a negation of the concept, they may be extremely prevalent in the healthcare context for a variety of reasons (Thompson and Suñol, 1995). One criticism of patient satisfaction surveys is that most measures have shown a consistently high level of satisfaction (Williams et al., 1998). A central theme across the theories of satisfaction presented by Gill and White (2009) (Figure 1.2), is that satisfaction relied on a patients' expectations being met or exceeded. If many patients do not have clear expectations, then whatever healthcare they do receive is likely to meet or exceed these

expectations. This may explain the high level of satisfaction reported across healthcare.

Expectations have been shown to be directly linked to health beliefs, self-efficacy, locus of control, and attitudes, and while the evidence base supporting the impact of beliefs and perspectives on behaviour is substantial, the evidence related to physiotherapy is limited (Barron et al., 2007). Haanstra et al. (2012) concluded that there is still a need for a sound theoretical framework underlying the construct of patient expectations and consistent use of valid measurement instruments to measure that construct in order to facilitate future research synthesis. Parsons et al. (2007) suggested that there is also still a need for further research to investigate the efficacy of physiotherapy interventions that examines the psychological attributes of patients. Further research into patients' expectations of musculoskeletal physiotherapy is clearly indicated, and is a focus of the current study.

1.4.2 Patient experience

An experience is practical contact with and observation of facts or events, the knowledge or skill acquired by a period of practical experience of something, especially that gained in a particular profession, or an event or occurrence which leaves an impression on someone (Apple, 2017). Perspectives are the way in which something is regarded, understood, or interpreted (Apple, 2017). Patient experience, one of the most commonly used terms, can be conceptualised both as patients' experiences of care and as feedback received from patients about those experiences (Ahmed et al., 2014).

In studies exploring patients' experiences and perspectives, the patient is the most important person, and their views and perspectives are sought. Whereas expectations are typically a before treatment mindset, experiences are typically a during treatment mindset. Studies using these terms often explore the patients' direct account of what actually happened during their treatment, but do not make any inference of whether the patient was satisfied, or not.

The patients' perspective is crucial to help guide the physiotherapy profession, market the role among consumers and colleagues, and to judge the acceptability of practice as part of determining the effectiveness and subsequent application of physiotherapy (Anaf and Sheppard, 2010). Patient experience is consistently and positively associated with other quality outcomes including patient safety and clinical effectiveness across a wide range of studies, and healthcare facilities providing high quality clinical care tend to have better experiences reported by patients (Ahmed et al., 2014). Scherer et al. (2010) suggested that a better knowledge of the patients' perspective could lead to more efficient healthcare policies and that further knowledge of patients' attitudes and experiences seems to be especially important in conditions where symptoms and psychological perspective are strongly intermingled.

In the same way that satisfaction and quality appear to be used interchangeably, so are satisfaction and experience. A significant number of studies in musculoskeletal physiotherapy have used methodologies which generate high quality and data rich information about the patient experience, but report these in terms of satisfaction (Beattie et al., 2002; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; French et al., 2010; Goldstein et al., 2000; Hills and Kitchen, 2007a; Hills and Kitchen, 2007b; May, 2001b; McClellan et al., 2006; Monnin and Perneger, 2002; Roush and Sonstroem, 1999; Stiller et al., 2009; Taylor and May, 1995; Taylor et al., 2002). These studies have typically explored a range of dimensions linked to experience, but made conclusions in terms of satisfaction. It seems these studies are eliciting patient experience data, but reporting these data as satisfaction, without any clear justification.

Patients' perspectives of physiotherapy has been identified as an area of physiotherapy that is under researched (Wylde et al., 2008). This type of research can focus on either patients' accounts of what happened (reports) or patients' ratings of their experience (evaluation) (Ahmed et al., 2014). These areas both require further research within musculoskeletal physiotherapy. It is important that these aspects are exposed in more detail, with a focus on the patients' perspectives. This a focus of the current study, and is explored in interviews with patients (reports), presented in chapter four, and the development of a questionnaire (evaluation), presented in chapter five.

1.4.3 Patient satisfaction

Satisfaction is the fulfilment of one's wishes, expectations, or needs, or the pleasure derived from this (Apple, 2017). Hills and Kitchen (2007c) described patient satisfaction as a complex construct that is regarded as an important component in the assessment of healthcare quality. Satisfaction is a positive attitude resulting from positive evaluations of distinct dimensions of healthcare, such as a single clinic visit, the treatment throughout an illness episode, a particular healthcare setting or plan, or the healthcare system in general (Linder-Pelz, 1982b). Satisfaction is typically seen as a post treatment mindset.

Expectations, experiences, and other cognitive processes are thought to be determinants of satisfaction, which is itself an affective state (Linder-Pelz, 1982a; Thompson and Suñol, 1995). French et al. (2010) summarised satisfaction as a complicated and multidimensional concept, where patients could be satisfied or dissatisfied with different aspects of healthcare, and that it could only be measured against individuals' expectations, needs, or desires. Beattie et al. (2005b) described patient satisfaction with care as a construct reflecting the overall experience of an individual receiving examination and treatment in a given environment during a specific time period.

Satisfaction within a physiotherapeutic context has also been defined by Hills and Kitchen (2007c) as a sense of contentedness, achievement of fulfilment that results from meeting patients' needs and expectations, with respect to specific and general aspects of healthcare. Goldstein et al. (2000) suggested that satisfaction is always relative to patients' expectations and changes when the patients' expectations change, even though the object of comparison (actual healthcare received) may stay constant. Patient satisfaction is often considered to be an abstract and multidimensional phenomenon, and because it usually is not observable directly, must often be measured in what we would consider an indirect manner (Beattie et al., 2002).

The majority of current patient satisfaction literature in healthcare draws on work done in the field of psychology (Fitzpatrick, 1991a; Fitzpatrick 1991b; Linder-Pelz, 1982a; Hall and Dornan, 1988; Ware et al. 1983). A range of important dimensions

have been proposed including factors such as outcome, humaneness, informativeness, attention to psychological problems, continuity of care, access and convenience of services, facilities and environmental surroundings, cost, and bureaucracy. More recently, Baker (1997) proposed a pragmatic model of patient satisfaction based on general practice. This model defined satisfaction as an evaluative judgement or reaction to care, a continuous variable, and having a multidimensional nature. Further, this model acknowledged the different aspects of care, that different patients may have different priorities, that it varied in different clinical settings, and that it influenced subsequent health behaviour.

Historically, consumer satisfaction has been afforded a high level of importance in commercial and market research and more recently, there has been a growing interest in the measurement of patient satisfaction in healthcare research, demonstrating a move towards patient centred care (Casserley-Feeney et al., 2008). An accurate assessment of patient satisfaction with care can provide valuable information that may improve the patients' healthcare experience and outcomes (Beattie et al., 2007). As a result, healthcare providers have striven to determine the items that are most closely linked to satisfaction (Beattie et al. 2005b). In the current healthcare environment, physiotherapists are faced with the challenge of practicing in an increasingly competitive marketplace, where doctors are often under pressure to reduce referrals for physiotherapy, and people from other disciplines, such as personal trainers, are aggressively marketing their services to prospective patients (Beattie et al., 2002).

The assessment of patient satisfaction has become an important concern in the evaluation of health services (Baker, 1990). Patient satisfaction, using surveys methods, allows clinicians to examine the extent to which their services are meeting patients' needs (Avis et al., 1995). It has been found that satisfied patients are more likely to benefit from their healthcare (Hills and Kitchen, 2007d). Further, the degree of patient satisfaction is seen as a reflection of the quality of care, and as a worthwhile outcome in its own right (May, 2001a). Evaluation of patient satisfaction with physiotherapy provides specific and objective feedback to clinicians about the services they provide, and physiotherapists can use this evidence to optimise the quality and outcomes of patient care (Hush et al., 2012).

Patient satisfaction surveys appear to have gradually become a proxy for measuring the patient experience. Avis et al. (1995) argued that current approaches to measuring satisfaction may not be grounded in the values and experiences of patients, and therefore, satisfaction surveys could be denying patients the opportunity to have their opinions included in the planning and evaluation of healthcare services. Concerns about the suitability of satisfaction as a measure include the validity of the concept of satisfaction (Avis et al., 1995; Baker, 1997; Williams, 1994), consistently high levels of reported satisfaction (Williams et al., 1998), lack of consideration of the values and experience of patients (Avis et al., 1995), and the limited use of satisfaction survey findings to improve services (Coulter et al., 2014).

Despite this, many of the assumptions on which the utility of satisfaction surveys is based are currently unsubstantiated (Williams, 1994). The current methods used to measure satisfaction appear to rely on two unproved assumptions. Firstly, that satisfaction is a function of the fulfilment of prior expectations; and secondly, that the level of satisfaction can be gauged by asking patients to assess whether predetermined aspects of care, thought to represent their expectations, have been met (Avis et al., 1995). Patients may have a complex set of important and relevant beliefs which cannot be embodied in simple expressions of satisfaction (Williams, 1994). This draws into question the validity of the findings from previous satisfaction surveys, as they are based on these assumptions.

The persistent use of patient satisfaction to evaluate the client's perspective of the quality of a health service is seriously flawed (Gill and White, 2009). The use of satisfaction as a proxy for experience and quality has been widely challenged (Avis et al., 1995; Baker, 1997; Gill and White, 2009; Williams, 1994; Williams et al., 1998). Further work, focusing on the patients' perspective, would help to address these criticisms, as planned in the current study. Although there has been criticism of the theoretical construct and validity of patient satisfaction, there has been an acceptance of the importance of measuring patients' views.

Although there is usually a significant association between patients' experiences and global satisfaction with a service, it is recommended that patients' experiences with the service rather than satisfaction should be used for monitoring

purposes (Arain et al., 2013). Hills and Kitchen (2007b) suggested that surveys conducted as part of a continuous quality improvement programme were particularly important in providing therapists with feedback from patients about their experiences of physiotherapy services, but that further studies were needed. Levels and determinants of patients' experiences with physiotherapy treatment for musculoskeletal conditions are still not well understood. The methods proposed in the current study would allow further understanding of this area, and support the development of a questionnaire tool relevant to the UK population.

The background review of musculoskeletal physiotherapy highlighted the importance of being able to accurately measure patients' experiences and perspectives of their healthcare. Despite a longstanding policy drive to achieve this, the underpinning concepts lack clear and consistent definitions, and the validity of satisfaction measures remains unclear. While this has been studied previously in some areas of musculoskeletal physiotherapy, the majority of the research has been conducted outside of the UK. The unique nature of the NHS makes generalising the work done in other health care settings difficult. It appears clear from the review of the existing literature review that there is a need to further explore patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy. There is also a need to develop a patient reported experience measure and a clearer model of patient experience is still required for musculoskeletal physiotherapy.

1.5 Research aims

Based on the background review of the patient experience of musculoskeletal physiotherapy, the following research aims were developed:

- The primary aim of this research was to explore patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
- The secondary aim of this research was to develop a method of measuring the patients' experiences of musculoskeletal physiotherapy
- The tertiary aim of this research was to propose a model of patients' experiences of musculoskeletal physiotherapy

Chapter Two: Methodology

This chapter presents the research methodology. The researcher, the research paradigms, the research strategies, and the methods of data collections are discussed, based on a framework proposed by Creswell (2013). The methods for the three phases of this study, and how they address the proposed aims, are described in more detail.

2.1 Introduction

The philosophical underpinning of pragmatism allows and guides mixed methods researchers to use a variety of approaches to answer research questions that cannot be addressed using a singular method. In particular, healthcare researchers may benefit from the opportunity to use such a dynamic approach to address the complex and multi faceted research problems often encountered in the healthcare sector - Doyle et al. (2009, page 175)

Pragmatism is an increasingly popular methodology in healthcare research, as this approach allows the researcher to combine different research methods to address complex research aims. Research questions in healthcare are often complex, as they rarely focus on a single facet of treatment. It is often difficult to provide a control for complex interventions, and almost impossible to observe a single phenomenon in isolation. As a result, a pragmatic approach allows methods to be mixed to suit the aims of complex research.

2.2 Research methodologies

Whether we are aware of it or not, we always bring certain beliefs and philosophical assumptions to our research (Creswell, 2013). Philosophy is the study of knowledge itself. It considers issues of existence, reality, and reason. Ontology is the study of being, and considers the issue of whether something exists. Epistemology is the study of knowledge, and considers how we can demonstrate that something exists. These factors are implicit in any research. Research is a method of creating new knowledge. To research something we must first consider how we view the world, as this dictates the process of creating this

new knowledge. This is referred to as a research philosophy, methodology, or paradigm. Research methods typically involve questioning, systematically investigating, critically evaluating and interpreting, and then articulating the findings. Culture can be defined as systems of shared ideas, systems of concepts and rules, and meanings that underlie and are expressed in the ways human beings live (Kvarén and Johansson, 2004). All research methodologies are underpinned by a philosophical approach that creates a research culture based on the chosen philosophical assumptions. Generally this informs the approach to, design of, and conduct of the research. An awareness of how this works in practice is important.

Figure 2.1: Research phases with selected examples

The researcher as a multicultural subject
History and research tradition, conceptions of self and the other, the ethics and politics of research
Theoretical paradigms and perspectives
Positivism, post positivism, interpretivism, constructivism, hermeneutics
Research strategies
Design, case study, phenomenology, ethnomethodology, grounded theory, life history, testimonial, historical method, action and applied research, clinical research
Methods of collecting and analysis
Interviewing, observing, artefacts, documents, records, visual methods, auto ethnography, data management methods, computer assisted analysis, textual analysis, focus groups, applied ethnography

In many cases, the researcher choses a methodology to address a research aim, and the methods used to conduct the research derive from this overarching methodology. The research approach outlined by Creswell (2013) preferred this approach, and outlined a four phase process (Figure 2.1). Initially it considered the researcher and the philosophies and biases that they may bring to the research. Secondly it considered the theoretical research philosophy underpinning the research. Thirdly it considered the research strategy and design which derives from the research question and the considerations resulting from steps one and two. Finally, it considered the research methods, the detail of the data collection and data analysis.

An alternative view is to develop the paradigm around the methods actually used in the research. Sometimes the researcher chooses an appropriate method to answer a research question. In this case, the paradigm can develop around what it means to conduct research and how it is undertaken (Johnson et al., 2007). Johnson et al. (2007) proposed a trilogy of major research approaches in the social and behavioural sciences: qualitative research, quantitative research, and mixed methods research. This takes a more pragmatic stance, defined more by the research methods, rather than the deeper philosophical underpinnings.

2.2.1 The researcher as a multicultural subject

In the four phases of the research process described by Creswell (2013), the researcher as a multicultural subject must first be considered. More specifically, we must consider the history and research tradition in the field, including the concepts the researcher has of themselves and others, and the ethics and politics of research. This is often referred to as axiology and relates to the beliefs and values that the researcher brings to the research which in turn relates to the design, conduct, and interpretation of the research.

2.2.1.1 History and research tradition

The history and research tradition was explored in the background literature review, presented in chapter one. There is a broad history of research into patients' expectations, experiences, and satisfaction across healthcare as a whole. The majority of this is within the medical and nursing specialities, with much less in physiotherapy. The highest quality studies with musculoskeletal physiotherapy have often been conducted in the other countries where the delivery of healthcare is significantly different to the UK (Beattie et al., 2002, Beattie et al., 2005a, Beattie et al., 2005b). The research has traditionally used systematic reviews, interviews or focus groups, and questionnaires as the central research methods. These are often used within studies based on a range of post positivist and interpretivist paradigms. The use of a mixed methods approach is also common. The research tradition seems consistent in terms of methodologies and methods, but also in terms of criticism and limitations. As the existing literature

is usually used to inform and justify the design of further research, it is reasonable to expect that the history and research tradition will implicitly inform the planned research. Conversely, the beliefs and views that the researcher holds as an individual are not explicit, and so it is not reasonable to expect that these will simply inform the planned research.

2.2.1.2 Conceptions of self and the other

The concepts the researcher has of themselves and others is an important consideration within research. It is of particular relevance in qualitative research where data is generated rather than collected. The design, conduct, and analysis also requires a much greater degree of interpretation. The researcher is inherently closer to the research and subjects, in opposition to the true positivist approach, where the researcher maintains objectivity. Research involving the human experience cannot be value free, either on the part of the researcher or the participant. An awareness and an active consideration of how this is incorporated into the research design, conduct, and analysis is an important aspect of the research methodology.

As described, each research methodology adopts a set of values and beliefs about how the world works. Each researcher also has their own set of values and beliefs. Researchers, as individuals, are likely to have ingrained views about the types of problems that need to be studied, and beliefs and values that are instilled during educational training, by reading journals, and through scholarly and professional communities (Creswell, 2013). These beliefs and values are fundamentally important as they inform research decisions and actions, and potentially lead to bias. Qualitative researchers have underscored the importance of not only understanding these beliefs and theories that inform our research but also actively writing about them in reports and studies (Creswell, 2013). This is the basis of reflexivity. Reflexivity examines how the researcher and intersubjective elements impinge on, and even transform, research (Finlay, 2002).

A positivist view is that the researcher should be the ‘expert’, maintain an objective stance, and consider the data from a value free position (Grant and Giddings, 2002). A post positivist, and more interpretivist view, is that the researcher must

generate and then interpret the data. As Grant and Giddings (2002) suggested, the values and beliefs of the researcher will bias both the methodology and the interpretation, and this should be considered within the design. While the importance of being reflexive is acknowledged within social science research, the difficulties, practicalities and methods of doing it is rarely addressed (Mauthner and Doucet, 2003). Reflexivity is, therefore, an important consideration with research involving interpretivist methodologies and qualitative research methods.

2.2.1.3 The ethics and politics of research

There are a number of ethical issues when conducting research with people and a number of political issues when conducting research within the NHS. Any research involving NHS patients or staff must be given a favourable ethical opinion. In addition, for PhD research, University ethical approval must be sought. Research involving new medicines, participants that lack capacity to give consent, or human tissue require a high degree of scrutiny at a full research ethics committee meeting. Research that does not raise any material ethical issues can be suitable for proportionate review. This review process is undertaken by a subcommittee which generally gives its opinion within 14 days. Research studies which raise no material ethical issues are those that have minimal risk, burden, or intrusion for research participants.

There is a growing trend in health research to involve patients and the public throughout all stages of a research study. The National Institute of Health Research has a department aimed at improving public involvement. INVOLVE (2015) produced guidance on the involvement of patients and public in research. Their framework recognises that: research organisations have a responsibility to support public involvement activity; good quality public involvement depends upon a culture of support as well as individual good practice; and the responsibility for upholding the values and principles in the framework should be shared by researchers, research organisations, and public members involved in research.

INVOLVE (2013) illustrated how public involvement throughout a study can help to make research ethical by: making research more relevant; helping to define what is acceptable to participants; improving the process of informed consent;

improving the experience of participating in research; and improving the communication of findings to participants and the wider public. Another benefit of public involvement in research is that it can increase the relevance to practice and increase the likelihood of an application of the research findings to practice once the research has been completed. Depending on the size and scale of the research study there are limitations to how much public involvement can be achieved as there is a time and cost implication.

Research studies must be designed and conducted to take into account these ethical and political considerations. Researchers and subjects must be protected from harm, and appropriate methods should be used to answer appropriate research questions. Conducting worthwhile research is also an important ethical consideration.

2.2.2 Theoretical paradigms and perspectives

Within academic disciplines researchers adhere, either explicitly or implicitly, to a philosophical approach. This is known as a research methodology. This means that they adopt a shared set of beliefs, values, and assumptions that a community of researchers has in common regarding the nature and conduct of research (Johnson et al., 2007). Synonymously, research methodologies or research paradigms are described as a general concept where a group of researchers have a common education and an agreement on “exemplars” of high quality research or thinking (Johnson et al., 2007). Simply, a research paradigm refers to a research culture (Johnson and Onwuegbuzie, 2004). A researchers’ paradigm reflects their beliefs about what reality is (ontology), what counts as knowledge (epistemology), how one gains knowledge (methodology), and the values one holds (axiology) (Giddings and Grant, 2006).

The initial examination of the background literature presented in chapter one revealed a significant number of articles on patient expectation, patient experience, and patient satisfaction. Ontologically, there appeared to be a clear consensus that patient expectations, experience, and satisfaction all exist. There also appeared to be a clear lack of consensus on the concept and measurement of satisfaction. Indeed, epistemologically there appeared to be a range of

approaches on how to measure satisfaction, which perhaps, stemmed from the lack of conceptual consensus.

Figure 2.2: The four main research paradigms

(Post) Positivist Paradigm	Interpretivist Paradigm
Background assumptions and values	
Western thinking, deterministic, scientific method, based on facts or evidence, the researcher is the expert, testing a hypothesis by experimentation, value free (except in post positivism), knowledge discovered by people, contributes to a specific 'body of knowledge', drive for best practice and excellence, gold standard is the randomised controlled trial, limited use in some health questions	The things themselves', social sciences and existential philosophies, counters reductionistic view of positivism, increasingly 'accepted' by the positivist researchers, widely applied in health research, takes a hermeneutical step towards self understanding, requires data to be generated by the researcher and the participants, requires interpretation of the significance of the data
The researcher and the researcher / researched relationship	
Researcher is the expert, maintains an objective stance, researcher is blinded, data often analysed anonymously	Relate and interact with participants, focus on experience, requires reflexivity, researcher generates data
Methodologies and methods	
Requires the experimental and statistical testing of a hypothesis, independent and dependent variable, other factors 'controlled', detailed protocol, can be survey based or seek to establish if there is a relationship or correlation	Shares assumption of truth but different theory, interviews, focus groups, grounded theory and participant observation, not generally 'controlled', doesn't assume a hypothesis but creates a theory based on the data generate from the study
Exemplar	
Literature review, hypothesis to test, factors and variable, randomisation, statistically significant results, improve an area of profession or practice	Qualitative interpretive study, descriptors of the self, own experiences, uncaring of the meaning behind something

A framework of four main research paradigms for health and social care was offered by Grant and Giddings (2002). The four include the positivist/scientific, interpretivist/constructivist, radical/critical, and poststructural (postmodernism). Two of these paradigms, and their suitability for use within this study, positivist/ scientific and interpretivist/constructivist, are outlined in Figure 2.2 (adapted from Grant and Giddings, 2002). The two alternative paradigms outlined by Grant and

Giddings (2002) are radical/critical and poststructural. Radical/critical research is a form of conviction research and is designed not just to explain or understand social reality but to change it. Poststructural (postmodernism) research is situated squarely in the impossibility of universal truths about the social. Neither of these methodologies would be suitable for the research in the current study.

Within the definitions and descriptions outlined by Grant and Giddings (2002), the research paradigm underpinning these methods are positivist and interpretivist. There has been a post positivist shift in thinking, which has enabled the integration of quantitative and qualitative methods (mixed methods research) so that a problem can be investigated incorporating the subjects' experiences of the phenomenon (Grant and Giddings, 2002). According to the approach suggested by Johnson et al. (2007) this study is undoubtedly mixed methods research, as it uses both qualitative and quantitative research methods. This mixed methods approach lends itself to a more pragmatic research paradigm. This approach concerns itself more with the methods and the outcomes required rather than the underpinning philosophies, which are implicit within the methods. There are a number of advantages to using a pragmatic approach. This first, and perhaps most important, is that it enables researchers to be flexible in their investigative techniques, as they attempt to address a range of research questions that arise (Onwuegbuzie and Leech, 2005).

As a pragmatic paradigm does not require a purist quantitative or qualitative approach, it is possible to use both in a mixed methods design. By having a positive attitude towards both techniques, pragmatic researchers are in a better position to use qualitative research to inform the quantitative portion of research studies, and vice versa (Onwuegbuzie and Leech, 2005). The use of this approach was also supported by Avis (2003), who argued that a pragmatic epistemology allows us to defend qualitative research as a rigorous and credible form of inquiry without resorting to conceptual schemes or the conceptual relativism that ensues. The mixed methods approach has emerged as a third paradigm for research. It has developed a platform of ideas and practices that are credible and distinctive and that mark the approach out as a viable alternative to quantitative and qualitative paradigms (Denscombe, 2008). A pragmatic approach allowed more

freedom over a single methodology, as the research design is defined by the research question, and not the philosophical stance.

Mixed methods research strives for an integration of quantitative and qualitative research strategies (Feilzer, 2010). Mixed methods studies, in which qualitative and quantitative methods are combined in a single program of inquiry, are increasingly common in health services research (Curry et al., 2013). Grant and Giddings (2002) outlined two main designs: sequential and concurrent. Of particular relevance is the sequential design, where the stage 1 results can be used to develop and inform the purpose and design of the stage 2 component (Johnson and Onwuegbuzie, 2004). It is also necessary to consider whether the designs are treated equally in the analysis and interpretation, or whether the data is hierarchical in some way (e.g., primary and secondary data) (Grant and Giddings, 2002).

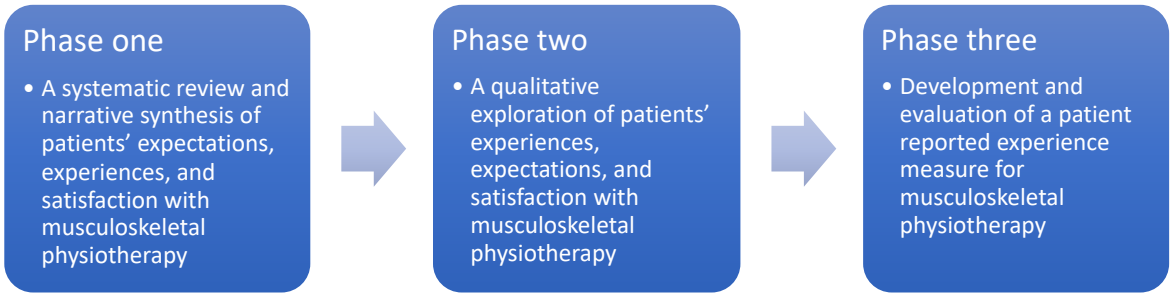
Mixed methods research has a range of strengths. It is particularly useful in survey, evaluation, and field research (Patton 2002) because it has a broader focus than single method design and gathers more information in different modes about a phenomenon (Giddings and Grant, 2006). Mixed methods research is becoming increasingly articulated, attached to research practice, and recognised as the third major research approach or research paradigm, along with qualitative research and quantitative research (Johnson et al., 2007). There are several definitions of mixed methods research, and several competing arguments for it's underpinning theory. A new definition for mixed methods research was proposed by Johnson et al. (2007). They analysed the content of nineteen existing definitions in an attempt to synthesise a single acceptable definition. They defined mixed methods research as an intellectual and practical synthesis based on qualitative and quantitative research which recognises the importance of traditional quantitative and qualitative research but also offers a powerful third paradigm choice that often will provide the most informative, complete, balanced, and useful research results.

Johnson et al. (2007) credited Greene (2006) with developing a useful framework for thinking about mixed methods research as a methodological or research paradigm. Greene (2006) referred to mixed methods social inquiry, as a

methodology for social inquiry which engages four dimensions of issues and assumptions: philosophical assumptions and stances, inquiry logics, guidelines for practice, and sociopolitical commitments in science. These stages were explained by Johnson et al. (2007) as (1) what are the fundamental philosophical or epistemological assumptions of the methodology, (2) what traditionally is referred to as "methodology" and refers to broad inquiry purposes and questions, logic, quality standards, writing forms that guide the researchers' 'gaze', (3) specific procedures and tools used to conduct research, i.e. the 'how to' part of research methodology, and (4) interests, commitments, and power relations surrounding the location in society in which an inquiry is situated.

This study used a pragmatic mixed methods sequential approach with the aim of exploring patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy. The study design included a three phase design with a systemic literature review, semi structured interviews, and a survey. The study design was qualitative to quantitative in a sequential manner. While the data analysis and interrelation was separate (sequential exemplar 2 from Giddings and Grant, 2006), all three phases are considered equal and presented as separate phases of the same overarching study. As postulated by Giddings and Grant (2006) each set of findings is used to complement the other, and in addition, an analytical thread runs through them (Figure 2.3).

Figure 2.3: Mixed methods sequential approach



2.2.3 Research strategies

Based on the research aims identified in chapter one, and the methodologies presented earlier, a mixed methods approach was chosen. This pragmatic approach integrates both the interpretivist and the post positivist paradigms. As a result, the study involves both qualitative and quantitative methods. There are several considerations in each approach, considered here.

2.2.3.1 Rigour

Rigour refers to the extent to which the researchers worked to enhance the quality of the studies (Heale and Twycross, 2015). In quantitative and qualitative research, rigour is achieved by differed methods. The concepts of validity and reliability are important in quantitative studies, whereas, quality, trustworthiness, and dependability are equally important concepts in qualitative studies.

2.2.3.2 Validity

Validity is typically seen as a quantitative concept, and is concerned with the accuracy of the research. It has been defined as to whether the research truly measures that which it was intended to measure (Golafshani, 2003). Heale and Twycross (2015) described three different types of validity to consider: construct, content, and criterion. Construct validity considers the extent to which a study measures the intended concept, notion, question, or hypothesis. Content validity considers the extent to which the study accurately measures all aspects of a construct. Criterion validity considers the extent to which a research instrument is related to other instruments that measure the same variables.

2.2.3.3 Reliability

Reliability is typically seen as a quantitative concept, and is concerned with the consistency of the research. Reliability has been defined as the extent to which the results of a study can be reproduced under a similar methodology, in which case the research instrument is considered to be reliable (Golafshani, 2003). Although it is not possible to give an exact calculation of reliability, an estimate of

reliability can be achieved through different measures, such as homogeneity, stability, and equivalence (Heale and Twycross, 2015).

2.2.3.4 Quality and trustworthiness

While validity is typically seen as a quantitative concept, qualitative researchers have developed their own concepts of validity, and have adopted more appropriate terms, such as, quality and trustworthiness (Golafshani, 2003). The relevance of these concepts is to ensure that the research methods are credible and that the research findings are defensible.

2.2.3.5 Dependability

Dependability is typically seen as a qualitative concept, and in concerned with the consistency of the research. It is similar to the quantitative concept of reliability. Dependability relates to both the process and the product of the research, and is achieved when the steps of the research are verified through examination of items such as raw data, data reduction products, and process notes (Golafshani, 2003). Triangulation is a method where one set of data is used to corroborate the findings from another (Giddings and Grant, 2006), and is a qualitative means of testing the validity and reliability of the findings. Using more than one method to address the research questions, with separate analytical steps between each methods, adds value to the triangulation process (Feilzer, 2010).

2.2.4 Methods of collecting and analysis

2.2.4.1 Phase one: Systematic literature review and narrative analysis

The primary aim of this research was to explore patient expectations, experiences, and satisfaction with musculoskeletal physiotherapy. Phase one of this study was designed to address this aim. Within healthcare, a systemic review of randomised controlled trials (with homogeneity) is often suggested as level 1a evidence (CEBM, 2009). Patient experience does not typically fit this paradigm, so an alternative method was required. In this study, the methods chosen were based on those outlined by CRD (2009), supplemented by the RAMESES project methods

(Greenhalgh et al., 2011; Greenhalgh et al., 2013; Greenhalgh et al. 2015; Wong et al., 2013a; Wong et al., 2013b; Wong et al., 2014). In principle, it used the same systematic search strategy and method, but rather than attempt a meta analysis of quantitative findings, it sought to create a narrative based on the interpretation of the data generated. This allowed the breadth of the subject to be explored, interpreted, and drawn together to form new findings. It was then possible to draw a new conclusion from the generated data.

2.2.4.2 Phase two: Interviews with patients

Phase two of this study was also designed to address the primary aim of the research. In this study, the interview methods chosen were based on existing literature reporting similar studies in similar topics areas and populations. These were both duplicated where possible, and adapted where required, to suit both the aims and constrains of this research. Consideration was given to the use of focus groups, as used in some similar studies, but the use of interviews were the most common method, and appeared to offer the best fit to address the research aim.

2.2.4.3 Phase three: Questionnaire development

The secondary aim of this research was to develop a method of measuring the patients' experiences of musculoskeletal physiotherapy. In this study, the questionnaire development methods chosen were based on the existing literature reporting similar questionnaire development studies. These have been duplicated where possible and adapted where required to suit both the aims and constrains of this research. The questionnaire content was chosen based on the findings from the first and second phases of this study.

2.2.4.4 Towards the development of a model of patients' experiences

Although not fulfilled by a discrete phase of the this study, the tertiary aim was of this research was to propose a model of patients' experiences of musculoskeletal physiotherapy. This process follow the methodology used by Hills and Kitchen (2007c), Hills and Kitchen (2007d) and Monnin and Perneger (2002). In summary, this methodology used a synthesis of the research findings to contribute to the

development of a theoretical model of patients' experiences of musculoskeletal physiotherapy.

2.3 Conclusion

This chapter presented the research methodology for the study. The underpinning research methodology was primarily interpretivist, with some aspects of post positivism. A pragmatic, mixed methods approach was chosen, to answer a complex research question, and address a range of research aims. The methods of data collection and analysis were drawn from extant studies. There were three discrete research phases: a systematic review and narrative analysis, interviews with patients, and the development of a patient reported experience measure. The development of a proposed model, based on similar studies, was also described, based on the findings from the three phases in this study. In combination, the findings from this study addressed the aims set out in chapter one.

Chapter Three: A systematic review and narrative synthesis of patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy

This chapter presents the systematic review and narrative synthesis of patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy. The components of the patient experience are considered in more detail. The specific aims for this phases of the study are presented, along with the methods and results. These findings are discussed in the context of the extant literature.

3.1 Introduction

"When I was first asked to consider this subject, my immediate reaction was that the last 20 years were a time of momentous advances in quality assessment. But a rapid scanning of several bibliographies led me to an additional discovery. I must now conclude that (1) by 1964 the foundations of almost all major approaches to quality assessment had been laid down; (2) between 1964 and 1984, despite the astounding proliferation of quality studies, we achieved mainly refinements in what we already knew how to do; and (3) regrettably, some of the more fundamental questions pertinent to quality assessment are still not asked, or are misspecified, let alone systematically addressed." - Donabedian (1985, page 244)

Since Donabedian (1985) summarised the research on the quality of medical care, the patient experience movement has continued to gain momentum, growing from a novel concept, to a fundamental aspect of provider quality (Lehrman et al., 2014). The use of a patient reported experience measure as an assessment of service quality is now increasingly common within commissioning contracts for services treating musculoskeletal conditions (Staniszewska and Churchill, 2014). Despite this, the conclusions drawn by Donabedian (1985) seem equally applicable today, and little appears to have been done to systematically address the pertinent questions. The methods used to assess quality appear unchanged, but in most cases, the core concepts still lack clarity. Although there has been an increasing number of studies, the majority are based on poorly validated concepts and have used methods that lack reliability.

3.2 Patients' expectations of musculoskeletal physiotherapy

Patients' expectations, preferences, and beliefs are important considerations in physiotherapy, as it is likely that they influence the clinical outcome of treatment. In musculoskeletal physiotherapy, patients' expectations have been explored in a number of ways.

Metcalfe and Klaber Moffett (2005) studied 285 patients receiving physiotherapy for a peripheral musculoskeletal condition, and used a postal survey to compare expectations with treatment outcome. Participants completed a range of validated questionnaires to explore expectations, psychological profile, health related quality of life, and self efficacy. Expectations before treatment were compared to outcomes after treatment. The timescale for the data collection is not clear, and neither is the reason for the gap in the publication of the before and after data. However, higher expectations of benefit were found if the patient was female, had a traumatic condition, had a shorter duration of condition, had a higher locus of control, had no previous experience of physiotherapy, and had greater satisfaction with previous healthcare received (Metcalfe and Klaber Moffett, 2013). Metcalfe and Klaber Moffett (2005) identified several limitations with this study, including a lower than anticipated response rate, too much heterogeneity of participant characteristics, and limited follow up of non respondents due to the timing of the administration. A study with a more homogeneous sample and a methodology that gives a higher response rate would help to address these issues.

The relationship between patient and practitioner preferences compared with clinical outcomes has also been studied. In a randomised trial of exercise and acupuncture for knee osteoarthritis in the UK, 352 patients received either advice and exercise, advice and exercise plus true, or non penetrating acupuncture (Foster et al., 2010). General outcome expectations, treatment specific preferences, and clinical outcomes were recorded, but no evidence of a relationship between patients' treatment preferences or expectations and pain reduction was found. Only weak evidence from secondary outcomes suggested that patients' expectations were related to clinical outcome. This differs from Metcalfe and Klaber Moffett (2013), who found that the strength of patients' expectations of benefit was related to the outcome of physiotherapy. Foster et al.

(2010) studied a single condition in a randomised controlled trial, whereas Metcalfe and Klaber Moffett (2013) reported findings from across a range of musculoskeletal conditions. The differences in methodologies between the trial nature, compared with the observational nature, may explain the differences in findings.

In a randomised controlled trial of 135 patients who received acupuncture or massage for lower back pain, Kalauokalani et al. (2001) concluded that patient expectations may influence clinical outcome independently of the treatment itself. Improved function was observed for 86% of the participants with higher expectations for the treatment they received, compared with 68% of those with lower expectations ($P < 0.01$). But, in contrast, general optimism about treatment divorced from a specific treatment, was not strongly associated with outcome. In a systematic review of the association between expectations and treatment outcomes in total knee or total hip arthroplasty, Haanstra et al. (2012) found no consistency between expectations and outcomes. The link between expectations and clinical outcomes appears to remain unclear based on these findings.

In a survey of 616 patients referred for rehabilitation for a musculoskeletal conditions, Boonstra et al. (2011) found limited differences between male and females in their expectations. Only one expectation of the 25 considered had a strong clinically important difference: female patients were more likely than male patients to expect that they would have fewer problems with household activities. Stenberg et al. (2012) interviewed 12 patients with spinal conditions and found differences in how genders viewed and expressed their problems. Males tended to be of a more ‘confident’ type in expressing expectations and pain experiences. Metcalfe and Klaber Moffett (2013) found no significant differences between different characteristics, and Foster et al. (2010) found that patients reporting a preference for a specific treatment were similar to those reporting no preference.

Although the methods and focuses of these three studies were different (Stenberg et al., 2012; Boonstra et al., 2011; Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013), they all made the assumption that patients’ expectations were fixed, or constant. Goldstein et al. (2000), however, proposed that the level of satisfaction changes when the patients’ expectations or standards of

comparison change, even though the object of comparison (the actual healthcare received) may stay constant. This theory acknowledged that patients' expectations can change over the course of their treatment, perhaps based on evolving experiences. Therefore, the evaluation of patients' expectations must take into account the potential for change over time, as new knowledge is gained.

Cultural differences may also exist. Kvarén and Johansson (2004) surveyed 74 native and non native patients receiving musculoskeletal physiotherapy in Sweden, and found that native patients had a higher expectation of benefit from treatment when compared with non native patients. Similar to the effect of expectations on outcomes, the effect of characteristics on expectations remains unclear.

In a study of 352 patients with knee osteoarthritis, Foster et al. (2010) concluded that in addition to specific treatment effects, expectations may have contributed to the non specific treatment (placebo) effects. Thomas et al. (2004) also concluded that patients' beliefs and expectations can either enhance or reduce the effects of therapeutic interventions, and thereby influence clinical outcomes. These nonspecific effects include factors such as patients' attitudes and beliefs, treatment preferences and expectations, and the nature and setting of the intervention (Foster et al., 2010). Results from a study comparing acupuncture and massage for lower back pain in 135 patients also suggested that patient expectations may influence clinical outcome independently of the treatment itself (Kalauokalani et al., 2001). In a systematic review of placebo effects in pain treatment and research, Turner et al. (1994) concluded that these effects may also result from (1) physician attention, interest, and concern; (2) the reputation, expense and impressiveness of the treatment; and (3) the characteristics of the setting. The potential effects of expectations, preferences, and beliefs were particularly relevant with musculoskeletal physiotherapy where there was a broader evidence base for the nonspecific treatment effects compared with the specific treatment effects (Parsons et al., 2007). In contrast, general optimism about treatment, divorced from a specific treatment, did not appear to be strongly associated with outcome (Kalauokalani et al., 2001).

There were differing opinions on the effects of expectations, preferences, and beliefs on clinical outcomes. While Foster et al. (2010) found some evidence for a relationship between treatment preferences and expectations compared with clinical outcomes, other similar studies concluded that there was no relationship between preferences or expectations and clinical outcomes (Ersek et al., 2003; King et al., 2005; Klaber Moffett et al., 1999). Metcalfe and Klaber Moffett (2005) administered 285 questionnaires to patients with a peripheral joint musculoskeletal problem to compare treatment expectations with clinical outcomes. They found that the strength of expectation of benefit was related to the outcome of treatment (Metcalfe and Klaber Moffett, 2013). It has also been suggested that it is the ability of the patient to articulate a treatment preference, not the preference itself, that is associated with better outcomes (Thomas et al., 2004).

Metcalfe and Klaber Moffett (2005) have previously highlighted that little is known about the patient characteristics that are associated with the formation of patients' expectations. Foster et al. (2010) suggested that patients who express preferences for specific treatments may have different clinical characteristics from those who do not, and that these may influence prognosis and outcome. There appears to be little empirical evidence to support this view at present. Thomas et al. (2004) suggested that the effectiveness of treatment is likely to contribute to the formation of subsequent preferences and expectations. Ultimately, patients themselves decide whether a treatment has been beneficial to them, and decide whether or not to continue (Slade and Keating, 2010). Therefore, a positive appraisal of treatment is likely to lead to a subsequent increase in expectations, and vice-versa. In a systematic review of experience and satisfaction with exercise programmes for lower back pain, patients' expectations of benefit and their experiences during the programme were found to be important predictors of both compliance and successful outcome (Slade and Keating, 2010). Bradbury et al. (2012) also found that patients' appraisals of treatment have been shown to influence adherence to treatment. In a randomised controlled trial of 207 patients with shoulder pain, the importance of understanding and addressing patients' beliefs about treatment was linked to the high rates of non adherence to treatment plans (Thomas et al., 2004).

3.3 Patients' experiences of musculoskeletal physiotherapy

Patients' direct experiences and their perspectives on the healthcare they receive are very important considerations in physiotherapy. As outlined in the background review presented in chapter one, patients' experiences were linked to clinical outcomes and service quality. Despite the stated importance, patients' perspectives of physiotherapy is an area of physiotherapy that is under researched (Wylde et al., 2008), and little evidence exists on patients' perspectives of general physiotherapy (Anaf and Sheppard, 2010; Sheppard, 1994). Little was known about how different healthcare settings might interact with patients' experiences and subsequent behaviour (French, 2010). Further research to explore the patients' perspective of musculoskeletal physiotherapy this area is required.

A study on patients' perspectives of musculoskeletal physiotherapy was undertaken by Potter et al. (2003), who used focus groups with 26 participants to identify what contributed to a good and bad experience. Communication ability, professional behaviour, and organisational ability were identified as the main qualities of a good physiotherapist. Good experiences in physiotherapy were most often attributed to effective communication by the physiotherapist, while bad experiences most often related to dissatisfaction with the service followed by poor physiotherapist communication. In an exploration of patients' perspectives of quality, 12 participants were interviewed by Reeve and May (2009). Thematic analysis of the transcripts found that quality was associated with being fully informed about all aspects of the condition and its management, being provided with a diagnosis and management plan, competent and expert staff who communicated effectively, and having an efficient system of care. In a similar study, Kidd et al. (2011) interviewed eight participants to determine their perspectives of patient centred physiotherapy. They identified a range of profession specific variables more applicable to physiotherapy settings including time with the patient, therapist behaviour, physical security, consistency and logical progression, and the adaptation of the treatment programme. Patients' perspectives of their direct experiences across their care have yet to be studied in detail, which is a main aim of the current study.

Questionnaires have also been used to explore patients' experiences and perspectives of physiotherapy. Anaf and Sheppard (2010) investigated the perspectives of emergency department physiotherapy practice to examine how patients interpreted the place of physiotherapy in a non traditional setting. Thematic analysis showed participants had a general, but limited, awareness of the role of physiotherapy, focused on sports injury management, musculoskeletal care, rehabilitation and mobility, pain management, respiratory care, and management of elderly patients. There was strong identification of musculoskeletal based interventions (Anaf and Sheppard, 2010). Patients' perspectives of the physiotherapy provision following a primary joint replacement was studied in 2085 patients (Wylde et al., 2008). This postal survey found that, while the majority of patients thought that the physiotherapy they received in relation to their joint replacement was adequate, 35% of patients thought that it was inadequate. These studies were focused on the role and provision of physiotherapy, but did not explore individual experience in much detail.

Several authors have identified a range of organisation and profession specific variables that may shape patients' appraisals of treatment (Bradbury et al., 2012). Kidd et al. (2011) identified that a range of profession specific variables were more applicable to physiotherapy settings, including time with the patient, therapist behaviour, physical security, consistency and logical progression, and the adaptation of the treatment programme. Reeve and May (2009) found that patients associated being fully informed about their condition and its management, being provided with a diagnosis and management plan, and competent and expert staff who communicate effectively, with an efficient and quality system of care.

Slade and Keating (2010) undertook a structured literature review of participant experience and satisfaction of exercise programmes for low back pain. Positive patient experiences were reported with fast access to reliable health advice, effective treatment delivered by trusted professionals, participation in decisions, respect for preferences, clear and comprehensible information, support for self care, attention to physical and environmental needs, emotional support, and continuity of care with smooth transition across services and providers. This provided more detail of the individual experience in lower back pain, however, more work is still required to explore the effects of these aspects on the patients'

experiences more generally in musculoskeletal physiotherapy. Studies that used patient involvement to develop measurement tools concluded that patients place the most value on clinicians' communication with the patient (in terms of listening, explaining and instructing) (Kidd et al., 2011). Evaluation of experience, rather than satisfaction, may capture more immediate, personal, and direct information about these important dimensions.

3.4 Patient satisfaction with musculoskeletal physiotherapy

Another important concept in the experience movement, patient satisfaction, has been widely explored and measured across healthcare, often with survey methods. In a background review of patient satisfaction with musculoskeletal physiotherapy, Casserley-Feeney et al. (2008) found that the majority of existing literature was based on US populations. There are significant differences between the healthcare systems in the US and the UK, making a direct comparison of the survey methods and findings from these studies difficult. Nevertheless, these US based questionnaires have shown that it is possible to develop methods of assessing patient satisfaction (Baker, 1990). The MedRisk Instrument for Measuring Patient Satisfaction With Physical Therapy Care (MRPS) (Beattie et al., 2002) is perhaps the most developed satisfaction questionnaire. It has undergone psychometric testing (Beattie et al., 2005a), and has been used to compare the effect of longitudinal continuity on satisfaction (Beattie et al., 2005b). A Spanish language version was also developed (Beattie et al., 2007). Despite the development and validation of this questionnaire, the differences in the way the profession functions, the way services are delivered, and the insurance costs, the questionnaire was unsuitable for direct generalisation to a UK population.

There has been studies investigating patient satisfaction in the UK. May (2001b) conducted exploratory research into patient satisfaction with physiotherapy for lower back pain and defined a range of dimensions that patients found important. Semi structured interviews were conducted with 34 patients and thematic analysis was used to define the dimensions contributing to satisfaction. The key dimensions identified were the personal and professional manner of the therapist, the explaining and teaching which occurred during the episode, how much treatment was a consultative process, the structure that shaped access to and

time with the therapist, and the outcome which ensued. Hills and Kitchen (2007a) conducted focus groups with a sample of 30 participants. Both satisfactory and unsatisfactory aspects of care emerged under the principal themes of expectations, communication, perspectives of the therapist, treatment process, and outcome. There was no difference between the groups in overall satisfaction but participants who were post trauma were more confident that they would improve.

Based on the findings from their focus groups (Hills and Kitchen, 2007a), Hills and Kitchen (2007b) developed a 38 item satisfaction questionnaire. This was mailed to 420 patients with musculoskeletal conditions who had recently completed a course of physiotherapy treatment (66% response rate). The self administered questionnaire included six sub scales: expectation, communication, therapist, organisation, outcome, and satisfaction. Results showed that patients were generally satisfied with the interpersonal, technical, and organisational aspects of care. Hills and Kitchen (2007b) concluded that organisational issues were the key determinants of satisfaction for the chronic group, with the therapist as key determinant for the acute group. Although this study was based in the UK, this questionnaire was based on satisfaction.

Similar to expectations, it has been suggested that patient characteristics can influence satisfaction levels. A systematic review and meta analysis of seven studies found satisfaction was related more to the professional interaction and interpersonal relationships, rather than patient demographics (Hush et al., 2011). Beattie et al. (2005b) found that patients receiving their care from a single physiotherapist were approximately three times more likely to report complete satisfaction than those who received care from more than one physiotherapist. They did not report any demographic differences to account for satisfaction within this study. Casserley-Feeney et al. (2008) found only a small variance in patient characteristics such as age, gender, or educational status to predict patient satisfaction with private physiotherapy for musculoskeletal pain. Peersman et al. (2013) generated 48 aspects of care from their focus groups of 53 participants. They found that patients who were older, received a lower level of education, were less healthy, and attended more frequently, indicated more aspects as important;

however, the different subgroups ranked the priorities, to a large extent, in the same manner.

In a survey of patients receiving musculoskeletal physiotherapy, participants who were satisfied with care were more likely to complete a course of treatment, which potentially improved their overall outcomes (Beattie et al., 2005b). Satisfaction levels have been used to measure the success of delivering information, predict patient attendance, and predict compliance with treatment, which are particularly relevant in the management of musculoskeletal problems where compliance with an exercise programme and a medication regime are common interventions (Casserley-Feeney et al., 2008). As well as the benefits for patients, there were also benefits for service providers. Regular attendance may have positive implications for a treatment facility by reducing cancellations and non attendance, and the links between satisfaction with care and adherence to treatment may result in improved cost effectiveness of care (Beattie et al., 2005b). The assessment of patient satisfaction with symptoms may also provide unique information about healthcare utilisation, as it seems logical that patients who are satisfied with their symptoms would be less likely to seek additional treatment for the same problem, (George and Hirsh, 2005). There is, however, little empirical evidence to support these claims, and further research in this area is indicated.

Unidimensional measures have been used in several studies and have been shown to provide a quick and easy means of measuring patient satisfaction (Casserley-Feeney et al., 2008). Often measured by self-report (Beattie et al., 2005b), a simple method for assessing satisfaction is to rate a global question such as “Overall, I am completely satisfied with my care” (Beattie et al., 2002). However, patient satisfaction within physiotherapy is considered to be a multidimensional phenomena (Beattie et al., 2002; Hills and Kitchen, 2007d; Casserley-Feeney et al., 2008; French et al., 2010), and asking a single global question appears too simple. Indeed, this approach provides no information regarding which aspects of a service a patients may have been satisfied or dissatisfied with, and will tend to provide high satisfaction levels that are likely to be false positives (Casserley-Feeney et al., 2008). Beattie et al. (2002) agreed that, although easy to administer, these global questions do not provide

information about why a person is or is not satisfied, and recommended the use of multidimensional measures.

There are two aspects of patient satisfaction that can be measured, satisfaction with the treatment process, or satisfaction with clinical outcome. Both of these concepts are separate entities, independent of each other, and are influenced by different factors (Casserley-Feeney et al., 2008). Hudak and Wright (2000) suggested that satisfaction with clinical outcome related to the results of treatment, whereas satisfaction with care reflected the service the patient received during the course of treatment. This distinction seemed especially relevant for patients who were satisfied with various treatment dimensions (access, interpersonal factors, and cost) but remained dissatisfied with their ongoing symptoms after treatment (Casserley-Feeney et al., 2008). In a questionnaire based study of 66 patients with lower back pain, George and Hirsh (2005) found that patients were able to distinguish between satisfaction with treatment effect and treatment delivery, and that satisfaction with symptoms was considerably lower than the other patient satisfaction items. This highlighted the importance of distinguishing the aspect of patient satisfaction being measured. The discrepancy between satisfaction with treatment and satisfaction with outcome raises questions about whether patient satisfaction is a valid outcome measure of treatment effectiveness, especially if treatment effectiveness is considered synonymous with symptom reduction (George and Hirsh, 2005).

Goldstein et al. (2000) developed an instrument that measured patient satisfaction with physiotherapy for a range of musculoskeletal conditions. They found that satisfaction was always relative to patient expectations and changed when the expectations or standards of comparison changed, even though the object of comparison (the actual healthcare received) stayed constant. Linder-Pelz (1982b) applied the theories of workplace satisfaction to satisfaction with the provision of healthcare. It was hypothesised that when patients' expectations of care were exceeded, their level of satisfaction is high, and if expectations of care exceeded actual delivery, dissatisfaction resulted. Only weak evidence to support this theory was found. As satisfaction was relative to expectation, satisfaction measures may be objective, but are actually reflecting subjective phenomena, and are quite

distinct from other types of evaluation of the provision of care (Goldstein et al., 2000).

A common criticism of patient satisfaction measures is that they have often failed to reflect the views of patients, when compared to those views taken anecdotally (Baker, 1997). One possible reason is that satisfaction measures have often been derived from a professional or service point of view (Avis, 1997). This has led to a failure to capture views in a patient friendly manner. A review of over 100 satisfaction studies by Sitzia and Wood (1997) questioned their worth, and found that evaluation criteria were frequently set by management and professionals rather than by patients. Williams et al. (1998) questioned the high satisfaction levels reported in most studies, and found in interviews with 29 patients that many expressions of satisfaction on a survey actually hid a variety of reported negative experiences. These do not appear to be reflected in satisfaction surveys.

Two high quality systematic reviews have looked at satisfaction with musculoskeletal physiotherapy. Hush et al. (2011) attempted to determine the degree of patient satisfaction with musculoskeletal physiotherapy care and the factors associated with satisfaction. Slade and Keating (2010) attempted to identify instruments that might be suitable for measuring experiences and satisfaction with exercise programmes for lower back pain. Although they found ten potentially useful instruments, these focused on medical and surgical conditions, inpatient and outpatient hospital care, or a one time consultation; none reported on satisfaction with an exercise program (Slade and Keating, 2010). Hush et al. (2011) found that the interpersonal attributes of the therapist and the process of care were the key determinants of patient satisfaction, but that treatment outcome was infrequently and inconsistently associated with patient satisfaction. Neither review looked specifically at how patients perceive musculoskeletal physiotherapy in the NHS, and further work in this area is required. This is a main focus of this study.

3.5 Aims

To address the primary aim of this research study, the aims of the first phase were:

- To systematically review and critically appraise the existing literature on patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
- To synthesise the findings into a narrative analysis of patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
- To identify an existing method to measure patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy

3.6 Methods

3.6.1 Design

A systematic review and narrative synthesis was undertaken to address the aims of phase one of this study. A systematic review aims to identify, evaluate, and summarise the findings of all relevant individual studies, thereby making the available evidence more accessible to decision makers (CRD, 2009). Qualitative and mixed method reviews are often used to supplement, extend, and in some circumstances replace systematic reviews (Greenhalgh et al., 2011). Synthesis involves the collation, combination, and summary of the findings of individual studies included in the systematic review, and can be done quantitatively using formal statistical techniques such as meta-analysis, or if formal pooling of results is inappropriate, through a narrative approach (CRD, 2009).

Narrative reviews are systematic, theory driven, interpretative techniques, which were developed to help make sense of heterogeneous evidence about complex interventions applied in diverse contexts, in a way that informs policy (Greenhalgh et al., 2011). An alternative, and relatively new approach, is the realist evaluation. This is a form of theory driven evaluation, based on realist philosophy, which aims to advance the understanding of why complex interventions work, how, for whom, in what context, and to what extent (Greenhalgh et al., 2015). In this systematic

review, the focus was to synthesise the extant findings, rather than advance the understanding of the underpinning theories.

A systematic review and narrative synthesis was identified as the preferred method as the majority of the literature in this topic area were either qualitative studies or mixed methods research. The methods outlined are based on those presented in the Handbook for Undertaking Reviews in Healthcare (CRD, 2009). This was chosen over the alternative Cochrane Handbook for Systematic Review of Interventions, as this is focused towards reviews of interventions in randomised controlled trials.

3.6.2 Scoping search

Initially, a scoping search was undertaken. The purpose of the scoping search was to identify any existing reviews, justify the need for this new review, help develop the review questions, refine the inclusion criteria, define the search strategy and search terms, and the test the process of study selection (CRD, 2009).

A provisional search of the bibliographic databases Allied and Complementary Medicine 1985 to present (AMED), British Nursing Index 1992 to present (BNI), Cumulative Index to Nursing and Allied Health Literature 1981 to present (CINAHL), Health Business Elite 1922 to present (HBI), Health Management Information Consortium 1979 to present (HMIC), Medline 1946 to present (MEDLINE), PsycINFO 1806 to present (PsycINFO), was conducted in July 2013. The search terms expectation*, experience*, and satisfaction* were used. There were no date restrictions applied, and the selected databases were searched up to the present date (July 2013). This search returned 901717 citations which was an excessively large number of citations. The same search terms were combined with physiotherap*. This search returned 3721 citations, which was a more appropriate numbers of citations. These citations were used to develop a search strategy and outline for the systematic review.

A pilot of the study selection process was then undertaken. As recommended by the CRD (2009), the inclusion criteria were applied to a sample of papers to check that they could be reliably interpreted, that appropriate studies had been identified,

and so that the inclusion criteria could be refined. This was conduced according to the methods outlined by the CRD (2009), and as described by Parsons et al. (2007), who in a similar type of study, explored expectations about chronic musculoskeletal pain on the process of care.

3.6.3 Review questions

Based on the aims of the first phase of this study and the findings from the scoping search, the following review questions were identified for the systematic review and narrative analysis:

- What are patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy?
- Is there an existing suitable method to measure patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy?

3.6.4 Inclusion criteria

Table 3.1 outlines the inclusion criteria for the systematic review. Additional criteria, as suggested by the CRD (2009) were added, including a quality assessment process, studies reported in English, and studies published in peer reviewed journals.

The inclusion criteria within each section of the PICOS was purposely broad. This was to ensure that the full breadth of articles were identified across a large topics area that includes three main concepts at the search stage. The relevant studies included in the final review were selected through the quality assessment process, outlined below.

Table 3.1: Inclusion criteria for the systematic review

	Inclusion
Population	Studies of adult populations Participants with a musculoskeletal condition Participants receiving physiotherapy
Interventions	Studies exploring the patients' expectations Studies exploring the patients' experiences Studies exploring the patient satisfaction
Comparators	Any recognised physiotherapy treatment for a musculoskeletal condition Where the main focus of the study was the physiotherapy treatment (rather than surgical or medical intervention)
Outcomes	Studies exploring the patients' expectations Studies exploring the patients' experiences Studies exploring the patient satisfaction
Study design	Systematic reviews Randomised controlled trials (randomised cross-over trials, cluster randomised trials) Quasi-experimental studies (non-randomised controlled studies, before-and-after study, interrupted time series) Observational studies (cohort study, case-control study, case series)

3.6.5 Search strategy

A full search of the bibliographic databases Allied and Complementary Medicine 1985 to present (AMED), British Nursing Index 1992 to present (BNI), Cumulative Index to Nursing and Allied Health Literature 1981 to present (CINAHL), Health Business Elite 1922 to present (HBI), Health Management Information Consortium 1979 to present (HMIC), Medline 1946 to present (MEDLINE), PsycINFO 1806 to present (PsycINFO), was conducted in December 2014. The search terms in Table 3.2 were used as combined searches (Table 3.3). No date restrictions were applied and the selected databases were searched up to the present date (December 2014). This search returned 12959 citations. A search of reference lists and identification of grey literature did not return any additional articles.

Table 3.2: Search terms used in the systematic review

Search term	Includes
expect*	expect, expects, expectation, expectations
prefer*	prefer, prefers, preference, preferences
belie*	belief, beliefs, believes
experience*	experience, experiences
perspect*	perspective, perspectives
satisf*	satisfaction, satisfied
physiotherap*	physiotherapy, physiotherapist
musculoskeletal	musculoskeletal conditions, musculoskeletal disorders

Table 3.3: Search term combinations used in the systematic review

Search term	Combined terms
expect*	(AND) physiotherap* (AND) musculoskeletal
preference*	(AND) physiotherap* (AND) musculoskeletal
belie*	(AND) physiotherap* (AND) musculoskeletal
experience*	(AND) physiotherap* (AND) musculoskeletal
perspect*	(AND) physiotherap* (AND) musculoskeletal
satisf*	(AND) physiotherap* (AND) musculoskeletal

3.6.6 Study selection

A process recommended by the CRD (2009) was used to identify eligible studies. An initial screening of the titles and abstracts was made against the inclusion criteria. Articles that were clearly not relevant were rejected, and articles that addressed a relevant topic but failed on one or more criteria were initially included. Then, the full text of articles that appeared to meet the inclusion criteria, and those where a decision could not be made, were obtained. This process was undertaken by the chief investigator, and was piloted with the first five papers identified. The experience of this process was used to refine the study selection process.

3.6.7 Quality assessment

The CRD (2009) identified that there are many different checklists and scales readily available which can be modified to meet the requirements of the review, or a new detailed checklist, specific to the review, may be developed. In a review of tools for evaluating non randomised intervention studies, Deeks et al. (2003) concluded that there was no singularly suitable tool. Various tools were available but there was no single tool that was suitable for use, and the choice was guided by study design, the level of detail required in the assessment, and the ability to assess validity, as recommended by CRD (2009).

Parsons et al. (2007), in a similar study, appraised the identified studies using the adapted version of the CASP checklist for qualitative studies (CASP, 2015). This checklist consisted of a series of questions that helped to assess the rigour, credibility, and relevance of the studies. Rigour was whether the approach to the study was thorough and appropriate, credibility was whether the findings were well presented and meaningful, and relevance was the usefulness of the study findings to the review (Parsons et al., 2007).

3.6.8 Data extraction

A purpose designed data extraction table was created that included initial data on whether the article was based on a study of an adult population, whether the participants had a musculoskeletal condition, and whether the participants had received physiotherapy. In addition, the location of the study (country), the methods used (questionnaire, interview, focus group, or mixed methods), and the focus of the study were recorded (expectations, experiences, or satisfaction). The Critical Appraisal Skills Program (CASP) assessment framework (CASP, 2015) was included in the data extraction table. The standard CASP questions were used, and adapted to include a five point scoring for each criteria. This scoring system was used to help identify the relevant papers to include in the review. Due to the heterogeneity of the articles, the scoring did not have a ‘threshold’ for inclusion. The completed data extraction tables for the qualitative studies, randomised controlled trials, and systematic reviews are shown Appendices 15, 16, and 17, respectively. Papers3 for Mac (version 3.4.10) was used to manage

the articles and Numbers for Mac (version 4.1.1) was used to manage the data extraction table.

3.6.9 Data synthesis

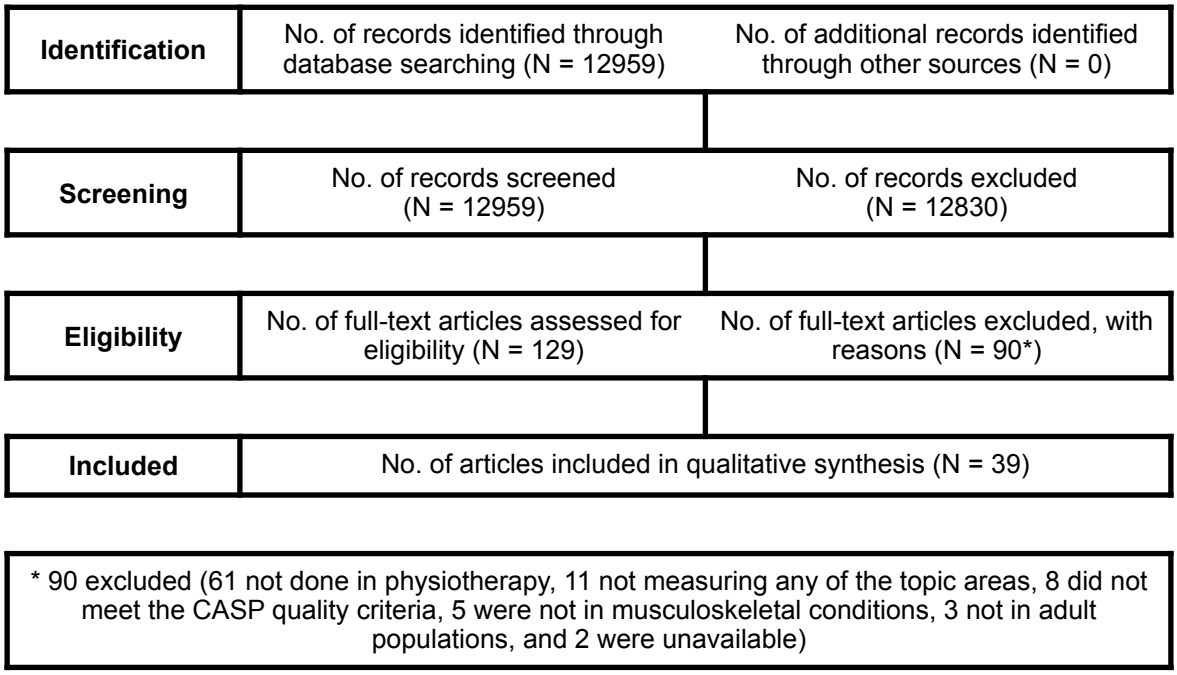
Studies exploring patients' expectations, experiences, and satisfaction were not typically RCTs, and therefore a meta-analysis was not appropriate. As there was a broader diversity in the included studies in terms of settings, interventions and outcome measures, it was decided a priori that a narrative approach was more appropriate (CRD, 2009). An initial descriptive synthesis was conducted using the data extraction table that included the CASP framework results. This included a descriptive summary of the included articles. The defining characteristic of narrative synthesis is the adoption of a textual approach that provides an analysis of the relationships within and between studies and an overall assessment of the robustness of the evidence (CRD, 2009).

Following the methods outlined by CRD (2009) and Parsons et al. (2007), relevant data from all studies meeting a minimum quality standard were included in the data analysis. The major themes of each paper were noted during data extraction. A thematic framework was then developed for the whole dataset and this was used to structure the data. A thematic analysis was undertaken to allow clear identification of prominent themes and a structured way of managing the data. Data were summarised from each article against each of the major themes identified (expectations, experiences, and satisfaction), and then themes within these were further explored to help make sense of the data. A comparison and interpretation of themes within papers was undertaken, and this allowed a greater emphasis toward themes with a high level of explanatory value rather than toward those themes that were more frequently reported.

3.7 Results

3.7.1 Search results

Figure 3.1: Search results and included studies (PRISMA statement)



The results from the systematic review were presented as recommended by the PRISMA Statement (Liberati et al., 2009) (Figure 3.1).

3.7.2 Patients' expectations

There were ten articles (Table 3.4) reporting nine separate studies on patients' expectations, preferences, or beliefs (Dierckx et al., 2013; Foster et al., 2010; Grimmer et al., 1999; Kalauokalani et al., 2001; Klaber Moffett et al., 2005; Kvarén and Johansson, 2004; Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013; Peersman et al., 2013; Thomas et al., 2004). One study was presented across two articles (Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013).

Table 3.4: A summary of the included articles focusing on patient expectations

Lead author, date	Type	Method	Focus	Location
Dierckx, 2013	Qualitative	Interview	Expectation	Belgium
Foster, 2010	Qualitative	Questionnaire	Expectation	UK
Grimmer, 1999	Qualitative	Mixed methods	Expectation	Australia
Kalauokalani, 2001	RCT	Questionnaire	Expectation	USA
Klaber Moffett, 2005	RCT	Questionnaire	Expectation	UK
Kvarén, 2004	Qualitative	Questionnaire	Expectation	Sweden
Metcalfe, 2005	Qualitative	Questionnaire	Expectation	UK
Metcalfe, 2013	Qualitative	Questionnaire	Expectation	UK
Peersman, 2013	Qualitative	Mixed methods	Expectation	Belgium
Thomas, 2004	RCT	Questionnaire	Expectation	UK

Seven key themes were identified in patients' experiences: (1) how many participants expressed an expectation (or treatment preference); (2) the level of expectations; (3) the characteristics likely to affect whether the participant had an expectation (or treatment preference); (4) the characteristics likely to lead to higher participants' expectations; (5) the characteristics that do not appear to affect participants' expectations; (6) the characteristics likely to lead to lower patient expectations; and (7) whether participants' expectations affected clinical outcome.

3.7.2.1 How many participants expressed an expectation?

With regard to sharing decision making about treatment, Dierckx et al. (2013) found that 36.7% of participants wanted to share decisions and 36.2% preferred to give their opinion before delegating the decisions about their treatment. Foster et al. (2010) found that only 20% of participants with knee osteoarthritis reported a treatment preference, whereas, Thomas et al. (2004) found that 60% of

participants with shoulder pain reported a treatment preference. Metcalfe and Klaber Moffett (2005) found that all participants were able to express an expectation about clinical outcome, but only reported a 44% response rate.

3.7.2.2 The level of participants' expectations

There was a consistently high level of patients' expectations at the outset of treatment (Foster et al., 2010; Metcalfe and Klaber Moffett, 2005). Grimmer et al. (1999) found that participants with back pain expected symptom relief after the first treatment session, new patients expected a complete cure (23%) or some pain relief (45.5%), compared with returning patients, of whom only 3.8% expected a complete cure. Metcalfe and Klaber Moffett (2005) found, comparably, that the majority of participants were expecting to improve with physiotherapy, with 24.1% expecting to make a complete recovery and 46.9% expecting to be a lot better. Only 5.9% did not expect any benefit from treatment (Metcalfe and Klaber Moffett, 2013). Similarly, Foster et al. (2010) found that very few participants in their study expected the available treatments to be of little or no help.

3.7.2.3 Characteristics likely to affect whether the patient had an expectation

Foster et al. (2010) found that patients who had knee symptoms for less than 1 year were more likely to have no treatment preference. Thomas et al. (2004) found that females were more likely to have a pre randomisation treatment preference, but participants who reported other comorbidities were less likely to give a preference for physiotherapy.

3.7.2.4 Characteristics likely to lead to higher participants' expectations

Metcalfe and Klaber Moffett (2005) found higher expectations of treatment benefit in participants who: (1) were female; (2) had a traumatic condition; (3) had a shorter duration of condition; (4) had a higher locus of control; (5) had no previous experience of physiotherapy; and (6) had greater satisfaction with previous healthcare received. Grimmer et al. (1999) concluded clear differences between new attenders and returning patients, with new patients having higher expectations about the outcome of treatment for lower back pain. Participants with

a greater functional disability (Roland score, SF-12 Physical Health score, Mental Health scores) reported higher expectations that those with lower scores (Kalauokalani et al., 2001). Participants in older age groups or lower educational groups had a wider range of expectations that they considered important (Peersman et al., 2013). Kvarén and Johansson (2004) found, in Sweden, that an indigenous group of participants had higher expectations of clinical outcome than a non indigenous group of participants.

3.7.2.5 Characteristics that do not appear to affect participants' expectations

Participants' ages, education levels, occupations, work status, or pre-morbidity levels of activity did not appear to affect expectations of clinical outcome (Metcalfe and Klaber Moffett, 2005). Dierckx et al. (2013) found no significant difference across age, gender, level of education, employment, experience playing sports, or previous treatment. Metcalfe and Klaber Moffett (2013) and Grimmer et al. (1999) both found no relationship between the benefit gained before, and subsequent expectations of benefit. Anticipation of other treatment, investigations, or compensation settlement did not affect expectations (Metcalfe and Klaber Moffett, 2013). Within higher and lower expectation categories, participants were similar with regard to most sociodemographic, illness, and treatment characteristics (Kalauokalani et al., 2001).

3.7.2.6 Characteristics likely to lead to lower participants' expectations

Metcalfe and Klaber Moffett (2013) found that participants with a longer duration of condition, longer waiting time, waiting for surgery less, previous experience of treatment were less likely to expect much benefit from physiotherapy (Metcalfe and Klaber Moffett, 2013). Grimmer et al. (1999) also found that those who had previously experiences of physiotherapy management for lower back pain were less likely to expect a complete cure. Non indigenous participants were much less likely to expect advice for self aid, or to believe that physiotherapy could improve or cure their problems (Kvarén and Johansson, 2004).

3.7.2.7 Whether participants' expectations affected clinical outcome

Thomas et al. (2004) found that a good outcome in shoulder pain was achieved in a higher percentage of participants who gave a treatment preference (62% compared with 48%), however, receiving the preferred treatment did not confer any additional benefit in those who expressed a preference (Thomas et al., 2004). Foster et al. (2010) and Kalauokalani et al. (2001) reported similar findings in knee pain and lower back pain, respectively. Klaber Moffett et al. (2005) found that participants with a preference for a brief intervention for neck pain may have done at least as well compared with usual treatment, and Metcalfe and Klaber Moffett (2013) found that higher expectations of benefit were related to greater change in functional disability and health status, and more perceived improvement. Metcalfe and Klaber Moffett (2013) also found that the strength of patients' expectations of benefit was related to the outcome of physiotherapy. Patients who received the treatment for which they held higher expectations were almost twice as likely to be classified as a treatment responder, compared to those who did not (Foster et al., 2010).

3.7.3 Patients' experiences

There were nine articles (Table 3.5) reporting nine separate studies on patients' experiences (Anaf and Sheppard, 2010; Bradbury et al., 2012; Eriksson et al., 2011; Kidd et al., 2011; Potter et al., 2003; Reeve and May 2009; Roberts, 2013; Slade and Keating, 2010; Stenberg et al., 2012). Anaf and Sheppard (2010) examined perspective of physiotherapy, but these were discussed in terms of direct experiences. Slade and Keating (2010) explored experience and satisfaction, but experience was the largest focus in their systematic review.

Four key themes were identified in patients' experiences: (1) patient-physiotherapist interaction; (2) physiotherapist attributes; (3) services attributes; and (4) clinical outcome.

Table 3.5: A summary of the included articles focusing on patient experiences

Lead author, date	Type	Method	Focus	Location
Anaf, 2010	Qualitative	Questionnaire	Experience	Australia
Bradbury, 2012	Qualitative	Interview	Experience	UK
Eriksson, 2011	Qualitative	Interview	Experience	Sweden
Kidd, 2011	Qualitative	Interview	Experience	New Zealand
Potter, 2003	Qualitative	Focus groups	Experience	Australia
Reeve, 2009	Qualitative	Interview	Experience	UK
Roberts, 2013	Qualitative	Questionnaire	Experience	UK
Slade, 2010	Systematic review	Mixed methods	Experience	Australia
Stenberg, 2012	Qualitative	Interview	Experience	Sweden

3.7.3.1 Patient-physiotherapist interaction

The communication ability of the physiotherapist was ranked as most important overall, and good experiences were most often attributed to effective communication by the physiotherapist, while bad experiences most often related to dissatisfaction with the service followed by poor physiotherapist communication (Potter et al., 2003). Communication was also identified as a key characteristic of experience by Anaf and Sheppard (2010), Kidd et al. (2011), Eriksson et al. (2011), Reeve and May (2009), and Stenberg et al. (2012). Communication was summarised as including listening, empathy, appropriate questions, counselling, making eye contact, speaking directly to the patient, being receptive to what the patient had to say, and demonstrating respect for the patient's point of view (Potter et al., 2003). Explanation was identified within communication, including provision of information (Reeve and May, 2009), and this overlapped with the physiotherapist attributes. Choice and control, vulnerability, and trust (where trust also appeared to moderate perspective of vulnerability) were identified by Bradbury et al. (2012) as important to the patient-physiotherapist relationship. Kidd et al. (2011) also found that patient centred physiotherapy required

confidence, an understanding of people, and an ability to relate. Being taken seriously, getting an explanation, being invited to participate, and being treated individually were deemed important experiences by Stenberg et al. (2012).

3.7.3.2 Physiotherapist attributes

Physiotherapist attributes related to knowledge (Kidd et al., 2011; Eriksson et al., 2011) and professional skills (Reeve and May, 2009). Diagnostic and treatment expertise including providing a diagnosis, treatment, self-help strategies and advice on self management were central to a good experience (Potter et al., 2003; Anaf and Sheppard, 2010). The general skills of physiotherapists (hands on and exercise therapy, support and problem solving) were identified as the most important dimension by Anaf and Sheppard (2010). Communication was seen as part of the patient-physiotherapist relationship, and in physiotherapist attributes, where it related to the assessment and treatment processes. Teaching and education involving clear explanations about the problem and treatment at an appropriate level, explanation of what the physiotherapist was doing and why during assessment and treatment, the use of visual aids and written information to help the patient understand the problem and treatment, and demonstration of exercises were all important professional skills (Potter et al., 2003; Anaf and Sheppard, 2010). Communication with other professionals (Potter et al., 2003) and acting as a bridge between health professionals (Anaf and Sheppard, 2010) were important for experience. Arranging necessary follow-up care, confidentiality, professional distance, note keeping, being punctual and reliable, and professional dedication were identified as important attributes (Potter et al., 2003).

3.7.3.3 Service attributes

Slade and Keating (2010) identified a range of core service attributes linked to a positive experience including care provider qualities, support staff, governance, access, and facilities.

3.7.3.4 Clinical outcome

Clinical outcome was identified by Kidd et al. (2011) and Reeve and May (2009) as an important dimension of the patients' overall experience, but was found to be poorly rated when compared with other dimensions.

3.7.4 Patient satisfaction

There were 20 articles (Table 3.6) reporting 20 separate studies on patient satisfaction (Beattie et al., 2002; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; French et al., 2010; George and Hirsh, 2005; Goldstein et al., 2000; Hills and Kitchen, 2007a; Hills and Kitchen, 2007b; Hush et al., 2011; Hush et al., 2012; Knight et al., 2010; May 2001b; McClellan et al., 2006; Monnin and Perneger, 2002; Roush and Sonstroem, 1999; Stiller et al., 2009; Taylor and May, 1995; Taylor et al., 2002; Wylde et al., 2008).

Five key themes were identified in patient satisfaction: (1) patient-physiotherapist interaction; (2) physiotherapist attributes; (3) services attributes; (4) clinical outcome; and (5) overall satisfaction.

3.7.4.1 Patient-physiotherapist interaction

Beattie et al. (2002) found that patient satisfaction was most associated with items that reflected a high-quality interaction with the therapist (e.g., time, adequate explanations, and instructions to patients). Goldstein et al. (2000) summarised interpersonal management and continuity of care as important dimensions of satisfaction, and similarly, Beattie et al. (2005b) found that participants who received their entire course of treatment from only one physiotherapist were approximately three times more likely to report complete satisfaction. Other factors that were linked with satisfaction included: my therapist spent enough time with me, my therapist answered all my questions, my therapist listened to my concerns, and my therapist explained my home exercises (Beattie et al., 2007). The personal interaction, including communication, was linked to high levels of satisfaction by Casserley-Feeney et al. (2008), Goldstein et al. (2000), Hills and Kitchen (2007a), Hills and Kitchen (2007b), Hush et al. (2011), Hush et al. (2012), Knight et al.

(2010), May (2001b), McClellan et al. (2006), Roush and Sonstroem (1999), Sheppard et al. (2010), Slade and Keating (2010), Stiller et al. (2009), and Taylor and May (1995).

3.7.4.2 Physiotherapist attributes

Casserley-Feeney et al. (2008) found high levels of satisfaction were related to the physiotherapist being professional (knowledgeable, skilful). Goldstein et al. (2000) described a clinical technical management dimension which was similar. Hills and Kitchen (2007a) found that the process and content of treatment contributed to satisfaction levels, as did Monnin and Perneger (2002), who defined treatment as a main dimension of overall satisfaction.

3.7.4.3 Service attributes

A range of dimensions were reported including clinic location, parking, time spent waiting for the therapist, type of equipment used (Beattie et al., 2002; Beattie et al., 2007), and continuity of care (Beattie et al., 2005b). Casserley-Feeney et al. (2008) found interpersonal issues were twice as commonly reported than service attributes, and Goldstein et al. (2000) concluded that ratings of overall satisfaction may not have been influenced to a great extent by experiences with ancillary aspects of care. Taylor et al. (2002) found that participants were more satisfied with a telephone advice service that usual treatment for lower back pain, primarily due to easier access and shorter waiting times, although differences were small.

Table 3.6: A summary of the included articles focusing on patient satisfaction

Lead author, date	Type	Method	Focus	Location
Beattie, 2002	Qualitative	Questionnaire	Satisfaction	USA
Beattie, 2005b	Qualitative	Questionnaire	Satisfaction	USA
Beattie, 2007	Qualitative	Questionnaire	Satisfaction	USA
Casserley, 2008	Qualitative	Questionnaire	Satisfaction	Ireland
French, 2010	Qualitative	Questionnaire	Satisfaction	Ireland
George, 2005	Qualitative	Questionnaire	Satisfaction	USA
Goldstein, 2000	Qualitative	Questionnaire	Satisfaction	USA
Hills, 2007a	Qualitative	Focus groups	Satisfaction	UK
Hills, 2007b	Qualitative	Questionnaire	Satisfaction	UK
Hush, 2011	Systematic review	Mixed methods	Satisfaction	Australia
Hush, 2012	Qualitative	Questionnaire	Satisfaction	Australia
Knight, 2010	Qualitative	Questionnaire	Satisfaction	Australia
May, 2001b	Qualitative	Interview	Satisfaction	UK
McClellan, 2006	Qualitative	Questionnaire	Satisfaction	UK
Monnin, 2002	Qualitative	Questionnaire	Satisfaction	Switzerland
Roush, 1999	Qualitative	Questionnaire	Satisfaction	USA
Stiller, 2009	Qualitative	Questionnaire	Satisfaction	Australia
Taylor, 1995	Qualitative	Questionnaire	Satisfaction	UK
Taylor, 2002	RCT	Questionnaire	Satisfaction	UK
Wylde, 2008	Qualitative	Questionnaire	Satisfaction	UK

3.7.4.4 Clinical outcome

Clinical outcome was reported as a dimension of satisfaction by Casserley-Feeney et al. (2008), French et al. (2010), George and Hirsh (2005), Hills and Kitchen (2007b), Hills and Kitchen (2007a), Hush et al. (2011), Hush et al. (2012), May (2001b). Clinical outcome was typically rated lower in response than interpersonal, professional, or service dimensions (French et al., 2010; George and Hirsh, 2005; Hills and Kitchen 2007b; Hush et al., 2011; Hush et al., 2012). In one study, it was found to be one of the single strongest predictors of overall patient satisfaction (George and Hirsh, 2005).

3.7.4.5 Overall satisfaction

The concept of overall satisfaction, typically measured by global questions, was the most commonly reported finding across the included studies (Beattie et al., 2002; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; George and Hirsh, 2005; Hush et al., 2011; Hush et al., 2012; Stiller et al., 2009), with high degrees of satisfaction reported with physiotherapy overall. Global dimension questions typically asked about overall satisfaction and willingness to return (Beattie et al., 2002), and willingness to recommend to a friend (Casserley-Feeney et al., 2008). Satisfaction was also distinguished between treatment delivery and treatment effect (George and Hirsh, 2005). Treatment delivery was typically rated more favourably that treatment effect.

3.7.5 Principal dimensions of expectations, experiences, and satisfaction

The principal themes of patients' experiences and satisfaction showed a significant similarity in the identified dimensions of patient-physiotherapist interaction, physiotherapist attributes, services attributes, and clinical outcome. There was a notable overlap the patient-physiotherapist interaction and physiotherapist attributes dimensions, with communication key in both. Satisfaction had an additional global dimension including overall satisfaction, willingness to return, and willingness to recommend.

Expectations were reported in different terms, including how many participants expressed an expectation, the level of expectations, the characteristics likely to affect the level of expectations, and whether expectations affected clinical outcome. There was less overlap between expectations, when compared with experiences and satisfaction.

3.8 Discussion

3.8.1 Patients' expectations

It seems likely that most patients have expectations when entering treatment. Thompson and Suñol (1995) proposed that expectations can be unformed, normative, predicted, or ideal. Ideal expectations are aspirational or desirable and represent an idealistic state of beliefs. Predicted expectations are realistic or practical and represent what users actually believe will happen are likely to result from personal experiences, reported experiences of others, and other sources of knowledge such as in the media. Normative expectations are taken to represent what should happen and could be equated with what users are told, or led to believe, or personally deduce that they ought to received represent a subjective evaluation of what is deserved in a situation, and to some extent is also a socially endorsed evaluation. Unformed expectations occur when users are unable or unwilling to articulate their expectations and this may be just a temporary phenomenon prior to experience and the gaining of knowledge about the situation.

In musculoskeletal physiotherapy studies (Boonstra et al., 2011; Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013; Stenberg et al., 2012), expectations are often considered as a before treatment state of mind. By measuring expectations at a single point, these studies appear to consider expectations as fixed. There was, therefore, the implication within this work that expectation does not change during the course of an episode of care for the duration a particular condition. Goldstein et al. (2000), however, considered expectations as variable, and recognised that this could affect satisfaction, which was relative the to change in expectation. It seems more likely that expectations change over time, but there are limited findings from this study to support this.

Further research into how patients' expectations develop over an episode of care would be required to address this.

Unformed expectations were the thought to be prevalent across healthcare (Thompson and Suñol, 1995). This does not necessarily mean that the patient has no expectations, but rather they are unable to articulate them. Given that patients are likely to have unformed expectations and possibly weak expectations due to a lack of direct experience, this may well explain why expectations changed during the episode of care (Goldstein et al., 2000). As patients gain direct experience during their care, their expectations develop. This is likely to create a circular relationship between expectations and experiences. As such, a measure of before expectations is unlikely to be particularly valuable. In any case, any expectations held will ultimately form part of the overall experience, but may act to moderate the resulting perspective of this. Therefore, a measure of patient experience would indirectly take into account the expectations of the patient.

The findings from this review indicated that patients had a generally high expectation of benefit from physiotherapy treatment for musculoskeletal conditions. Foster et al. (2010) felt that this was potentially explained by the fact that all of the participants in their study had already been referred by their general practitioner, and that they may have already been influenced by a respected medical opinion. Metcalfe and Klaber Moffett (2005) also concluded that a locus of control associated with powerful others (doctors) influenced patient expectation. Metcalfe and Klaber Moffett (2005) found that most patients attend physiotherapy with an expectation that some level of benefit will be achieved, and they are able to rate their expectations. As a large proportion of patients in the survey had received physiotherapy before (28.1% for the same problem and 44.6% for a different problem), Metcalfe and Klaber Moffett (2005) concluded that their expectations were likely to be ideal. While the remainder may have had unformed expectations, they were still able to describe their expectations on a rating scale.

3.8.2 Patients' experiences

Most studies described a range of dimensions thought to be relevant to the reported level of patient experience. These dimensions did not tend to occur in

isolation, but formed a composite picture of patient-centred physiotherapy, from the patient's perspective (Kidd et al., 2011). The communication ability of the physiotherapist was ranked as most important overall, and good experiences were most often attributed to effective communication by the physiotherapist (Potter et al., 2003; Anaf and Sheppard, 2010); while bad experiences most often related to poor physiotherapist communication (Potter et al., 2003). Anaf and Sheppard (2010) described the role of the physiotherapist as informing and supporting patients through a process of education and communication. Participants in the study by Potter et al. (2003) ranked both communication and education as a constituent parts of a good experience, and they identified three sub-sections to this: interpersonal skills, the physiotherapists manner, and teaching and education. Good quality communication from physiotherapists appeared to rank highest in terms of creating a good patient experience.

Embedded within the dimension of communication was the role of teaching and education, where a clear explanation about the problem and treatment at an appropriate level, an explanation about what the physiotherapist was doing and why during assessment and treatment were deemed as the most important aspects; less so were the use of visual aids and written information to help understand the problem and treatment, feedback on a visit-by-visit basis, demonstration of exercises, and specific instructions e.g. what to do and what not to do. Further to these notions, Anaf and Sheppard (2010) found that respondents thought that part of educating and communicating meant acting as a bridge between health professionals, facilitating patient-clinician liaison, explaining medical conditions and interventions, and arranging necessary follow-up care.

The most important interpersonal skills were thought to be a physiotherapist that listens, one whose body language builds trust, and one who demonstrates empathy; less important were a physiotherapist that asks appropriate questions, appropriately introduces themselves, counsels the patient, makes eye contact and speaks directly to the patient, is receptive to what the patient has to say, and demonstrates respect for the patient's point of view. In terms of manner, the most important aspects were found to be a physiotherapist who was caring, friendly, inspired confidence; less important was one who was supportive, considerate,

patient, genuine, polite, had a positive disposition, was non-judgmental, enjoyed the job, and was not egotistical.

A high standard of professional skills were associated with a good experience by Potter et al. (2003) and Anaf and Sheppard (2010). This was considered as a discrete dimension by Anaf and Sheppard (2010), who found that physiotherapists are practical clinicians were strongly affiliated with providing hands on contact and treatment regimes, such as exercise therapy. Terms such as physical, massage and manipulation, and rehabilitation were typically used to explain physiotherapy. Potter et al. (2003) grouped professional skills with the organisational ability of the physiotherapist (which was not mentioned by Anaf and Sheppard, 2010). Their participants viewed the appropriate skills and knowledge, honesty and a knowledge of their limitations, along with seeking further knowledge as required, and keeping up-to-date with the patients' current and past history as the most important professional behaviour.

Diagnostic and treatment expertise was identified as a sub section of the service provided, along with the environment, and convenience and accessibility by participants in Potter et al. (2003). This was grouped with general skills of the physiotherapist by Anaf and Sheppard (2010), but there was a consistency between the responses. The former found that providing self help strategies such as a home exercise program and/or advice on what they could do for themselves, providing appropriate treatment to help the patient's problem (e.g., pain relief and improve movement function), and providing a diagnosis, were considered consistent with a good experience.

Most measures generally had two distinct focuses: interpersonal factors and service factors. Service factors generally related to issues such as waiting time, clinic location, and cost (where applicable). Potter et al. (2003) found, that in relation to the environment, participants were most interested in whether the physiotherapist could create a pleasant and welcoming environment within the physiotherapy practice, and that they were put at ease during examination and treatment. In terms of convenience and accessibility, they found that patients wanted to be seen when they needed help, that there was ease of access for

injured or disabled people, and that they catered to individual needs and were flexible (e.g., time allocation and payment means).

3.8.3 Patient satisfaction

George and Hirsh (2005) defined treatment delivery as the process of treatment and included factors such as the patient-therapist relationship and facilities, whereas treatment effect was the outcome in terms of symptoms reduction and functional improvement. Satisfaction with treatment delivery (process) appeared to be the main focus of the satisfaction articles reviewed. This was perhaps due to the existence of a multitude of quality of life and condition specific patient reported outcome measures, which focus specifically on measuring changes in symptoms and function from the patients' perspective. Additionally, there appears to be a difference in the focus of surveys, dependent on the development method. Those developed based on patient reported factors seem to focus strongly on interpersonal factors. Those developed based on author preferences seem focus strongly on service or organisational factors. Slade and Keating (2010) highlighted this, and found that patient derived questions consistently asked about effective communication, shared decision making, and being treated with respect and dignity. This specifically included consistent data on issues that are of known concern to care-seekers such as respect, communication, and non judgment. They also found that instruments that had an author focused generation had an emphasis on the processes of care such as appointments, service delivery, and access. Interestingly, it has also been found that removing factors such as time waiting and location improves the internal validity of a satisfaction questionnaire (Beattie et al., 2002). Overall, interpersonal factors appeared more closely linked to a positive experience, or high level of satisfaction rating.

The quality of patient-therapist interactions consistently appeared as a factor linked to increased patient satisfaction. This appeared to have two core dimensions, the patient-therapist interpersonal relationship and the patients' clinical management. These are different concepts, but are consistent in that good communication seemed to improve satisfaction in both dimensions. Beattie et al. (2002) found that strong listening and explanation skills were paramount in achieving high satisfaction levels, and Hills and Kitchen (2007b) also found that a

good patient-therapist relationship with good quality explanations and reassurance were important for a positive outcome. Equally, they found poor communication and not listening were associated with a negative outcome. Hills and Kitchen (2007b) concluded that patient-therapist interaction and communication were the two main predictors of high levels of satisfaction in patients with acute conditions. Contrastingly, they found organisation was more important in patients with chronic conditions. This indicated that patient satisfaction may have been influenced by different clinical characteristics. Hush et al. (2012) and Casserley-Feeney et al. (2008) also found physiotherapist attributes were a key dimension in predicting satisfaction. They included effective communication and explanations of self-management as a fundamental part of this dimension. This was also prominent in findings from McClellan et al. (2006). Shepherd et al. (2010) defined communication as requiring an authoritative but pleasant way, and stressed the importance of explanations to the patient. Slade and Keating (2010) summarised effective communication as one of the most important factors in the patient derived satisfaction surveys that have been developed to date.

The approach to clinical management was another key dimension of patient derived satisfaction measures. One of the most important and most widely reported factor in this seems to be the shared decision making process. Hills and Kitchen (2007a) found that responsibility sharing was reported by patients with positive outcomes, whereas a less personalised with no feeling of partnership were reported by patients with a negative outcome. It was also found to be another of the main themes in patient derived satisfaction measures (Slade and Keating, 2010). Communication and explanation were also fundamental to this dimensions. In particular, to the explanation of the assessment and treatment process, and the explanation of treatment, exercises, and self management (Beattie et al., 2002; Beattie et al., 2007; Hills and Kitchen, 2007a; Hush et al., 2012; McClellan et al., 2006; Sheppard et al., 2010; and Slade and Keating, 2010). Failure to explain the reason for the initial assessment was also identified as a factor in negative outcomes (Hills and Kitchen, 2007a).

Another key interpersonal skill was respect and dignity. This was found to be a core component across satisfaction measures by Slade and Keating (2010) and was identified by Goldstein et al. (2000) along with the warmth and friendliness of

staff. Casserley-Feeney et al. (2008) found the friendliness of staff (helpful, caring, polite) to be the most commonly reported feedback from the open-ended section of their questionnaire. This was also a strong finding by Hush et al. (2012) and Sheppard et al. (2010). Conversely, a less personal or personalised approach was also linked with a negative satisfaction outcome (Hills and Kitchen, 2007a).

Although considered an important concept professionally (Wohlin Wottrich et al., 2004), competence does not appear to rank highly in the measurement of satisfaction. This is consistent across both patient and author generated measures. Professionalism and competence was identified as part of the therapist attributed by Hush et al. (2012), along with effectiveness. George and Hirsh (2005) also compared delivery with outcome, and found a low correlation between symptom reduction (approximately 40% satisfaction) and overall satisfaction with the therapist (approximately 90% satisfaction). Most of the satisfaction levels appear to be associated with the explanation of treatment and self management strategies, along with demonstration of exercises, termed as clinical technical skills. This may have indicated that patients are less able to rate the professional competence, when compared with other dimensions.

Service effectiveness, described by Goldstein et al. (2000) as access (physical location of facility, hours of operation, telephone access, appointment waiting time, waiting time in waiting room) and administrative technical management (ambience of facility, parking, payments/claims processing, quality assurance programs), were frequently identified as the lowest predictors of satisfaction in patient derived measures. Despite this, they were frequently contained in author generated measures. Beattie et al. (2002) calculated a very low correlation between satisfaction and service related factors, including the waiting room is comfortable, parking is convenient, time waiting for physiotherapist, and location is convenient. Participants in focus groups (Hills and Kitchen, 2007a) failed to report and service effectiveness issues as impacting on their overall satisfaction.

Experience, in contrast to satisfaction, is a direct measure of what the patient encounters. Because there is no affective state derived from it, it is much more useful as a comparative measure between individuals, clinicians, or services. Results from one patient experience survey cannot be accurately compared

directly to results from another. Because satisfaction results rely on the individual expectations, and as highlighted are flawed, it is difficult to use these as a comparator across groups. As shown, there are some differences in expectations amongst some groups (Metcalfe and Klaber Moffett 2005; Metcalfe and Klaber Moffett 2013), but these are small (Stenberg et al., 2012) and not widely supported across the literature (Boonstra et al., 2011). According to Goldstein et al. (2000), these will largely determine the overall satisfaction, perhaps overshadowing the actual experience the patient has. Again, this means that a satisfaction measure will not show the true experience of the patient. Asking questions about the experience, on the other hand, will show a much closer version of the true experience.

3.8.4 Strengths and limitations

One of the main strengths of this phase of the study was that the review covers all of the core concepts of the patient experience. There were only two previous systemic reviews identified. Hush et al. (2011) looked at satisfaction levels in Australia to make an international comparison. Slade and Keating (2010) looked at experience and satisfaction, but only in lower back pain exercise groups. The remainder of the studies focused on a single component of the overall experience, with satisfaction being the primary focus of most out the studies. The wider inclusion criteria in this study has provided a more comprehensive analysis of the topic area, which provides a useful framework for the further phases of this study.

The methods used demonstrate a high level of rigour, as they are based on an established methodology (CRD, 2009), and incorporated a quality assessment (CASP, 2015). This enhanced the validity, quality, and trustworthiness of the findings, as credibility of the methods were previously established. The dependability is strengthened by presentation of the raw data within the chapter, and triangulated by the findings from the second and third phases of the study, presented in the following chapters.

The key limitation was the use of a single researcher, which may have led to up to 8% of eligible studies being missed (CRD, 2009). The trustworthiness and

dependability of the findings would have been enhanced by using two researchers in this process.

3.9 Conclusion

There were a limited number of studies exploring the patient experience in musculoskeletal physiotherapy. The majority were based outside of the UK and focused on measuring satisfaction as a proxy, rather than direct experience. Most articles presented the developing of questionnaires, and few presented any psychometric testing of their final developed measures (Beattie et al., 2005a; Monnin and Perneger, 2002; Roush and Sonstroem, 1999).

There was a clear demarcation in most studies between satisfaction with treatment and satisfaction with outcome. Satisfaction with outcome was consistently rated lower than other dimensions. There were several core dimensions within treatment satisfaction including service factors and interpersonal relationship factors. Service factors appeared to take precedence, although interpersonal factors appeared to provide more relevant and useable data. Professionally derived questions appeared to be prevalent, and they may have failed to capture the experience from the patient perspective. Questionnaires often include a global dimensions with overall satisfaction, willingness to return, and willingness to recommend being the most common. Use of these global dimensions alone appears too simplistic, and unlikely to elicit accurate experience data.

The findings from the systematic review failed to identify any existing method to measure the patient experience in musculoskeletal physiotherapy. The findings appeared to represent the first systematic review and narrative synthesis of patients' expectations, experience, and satisfaction with musculoskeletal physiotherapy.

Although the dimensions of experience and satisfaction are consistent with the extant literature, they do not appear to have been explored in detail with a sample of participants in the NHS. Previous interview and focus group based studies exploring experience have been reported, but not in this population. Further, this

previous work has not tested the broader dimensions of experience within musculoskeletal physiotherapy, to examine their relevance. Further work is, therefore, required to explore the patients' perspective of these dimensions of expectations, experiences, and satisfaction. This work is presented in chapter four.

Chapter Four: A qualitative exploration of patients' experiences, expectations, and satisfaction with musculoskeletal physiotherapy

This chapter presents the qualitative exploration of patients' experiences, expectations, and satisfaction with musculoskeletal physiotherapy. Methods used to explore the patient experience in more details are considered in more detail. The specific aims for this phases of the study are presented, along with the methods and results. These findings are discussed in the context of the extant literature.

4.1 Introduction

"Qualitative researchers use open, flexible questions… It is best to use a semi structured interview guide, this allows for a core of prepared questions that consider these topics but leaves considerable flexibility and freedom to pursue matters of importance to the patient. Semi structured interviews do not use standardised wording, and depend on the use of supplementary and clarifying questions phrased in the participants own vocabulary to clarify the meaning that they attach to their experiences. The general intention is to prompt patients to give examples of their experiences that illustrate their views." - Avis (1997, page 90)

In his review of patient involvement in health service research, Avis (1997) described both the nature and the purpose of using semi structured interviews. The advantage of this approach is that it allows the researcher to explore the issues that the participant considers most important. Within the area of patient experience, it is the views and perspectives of the patient that are sought. Professional and service derived questionnaire tools have been criticised for not allowing the patient to put their point across from their own perspective. This makes semi structured interviews a useful research method to explore patients' expectations, experiences, and satisfaction of musculoskeletal physiotherapy.

4.2 An exploration of the aspects of patient experience

In musculoskeletal conditions, semi structured interviews have been used to explore various aspects of the patient experience. Stenberg et al. (2012) explored patients' expectations and subsequent experiences of the care and rehabilitation they received. Thematic analysis from face to face semi structured interviews with 12 participants resulted in five important categories that were linked to a positive experience: being taken seriously, getting an explanation, being invited to participate, being assessed and treated individually, and being taken care of in a trustworthy environment. Stenberg et al. (2012) found that these aspects were all linked by a core category: getting confirmation.

In a questionnaire based study (Metcalfe and Klaber Moffett, 2013), 285 participants completed a battery of measures to compare expectations with outcomes in a musculoskeletal physiotherapy service. Expectation findings were discussed in terms of the concepts outlined by Thompson and Suñol (1995). Metcalfe and Klaber Moffett (2013) found more participants reported ideal expectations than previous thought. In the remainder of the articles included in the systematic review, expectations were not reported or discussed against any previously published framework. None the studies sought to produce any framework for expectations. Thompson and Suñol (1995) appear to have produced the only available synthesis of expectations in healthcare from across the literature, which makes their framework most suitable to consider.

Kidd et al. (2011) used face to face semi structured interviews with eight participants to explore their judgements of patient centred physiotherapy and its' essential elements. They found five categories of characteristics relating to patient-centred physiotherapy: the ability to communicate, confidence, knowledge and professionalism, an understanding of people and an ability to relate, and transparency of progress and outcome. Similar to Stenberg et al. (2012), their findings indicated that the elements reported did not tend to occur in isolation, but formed a composite picture of patient centred physiotherapy from the patient's perspective. Bradbury et al. (2012) used a mix of face to face and telephone semi structured interviews to explore whether patients' appraisals of public and private treatments were similar when appraising osteopathy compared to physiotherapy

for lower back pain. Findings from 35 participants indicated that physiotherapy was appraised more negatively in the NHS than the private sector, but osteopathy was appraised similarly within both healthcare sectors. Reeve and May (2009) studied the dimensions of quality that were important to patients referred to a musculoskeletal service, interviewing 12 participants. Thematic analysis revealed five key themes that were important indicators of a quality service: provision of information, professional skills, interpersonal skills, outcome, and patient care pathway. There was a notable overlap in the themes identified in these studies.

As an alternative to face to face and telephone interviews, Eriksson et al. (2011) used video interviews to investigate the experience of ten patients who received video based physiotherapy at home for two months after a shoulder joint replacement. The patients' experience of video communication with the physiotherapist was rated as positive overall. Eriksson et al. (2011) concluded that the frequent interplay during tele rehabilitation allowed more individualisation of treatment, and identified this as one reason for the positive findings.

Semi structured interviews have also been used in satisfaction studies. May (2001b) interviewed 34 participants who had received treatment for low back pain in the previous two months. In an attempt to describe the aspects of physiotherapy care that patients considered important, he found that patients' needs were individualised, and did not simply relate to the outcome of care, but also to the quality of the process of care. Focus groups have been used to explore satisfaction with (Hills and Kitchen, 2007a), and patients' priorities for (Peersman et al., 2013), musculoskeletal physiotherapy. Hills and Kitchen conducted four focus groups with a total of 30 participants. In their study, both satisfactory and unsatisfactory aspects of care emerged under the principal themes of expectations, communication, perspectives of the therapist, treatment process, and outcome. Peersman et al. (2013) conducted eight focus groups with 53 participants. The focus group discussions generated 48 discrete aspects of care that were considered by participants as treatment priorities. Both used a topic guide similar to that used in a semi structured interview, and both used a thematic analysis process. Although focus groups appear to be a potentially useful method to explore patients views, semi structured interviews remain the predominant method in these types of studies.

Sample sizes in these studies ranged from eight (Kidd et al., 2011) to 35 (Bradbury et al., 2012). Bradbury et al. (2012) conducted 28 face to face interviews and seven telephone interviews (with geographically remote participants) within two years of completion of treatment. Eriksson et al. (2011) interviewed ten participants immediately after the end of their rehabilitation, as did Sheppard et al. (2010), who undertook 22 interviews. Stenberg et al. (2012) conducted 12 interviews, but interviewed their sample before treatment and at three months, to allow sufficient time for participants to complete rehabilitation treatment. Eriksson et al. (2011), Kidd et al. (2011), and May (2001b) recruited participants at the end of treatment, and conducted their interviews as soon as possible after discharge. Bradbury et al. (2012) interviewed participants up to two years after their treatment for lower back pain, but this was significantly longer than the other studies. Interviews typically lasted between 15 and 30 minutes, with some lasting up to 70-90 minutes (Bradbury et al., 2012; Eriksson et al., 2011; Sheppard et al., 2010; Stenberg et al., 2012; May, 2001b; Reeve and May, 2009).

Purposive sampling was often used, described by Robinson (2014), which allowed the samples to be selected to provide a range of views that were likely to be representative across the population. Topic guides, developed from the literature, were commonly used to explore the views of the chosen sample. Eriksson et al. (2011) used a general interview topic guide based around participants' experiences of tele-rehabilitation in face to face interviews. Hills and Kitchen (2007a) developed an interview style topic guide for their focus groups, and Kidd et al. (2011) used a grounded theory approach with a series of standardised opening questions to elicit initial responses in the topic area. Sheppard et al. (2010) based their topic guide on a review of the existing literature, as did May (2001b). They did not further specify their developmental methods.

The most common method of data collection was to record the interview in full and transcribe the dialogue verbatim (Bradbury et al., 2012; Eriksson et al., 2011; Hills and Kitchen 2007a; Kidd et al., 2011; Sheppard et al.,2010; Stenberg et al., 2012; May, 2001b). May (2001b) and Reeve and May (2009) continued interviewing until a point of data saturation had been reached. This was considered as the point

where no major new insights were revealed, and there was repetition of the same issues across different respondents.

A range of data analysis methods were used in these exploratory studies of patients' views and perspectives. These have generally centred around a thematic analysis. Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data, and it minimally organises and describes the data set in (rich) detail (Braun and Clark, 2006). Bradbury et al. (2012), May (2001b), and Reeve and May (2009) used a framework analysis. Bradbury et al. (2012) combined this with established guidelines for thematic analysis (Braun and Clarke, 2006) and coding procedures from grounded theory. Kidd et al. (2011) and Stenberg et al. (2012) also used grounded theory. Eriksson et al. (2011) used a thematic analysis and coding process, but did further describe their methods. Braun and Clarke (2006) provided, perhaps, the most practical and descriptive methods for conducting a thematic analysis, and certainly the most widely used.

The systemic review and narrative analysis, presented in chapter three, found a range of themes that affected expectations, and identified a range of dimensions in patients' experiences and satisfaction. These dimensions included the patient-physiotherapist interaction, physiotherapist attributes, services attributes, and clinical outcome. These synthesised themes across patients' expectations, experiences, and satisfaction have not been studied in an NHS sample of musculoskeletal physiotherapy. The studies presented here have examined some isolated areas of these, and provide a basis for the methods to explore these broader components of the patient experience, in a sample of NHS based musculoskeletal physiotherapy patients.

4.3 Aims

To address the primary aim of this research study, the aims of the second phase were:

- To explore the proposed dimensions of patients' expectations, experiences, and satisfaction in patients receiving musculoskeletal physiotherapy

- To compare the reported dimensions of patients' expectations, experiences, and satisfaction in patients receiving musculoskeletal physiotherapy to those identified in the existing literature

4.4 Method

4.4.1 Design

Semi structured interviews were used to explore patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy. A topic guide (Appendix 8) was developed from the findings of the systematic review and narrative analysis (chapter 3). This was used to inform the conduct of the interviews. The content of each interview included an introduction, consent, structured questions (and supplementary questions), and a summary. The interviews were recorded and transcribed verbatim. A thematic analysis of the data was then undertaken, based on the phases of a thematic analysis outlined by Braun and Clarke (2006) (Figure 4.1).

4.4.2 Sample

A purposive sample of 18 patients receiving musculoskeletal physiotherapy were recruited and 15 were interviewed. The sample was recruited from a primary care based musculoskeletal physiotherapist service in the North east of England.

Inclusion criteria were participants aged 18 or over, and having received musculoskeletal physiotherapy, and who were able to conduct an interview in English, and who were able to give informed consent. Exclusion criteria were participants aged 17 or under, or those not having received musculoskeletal physiotherapy, or those who were unable to conduct and interview in English, or those who were unable to give informed consent.

Physiotherapists working at the study site were provided with written information during a presentation at a staff meeting (Appendix 3). Physiotherapists that expressed an interest in recruiting participants were provided with written information for participants (Appendix 4; Appendix 5). Patients meeting the

inclusion criteria were given this written information during their episode of care. Patients who expressed an interested in participating were then recruited by the chief investigator at the point of discharge. An information sheet was sent to the GP of each participant (Appendix 7).

Informed consent was taken from each participant (Appendix 6). Informed consent is a process by which a subject voluntarily confirms his or her willingness to participate in a particular trial, after having been informed of all aspects of the trial that are relevant to the subject's decision to participate; and informed consent is documented by means of a written, signed and dated informed consent form (ICH, 1996).

4.4.3 Favourable ethical opinion

Northumbria University Faculty Ethics Committee granted a favourable ethical opinion on 5 September 2013 (RE15-11-121413). The NHS Research Ethics Committee (NHS REC) Proportionate Review Service (PRS) granted a favourable ethical opinion on 14 May 2014 (14/WM/0102 and IRAS 99298) (Appendix 1). South Tyneside NHS Foundation Trust granted a favourable ethical opinion on 27 May 2014 (039/2013).

A range of ethical considerations were covered within these submissions for favourable opinions. The Declaration of Helsinki, published in 1964, is the main document regulating research ethics (Wilson, 2002). The Health Research Authority (HRA) is the body within the UK that reviews ethical submissions for research in the NHS, involving patients or staff. The role of the HRA is to protect the rights, safety, dignity and wellbeing of research participants. The Proportionate Review Service (PRS) provides an accelerated, proportionate review of research studies which raise no material ethical issues. Studies which have no material ethical issues have minimal risk, burden or intrusion for research participants. Studies involving non sensitive interviews and questionnaires are typically suitable to proportionate review, such as the methods used in this study.

4.4.4 Data collection

Semi structured interviews were conducted with 15 participants at the site that they received their treatment. The interviews were conducted using the topic guide (Appendix 8). The theoretical constructs underpinning the structured questions included participants' perspectives and views held before treatment (expectations), during treatment (experiences), and after treatment (satisfaction). The topical constructs underpinning the structured questions included participants' expectations (personal and social), experiences (personal and service), and satisfaction (personal and service).

The topic guide was developed based on the findings from the systematic review and narrative analysis, presented in chapter three. This was in keeping with Bradbury et al., (2012), Hills and Kitchen (2007a), May (2001b), and Reeve and May (2009), who all developed their topic guides based on a review of the literature. Within these studies, the detailed methods on topic guide development were not included. In the current study, the topic guide was based on the theoretical constructs evident in the extant literate, with the semi structured questions developed alongside these to elect responses from participants within these topic areas.

The interviews were transcribed verbatim. Data protection and participant confidentiality was maintained throughout. Personal identifiable data was held by the chief investigator and codes were assigned for each site, participant, and interview. The interviews were transcribed by an NHS medical secretary who did not have access any personal identifiable data. Data storage was in line with University and NHS policies.

4.4.5 Data analysis

A thematic analysis was conducted on the data from the interview transcripts based on the six phase process described by Braun and Clark (2006) (Figure 4.1). Each transcript was read through to gain a sense of the overall content and meaning. Each transcript was then re-read and an initial coding was applied. The initial coding involved highlighting the headline themes throughout the transcript.

These initial headlines themes were subsequently coded against a structure developed from the literature review (chapter 3). These codes were then read through within their original interview context to ensure clarification of appropriate coding and meaning. After completion of blocks of 3 to 4 interviews, the coding was rechecked to ensure a consistency throughout the data analysis process. The thematic analysis process was handled within NVivo (Version 10).

Figure 4.1: Phases of a thematic analysis

1. Familiarising yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme
4. Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis
5. Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis

As identified by Braun and Clarke (2006), the themes within data can be identified in one of two primary ways: an inductive or bottom up way, or in a deductive or top down way. In this study, the analysis was based on the deductive model, as there were clear theoretical frameworks within each construct (expectation, experience, satisfaction). This allowed the thematic analysis to be analysis driven, so that the data made sense within the theoretical frameworks. This form of thematic analysis tends to provide less a rich description of the data overall, and more a detailed analysis of some aspect of the data (Braun and Clarke, 2006). In this phase of the study, a more detailed view of the patients' perspective was sought, making a deductive approach the method of choice. Responses were categorised by expectation, experience, or satisfaction, and presented as positive, neutral, or negative.

4.5 Results

4.5.1 Response rates

Eighteen participants were recruited and 15 participants were interviewed. One participant was not interviewed as they were not contactable. Two participants were not interviewed as data saturation was already achieved. Overall, there were 474 separate responses made across the interviews. There were 323 responses relating to experiences, 121 responses relating to expectations, and 30 responses relating to satisfaction. Overall, 15% of the responses were negative, 38% were neutral, and 47% were positive. These are shown in Table 4.1.

Table 4.1: Responses grouped by category

	Expectations		**Experiences**		**Satisfaction**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Positive	19	16	181	56	25	83	**225**	**47**
Neutral	73	60	103	32	3	10	**179**	**38**
Negative	29	24	39	12	2	7	**70**	**15**
Total	**121**	**100**	**323**	**100**	**30**	**100**	**474**	**100**

Expectations were predominantly expressed as neutral (60%) and experiences were mixed between positive (56%) and neutral (32%). Satisfaction, however, was expressed in significantly positive terms (83%). There was progression in positivity levels between expectations, then experiences, and then satisfaction.

4.5.2 Participants' characteristics

There were 12 female and three male participants with an age range of 41 to 70 (mean 59). There were five participants with shoulder problems, three with lower back problems, three with neck problems, and one each with thoracic spine, hip, knee, and ankle problems. The participants' characteristics are outlined in Table 4.2, and were broadly reflective of the service.

Table 4.2: Participants' characteristics

Number	Gender	Age	Area	Site	Clinician	Interview
1	Female	41	Shoulder	1	1	Yes
2	Female	53	Shoulder	2	1	No
3	Female	44	Knee	3	2	No
4	Female	65	Lumbar	1	1	Yes
5	Female	46	Lumbar	1	1	Yes
6	Male	66	Shoulder	1	1	Yes
7	Female	52	Lumbar	1	2	Yes
8	Male	59	Shoulder	1	2	Yes
9	Female	68	Cervical	1	2	Yes
10	Female	61	Cervical	1	2	Yes
11	Male	46	Cervical	1	3	Yes
12	Female	61	Hip	1	2	Yes
13	Female	68	Thoracic	1	3	Yes
14	Female	70	Knee	1	2	Yes
15	Female	62	Shoulder	1	2	Yes
16	Female	57	Ankle	1	2	Yes
17	Female	67	Shoulder	1	2	Yes
18	Male	42	Knee	1	1	No

4.5.3 Patients' expectations

Overall, 30 separate themes were identified relating to patients' expectations. The common themes in order of frequency were the assessment process, type of treatment, explanation of condition, no scan, increase in symptoms with treatment, lack of progress and outcome of treatment, condition wouldn't improve, long waiting time, wouldn't receive 'hands on' treatment, specialist opinion, difficulty building a rapport in 20 minutes, exercise at home, being cynical, and 17 others with single mentions. Table 4.3 outlines number of participants, number of references, number of themes, and expectation type (Thompson and Suñol, 1995).

Table 4.3: Number of responses per expectation type

Expectation	Participants	References	Themes
Ideal	12	19	12
Predicted	13	52	13
Normative	15	43	20
Unformed	13	23	7

There were around twice as many responses indicating predicted and normative expectations when compared to unformed and ideal expectations. Normative expectations were the most varied in terms of themes, and all participants expressed at least one normative expectation. Predicted expectations had the most responses. Most participants expressed a range of expectations across different themes and expectation types.

4.5.3.1 Ideal expectations

Overall 12 separate participants made 19 references to 12 themes relating to ideal expectations. The references were evenly described as positive, neutral, and negative expectations. The themes were evenly distributed across a range of topics. Positive expectation themes focused on receiving a specialist opinion and the type of treatment they thought was required. Neutral expectation themes were focused on the waiting time to treatment, not having a scan, receiving an explanation about the condition and treatment, and the type of treatment they thought was required. Negative expectation themes were focused on not having a scan, not receiving the type of treatment they thought was required, and a longer waiting time than their ideal. Table 4.4 shows the number of participants, number of references made, and themes (frequency).

Table 4.4: Number of participants and references to ideal expectations

	Participants	References	Themes (frequency)
Positive	4	5	Specialist opinion (2), type of treatment (1), felt listened to (1), steroid injection (1)
Neutral	6	7	Waiting time (2), no scan (2), type of treatment (2), explanation of condition (1)
Negative	5	7	No scan (3), wouldn't receive 'hands on' treatment (2), long waiting time (2)

The type of treatment expected was expressed in positive, neutral, and negative terms. Hands on treatment was typically expressed as a positive expectation, explained by participant 12, and echoed by participant 11:

"I think rather than get more exercises I am getting treatment and I feel that that is what I need… and I think I am getting more hands on and I felt better getting that treatment but don't know." (participant 12)

"Yes as it gives me something I can do when I go home and the physical manipulation is what I expected as physiotherapy. I expected exercises and some sort of physical stuff… something hands on while you are here and exercises that you can do at home… what I got was exactly what I wanted." (participant 11)

Where participants had expected a scan, and not received one, this was typically expressed neutrally or negatively. Participant 4 remarked:

"I thought I needed a scan as I thought that there was something wrong and I was thinking the worst until the physiotherapist explained that there was a curve in my spine and there is nothing that can be done about that."

Participant 9 thought a scan would have helped make a diagnosis:

"…as you see I want to know what it is then they should be treating that problem. If anybody is just guessing I could go on like this for months and it is has truly, truly got me down. I feel a wreck."

While expecting a scan and not receiving one was seen negatively, actually receiving a scan resulted in a more positive experience for participant 13:

"It was important to me to find out about what these pains were and, you know, its all right getting a few exercises but as nothing was getting any better I think she got to the stage where she thought that just in case if there was something else, and I got to that stage where if I had had a couple of physiotherapists I would say it was ok but I didn't feel that, but now I have put it in my head that as I have had the scan and know that there isn't anything else untoward there and I think that settled me more by doing that, as I might have gone away and felt that it was all a waste of time but now that I know what it is although I did have an X-ray a long time ago, I now know that there is nothing else there and I feel much happier in myself."

Longer waiting times were seen as neutral or negative, but not expressed very strongly, for example participant 17:

"Maybe about 4-6 weeks… think it was a bit longer than I thought [expected]."

4.5.3.2 Predicted expectations

Overall, 13 separate participants made 52 references to 13 themes relating to predicted expectations. The references were described predominantly as neutral expectations and then evenly distributed across positive and negative expectations.The themes were dominated by the assessment process and the type of treatment they thought was required. Positive expectation themes focused on the type of treatment they thought was required and an increase in symptoms after treatment. Neutral expectation themes focused strongly on the assessment process and the type of treatment they thought was required, and an explanation of the condition. Negative expectation themes focused on not receiving the type of treatment they thought was required and difficulty building a rapport within the treatment time available. Table 4.5 shows the number of participants, number of references made, and themes (frequency).

Table 4.5: Number of participants and references to predicted expectations

	Participants	References	Themes (frequency)
Positive	5	8	Type of treatment (2), increase in symptoms (2), competence (1), discussing treatment (1), other (2)
Neutral	11	36	Assessment process (17), type of treatment (13), explanation of condition (5), continuity (1)
Negative	4	8	Wouldn't receive 'hands on' treatment (5), difficulty building a rapport in 20 minutes (2), long waiting time (1)

Expectations of the assessment process were the most commonly reported. They were expressed in neutral terms and experiences often matched expectations, as indicated by participant 5:

"It was exactly what I expected, giving a history and with exercises… basically they have told me what to do and advised me the best way they can so that's all I can ask for."

Participant 15 expected continuity, and thought this would have a positive impact:

"…it is much better than seeing different ones because you build up a sort of relationship and you know what you can talk to her about and you feel comfortable speaking to her because you have seen her on previous occasions. Whereas if you have different ones you've got to sort of repeat yourself, so I think it's much easier and better."

Participant 12 felt better getting the treatment they had predicted was required:

"I think rather than get more exercises I am getting [hands on] treatment and I feel that that is what I need… I am getting more hands on [treatment] and I felt better getting that treatment…"

There was also an awareness of the effects and side effects of treatment, described by participant 10:

"It [is] fine, sometimes it can be a bit sore but you take the good with the bad, and you expect or should expect it to be because you are trying to use something that really is, for want of a better way of putting it, is not the way it should be, so to me it [is] going to be sore."

As part of the type of treatment, participants indicated a clear idea about the length of treatment time, but typically expressed this as a neutral expectation.

"[treatment time] has been 20 or 30 minutes, that's usually what I expected to get." (participant 5)

"[treatment time] I have had 20 minutes but this time I have not felt rushed with the exercises and been massaged." (participant 7)

Interestingly, appointment times within the service were 20 minutes, which may indicate these participants were getting a longer treatment duration than others. Previous experiences were evident in predicted expectations. Participant 11 described a positive experience, which had been predicted based on past treatment:

"Yes it [treatment] has been really good. I was in the [redacted for confidentiality] and I was medically discharged with a [redacted for confidentiality] so I have had extensive physiotherapy and it has been the same as I had in the [redacted for confidentiality] as when you come out of the [redacted for confidentiality] you get treated very well."

4.5.3.3 Normative expectations

All 15 participants made 43 references to 20 themes relating to normative expectations. The references were described as neutral and negative expectations, followed by positive expectations. The themes were strongly directed towards the type of treatment they thought was required, concern that their condition wouldn't improve, and the assessment process. Positive expectation themes focused on an increase symptoms after treatment and being given exercises to do at home to help their condition. Neutral expectation themes

focused very strongly on the type of treatment they thought was required, the assessment process, and receiving an explanation about the condition. Negative expectation themes focused on concern that their condition wouldn't improve, that they did not receive a scan, and an increase in symptoms after treatment. Table 4.6 shows the number of participants, number of references made, and themes (frequency).

Table 4.6: Number of participants and references to normative expectations

	Participants	References	Themes (frequency)
Positive	4	8	Increase in symptoms (3), exercises at home (2), specialist opinion (1), other (2)
Neutral	11	20	Type of treatment (10), assessment process (4), explanation of condition (2), other (4)
Negative	10	15	Condition wouldn't improve (6), no scan (3), pain after treatment (2), other (4)

Normative expectations were often based on indirect experiences, as with participant 10:

"[expectations] No not really [but] my boss actually damaged her shoulder and she had had physio[therapy] a full year before so she would stand in the office and do these bits of stretching exercises and then walk the ladders and what have you."

Some participants appeared to develop their expectations after the experience, such as participant 14:

"[competence] Well not having anything to compare it to I've got to say yes."

Some showed signs of expectations being formed based on what they were told during the treatment, as participants 17 and 11:

"They said they would find out exactly what was wrong with me and then they will give their advice." (participant 17)

"[any expectations] No not really, I kind of expected what I got. I was expecting it would be about my neck and posture sort of thing." (participant 11)

Negative expectation themes focused on the concern that their condition wouldn't ever improve, or would take a long time:

"[have been listened to]… yes but I don't really think anything can be done about the pain." (participant 14)

"…at work there are quite a few with the same thing and that's why I think it is work related but hopefully in a couple of years I will be put right. Soon as possible I hope." (participant 6)

Participants expecting a scan described their expectations in negative terms, particularly where they were not improving with their treatment, and a scan was seen as a next step from which they were held back from, such as participant 6:

"Well, the doctor says if this doesn't work you may go for a scan which I thought I should have had before. And he said that if this doesn't work I might go and see a Consultant for an injection into the muscle. And if that doesn't work we might be doing something with the shoulder [surgery]."

An increase in symptoms, temporarily, was seen by some as a positive expectation, as it was linked with an improvement, described by participant 6:

"Well, yes I knew she was going to move it the way I cannot and it [was] going to hurt [because] I know there was something stuck together and she was going to have to get it apart and getting working again."

4.5.3.4 Unformed expectations

Overall, 13 separate participants made 23 references to seven themes relating to unformed expectations. The references were described as predominantly neutral expectations, with some negative expectations, but only one positive expectation. The themes were strongly directed towards the assessment process and lack of progress and the outcome of treatment. Neutral expectation themes focused on the assessment process and lack of progress and the outcome of treatment.

Negative expectation themes focused on being generally cynical towards physiotherapy (but not being sure why), lack of progress with treatment, the assessment process, and not liking the type of treatment. Table 4.7 shows the number of participants, number of references made, and themes (frequency).

Table 4.7: Number of participants and references to unformed expectations

	Participants	References	Themes (frequency)
Positive	1	1	Type of treatment (1)
Neutral	11	16	Assessment process (11), lack of progress and outcome of treatment (5)
Negative	5	6	Cynical (2), lack of progress (2), assessment process (1), didn't like the type of treatment (1)

Although a range of unformed expectations were expressed by participants, relating to similar topics areas, they were typically vaguer than in the other expectations types. Some were hopeful of improvement, such as participant 4:

"[any expectation] Not really but I was ready to try anything because it was getting me down."

Some were unsure as they had no previous experience, for example participant 10:

"[any expectations] No because I didn't know how it worked and to be truthful I had never done a self-referral or anything before, so I really didn't know how it worked until they said a physio[therapist] would ring [me] the next day at such and such a time and would that be convenient."

Participants with unformed expectations seemed more likely to display an external locus of control, as indicated by participant 6:

"So I said: "Im in your hands, you do whatever you think is best."

Some still had not made their mind up (participant 16):

"Knowing [myself] I will probably be undecided whether to come back or not, so I'll just see how it goes."

4.5.4 Patients' experiences

All 15 participants made 323 references to 44 themes relating to their experiences. The references were described in predominantly positive terms, with some neutral, but few negative descriptions. The themes were generally focused on being able to put their point across, the type of treatment, technical competence, environmental factors, and explanations.

Positive experience themes focused on being able to put their point of view across, the type of treatment, technical competence, the location, environment, and parking, verbal explanations about the condition, being able to influence treatment plan, gaining an improvement in symptoms, building rapport and developing a good relationship, and short waiting times. Neutral experience themes focused on seeing the GP first before referral, receiving a phone assessment, continuity of care, the type of treatment, being given exercises, and being posted exercises. Negative experience themes focused on pain with treatment, feeling rushed or difficulty building a rapport in the appointment, not understanding the assessment process, not understanding the explanations given (verbal and written), and not receiving a scan. Table 4.8 shows the number of participants, number of references made, and themes (frequency).

Table 4.8: Number of participants and references to experiences

	Participants	References	Themes (frequency)
Positive	15	181	Able to put point across (31), type of treatment (20), technical competence (18), location / environment / parking (17), explanations (15), influence treatment plan (13), improvement in symptoms (11), rapport / relationship (11), waiting time (10), other (35)
Neutral	15	103	Seeing the GP first (14), phone assessment (14), continuity of care (13), type of treatment (13), given exercises (10), posted exercises (9), other (30)
Negative	10	39	Pain with treatment (5), rushed / no rapport (5), didn't understand assessment process (5) or explanations (4), no scan (4), other (16)

4.5.4.1 Positive experiences

The most common positive theme described was that participants felt able to put their point across. The shared concept was that the participant felt comfortable putting their opinion across. This was described in terms of approachability by participant 1:

"Yes, I think I would have been able to approach her and would have been happy to do that but I don't think other people I have seen I would have been too keen to say anything."

Asking for their opinion was valued, as was shared decision making, described by participant 15:

"I think she is very thorough and she explains in a way that I can understand, it's not all gobbledegook, you know what I mean? And she asks you what you think instead of just saying it should be done like this and that. She asks me what I think when she has finished so I can tell her whether it has worked or it is not working, and I don't feel intimidated at all."

"[decision making] Yes it was sort of joint, going through different stages, and she tells you the next stage if this doesn't work we will be looking at that and we will be doing that."

The type of treatment was also reported in positive terms. This seemed more so with those participants receiving hand on treatments, such as participant 12:

"I think rather than get more exercises I am getting treatment and I feel that that is what I need… I think I am getting more hands on and I felt better getting that treatment but don't know… It's been really good because I have had different treatments on different departments and I am quite happy with what I am receiving here."

Organisation factors, such as the clinic location, general environment, and the parking were commonly described, but typically in brief terms. Participant 1 reported:

"I think the option of where you want to go is quite good and the options of going earlier elsewhere is good, so that is a good option."

Several participants were happy with the facilities themselves (participant 15):

"[building] I think it is very nice, up to date and modern, easy to find where you want to be, and I do think the staff are very helpful."

A clear explanation about the treatment was received positively (participant 10):

"Well, I think it has been fine because she explains what she wants you to do… she is great at explaining and showing you and what have you, and I think sometimes when somebody shows you rather than explains it is much easier."

Written explanations were also helpful:

"Its good to have the paperwork to remind me about how many times I have to do that again, its just getting used to it." (participant 7)

"[exercise sheet]… Yes, because I wouldn't have remembered it. She gave me a sheet with three on a couple of sessions ago and I was doing them, then she showed me three new ones and I forgot them, I didn't have a clue what they were, so she printed them out for me this time. She asked me if I had done them and I said that I had done the ones I could remember but it was nothing like what she wanted me to do." (participant 8)

Most participants reported a good rapport and relationship with their physiotherapist, which was usually associated with good communication. This was described by participant 7, as follows:

"She has been really friendly and lovely, and understood exactly where I was coming from even when sometimes I found it hard to say that I wanted to get rid of the pain, she listened and explained in her way so that I could understand it."

A short waiting time was generally associated with a positive experience, such as participant 5 described:

"Yes, it was great and really quick, I think it was within 2 weeks from seeing the GP to actually coming here, I thought it was great."

Waiting time between appointments and ease of access was also associate with a positive experience:

"I have never had a problem getting here as it has always been within a few days or ten days between appointments which is all right as it allows me to go away and do what I have been asked to do and given me time to work out whether there has been any change." (participant 11)

Where a scan was expected, and received, a positive experience was reported. Participant 13 was much happier after a scan, despite little reported improvement in actual symptoms or change in treatment plan:

"… Since I have had the scan I feel a lot happier and if I know there is nothing else they can do I am satisfied now to continue just trying the Paracetamol and Co-codamol until I get to a stage if I can't, I'll wait to see [GP name] and try something else… and I feel a lot more better about it in myself definitely you know it has put my mind at rest because you just don't know if it could have been something else that I've had, but I don't know what else but you just don't know, do you."

Continuity of care was also a positive, explained by participant 15:

"[seeing the same physiotherapist] Yes it is much better than seeing different ones because you build up a sort of relationship and you know what you can talk to her about and you feel comfortable speaking to her because you have seen her on

previous occasions. Whereas if you have different ones you've got to sort of repeat yourself, so I think it's much easier and better."

4.5.4.2 Neutral experiences

The mechanism of arranging a referral was generally described in neutral terms, and a GP recommended self-referral was common. This was typically seen as a necessary organisational requirement, and was viewed neutrally, as described by participants 10 and 16:

"I did a self referral. The GP said you need physio[therapy] so you need to do a self referral." (participant 10)

"They just told me the number to ring, as I had had physio before." (participant 16)

An initial telephone assessment was also seen as another of the required processes. Participant 1 described some overlap between the phone assessment and first face to face appointment:

"…Yes, initially I think there was a bit of overlap as I went through another questionnaire and putting it into the computer so a bit of overlapping, yes… I think because it was a couple of weeks and maybe things had moved on, so I think there was a bit of overlapping in saying this is where we were and what has happened now type of thing. So it wasn't a major thing."

Participant 5 saw the phone assessment as method of arranging an appointment rather than a clinical process:

"Yes, the GP referred me when I went to see him and I was given a number to ring and I was given a consultation over the phone and asked which area I wanted to go to and I said I wanted to come here."

Participant 7 saw the phone call as an information gathering exercise:

"[phone assessment] It was a 20 minute assessment and I had to tell them what medication currently I was on and generally what the problem was."

The type of treatment was described in similar terms as the positive responses. Some participants described this in more neutral terms:

"[type of treatment] They have done slightly different things in checking me over and giving me some exercises and shown me what to do at home and extra special ones. Previously when I have been to other physiotherapists they've taped my shoulders and also done some like chiropractic [manual therapy] for me and also some acupuncture and I've also had that done at different times which I haven't had done before, and a bit of manipulation type things to like flex the muscles." (participant 1)

"[treatment] It is fine, sometimes it can be a bit sore but you take the good with the bad, and you expect or should expect it to be because you are trying to use something that really is, for want of a better way of putting it, is not the way it should be, so to me it is going to be sore… I mean it can be sore but I think it is more discomfort than sore, and the physiotherapist is great because she will say to you 'is that sore, is that any worse, if this is painful tell me to stop, let me know, don't just carry on' type of thing." (participant 10)

Several participants described being posted out exercise leaflets, following telephone assessment, but before being seen in the service. Some viewed this as a stop gap, for example participant 5:

"I was sent out some exercises in the post to do until I actually came into be seen properly."

Being sent exercise leaflets was typically described in neutral terms, although some viewed it more helpfully, such as participant 6:

"[phone assessment outcome] Yes, some exercises but they didn't put me right completely… I had to do that for 12 weeks and found that as I was going on holiday I tried the cold water and that helped a bit but when I came back it was the same again."

4.5.4.3 Negative experiences

Several participants reported pain with their treatment. Some had seemed to expect this, for example participant 5:

"[treatment] It's made it worse (laughing) but that's fair enough as it is part of the treatment. I've had to manipulate and it's going to aggravate the area, but that's fine."

Some were not prepared to tolerate it, such as participant 6:

"Well, I'm sure when she pushed my arm I said 'I can take pain but I'll have to stop you' and she was pushing and there is only so much pain you can take and I said that that was enough."

While this was one of the most commonly reported negative experiences, there were still relatively infrequent. Several participants also reported feeling rushed within the appointment. This was typically related to the duration, and often led to difficulty building a rapport:

"[appointment length] I think with the first one she was possibly a bit under pressure and I noticed her looking at the clock as I think it started at eight [am] and I think that was probably why." (participant 1)

"[appointment length] Well it is quick and basically you are in and out. So whether that means more or not I don't know. But just the normal as I have experienced in the past." (participant 5)

One participant also reported a briefer than expected first appointment, and short episode of care than expected (participant 9):

"… I think I only had about 3 sessions, in fact the first session wasn't treatment hardly at all, it was just about 5, 6, or 7 minutes but initially they had to do all the form filling which did take time so my first session wasn't very long at all insofar as the treatment went. That was a short time."

A similar number of participants didn't understand the assessment process, or referral pathways. Participant 9 summarised this as:

"When I came and saw the Consultant, can I call him the Consultant because I can't remember his title other than I do remember it was a musculoskeletal technician or something maybe. However, he said to me, and I must say I was completely and utterly unimpressed totally with what he did. How he could assess from what he did I can't imagine but his conclusion was that I had a trapped nerve in my neck. What had happened was that I had had a back massage, first time in my life and a big mistake. But I am not sure that the physiotherapist who was treating me had asked his opinion."

Despite being proved with verbal explanations and written information, some participants still didn't understand their condition (participant 6):

"There was a sheet telling me what it was. I think subacromial… [did the information make sense] well, it did because my daughter works in a hospital so she explained it to me."

Not receiving a scan was also described in negative terms, particularly when combined with limited treatment progress, for example participant 9:

"I just feel that, you see without knowing the full facts that's how I look at it, If I had had an MRI scan, I mean the physiotherapist did say that if you had only had an X-ray that wouldn't have shown a trapped nerve, but that it would on an MRI scan. But even this morning she said I wasn't ready to go down that road yet. I don't know how much more I can take of the pain.".

4.5.5 Patient satisfaction

All 15 separate participants made 30 references to nine themes relating to satisfaction. The references were expressed mainly in terms of overall satisfaction, with little description attached. The responses were positive throughout, with very few neutral or negative descriptions. Table 4.9 shows the number of participants, number of references made, and themes (frequency).

Table 4.9: Number of participants and references to satisfaction

	Participants	References	Themes (frequency)
Positive	14	25	Satisfied overall (15), recommend to a friend (4), long term plan (2), less anxious (2), other (2)
Neutral	2	3	Satisfied overall (2), initial difficulty being referred but the problem resolved (1)
Negative	2	2	Specialist treatment closer to home (1), no scan and poor progress with treatment (1)

The majority of participants expressed satisfaction in quite general terms. When questioned about satisfaction, responses were generally brief and lacked any detail. Responses were data poor when compared with responses across experiences and expectations, and typical responses were often quite closed.

4.5.5.1 Positive satisfaction

Overall satisfaction was often described positively, but briefly. Responses regarding willingness to recommend or return to the service were similarly brief.

"Yes, it was good." (participant 1)

"Oh yes." (participant 4)

"Yes, basically they have told me what to do and advised me the best way they can so that's all I can ask for." (participant 5)

"It's been very good." (participant 6)

"Well, as far as the service I am happy with everything." (participant 8)

"Yes, it has been helpful. I wouldn't have had a clue what to do though the exercises I have been given to do are long term so how long it is going to take I will get rid of the pain as best I can rather than having to look for an alternative." (participant 7)

4.5.5.2 Neutral satisfaction

There were limited neutral responses, but participant 5 linked overall satisfaction to their expectations:

"It has been just what I expected."

Participant 8 responded:

"I've got no complaints at all."

4.5.5.3 Negative satisfaction

There were limited negative responses, but participant 7 stated:

"The only thing I would have said would be that it would have been nicer to get someone nearer home but the same specialist treatment."

Participant 9, was the only one that expressed anything significantly negative when asked about overall satisfaction:

"I just feel that, you see without knowing the full facts that's how I look at it, If I had had an MRI scan, I mean the Physiotherapist did say that if you had only had an x-ray that wouldn't have shown a trapped nerve, but that it would on an MRI scan. But even this morning she said I wasn't ready to go down that road yet. I don't know how much more I can take of the pain. I'm taking the painkillers that I have been given, I was given 2 lots from the GP. However, when I came to see the

musculoskeletal technician and he asked what I had taken and I told him, he said that he would stop those ones, but I have a bigger problem than I already have when I take tablets so I'd rather not take them if they are not any good, but I was taking them. However he said I should stop taking them because he said that they are not painkillers but more anti-inflammatory. But he said I would continue to take the ones you get over the counter, Paracetamol. They are also giving me problems which I knew it would but at the end of the day I'm really not getting any relief from these tablets. So I just feel that if this Acupuncture doesn't help I don't know where I go from here apart from a bullet to my head I think."

4.5.6 Common themes across expectations, experiences, and satisfaction

There were a number of common themes across expectation, experience, and satisfaction. The type of treatment (19%) was the most common theme and was discussed mainly as an experience or expectation. The assessment process (11%) was the second most common theme, which was also an experience or expectation. Being able to put their point across (7%), receiving and explanation (6%), and building a rapport or relationship (4%) were the most commonly reported communication themes.

4.6 Discussion

The interviews with patients explored their expectations, experiences, and satisfaction with musculoskeletal physiotherapy. Similar to the scope of the systematic review presented in chapter three, the structure of the interviews was designed to explore a much wider range of topics that extant studies. There were 20 themes in expectations, 44 in experiences, and 9 in satisfaction. The typical range in the extant literature was between 3 (Bradbury et al., 2012) and 13 (May, 2001b), with Eriksson et al. (2011), Reeve and May (2009), and Stenberg et al. (2012) all having 5 or 6 key themes. These studies all focused on a single aspect of either expectations, experiences, or satisfaction, in either a single condition or a specific question, such as gender differences (Stenberg et al., 2012). The topics in this study crossed all three of the main components of the patient experience, which likely explains the much broader range of themes that emerged.

4.6.1 Patients' expectations

Participants made reference to 19 ideal, 49 predicted, 44 normative, and 22 unformed expectations. This indicated around twice as many predicted and normative responses. In contrast to the proposal made by Thompson and Suñol (1995), unformed expectation were not as prevalent as may previously have been thought in patients receiving musculoskeletal physiotherapy. Around half of the participants had received physiotherapy previously, and as predicted and normative expectations are likely to result from personal experiences and what participants personally deduce (Thompson and Suñol, 1995), this may explain the higher rates reported in this study.

Expectations were expressed in positive (19), neutral (73), and negative (29) terms. This finding suggests that although expectations of musculoskeletal physiotherapy were reasonably clear, participants had not decided whether these were desirable or not. There were a broader range of themes in the normative expectation type, suggesting that there was a good awareness of the service likely to be provided. The most common expectation was that physiotherapy would involve the provision of advice and an exercise program. The provision of manual therapy (hands on treatment) was commonly described as having exceeded expectations. Receiving both an exercise programme and hands on treatment have been linked with a positive experience by Anaf and Sheppard (2010), Casserley-Feeney et al. (2008), Hills and Kitchen (2007a), and Potter et al., (2003).

It was not clear from these findings whether expectations were fixed (Boonstra et al., 2011; Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013; Stenberg et al., 2012), or had changed over the episode of care (Goldstein et al., 2000). The majority of expectations were expressed as neutral in this study, which is in contrast to Foster et al. (2010), Metcalfe and Klaber Moffett (2005), and Metcalfe and Klaber Moffett (2013), who described generally high levels of expectation. These studies both used questionnaire based measures of expectations, whereas this study used interview responses. The findings from these interviews are likely to be more descriptive than the findings from the

questionnaires, which may indicate that expectations of physiotherapy are not as high as previously thought.

Participants made frequent references to the assessment process, the treatment process, and to being able to put their point across. This was a common theme throughout the different types of expectations. These findings are in keeping with Dierckx et al. (2013) and Thomas et al. (2004) who found a preference (two-thirds) towards shared decision making. Participants in this study did not use the same terminology, which is possibly a reflection of the medicalisation of the process described by Dierckx et al. (2013) and Thomas et al. (2004). Foster et al. (2010) found fewer (20%) participants preferred to share treatment decisions. This was in a randomised control trial with two treatment options, which may have limited the decision making process. In this study, the findings would suggest that participants were generally keen to understand and contribute to the assessment and treatment process, even though they did not express this as shared decision making.

Overall, findings indicated that expectations are clearer that previously thought, but expectation levels are more neutral. There was a clear trend within the responses towards the interpersonal and therapeutic questions compared to service and organisational questions. Responses tended to be fuller and more specific on certain points where respondents discussed interpersonal and therapeutic aspects of their care. Responses tended to be quite brief, when discussing the organisational and service factors.

4.6.2 Patients' experiences

All of the participants were able to describe their experiences, and made 323 references across 44 separate themes. Participants seemed more able to clearly articulate their experiences, and as a result, this category had the highest frequency of response. It also had the widest range of themes. Overall, experience was reported in predominantly positive terms, with some neutral descriptions, but few negatively reported themes emerging. These findings would suggest that most participants had a good overall experience during their physiotherapy treatment.

Participants were most positive about being able to put their point of view across, and felt like this was understood by the physiotherapist. Patient-physiotherapist interaction, underpinned by good communication, was found to be central to a good experience by Potter et al. (2003). Anaf and Sheppard (2010), Bradbury et al. (2012), Kidd et al. (2011), and Stenberg et al. (2012) also found various aspects of communication were important predicators of a good patient experience. Reeve and May (2009) specifically found explanations to be linked with experience. This was a finding of this study, as being able to put their point across was the most commonly described positive experience. This supports the previous findings that good communication is important for a good experience.

The type of treatment received and the technical competence were also identified as important positive themes in this study. This was consistent with findings from Kidd et al. (2011), Ericsson et al. (2011), Potter et al. (2003), and Reeve and May (2009). Within this study, these physiotherapist attributes, such communication and explanation, were also seen as linking to a positive experience. Anaf and Sheppard (2010) found the general treatment skills of the physiotherapist to be the most important predictor of experience, whereas the other studies found the various aspects of communication to be most important. The responses in the current study favour descriptions of the patient-physiotherapy interactions and communication skills as widely reported positive experiences.

Responses relating to waiting times, location, environment, and parking were typically neutral, and significantly less responses were made in comparison to individual patient and physiotherapist factors. This was similar to the findings of Casserley-Feeney et al. (2008) who also found interpersonal issues more commonly reported. Goldstein et al. (2000) also suggested that overall satisfaction may have been less influenced by these types of organisational factors. This would appear to support the general criticisms in the literature, that satisfaction surveys fail to capture the experiences that are important to patients. Indeed, service factors, such as phone assessment and providing exercises and information, which are often thought by physiotherapists to be a positive service development, were viewed neutrally, suggesting patients may not feel the same. Seeing the GP before referral was also viewed as a neutral experience, which is

encouraging in view of self referral developments (Holdsworth et al., 2008). Continuity of care, often thought a main predictor of satisfaction (Beattie et al., 2005b) was also viewed as a neutral experience, perhaps suggesting it may not be as important as thought, although there were few references to this.

Negative experience was associated with pain with treatment and feeling rushed. Difficulty building a rapport with the physiotherapist was also reported in a negative manner. The extant literature does not appear to report any themes of negative experience, or negative satisfaction. As such, a direct comparison is difficult. However, there were very few negative responses described when compared with neural or positive experiences.

4.6.3 Patient satisfaction

All of the participants reported overall satisfaction, which was described across nine separate themes. Thirty separate references were made which were strongly suggestive of positive satisfaction. There were few expressions of neutral or negative satisfaction. In comparison to expectation and experience, where a wide range of themes were reported, satisfaction was described in much more general terms. Overall satisfaction was the most commonly reported theme, but often with no reason for satisfaction articulated. Themes focused on the assessment and treatment process, clinical outcome, interpersonal relationships with the clinician, discharge planning, and administrative and service factors. Negative satisfaction was reported in relation to wanting the same specialist treatment closer to home and not receiving a scan. In these cases, it seemed that a clear expectation had not been met through experience, and this led to dissatisfaction. Satisfaction accounted for very little of the overall responses and was very data poor.

The themes described as experiences in this study were typical referred to as dimensions of satisfaction in other studies (Table 3.8). The patient-physiotherapist interaction was linked to satisfaction by Beattie et al. (2002), Beattie et al. (2005b), Casserley-Feeney et al. (2008), Goldstein et al. (2000), Hills and Kitchen (2007a), Hills and Kitchen (2007b), Hush et al. (2011), Hush et al. (2012), Knight et al. (2010), May (2001b), McClellan et al. (2006), Roush and Sonstroem (1999), Sheppard et al. (2010), Slade and Keating (2010), Stiller et al. (2009), and Taylor

and May (1995). Participants in this study reported similar responses to these studies, but described them in terms of experience. These findings differed significantly from the extant literature.

Physiotherapist attributes were described as a predictor of satisfaction by Casserley-Feeney et al. (2008), Hills and Kitchen (2007a), Goldstein et al. (2000), and Monnin and Perneger (2002). Service attributes (Beattie et al., 2002; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; Goldstein et al., 2000; Taylor et al., 2002) and clinical outcome (Casserley-Feeney et al., 2008; French et al., 2010; George and Hirsh, 2005; Hills and Kitchen, 2007a; Hills and Kitchen, 2007b; Hush et al., 2011; Hush et al., 2012; May, 2001b) were reported as dimensions of satisfaction in previous studies. This differs in the current study, where all of the data rich descriptive responses were made relating to experiences or expectations. This suggested that the previous reports of satisfaction may be misplaced, as the patients' perspectives are towards these as dimensions of experience, not satisfaction. Patients appeared to consider satisfaction as a unidimensional concept, being either satisfied or not. The dimensions are more readily explained as experiences, not satisfaction.

The concept of overall satisfaction, typically measured by global questions, was the most commonly reported finding across the studies in the systematic review (Beattie et al., 2002; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; George and Hirsh, 2005; Hush et al., 2011; Hush et al., 2012; Stiller et al., 2009). These findings are consistent with the findings in this phase of the study, which indicated satisfaction was a binary choice: satisfied or not satisfied. While the dimensions of experience may contribute to this, it remains unclear form this study, or the extent literature, how they relate to each other. As such, the findings from the current study support the use of the experience descriptions as a more accurate representation of the direct perspectives of participants on their care.

4.6.4 Strengths and limitations

The rigour of this phase of the study was enhanced by using methods previously outlined in similar studies. The credibility of the findings was supported by the

methods, and the thematic analysis process, which was based on Braun and Clarke (2006). This appeared to be the most widely used analysis process in the extant literature. This approach enhances the overall quality of the study.

The dependability of the findings is also enhanced by the methods used. The results were triangulated against the findings from the systematic review in chapter three, which was used as part of the analysis framework. The results are likely to be transferable to similar samples in similar services, but further interviews in other studies would be required to test this. Data saturation was reached with this sample, which is similar to May (2001b). This resulted in improved trustworthiness of the findings, as they appeared to represent the full range of experiences described across the sample.

A limitation of this phase of the study was that the sample was drawn from patients who had completed their treatment. While this provides a greater depth of responses, it also limited the responses from participants who did not complete their treatment. This did not allow for an exploration of any potential reasons why they did not complete their treatment. This may reduce the trustworthiness of the findings, as a particular sample of the population is excluded from the study.

4.7 Conclusion

The findings appeared to suggest that patients place most emphasis on their direct experiences and perspectives of their overall care. This appeared to support the use of an experience measure rather than a satisfaction measure. Expectations and experiences seemed to centre on the same themes, with expectations being ultimately encompassed in the reported experiences. Experiences appeared to be more positive overall than expectations which may support the relationship proposed by Goldstein et al. (2000).

Satisfaction was expressed in much more positive terms than expectations or experiences. It seems to require a high level of dissatisfaction for satisfaction not to be reported, due to the effectively unidimensional nature of the measure. This appeared to support many of the criticisms reported across the literature. The findings from the interviews appeared to support the need for a new questionnaire

to measure patient experience, rather than satisfaction. A focus on the dimensions identified would ensure that the most important aspects from the patient perspective are considered. This will allow a more accurate measure of patient experience and overcome some of the conceptual and methodological flaws with existing measures.

The extant questionnaires identified were based on satisfaction, which has been widely criticised as a theoretical construct. Findings from this phase of the study indicated that dimensions previously referred to as dimensions of satisfaction were described as experiences by participants. These themes represented a more accurate view of the patients' perspective on their care. As such they represented a more accurate content for a patient reported experience measure. Chapter five presets the third phase of the study, focused on the development and evaluation of a patient reported experience measure of musculoskeletal physiotherapy.

Chapter Five: Development and evaluation of a patient reported experience measure for musculoskeletal physiotherapy

This chapter presents the development and evaluation of a patient reported experience measure for musculoskeletal physiotherapy. The use of questionnaire development is explored in the current literature. The specific aims for this phases of the study are presented, along with the methods and results. These findings are discussed in the context of the extant literature.

5.1 Introduction

"The measurement of patient satisfaction has been encouraged by a growing consumer orientation in healthcare, especially since it yields information about consumers' views in a form which can be used for comparison and monitoring. However, drawing on literature from a variety of sources, this paper suggests that there remain several unresolved issues relating to the measurement of satisfaction, and some serious questions about the validity of the concept. It is argued that current approaches to measuring satisfaction may not be grounded in the values and experiences of patients, therefore satisfaction surveys could be denying patients the opportunity to have their opinions included in the planning and evaluation of healthcare services." - Avis et al. (1995, page 316)

In a review of unresolved issues in the measurement of patient satisfaction, Avis et al. (1995) argued that satisfaction surveys may not actually be capturing the views of patients. Williams (1994) and Williams et al. (1998) also argued that satisfaction lacked conceptual clarity and results from surveys often lacked validity. As a result, it is important to move beyond the results of surveys, for example those that specifically capture concepts such as patient satisfaction, because patient experience is more than satisfaction alone (Wolf et al., 2014). A patient reported experience measure of musculoskeletal physiotherapy is clearly indicated.

5.2 Background

Several attempts have been made to explore and measure patients' experiences and satisfaction levels with musculoskeletal physiotherapy. Most of the existing studies have focused on patient satisfaction (Beattie et al., 2002; Beattie et al., 2005a; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; French et al., 2010; George and Hirsh, 2005; Goldstein et al., 2000; Hills and Kitchen, 2007a; Hills and Kitchen, 2007b; Hush et al., 2011; Hush et al., 2012; Knight et al., 2010; May 2001b; Monnin and Perneger, 2002; Roush and Sonstroem, 1999; Stiller et al., 2009; Taylor et al., 2002; Taylor and May, 1995; Wylde et al., 2008). There has been comparatively fewer studies exploring experiences from a patients' perspective (Anaf and Sheppard, 2010; Bradbury et al., 2012; Eriksson et al., 2011; McClellan et al., 2006). Only Hills and Kitchen (2007a), Hills and Kitchen (2007b), and Bradbury et al. (2012) conducted their studies in the NHS, but there was no measure of patient experience presented.

In these studies, survey methods using self administered questionnaires were common. Several studies used postal administration (Beattie et al., 2002; Beattie et al., 2005a; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; Hills and Kitchen, 2007; McClellan et al., 2006; Taylor and May, 1995; Stiller et al., 2009; Taylor et al., 2002) and several used in clinic administration (Goldstein et al., 2000; Hush et al., 2012; Knight et al., 2010; Monnin and Perneger, 2002). Fewer participants were recruited from randomised controlled trials, such as knee osteoarthritis (Foster et al., 2010; French et al., 2010) and lower back pain (George and Hirsh, 2005; Kalauokalani et al., 2001). In most of these studies the focus was on questionnaire development. The Instrument for Measuring Patient Satisfaction With Physical Therapy Care (MRPS) (Beattie et al., 2002; Beattie et al., 2005a, Beattie et al., 2005b; Beattie et al., 2007) was the only measure to demonstrate a psychometric testing process, use in multiple studies, and use across larger sample sizes. This measure was not suitable for use in an NHS based study due to important differences in healthcare systems.

The MRPS was developed based on a review of the literature which determined the variables that were associated with high satisfaction levels in musculoskeletal physiotherapy patients (Beattie et al., 2002). There were 191 participants in the

development process, and 1,868 participants in the main study. This was one of the largest studies of its type. In an attempt to differentiate between patient satisfaction with internal and external factors, and to determine the validity of the questions, Beattie et al. (2005a) subsequently performed a psychometric evaluation of their measure. In this study, 1,449 participants completed the MRPS at the end of their episode of care. The findings indicated evidence of discriminant and concurrent validity between the internal and external factors influencing patient satisfaction. In a further study, the MRPS was used to explore the association between longitudinal continuity of care and patient satisfaction with musculoskeletal physiotherapy (Beattie et al., 2005b). Findings from a sample of 1,502 participants indicated that patients who received their entire course of treatment from a single physiotherapist were approximately three times more likely to report complete satisfaction with care compared to patients who received their treatment from multiple physiotherapists. These studies were based in insurance based healthcare settings, making the measure inappropriate for use in the NHS.

Goldstein et al. (2000) developed an instrument to measure patient satisfaction with musculoskeletal physiotherapy and a total of 289 participants completed the survey. Similar to Beattie et al. (2002), questions were chosen from a review of the existing literature. The initial results showed that the coefficient for reliability (Cronbach alpha) obtained was clearly within a desired range, making it a useful tool for measuring patient satisfaction. Monnin and Perneger (2002) also developed a patient satisfaction questionnaire that was tested on a sample of 1,024 participants in Switzerland. Four dimensions of satisfaction were identified (treatment, admission, logistics, and global) with coefficients similar to Goldstein et al. (2000). Monnin and Perneger (2002) found good reliability for all of the dimensions, and validity was supported by a logical grouping of items into sub scales according to their content and correlations with the global dimensions. Despite the apparent reliability, these tools were also developed outside of the UK, making them unsuitable for direct use within an NHS based study.

Hills and Kitchen (2007a) identified the need for a UK based measure to examine satisfaction with musculoskeletal physiotherapy. Subsequently, Hills and Kitchen (2007b) developed a survey tool for use with NHS patients with acute and chronic musculoskeletal conditions. In a survey of 420 participants, they found that

organisational issues were the key determinants of satisfaction for the chronic group, with the therapist as key determinant for the acute group. The interpersonal aspects of the therapeutic relationship have been linked with higher satisfaction levels more frequently (Beattie et al., 2002; Beattie et al., 2005b; Casserley-Feeney et al., 2006; Hush et al., 2012; McClellan et al., 2006; Shepherd et al., 2010; Slade and Keating, 2010; Knight et al., 2010). Hills and Kitchen (2007b) conducted their developmental work in the NHS, but their focus on patient satisfaction failed to capture the wider aspects of the patient experience. This made their measure unsuitable for use in this study.

Casserley-Feeney et al. (2008) conducted a cross sectional survey to measure patient satisfaction with private musculoskeletal physiotherapy in Ireland. Results demonstrated high levels of satisfaction with all components of physiotherapy treatment, except cost. Further, the findings provided valuable patient feedback to inform developments to improve patient attendance and compliance with physiotherapy treatment. Hush et al. (2012) used the MRPS (Beattie et al., 2005a) to measure patient satisfaction with musculoskeletal physiotherapy in Australia, and to provide an international comparison. A prospective study of 274 patients reported a mean score of 4.55 on a scale of 1 to 5 (5 indicated high satisfaction) which was comparable with other countries. Roush and Sonstroem (1999) developed a three phase study to identify the underlying components of outpatient satisfaction, and to develop a test that would reliably measure these components. Three samples were recruited (consisting of 177, 257, and 173 participants from 21 facilities) and principal component analyses, reliability checks, and correlations were used to produce the 34-item Physical Therapy Outpatient Satisfaction Survey (PTOPS). These studies also failed to provide a valid method of measuring the patient experience of musculoskeletal physiotherapy in NHS patients, as they were based on satisfaction.

Satisfaction has also been explored with specific conditions. French et al. (2010) recruited a convenience sub sample of 27 patients into a randomised controlled trial comparing exercises for knee osteoarthritis. Participants completed the PTOPS and findings indicated high levels of satisfaction across both intervention groups. Satisfaction levels varied depending on the dimension, and lower satisfaction with clinical outcome was reported compared with other aspects of

care. This was consistent with George and Hirsh (2005) who found that participants reported consistently lower satisfaction with treatment outcomes when compared with treatment delivery. Kalauokalani et al. (2001) also conducted a sub sample analysis of data from a randomised clinical trial of 135 participants with lower back pain. The results suggested that specific patient expectations may have influenced clinical outcomes independently of the treatment itself, whereas general optimism about treatment was not strongly associated with improved outcome.

Questionnaires have also been used to investigate new physiotherapy services. McClellan et al. (2006) evaluated the effect of introducing an extended scope physiotherapy (ESP) service on patient satisfaction across professions. The ESP service achieved a patient satisfaction level that was superior to other professions, and 55% of patients seen by the ESP service strongly agreed that they were satisfied with the treatment they received. Taylor et al. (2002) evaluated a telephone triage and advice service for lower back pain, and used a randomised controlled trial to compare usual care with telephone advice before usual care. The Patient Satisfaction with Healthcare Provider Scale (PSHPS) was used, and results showed that the telephone advice groups expressed more satisfaction than the usual care group. The PSHPS was adapted from use in a general healthcare setting, and was not validated for use with musculoskeletal physiotherapy.

George and Hirsh (2005) investigated the discrepancy between ratings of pain intensity and patient satisfaction. Questionnaires were completed by 66 participants with lower back pain. Results showed that the two strongest predictors of patient satisfaction with clinical outcome at 6 months were whether treatment expectations has been met, and the degree of change in symptoms. One-hundred-and-six participants completed a purpose designed survey to determine inpatients' levels of satisfaction with a physiotherapy service at one rehabilitation centre in Australia (Stiller et al., 2009). Findings indicated high degrees of satisfaction with the physiotherapy service, including with the overall standard of the physiotherapy service, the interpersonal skills of the physiotherapy staff, and the facility itself. Taylor and May (1995) developed a Sports Injury Clinic Athlete Satisfaction Scale to measure the perspectives of the quality of care at sports injury clinics. The survey development involved an extensive literature review and

interviews with previously injured athletes and sports physiotherapists. The data analysis from 160 participants indicated three important dimensions of satisfaction: evaluation of empathy, information given, and competence. There was greatest satisfaction reported with competence. Knight et al. (2010) used a questionnaire based on the discrepancy model to assess the factors contributing to satisfaction and dissatisfaction with private physiotherapy services in Australia. Overall satisfaction was best correlated with the therapist's willingness to discuss positive and negative aspects of treatment.

In these studies, questionnaire development was usually based on a review of existing literature and existing questionnaires (Anaf and Sheppard, 2010; Beattie et al., 2002; Goldstein et al., 2000; Monnin and Perneger, 2002; Roush and Sonstroem; 1999; Taylor and May, 1995). Hills and Kitchen (2007a) also conducted focus groups to inform their questionnaire development (Hills and Kitchen, 2007b). Previous satisfaction survey tools developed for musculoskeletal physiotherapy have included 14 (Monnin and Perneger, 2002), 20 (Beattie et al., 2002), 26 (Goldstein et al., 2000), 34 (Roush and Sonstroem, 1999), and 38 (Hills and Kitchen; 2007b) questions respectively. Studies reporting the development or pilot testing of questionnaire based tools have typically used sample sizes between 150 and 350 (Beattie et al., 2002; Beattie et al., 2007; Casserley-Feeney et al., 2008; Goldstein et al., 2000; Hills and Kitchen 2007b; Knight et al., 2010; Roush and Sonstroem, 1999; Taylor and May, 1995). Larger samples of over 1000 have been recruited by Beattie et al. (2005b), Beattie et al. (2005a), and Monnin and Perneger (2002), but these have generally been used for psychometric, reliability, and validity testing.

Response rates in these studies ranged from 20% (Beattie et al., 2002) to 100% (Casserley-Feeney et al., 2008) with 50-70% being typical. The study that achieved a 100% response rate used a researcher administered questionnaire (Anaf and Sheppard, 2010). There were no apparent differences in sample sizes or response rates between postal or in clinic administration in these studies.

A range of descriptive statistics have typically been presented in these studies. Participants' characteristics (Casserley-Feeney et al., 2008; Foster et al., 2010; George and Hirsh, 2005; Goldstein et al., 2000), mean satisfaction scores, and

mean global ratings (Casserley-Feeney et al., 2008; Beattie et al., 2002; Beattie et al., 2005b) have commonly been presented. French et al. (2010) presented descriptive statistics including means, medians and standard deviations. Hills and Kitchen (2007b) also included frequency distributions. A range of inferential analyses have also been used. Casserley-Feeney et al. (2008) investigated the relationships between domain scores and subject characteristics using non parametric tests. French et al. (2010) used a two sample t-test to compare changes in outcomes. Hush et al. (2012) used a one way ANOVA analysis to explore statistical differences between questionnaire items, clinics, and demographic variables. The use of correlations was also common (Beattie et al., 2007; Roush and Sonstroem, 1999).

5.3 Aims

To address the secondary aim of this research study, the aims of the third phase were:

- To develop a patient reported experience measure that evaluated the specific and global dimensions of experience of musculoskeletal physiotherapy
- To pilot and evaluate this patient reported experience measure with a sample of patients who have recently received musculoskeletal physiotherapy
    - To compare the responses to the dimensions of patient reported experience in this study with responses reported in existing studies
    - To identify differences in responses to the global dimension questions of patient reported experience between different demographic groups
    - To explore similarities in the responses to the questions in each dimension of patient reported experience to identify intra dimension correlation

5.4 Methods

5.4.1 Design

A patient reported experience measure for musculoskeletal physiotherapy was developed based on the findings from the systemic review and narrative analysis

(chapter three) and interviews with patients (chapter four). The initial measure was developed (Appendix 11) and feedback was taken from physiotherapists in the service. Two further versions of the measure (Appendix 12; Appendix 13) were piloted with two samples of 25 participants. The content and design was developed based on feedback from participants. The design was changed significantly for the final experience measure to bring the look and feel in line with extant measures, although the content did not change as significantly. The demographic details were added based on feedback, and to allow testing of the difference between experiences in different participant characteristic groups.

The final experience measure (Appendix 14) was presented in 10 sections. The first section recorded participants' demographic details (gender, ethnicity, age, employment, problem area, condition duration, and referral source). The second section included 40 separate questions, across 8 dimensions. There were seven specific experience dimensions including the assessment process, treatment process, clinical outcome, clinician attributes, discharge process, service attributes, and clinic attributes. There was one overall experience dimension which included questions about the overall experience of the service, likelihood of returning to the service, and likelihood of recommending the service. The third section was a small open ended section to allow participants to make any additional open ended textual comments.

5.4.2 Sample

A convenience sample of 250 participants were recruited from a primary care based musculoskeletal physiotherapist service in the North east of England. This sample included two pilot phases of 25, and a main phase of 200 questionnaires.

Inclusion criteria were participants aged 18 or over, and having received musculoskeletal physiotherapy, and who were able to complete a questionnaire in English, and who were able to give informed consent. Exclusion criteria were participants aged 17 or under, or those not having received musculoskeletal physiotherapy, or those who were unable to complete a questionnaire in English, or those who were unable to give informed consent.

5.4.3 Favourable ethical opinion

Northumbria University Faculty Ethics Committee granted a favourable ethical opinion on 5 September 2013 (RE15-11-121413). A notice of substantial amendment was submitted to the NHS REC PRD on 29 January 2016 including the questionnaire, and a favourable ethical opinion on 18 February 2016 (14/WM/0102 and IRAS 99298) (Appendix 2). South Tyneside NHS Foundation Trust granted a favourable ethical opinion on 7 March 2016 (039/2013).

5.4.4 Data collection

Physiotherapists working at the study site were provided with written information during a presentation at a staff meeting (Appendix 10). Physiotherapists that expressed an interest in recruiting participants were asked to identify patients meeting the inclusion criteria. Patients meeting the inclusion criteria were invited to take part in the study during their treatment, and were given a brief verbal explanation. At the end of treatment, if they had expressed an interest in participating, they were given the relevant questionnaire (Appendix 12; Appendix 13; Appendix ;14). They were asked to complete the questionnaire and place it in the collection box. Implied consent was given by completion of the questionnaire. If they subsequently chose not to take part in the study, they were asked to return the questionnaire blank.

5.4.5 Data protection

The questionnaires did not contain any personal identifiable information and were stored in lockable filing cabinets at each research site. They were collected by the chief investigator and transported securely to the main site where they were stored in lockable filing cabinets. Data were held in line with University and NHS policy.

5.4.6 Data analysis

The data from the questionnaires were entered in to IBM® SPSS® Statistics (Version 22). Numerical data were entered directly (e.g., the responses on the 1-10 scale used for the dimension questions). Demographic data were converted

to numerical data and entered (e.g., male or female was converted to 1 or 2). There were no additional textual comments made on the questionnaires to analyse.

A range of descriptive statistics were used to compare the responses to the dimensions of patient reported experience. Response rates and participants' characteristics were presented as frequencies and percentages. Responses from each experience dimension were presented as frequencies, mean responses, and standard deviations.

A range of inferential statistics were also used. Numerical responses were treated as ratio data (Norman, 2010) and were analysed using parametric statistics (Casserley-Feeney et al., 2008; French et al., 2010; Hush et al., 2012). Differences in responses to the global dimension questions (dependent variable) between different demographic groups (independent variable) were examined. Differences between genders were explored using an independent samples t-test (probability < 0.05) and differences between age group, employment status, problems read, condition duration, and referral source were explored using a one way ANOVA ($p < 0.05$). Post hoc comparisons were conducted using the Bonferroni test. The null hypotheses were that there would be no differences between participants ratings in the overall dimension questions between different demographic groups.

To explore similarities in the responses to the questions in each dimension of patient reported experience, a Pearson's r correlation was used. The null hypotheses were that there were no significant correlations between the responses to the questions within each dimension of the measure. The Pearson's r correlations were classified as strong positive (> 0.7), medium positive (> 0.5), and weak positive (> 0.3) (Mukaka, 2012).

5.5 Results

5.5.1 Response rates

A total of 250 questionnaires were administered. There were two pilot phases with 19 and 18 responses respectively. These were used to inform the questionnaire development and were not included in the analysis. During the main phase, 117 of 200 questionnaires were returned with a response rate of 58.5%. Table 5.1 shows the number of questionnaires and responses rates across the four clinic sites used in the study.

Table 5.1: Number of questionnaires and response rates

	Site 1	Site 2	Site 3	Site 4	Overall
Complete	39	17	30	31	117
Blank	11	33	20	19	83
Total	**50**	**50**	**50**	**50**	200
Rate (%)	**78.0**	**34.0**	**60.0**	**62.0**	**58.5**

5.5.2 Participants' characteristics

There were 78 (67%) female and 38 (32%) male participants, with 1 (1%) blank. Only 14 (12%) participants indicated their ethnicity with 13 (11%) being British and 1 (1%) being Asian. Ethnicity was left blank by 103 (88%) participants. Participants aged 50-59 were the most common followed by 40-49 and 60-69, with two-thirds of the participants between 40-69 years (Table 5.2).

Two-thirds of the participants (65%) were in employment, and of these, 48 (41%) were in full time employment and 28 (24%) were in part time employment. Seventeen (15%) were not in employment. Nineteen participants (16%) were retired and four participants (3%) were students (Table 5.3).

There was an even distribution of problem area between the spine, the upper limb, and the lower limb. These were 36 (31%), 32 (27%), and 37 (32%), respectively. There were 8 'other' responses (7%), but these were not further specified. Four

(3%) were blank. Table 5.4 shows the responses by condition duration. Two-thirds of participants reported a condition duration lasting up to 12 months. There were only 19 participants (16%) that reported a condition lasting over 24 months.

Table 5.2: Responses by age group

Age group	Total	Total %
0-19	5	4
20-29	10	9
30-39	14	12
40-49	25	21
50-59	31	26
60-69	22	19
70-79	6	5
80-89	3	3
Blank	1	1
Total	**117**	**100**

Table 5.3: Responses by employment group

Employment group	Total	Total %
Full-time	48	41
Part-time	28	24
Not-employed	17	15
Retired	19	16
Student	4	3
Blank	1	1
Total	**117**	**100**

Table 5.4: Responses by condition duration

Duration group	Total	Total %
0-3 months	14	12
3-6 months	33	28
6-12 months	31	26
12-24 months	19	16
24+ months	19	16
Blank	1	1
Total	**117**	**100**

Participants reported their referral sources as their GP (41%), their consultant (17%), self referral (27%), another source (not specified) (5%), and 10% were left blank.

5.5.3 Experience dimension responses

The following tables present the descriptive statistics for the responses to the experience dimensions. The tables include the number of responses per question, the mean response, and the standard deviation. The responses ranged from 1 to 10 across all of the variables. One participant responded 1 to all of the variables, which may have indicated a response error. It was, however, included in the analysis as it did not appear to adversely affect the analysis.

In the competed questionnaires, the response rates by dimension were generally very high (Table 5.5). The clinical outcome and the discharge process dimensions both had the lowest completion rate and were also the two lowest rated.

Table 5.5: Response rates per dimension

Dimension	Responses	Left blank	Incomplete %
Assessment process	585	1	0.2
Treatment process	464	4	0.9
Clinical outcome	351	33	9.4
Clinician attributes	702	0	0.0
Discharge process	539	46	8.5
Service attributes	462	6	1.3
Clinic attributes	585	1	0.2
Global dimensions	349	2	0.6
Total	**4037**	**93**	**2.3**

5.5.3.1 Assessment process responses

Experience of the assessment process was tested by variables one to five, as shown in Table 5.6. These questions related predominantly to the initial assessment process. This typically occurs during the first appointment, although some reassessment and ongoing explanation of the diagnosis or condition may continue during the episode of care.

Table 5.6: Assessment process responses

Variable	Responses	Mean	Std Deviation
(1) The assessment process was explained to me	117	9.60	1.32
(2) I was able to express my opinions and concerns	117	9.58	1.32
(3) My opinions and concerns were taken seriously	117	9.58	1.31
(4) I was asked appropriate questions	117	9.60	1.33
(5) The diagnosis or condition was explained to me	116	9.58	1.34

A Pearson's r correlation was conducted on the responses to questions within the assessment process dimension of the measure. The results shown in Table 5.7

indicated that there was a strong positive correlation (> 0.700) between all of the questions in the assessment process dimension.

Table 5.7: Assessment process intra dimension correlations

P < 0.01	Q1	Q2	Q3	Q4	Q5
Q1	1	.978	.968	.968	.968
Q2	.978	1	.985	.985	.983
Q3	.968	.985	1	.975	.973
Q4	.968	.985	.975	1	.971
Q5	.968	.983	.973	.971	1

5.5.3.2 Treatment process responses

Experience of the treatment process was tested by variables six to 14, as shown in Table 5.8. These questions related predominantly to the treatment received throughout the episode of care. This would have included treatment in clinic, home exercise programmes, and any other condition specific advice given.

Table 5.8: Treatment process responses

Variable	Responses	Mean	Std Deviation
(6) The treatment process was explained to me	117	9.58	1.33
(7) I was able discuss my treatment plan	116	9.56	1.34
(8) I was able to choose the type of treatment I had	116	9.51	1.38
(9) I felt treated as an individual based on my needs	117	9.57	1.33
(10) My treatment plan was explained	116	9.47	1.44
(11) My home exercise plan was explained	117	9.61	1.31
(12) I was put at ease during my treatment	117	9.57	1.34
(13) My questions were all answered	117	9.50	1.41
(14) I had confidence that the treatment would work	116	9.48	1.40

A Pearson's r correlation was conducted on the responses to questions within the treatment process dimension of the measure. The results shown in Table 5.9 indicated that there was a strong positive correlation (> 0.700) between all of the questions in the treatment process dimension.

Table 5.9: Treatment process intra dimension correlations

P < 0.01	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14
Q6	1	.956	.955	.959	.910	.978	.974	.928	.949
Q7	.956	1	.968	.968	.887	.964	.964	.922	.971
Q8	.955	.968	1	.952	.887	.953	.933	.905	.951
Q9	.959	.968	.952	1	.894	.961	.956	.916	.950
Q10	.910	.887	.887	.894	1	.909	.921	.861	.892
Q11	.978	.964	.953	.961	.909	1	.976	.940	.948
Q12	.974	.964	.933	.956	.921	.976	1	.939	.960
Q13	.928	.922	.905	.916	.861	.940	.939	1	.928
Q14	.949	.971	.951	.950	.892	.948	.960	.928	1

5.5.3.3 Clinical outcome responses

Experience of the clinical outcome was tested by variables 15 to 17, as shown in Table 5.10. These questions related to whether pain and function had improved after their treatment, and to what extent they have progressed with their overall recovery. This was a measure of perceived outcome rather than process.

Table 5.10: Clinical outcome responses

Variable	Responses	Mean	Std Deviation
(15) My pain / symptoms have resolved since treatment	106	7.17	3.05
(16) My normal function has returned since treatment	106	7.11	2.92
(17) I have made a full recovery since treatment	106	6.43	3.15

A Pearson's r correlation was conducted on the responses to questions within the clinical outcome dimension of the measure. The results shown in Table 5.11 indicated that there was a strong positive correlation (> 0.700) between all of the questions in the clinical outcome dimension.

Table 5.11: Clinical outcome intra dimension correlations

P < 0.01	Q15	Q16	Q17
Q15	1	.850	.745
Q16	.850	1	.819
Q17	.745	.819	1

5.5.3.4 Clinician attributes responses

Experience of the clinician attributes was tested by variables 18 to 23, as shown in Table 5.12. These questions related to how the patient perceived the interpersonal relationship and communication between themselves and the clinician.

Table 5.12: Clinician attributes responses

Variable	Responses	Mean	Std Deviation
(18) I felt the clinician treated me with respect	117	9.39	1.40
(19) I felt the clinician spent enough time with me	117	9.46	1.39
(20) I felt the clinician was approachable and helpful	117	9.58	1.33
(21) I felt the clinician was knowledgeable and skilful	117	9.58	1.29
(22) I felt the clinician showed empathy towards me	117	9.61	1.29
(23) I felt I had a good rapport with the clinician	117	9.55	1.31

A Pearson's r correlation was conducted on the responses to questions within the clinician attributes dimension of the measure. The results shown in Table 5.13 indicated that there was a moderate positive correlation (> 0.500) between Q18 and Q19-23, strong positive correlation (> 0.700) between Q19-23, in the clinician attributes dimension.

Table 5.13: Clinician attributes intra dimension correlations

P < 0.01	Q18	Q19	Q20	Q21	Q22	Q23
Q18	1	.562	.513	.514	.507	.504
Q19	.562	1	.889	.897	.887	.909
Q20	.513	.889	1	.980	.978	.941
Q21	.514	.897	.980	1	.987	.955
Q22	.507	.887	.978	.987	1	.943
Q23	.504	.909	.941	.955	.943	1

5.5.3.5 Discharge process responses

Experience of the discharge process was tested by variables 24 to 28, as shown in Table 5.14. The questions explored the advice given at discharge and whether the patient perceived they required any further treatment or investigation.

Table 5.14: Discharge process responses

Variable	Responses	Mean	Std Deviation
(24) I was advised on long term self-help strategies	116	9.40	1.55
(25) I was referred on at the end of treatment if required	109	8.82	2.40
(26) I felt I needed more treatment	107	7.71	3.11
(27) I felt I needed a scan or investigation	104	7.22	3.40
(28) I felt I needed a further specialist opinion	103	6.83	3.60

A Pearson's r correlation was conducted on the responses to questions within the discharge process dimension of the measure. The results shown in Table 5.15 indicated that there was a weak positive correlation (> 0.300) between Q24 and Q26-28, moderate positive correlation (> 0.500) between Q25 and Q24-28, strong positive correlation (> 0.700) between Q26 and Q27-28, in the discharge process dimension.

Table 5.15: Discharge process intra dimension correlations

P < 0.01	Q24	Q25	Q26	Q27	Q28
Q24	1	.555	.346	.302	.288
Q25	.555	1	.627	.567	.510
Q26	.346	.627	1	.816	.704
Q27	.302	.567	.816	1	.872
Q28	.288	.510	.704	.872	1

5.5.3.6 Service attributes responses

Experience of the service attributes was tested by variables 29 to 32, as shown in Table 5.16. These questions focused on how the patient perceived the organisational and administrative aspects of their episode of care.

Table 5.16: Service attributes responses

Variable	Responses	Mean	Std Deviation
(29) I felt the admin staff treated me with respect	115	9.26	1.88
(30) I found it easy to make or change appointments	115	9.52	1.38
(31) I saw the same clinician for each appointment	116	9.51	1.40
(32) The waiting time for appointments was acceptable	116	9.55	1.31

A Pearson's r correlation was conducted on the responses to questions within the service attributes dimension of the measure. The results shown in Table 5.17 indicated that there was a moderate positive correlation (> 0.500) between Q29 and Q30-32, strong positive correlation (> 0.700) between Q30 and Q31-32, in the service attributes dimension.

Table 5.17: Service attributes intra dimension correlations

P < 0.01	Q29	Q30	Q31	Q32
Q29	1	.656	.627	.645
Q30	.656	1	.969	.955
Q31	.627	.969	1	.930
Q32	.645	.955	.930	1

5.5.3.7 Clinic attributes responses

Experience of the clinic attributes was tested by variables 33 to 37, as shown in Table 5.18. These questions related to the clinic location, building accessibility, opening times, and facilities.

Table 5.18: Clinic attributes responses

Variable	Responses	Mean	Std Deviation
(33) The clinic location was convenient	116	9.52	1.53
(34) The clinic building accessibility was suitable	117	9.63	1.29
(35) The clinic opening times were convenient	117	9.60	1.31
(36) The clinic and facilities were clean and up to date	117	9.60	1.33
(37) The clinic facilities allowed enough privacy	117	9.54	1.39

A Pearson's r correlation was conducted on the responses to questions within the clinic attributes dimension of the measure. The results shown in Table 5.19 indicated that there was a strong positive correlation (> 0.700) between all of the questions in the clinic attributes dimension.

Table 5.19: Clinic attributes intra dimension correlations

P < 0.01	Q33	Q34	Q35	Q36	Q37
Q33	1	.819	.822	.814	.926
Q34	.819	1	.975	.981	.936
Q35	.822	.975	1	.980	.944
Q36	.814	.981	.980	1	.949
Q37	.926	.936	.944	.949	1

5.5.3.8 Overall experience responses

Experience of the overall episode of care was tested by 38 to 40, as shown in Table 5.20. These are the global dimensions and question the patients' perspective of their overall experience, their likelihood of returning to the service, and their likelihood of recommending the service.

Table 5.20: Overall experience responses

Variable	Responses	Mean	Std Deviation
(38) Overall, how would you rate the experience of your care or treatment with our service?	117	9.66	1.25
(39) How likely are you to return to our service if you needed similar treatment?	116	9.63	1.29
(40) How likely are you to recommend our service to friends / family if they needed similar treatment?	116	9.66	1.27

A Pearson's r correlation was conducted on the responses to questions within the treatment process dimension of the measure. The results shown in Table 5.21 indicated that there was a strong positive correlation (> 0.700) between all of the questions in the overall experiences dimension.

Table 5.21: Overall experiences intra dimension correlations

P < 0.01	Q38	Q39	Q40
Q38	1	.976	.986
Q39	.976	1	.979
Q40	.986	.979	1

5.5.4 Overall experiences differences

The overall experience questions were further explored with a range of inferential statistics, presented in this section. These questions were: (38) “Overall, how would you rate the experience of your care or treatment with our service?”; (39) “How likely are you to return to our service if you needed similar treatment?”; and (40) “How likely are you to recommend our service to friends / family if they needed similar treatment?”.

5.5.4.1 Gender differences in the overall experience dimension

An independent samples t-test was conducted to compare the overall experience dimension between males and females (Table 5.22). There was no difference in the ratings for male (M=9.61, SD=1.50) and female (M=9.68, SD=1.13) in overall experience; t(114)=-0.279, p = 0.767. There was no difference in the likelihood of males (M=9.53, SD=1.56) and female (M=9.68, SD=1.15) returning to the service; t(113)=-0.579, p = 0.564. There was no difference in the likelihood of males (M=9.63, SD=1.51) and females (M=9.68, SD=1.15) recommending the service; t(113)=-0.172, p = 0.864.

Table 5.22: Gender differences in the overall experience dimension

Global dimension	Male Mean	Male SD	Female Mean	Female SD	t	p
(38) Experience	9.61	1.50	9.68	1.13	-0.297	0.767
(39) Return	9.53	1.56	9.68	1.15	-0.579	0.564
(40) Recommend	9.63	1.51	9.68	1.15	-0.172	0.864

5.5.4.2 Age group differences in the overall experience dimension

A one way between subjects ANOVA was conducted to compare the effect of the specified age groups (0-19, 20-29, 30-39, 40-49 50-59, 60-69, 70-79, and 80-89 years) on the overall experience dimension (Table 5.23). There was no difference between age groups and overall experience [F(7, 108) = 1.639, p = 0.132]. There was no difference between age groups and likelihood of returning to the service [F(7, 107) = 1.638, p = 0.132]. There was no difference between age groups and likelihood of recommending the service [F(7, 107) = 1.765, p = 0.102].

Table 5.23: Age group differences in the overall experience dimension

Global dimension	df Between	df Within	F	p
(38) Experience	7	108	1.639	0.132
(39) Return	7	107	1.638	0.132
(40) Recommend	7	107	1.765	0.102

5.5.4.3 Employment differences in the overall experience dimension

A one way between subjects ANOVA was conducted to compare the effect of the specified employment groups (full time, part time, not employed, retired, and student) on the overall experience dimension (Table 5.24). There was no difference between employment groups and overall experience [F(4, 111) = 1.480, p = 0.213]. There was no difference between employment groups and likelihood of returning to the service [F(4, 110) = 1.771, p = 0.140]. There was no difference between employment groups and likelihood of recommending the service [F(4, 110) = 1.454, p = 0.221].

Table 5.24: Employment differences in the overall experience dimension

Global dimension	df Between	df Within	F	p
(38) Experience	4	111	1.480	0.213
(39) Return	4	110	1.771	0.140
(40) Recommend	4	110	1.454	0.221

5.5.4.4 Problem area differences in the overall experience dimension

A one way between subjects ANOVA was conducted to compare the effect of the specified problem areas (spine, upper limb, lower limb, and other) on the overall experience dimension (Table 5.25). There was no difference between problem areas and overall experience [F(3, 109) = 0.925, p = 0.431]. There was no difference between problem areas and likelihood of returning to the service [F(4, 108) = 1.330, p = 0.269]. There was no difference between problem areas and likelihood of recommending the service [F(3, 108) = 1.179, p = 0.321].

Table 5.25: Problem area differences in the overall experience dimension

Global dimension	df Between	df Within	F	p
(38) Experience	3	109	0.925	0.431
(39) Return	3	108	1.330	0.269
(40) Recommend	3	108	1.179	0.321

5.5.4.5 Condition duration differences in the overall experience dimension

A one way between subjects ANOVA was conducted to compare the effect of the specified condition durations (0-3 months, 3-6 months, 6-12 months, 12+ months, and 24+ months) on the overall experience dimension (Table 2.25). There was a significant main effect of condition duration on overall experience [F(4, 111) = 3.291, p < 0.014]. There was a significant main effect of condition duration on overall experience likelihood of returning to the service [F(4, 110) = 2.526, p = 0.045]. There was a significant main effect of condition duration on overall experience likelihood of recommending the service [F(4, 110) = 2.849, p = 0.270]. These were explored further with post hoc tests.

Table 5.26: Condition duration in the overall experience dimension

Overall experiences	df Between	df Within	F	p
(38) Experience	4	111	3.291	0.014
(39) Return	4	110	2.526	0.045
(40) Recommend	4	110	2.849	0.027

Post hoc comparisons were run using the Bonferroni test (Table 5.27). These indicated a significant main effect of condition duration on overall experience between 3-6 months and 6-12 months compared with 24+ months condition duration, and a significant main effect of likelihood of recommending the service between 3-6 months compared with 24+ months condition duration. The 24+ months condition duration group rated their overall experience lower and were less likely to recommend the service.

Table 5.27: Condition duration in the overall experience dimension: Post hoc

Overall experiences	Duration	Duration	Mean dif	p
(38) Experience	3-6	24+	1.081	0.025
(38) Experience	6-12	24+	1.070	0.030
(40) Recommend	3-6	24+	1.029	0.047

5.5.4.6 Referral source differences in the overall experience dimension

A one way between subjects ANOVA was conducted to compare the effect of the specified referral sources (GP, consultant, self, and other) on the overall experience dimension (Table 5.28). There was no difference between referral sources and overall experience [$F(3, 101) = 1.126$, $p = 0.342$]. There was no difference between referral sources and likelihood of returning to the service [$F(3, 100) = 1.034$, $p = 0.381$]. There was no difference between referral sources and likelihood of recommending the service [$F(3, 100) = 0.827$, $p = 0.482$].

Table 5.28: Referral source differences in the overall experience dimension

Variable	df Between	df Within	F	p
Experience	3	101	1.126	0.342
Return	3	100	1.034	0.381
Recommend	3	100	0.827	0.482

5.6 Discussion

5.6.1 Response rates

There was a 58.5% response rate (117 of 200). This compares favourably with similar studies, where response rates have typically ranged from 20% (Beattie et al., 2002) to 81.7% (French et al., 2010). It also compares favourably with response rates in questionnaire studies across academic publications, where the average was 55.6% (Baruch, 1999). The response rates (Table 5.1) across the sites were 78%, 34%, 60%, and 62%. Metcalfe and Klaber Moffett (2005) found only two significant differences between responders and non responders, with responders tending to be older (49 years compared to 44.4 years) and female (61% compared to 49%). Site two had a notably lower response rate. There were no obvious reasons to explain the variations in response rates between sites.

5.6.2 Participant characteristics

There were 78 (66%) female and 38 (32%) male participants, which was comparable with results from similar studies where, on average, there was a 2:1 ratio (Beattie et al., 2005b; Beattie et al., 2007; Foster et al., 2010; French et al., 2010; George and Hirsh, 2005; Goldstein et al., 2000; Hills and Kitchen, 2007b; Hush et al., 2012; Kalauokalani et al., 2001; Klaber Moffett et al., 2005; Knight et al., 2010, Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013; Monnin and Perneger, 2002; Roush and Sonstroem, 1999; Taylor et al., 2002). Beattie et al. (2002), Casserley-Feeney et al. (2008), Stiller et al. (2009), Taylor and May (1995) reported a higher rate of male participants (64%, 53.4%, 58.5%, and 63%, respectively), but these studies were in non NHS services with younger samples.

Only 14 (12%) participants indicated their ethnicity. Of those, thirteen (11%) were British and one (1%) was Asian. Ethnicity was left blank by 103 (88%) participants. Casserley-Feeney et al. (2008) reported 100% of participants were caucasian, and Kalauokalani et al. (2001) reported 81% of participants were caucasian. No other ethnicity was reported in either of these trials. In a language translation and validation study in America, Beattie et al. (2007) recruited a sample of 203

Spanish speaking patients but did not report ethnicity. The remainder of the studies included within the systematic review and narrative synthesis did not report ethnicity. The low response rate in this study and the lack of reporting in other studies makes any comparison difficult.

Participants aged 50-59 were the most common, followed by 40-49 and 60-69. Overall, two-thirds of the participants were between 40-69 years. These findings were consistent with similar studies, and Hills and Kitchen (2007b), Knight et al. (2010), and Stiller et al. (2009) all reported a similar age profile presented in similar ranges. Other studies have tended to present a mean age with standard deviation, although this doesn't clearly demonstrate the age group spread (Anaf and Sheppard, 2010; Beattie et al., 2005b; Beattie et al., 2007; Foster et al., 2010; French et al., 2010; Goldstein et al., 2000; Hush et al., 2012; Kalauokalani et al., 2001; Klaber Moffett et al., 2005; Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013; Monnin and Perneger, 2002; Roush and Sonstroem, 1999; Taylor et al., 2002). These studies have, however, reported comparable mean ages, typically between 40-69. Casserley-Feeney et al. (2008), George and Hirsh (2005), and Taylor and May (1995) reported a mean age in the 30-39 range, but these studies were not in NHS services.

Two-thirds of participants were in employment. Seventeen were not and nineteen were retired. Only four were students. This appeared in keeping with the age profile of the participants. These findings were broadly comparable to those reported in similar studies (Anaf and Sheppard, 2010; Casserley-Feeney et al., 2008; Dierckx et al., 2013; Foster et al., 2010; Hills and Kitchen, 2007b; Kalauokalani et al., 2001; Metcalfe and Klaber Moffett, 2005; Metcalfe and Klaber Moffett, 2013). The remainder of the studies included in the systematic review did not report an employment status, and the low reporting across other studies makes anything more than a broad comparison difficult.

Participants indicated an even distribution of problem area between the spine, the upper limb, and the lower limb. These findings were consistent with similar studies involving a whole musculoskeletal physiotherapy service (Beattie et al. 2002; Beattie et al., 2005a; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; Goldstein et al., 2000; Hills and Kitchen, 2007b; Hush et al., 2012;

Knight et al., 2010; Roush and Sonstroem, 1999). Studies reporting significantly different problem area distributions were typically condition focused. For example, Foster et al. (2010) and French et al. (2010) investigated knee osteoarthritis; George and Hirsh (2005), Kalauokalani et al. (2001), and Taylor et al. (2002) focused on lower back pain; and Klaber Moffett et al. (2006) studied neck pain.

Two-thirds of participants reported a condition duration of up to 12 months. Including durations up to 24 months, this rose to 82% of participants. In keeping with the findings of this study, Knight et al. (2010) reported a similar condition duration, and Foster et al. (2010) found less than a year was the most common duration. George and Hirsh (2005) reported a mean of 27 days duration of acute lower back pain and Taylor and May (1995) reported a mean of approximately 4 weeks in duration from sport injuries. Hills and Kitchen (2007b) divided their sample into half acute (fracture or trauma sustained within the previous month) and half chronic (degenerative spinal or joint disease that had been present for 6 months or longer), which were both similar durations to those reported in this study. There were only 19 participants who reported with problems lasting over 24 months. Similarly, Knight et al. (2010) found that 15% of participants were likely to have long term conditions. Despite chronicity of symptoms being linked to satisfaction, a large number of studies do not report a duration of condition (Anaf and Sheppard, 2010; Beattie et al., 2002; Beattie et al., 2005a; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; French et al., 2010; Goldstein et al., 2000; Hush et al., 2012; McClellan et al., 2006; Monnin and Perneger, 2002; Roush and Sonstroem, 1999; Stiller et al., 2009; Taylor et al., 2002), which makes anything more than a broad comparison difficult.

Participants reported their referral sources as their GP (41%), their Consultant (17%), self referral (27%), another source (not specified) (5%), and 10% were left blank. Of the few studies reporting referral source, Klaber Moffett et al. (2005) reported all GP referrals, Knight et al. (2010) reported a similar profile of referral source, and Taylor et al. (2002) reported all GP referrals. The low reporting rate across other studies makes anything more than a broad comparison difficult. Furthermore, with different professional structures, services designs, and referral mechanisms in other countries, a direct comparison is likely to be unreliable in any case.

5.6.3 Assessment process responses

The assessment process was evaluated through questions one to five. These questions focused on the level of explanations about the assessment process and diagnosis, being able to express opinions and concerns, and being asked appropriate questions. The responses to the group of questions ranged from 9.58 to 9.60 (SD of 1.32). These findings indicated a very high level of patient reported experience across the assessment process. The low SD also indicated a high degree of consistency across participants. None of the existing questionnaires measured the assessment process as a discrete dimension, but communication is central to the questions asked in this study. Communication has been identified as an indicator of a good experience (Anaf and Sheppard, 2010; Beattie et al., 2002; Kidd et al., 2011; Eriksson et al., 2011; Potter et al., 2003; Reeve and May, 2009; Stenberg et al., 2012). Similarly, findings from this study indicated that communication, within the assessment process, was evaluated highly.

In the assessment process dimension, the correlations between questions were all above the 0.90 level, which represented a very high positive correlation between the responses. This may indicate either a globally positive experience with the assessment process, or perhaps that there is an overlap in the content of the questions. In this case the questions could be refined and the number of questions could be reduced.

5.6.4 Treatment process responses

The treatment process was evaluated through questions six to 14. These questions focused on the level of explanation about the treatment plan and home exercises, being able to discuss and contribute to the treatment plan, being treated as an individual, and having questions answered. The responses to the group of questions ranged from 9.47 to 9.61 (SD of 1.37). These findings indicated a very high level of patient reported experience across the treatment process. The low SD also indicated a high degree of consistency across participants. Sharing treatment decisions (Dierckx et al., 2013) and expressing a treatment preference have been linked with improved clinical outcomes (Foster et al., 2010; Metcalfe and Klaber Moffett, 2005; Thomas et al., 2004). These factors, along with

communication, are evaluated within the treatment process dimension. Being taken seriously, getting and explanation, being invited to participate, and being treated individually have also been deemed as important to a good experience (Stenberg et al., 2012). Findings from this study indicated that participants reported a high level of experience in this regard. Where Potter et al. (2003) found communication to be the biggest predictor of a good quality experience, treatment skills were found by Anaf and Sheppard (2010) to be the most important factor. Casserley-Feeney et al. (2008), Goldstein et al. (2000), Hills and Kitchen (2007a), and Monnin and Perneger (2002) also found the process, content, and technical skills of treatment, were important aspects of satisfaction. Findings from this study suggest that participants rated both the assessment and treatment process dimensions to a very similar level.

In the treatment process dimension, the correlations between questions were all above the 0.80 level, and the majority were above the 0.90 level, which represented a high, and majority very high, positive correlation between the responses. This may have indicated either a globally positive experience with the treatment process, or an overlap in the content of the questions. In this case the questions could be refined and the number of questions could be reduced. The questions in the treatment process dimension appear to relate to two separate subsections, the treatment process and the actual treatment. These could either be split into two dimensions, or the treatment process questions combined with the assessment process questions. This would then give a separate treatment dimension focused on the actual treatment received.

5.6.5 Clinical outcome responses

The clinical outcome was evaluated through questions 15 to 17. These questions focused on the improvements in pain, symptoms, function, and overall recovery. The responses to the group of questions ranged from 6.34 to 7.17 (SD of 3.04). These findings indicated a moderate level of patient reported experience with clinical outcome.This dimension was the lowest scoring. The higher SD also indicated a larger variability within this dimension. This might reflect the wider range of clinical outcomes typically seen in practice. Clinical outcome was reported as an important dimension of satisfaction by French et al. (2010), George

and Hirsh (2005), Hills and Kitchen (2007a), Hills and Kitchen (2007b), Hush et al. (2011), Hush et al. (2012), and of experience by Kidd et al. (2011) and Reeve and May (2009). Despite its' importance, it was typically evaluated less favourably than other dimensions in these studies. Findings from this study are comparable, with the experience of clinical outcome being rated in moderate terms compared with other dimensions. The separate aspects of treatment delivery and treatment effect, as identified by George and Hirsh (2005), are distinguished in this study between this dimension and the treatment process dimension.

In the clinical outcome dimension, the correlations between questions were all above the 0.70 level, which represented a high positive correlation between the responses. These were typically rated lower than the other dimensions, but appear to capture information regarding the same concepts. Refinement of the questions in this dimension would be useful to capture more detail in this dimension, to help identify reasons for the lower rating.

5.6.6 Clinician attributes responses

The clinician attributes were evaluated through questions 18 to 23. These questions related to whether they were treated with respect and empathy, whether enough time was spent and rapport developed, and whether the clinician was thought to be knowledgeable and skilful. The responses to the group of questions ranged from 9.46 to 9.61 (SD of 1.30). These findings indicated a very high level of patient reported experience with the interpersonal relation and communication between themselves and the clinician. The low SD also indicated a high degree of consistency across participants. Similar to the treatment process, aspects of this dimension were partly underpinned by communication skills and partly underpinned by treatment skills. The findings were consistent with previous studies (Anaf and Sheppard, 2010; Beattie et al., 2002; Casserley-Feeney et al., 2008; Dierckx et al., 2013; Eriksson et al., 2011; Foster et al., 2010; Goldstein et al., 2000; Hills and Kitchen, 2007a; Kidd et al., 2011; Metcalfe and Klaber Moffett, 2005; Monnin and Perneger, 2002; Potter et al., 2003; Reeve and May, 2009; Stenberg et al., 2012; Thomas et al., 2004), which consistently report satisfaction with clinician attributes.

In the clinician attributes dimension, the correlations between questions 18 (empathy) and the other questions was above the 0.50 level, which represented a moderate positive correlation. This perhaps indicates that these questions were not capturing the same concept, and might be better placed in another dimension. The correlations between the rest of the questions in the clinician attributes subsection were all above the 0.80 level and the majority were above the 0.90 level, which represented a high positive correlation between the responses to the remainder of the questions. This may indicate either a globally positive experience with the clinician attributes, or perhaps that there is an overlap in the content of the questions. In this case the questions could be refined and the number of questions could be reduced.

5.6.7 Discharge process responses

The discharge process was evaluated through questions 24 to 28. These questions related to long term self help strategies, onward referral, and the need for further care. The responses to the group of questions ranged from 6.83 to 9.40 (SD of 2.81). Variable 24 appeared to be an outlier in this section, and advice on self-help strategies may have been a better fit within the treatment process section. With variable 24 removed, the responses ranged from 6.83 to 8.82. The lower responses indicated a moderate level of patient reported experience with the discharge process. This dimension was the second lowest scoring after the clinical outcome dimension. This indicated that the patient perspective at discharge may be that they felt they required further treatment or investigation. This may be linked to clinical outcome but would require testing with a patient reported outcome measure. Advice on self help strategies (question 24) may have fit better within the treatment dimension, which would be a consideration for future development of the questionnaire. The discharge process does not appear to be a discrete dimension in existing questionnaires, but communication with other professionals (Potter et al., 2003), acting as a bridge between health professionals (Anaf and Sheppard, 2010), and arranging necessary follow-up care (Potter et al., 2003) have been identified as contributing to a positive experience. These aspects were all examined within the discharge process dimension of this questionnaire.

In the discharge outcome dimension, there was a wider range of correlations. There was a weak positive correlation (> 0.300) between questions 24 and questions 26-28, a moderate positive correlation (> 0.500) between questions 25 and questions 24-28, and a strong positive correlation (> 0.700) between questions 26 and questions 27-28. Question 24 appears to link more with the treatment dimension, whereas the others relate to whether the participant thought that further treatment or onward referral was required. Moving question 24 and refining the questions in the discharge outcome dimension would seem appropriate.

5.6.8 Service attributes responses

The service attributes were evaluated through questions 29 to 32. These questions related to whether they felt the admin staff treated them with respect, whether it was easy to make or change appointments, whether they saw the same clinician for each appointment, and about the waiting time. The responses to the group of questions ranged from 9.26 to 9.55 (SD of 1.50). These findings indicated a very high level of patient reported experience with the administration of their episode of care. The lower SD also indicated a generally good degree of consistency across participants. Slade and Keating (2010) identified that support staff and access were linked to a positive experience. Time spent waiting for the therapist (Beattie et al., 2002; Beattie et al., 2007) and continuity of care (Beattie et al., 2005b) were also linked to satisfaction. However, overall satisfaction may not be influenced to a great extent by experiences with ancillary aspects of care (Goldstein et al., 2000). While service attributes were rated highly in this study, it is unclear how much they affect overall experience based on these findings.

In the service attributes dimension, the correlations between questions 29 (respect) and the other questions were above the 0.60 level, which represented a moderate positive correlation, whereas the correlations between the rest of the questions in the admin attributes subsection were all above the 0.90 level, which represented a very high positive correlation between the remainder of the responses. This may indicate a generally positive experience with the admin attributes, except respect, in which case the questions could be refined and the number of questions could be reduced, but the respect question kept separate.

5.6.9 Clinic attributes responses

The clinic attributes were evaluated through questions 33 to 37. These questions related to the clinic location, building accessibility, opening times, and the facilities. The responses to the group of questions ranged from 9.52 to 9.63 (SD of 1.37). These findings indicated a very high level of patient reported experience with the clinic location, building accessibility, opening times, and facilities. The low SD also indicated a high degree of consistency across participants. Slade and Keating (2010) identified facilities as being important to the patient experience. Clinic location, parking, and equipment (Beattie et al., 2002; Beattie et al., 2007) were also linked to satisfaction, however, Casserley-Feeney et al. (2008) found interpersonal issues were twice as commonly reported than service attributes. Although this is not specifically looked at in the phase of the study, this was a finding of the interviews with patients.

In the clinic attributes subsection, the correlations were all above the 0.80 level, and the majority were above the 0.90 level, which represented a high, and majority very high, positive correlation between the responses. This may indicate either a globally positive experience with the clinic attributes, or perhaps that there is an overlap in the content of the questions. In this case the questions could be refined and the number of questions could be reduced.

5.6.10 Overall experience responses

The overall experience was evaluated by questions 38 to 40. These service related questions focused on overall experience, willingness to return, and willingness to recommend. The responses to the group of questions ranged from 9.63 to 9.66 (SD of 1.27). These findings indicated a very high level of patient reported overall experience, likelihood of returning to the service, and likelihood of recommending the service. The low SD also indicated a high degree of consistency across participants. This was the highest scoring dimension with the lowest SD. This might indicate that the lower scoring dimensions are not well represented by the global dimensions and are, in fact, hidden in the universally high global dimension scores. The concept of overall satisfaction, typically measured by global questions, was the most commonly reported dimension

across the included studies (Beattie et al., 2002; Beattie et al., 2005b; Beattie et al., 2007; Casserley-Feeney et al., 2008; George and Hirsh, 2005; Hush et al., 2011; Hush et al., 2012; Stiller et al., 2009), with high degrees of satisfaction reported with physiotherapy overall. Global dimension questions were about overall satisfaction and willingness to return (Beattie et al., 2002), and willingness to recommend to a friend (Casserley-Feeney et al., 2008). Satisfaction was also distinguished between treatment delivery and treatment effect (George and Hirsh, 2005). Responses on overall experience in this study appear comparable with previous findings on overall satisfaction, with typically high ratings of experience, willingness to return, and willingness to recommend the services.

In the overall experience dimension, the correlations were all above the 0.90 level, which represented a very high positive correlation between the responses. There is a very strong correlation between the responses to questions in this dimensions, but further testing would be required before refining these any further, as using a range over overall experience questions widely supported by existing studies.

The findings from the inferential statistics did not indicate any differences in the overall ratings of experience, willingness to return, and willingness to recommend the service between different genders, age groups, employment groups, problem areas, or referral sources. This is in keeping with Casserley-Feeney et al. (2008), who found little variation in satisfaction levels between different characteristics. There were, however, significant differences in the overall ratings of experience between both the 3-6 month and the 6-12 month groups when compared with the 24+ month groups. There were also significant differences in the overall ratings of willingness to recommend the service between the 3-6 month group when compared with the 24+ months group. The 24+ month group reported a lower overall experience rating, and were less likely to recommend the service. Hills and Kitchen (2007b) found differences in priorities for acute and chronic conditions, but overall satisfaction was similar. Participants with longer term conditions appeared to report a poorer overall experience. This is relevant clinically, as musculoskeletal physiotherapy services often see all conditions within the same service and environment. Findings from this study may indicate that there are differences in the experiences for longer term conditions, which may require different service

designs to improve experiences. This would require further testing to explore which factors contribute to this, and which are linked to clinical outcome.

5.6.11 Strengths and limitations

Unlike the first two phases of the study, this phase was based on a post positivist methodology, and a quantitative approach. The validity of this phase was enhanced by the two previous phases, in terms of the construct and content. Construct validity was established by the previous work in this study, which ensured that the questionnaire studied the intended concepts. Content validity was provided by the previous work in this study, and triangulation with content in extant measures, identified though the systematic review. Criterion validity was not specifically tested in this study, but would be an area for further research. This may limit the overall validity of the measure.

The reliability of the measure still requires further research. The questionnaire was used in a single site study with a sample size consistent with a developmental process. Testing of the measure in a larger sample, and across multiple sites, would provide reliability testing for the measure. Testing against extent measures would also enhance the criterion validity.

5.7 Conclusion

A patient reported experience measure was developed and piloted for use with musculoskeletal physiotherapy. The final measure (Appendix 14) was presented in 10 sections including demographic details, eight separate dimensions of experience, and an open ended free text section.

There were no significant differences in the overall experience dimension questions between different groups including gender, age group, employment status, problem area, and referral source. There were significant differences between condition duration groups, with longer durations reporting lower overall experience.

The questions within each dimension correlated strongly with each other indicating consistency in what they were measuring. This might also indicate a reduction in the overall number of questions is possible.

Experience with the assessment and treatment process, interpersonal relationships, and service factors were rated very highly (> 9/10). Treatment outcomes and the discharge process were rated less positively (6-7/10). Global dimensions scored consistently very highly (> 9/10). This would suggest only reporting overall experience hides areas of lower ratings, and may explain the consistently high reports of satisfaction across the literature.

The measure developed in this study represents the first of its kind for musculoskeletal physiotherapy in the UK. The findings from the study appear to represent the first direct evaluation of patient experience in a musculoskeletal physiotherapy sample in the NHS. Experience is rated very highly overall, but with some areas less so. The measure appeared to demonstrate face validity but requires further development, reliability testing, and psychometric testing.

Chapter Six: Towards the development of a patient experience model for musculoskeletal physiotherapy in the NHS

This chapter presents the development of a patient experience model for musculoskeletal physiotherapy in the NHS. This proposed model draws on the findings from the three phases of this study. The development methods are described and the model is presented. The proposed model is then discussed in the context of the extant literature. The main findings from the three research phases are summarised to provide a basis for the development of the model.

6.1 Introduction

"Patient satisfaction is increasingly seen as an important area of research because it has been found that satisfied patients are more likely to benefit from their healthcare. However, there has been comparatively little work in this field within physiotherapy. Eliciting patients' expectations and needs of their care and addressing these during treatment could not only influence their subsequent health related behaviour, but could also contribute to a more favourable evaluation of the whole therapeutic experience. While various determinants of satisfaction have been identified and examined in the literature, there has been little work to develop a theory to underpin the concept of satisfaction. Such a theory is important in physiotherapy because it can inform current practice and its evaluation and have implications for future patient care." - Hills and Kitchen (2007c, page 243)

Experience provides a vital insight in aspects of care that create value for patients, which must be a fundamental part of any service provision or service change (Staniszewska and Churchill, 2014). But, it is important to move beyond results from surveys that specifically capture concepts such as patient satisfaction, because patient experience is more than satisfaction alone (Wolf et al., 2014). A theory or model patient reported experience of musculoskeletal physiotherapy must, therefore, also go further.

6.2 Background

The commonly used patient satisfaction theories were summarised by Gill and White (2009), and were presented in chapter one (Figure 1.2). The consistent concept within these theories was that satisfaction relied on enough being done meet the expectations of the individual. Although each theory used different terminology; inducing orientations, conditions, dimensions, sense of self, or preferences; they all amounted to expectations held. Patient satisfaction, therefore, is based on a service being 'good enough'. As a result, this makes the level of satisfaction heavily reliant upon the relative relationship between expectations and experience. These are not necessarily relative to the actual service quality received. This makes satisfaction an unreliable measure of service quality or patient experience. It also, therefore, makes satisfaction an unreliable basis for a model that seeks to explain the patients' experience.

Findings from the systematic review and narrative analysis, presented in chapter three, demonstrated that extant measures appeared to use dimensions of satisfaction that were actually dimensions of experience. Responses from participants in the interviews, presented in chapter four, described their experiences in a more data rich manner, but described satisfaction in non descriptive overall terms. Descriptions of experiences spanned a broader range of aspects of their care, and characterised a more thorough picture of the overall experience. Findings from the patient reported experience measure, developed in chapter five, indicated that these dimensions appeared to measure the patients' perspective of their experience. Measuring individual dimensions represents are more accurate assessment of the overall experience, rather than a unidimensional view of satisfaction alone. Incorporating these dimensions into a model of patient experience is likely to provide a more theoretically sound basis for further exploration of the patients' experience.

Indeed, Hills and Kitchen (2007d) found that subjects with positive or tentatively formed expectations of being helped tended to report a positive outcome to the encounter if the treatment met or exceed their expectations, but, when unrealistic or negative expectations of change were evident, an unsatisfactory result ensued. Therefore, satisfaction, based on need theory, is not likely to result in an accurate

measurement of service quality, clinical outcome, or patients' actual perspectives. For example, given a similar waiting time, equally competent treatment, and a comparable clinical outcome, the resulting level of satisfaction could vary significantly, based upon the patients' expectation levels. These are influenced by personal and social variables. This is unlikely to provide a realistic reflection of the service, or help to identify areas to improve.

Although a range of dimensions that influence satisfaction have been identified, the underpinning concept of satisfaction remains theoretically inadequate (Hills and Kitchen, 2007c). Building on the existing models of satisfaction proposed from healthcare more generally (Gill and White, 2009; Hills and Kitchen, 2007c), Hills and Kitchen (2007d) sought to propose a theory and model of satisfaction specific to musculoskeletal physiotherapy. These were both developed based on findings from their interviews and focus groups with NHS patients. In this study, findings from the interviews suggested that participants placed more emphasis on their direct experiences. Their descriptions were broader and more detailed. Further, satisfaction was described in very general, overall terms, typically much more positive than the descriptions of expectations or experiences. This may make satisfaction fundamentally unhelpful as a measure, as it was globally reported in more positive terms that the actual care was described. The direct use of experiences in a measure was supported, rather than satisfaction, which should allow a more accurate measure of patient experience and overcome some of the conceptual and methodological flaws with existing measures. The model developed by Hills and Kitchen (2007d) appeared to represent the first of it kind specific to musculoskeletal physiotherapy in UK. However, this model remains untested and further, it is based around satisfaction, which has been reported as a poor measure of experience, quality, and outcome. This view is supported by the findings of this study.

Hills and Kitchen (2007d) initially considered the process and the outcome of care in their model. They combined these into one final overarching model, based on the cognitive-affect model of satisfaction (Oliver, 1993). In this model, Hills and Kitchen (2007d) considered the pathology and the patients' expectations of care against the therapeutic encounter and the clinical outcome, followed by disconfirmation of their prior expectations, which resulted in either satisfaction or

dissatisfaction. This model relied heavily on satisfaction being a function of the relationship between expectations and experiences. Despite the lack of critical testing, Hills and Kitchen (2007d) argued that the expectancy disconfirmation theory provided a sound theoretical basis for their model of patient satisfaction, and further, that this model contributed to a better understanding of the concept of satisfaction applied to musculoskeletal physiotherapy. Although their model demonstrated reasonably sound psychological underpinnings, it still relied heavily on the unclear link between expectation and experience. This makes their model of satisfaction fundamentally unreliable. The findings from the current study have demonstrated a clear and incremental link between the positivity of expectations, experiences, and satisfaction. This indicated that satisfaction is an unreliable measure, or basis for a model, as the levels described are appreciably more positive that the actual experiences described. At best, measuring satisfaction would seem to provide an overestimation of the patients' perspective of their care, and at worst, it could be wholly reliable if it is based on the relationship between expectations and experiences, which is still not fully understood. The findings across this study supported the use of the dimensions of direct experience as the main content for a model applicable to musculoskeletal physiotherapy.

Indeed, although there is likely to be a variation in expectation levels across patients and across different dimensions, the affective nature of satisfaction means ratings will be unduly influenced. Using a direct measure of experience involves some variability, but is likely to give a more realistic perspective of the service received. This suggests that the model proposed by Hills and Kitchen (2007d) does not actually have a sound theoretical basis, as it is subject to significant variation between patients, even when the service received is of equal quality. Furthermore, it was also based on the patients' pathology, whereas psychological factors such as distress, depressive mood, somatisation, coping strategies, and fear avoidance are more likely reasons for chronicity (Pincus et al., 2002). This also undermines the theoretical construct of the model proposed by Hills and Kitchen (2007d).

Roush and Sonstroem (1999) identified a range of discriminators they labelled enhancers and detractors. These were components within their questionnaire that significantly influenced the level of satisfaction. Enhancers included contentment

with the physical environment and the personal interactions associated with a clinic visit, and related to dimensions that enriched experience beyond a minimally acceptable level. Detractors included an acknowledgment of basic physical and interpersonal needs that, if not present, created negative feelings, but that, if present, were not necessarily associated with positive feelings. Although Roush and Sonstroem (1999) did not propose a discrete model, these concepts are worth consideration in the development of an overall model of patient experience. Findings from the questionnaire, presented in chapter five, indicated that participants rated different dimensions of their experiences at different levels. A model for musculoskeletal physiotherapy would need to consider that various aspects of expectations and experiences contribute to the overall experience. Although not labelled detractors in this study, dimensions such as clinical outcome and the discharge process were lower rated than other dimensions. Similar to Roush and Sonstroem (1999), findings from the current study suggested that different dimensions contributed differently to the effects on the overall ratings of experience. Based on the findings from both the extant literature and the current study this requires further exploration, although it appears clear that any model of patient experience fo musculoskeletal physiotherapy would need to reflect these dimensional effects.

The finding from the current study supported a move away from a model of satisfaction, towards a model of experience, based on the direct perspectives of patients on their care. This differs from the previously proposed theory (Hills and Kitchen, 2007c), model (Hills and Kitchen, 2007d), and enhancers and detractors (Roush and Sonstroem, 1999). These studies provided a methodological basis for the development of a model, but their proposed models appear to lack a sound theoretical basis, as they tend towards satisfaction alone, not the whole patient experience. A new model, therefore, is still required to better explain the patient experience of musculoskeletal physiotherapy.

6.3 Development process

The methods used by Hills and Kitchen (2007c), Hills and Kitchen (2007d), and Roush and Sonstroem (1999) were combined and adapted to support the development of a model of patient experience of musculoskeletal physiotherapy,

based on the findings from this study. Hills and Kitchen (2007d) described a preliminary stage of development based on the findings from a series of unstructured interviews with patients, with further development based on a more structured interview process. Although Hills and Kitchen (2007b) subsequently developed a satisfaction questionnaire, they did not appear to include the findings from this in the development of their model. Roush and Sonstroem (1999), however, based their suggestion for the key discriminators of satisfaction on their process of questionnaire development. In this study, the model was developed alongside the three research phases. The final model was proposed based upon a combination and synthesis of the overall findings from the study. This has resulted in a proposed adaptation and development of a model of patient experience which will be presented subsequently.

6.3.1 Systematic review and narrative analysis

The first phase of this study, presented in chapter three, was a systematic review and narrative analysis of the patient experience of musculoskeletal physiotherapy. This focused on the core concepts of patients' expectations, experiences, and satisfaction. There were 39 articles included in the final review, and the emerging themes were synthesised as a narrative analysis. There were significantly more studies presented under the umbrella of patient satisfaction (20) compared with experience (10). However, the principal dimensions described were smilier. Dimensions such as the patient-physiotherapist interaction, physiotherapist attributes, services attributes, and clinical outcomes were all common, as was overlap across dimensions.

A key finding of the narrative synthesis was that studies referring to dimensions of satisfaction, were referring to direct experiences. This finding was supported by the responses and descriptions of participants in the interviews in this study, presented in chapter four. Despite identifying a range of widely proposed dimensions of experience, the systematic review did not reveal a suitable model of patient experience of musculoskeletal physiotherapy.

The results from the systematic review provided a conceptual framework for the development of the model. Studies were typically focused on one of the core

components of patient experience: expectations, experiences, or satisfaction. There were consistent approached in these studies, with expectation and satisfaction studies tending to be questionnaire based. Experience studies were typical interview or focus group based, with fewer questionnaires. This suggested that the experience studies were more exploratory, and that direct experiences required a more in depth method of data collection and analysis. The framework from the systematic review provided a basis for the interviews in this study, but also a framework for the components of the proposed model. Expectations (before treatment), experiences (during treatment), and effects (after treatment), were chosen as the core components for the model based on the review. Effects replaced satisfaction, as they are a more direct perspective on experience, and do not appear to rely on the undefined relationship between expectations and experiences.

6.3.2 Interviews with patients

The second phase, presented in chapter four, consisted of semi structured interviews with 15 patients who had received musculoskeletal physiotherapy. A topic guide was based on the findings from the systematic review and focused on expectations, experiences, and satisfaction (Appendix 8). Responses were coded to according to whether expectations, experiences, or satisfaction was expressed, and then categorised as positive, neutral, or negative. The emerging themes in each category were then thematically analysed. Overall, there were 474 responses coded, with 323 relating to experiences, 121 relating to expectations, and only 30 relating to satisfaction. The responses relating to experiences and expectations were significantly more data rich, compared with satisfaction.

Themes focused on the assessment and treatment process, clinical outcome, interpersonal relationships with the clinician, discharge planning, and administrative and service factors. The majority of references were made to direct experiences or perspectives of care, and these produced the most rich data. Dimensions previously reported in the satisfaction literature were described in terms of direct experiences, and satisfaction accounted for very few of the overall responses. Response coded as satisfaction were very data poor. The findings

appeared to suggest that patients place most emphasis on their direct experiences and perspectives of their overall care, and little value on satisfaction.

Hills and Kitchen (2007d) based their initial models of patient satisfaction on the findings from individual unstructured and semistructured interviews. Although they found an indication of the principal areas of interest, they concluded that further data collection phases involving a larger number of subjects were required to increase the confidence that the emerging themes were representative of the participants' views. Focus groups were then used to provide a larger sample, although the thematic analysis from these groups was presented in different terms. As a result, this did not increase the confidence in the initial findings, but resulted in different findings. Ultimately these were combined into the model development, which was based on the cognitive affect model of satisfaction. Conversely, Roush and Sonstroem (1999) used their questionnaire development and refinement process to propose their components of a model. They analysed their questionnaire content for internal and external validity, and refined the included questions. They used the findings from their process to outline the dimensions they though contributed to, or detracted from, overall satisfaction.

Further to the framework provided by the findings from the systemic review in this study, the interviews provided the descriptive aspects of the dimensions from the patients' perspectives. These were used as the basis of the questionnaire developed in phase three of this study, presented in chapter five. The findings also indicated an incremental level of positivity in the descriptions of expectations, experiences, and satisfaction. This supported previous criticisms of the validity of satisfaction (Avis et al., 1995; Williams, 1994; Williams et al., 1998), and further, provided an explanation for the highly reported levels of satisfaction across the healthcare literature.

Figure 6.1: The relationship between positivity levels

Expectations were predominantly expressed as neutral (60%) and experiences were expressed as positive (56%) and neutral (32%). Despite this, satisfaction was expressed more frequently in positive terms (83%). There was a clear and incremental progression in positivity between expectations, experiences, and satisfaction (Figure 6.1). This escalation in positivity levels may explain why reported levels of satisfaction are so high across the literature, as satisfaction levels are reported in more positive terms than actual experiences.

6.3.3 Development of a patient reported experience measure

In response to the need to develop a measure of patient experience, following the systematic review and interviews with patients, a patient reported experience measure was developed. This was presented in chapter five. This measure was piloted in a sample of participants receiving musculoskeletal physiotherapy in the NHS. The final measure (Appendix 14) was presented in 10 sections including demographic details, eight separate dimensions of experience, and an open ended free text section. There was a consistency in the content and design of the questionnaire (Beattie et al., 2002; Goldstein et al., 2000; Hills and Kitchen, 2007b; Knight et al., 2010; Monnin and Perneger, 2002; Roush and Sonstroem, 1999), but the key difference was that the focus was on patients' experiences. No inference was drawn on a level of satisfaction, as the previous studies attempted to do. As such, the theoretical basis of the measure was different, and the findings represented a more direct evaluation of the participants' perspectives of their care.

The findings indicated that there were no significant differences in the overall experience dimension questions between different groups including gender, age group, employment status, problem area, and referral source. There were significant differences between condition duration groups, with longer durations reporting lower overall experience. Experience with the assessment and treatment process, interpersonal relationships, and service factors were rated very highly (> 9/10). Treatment outcomes and the discharge process were rated less positively (6-7/10). Global dimensions scored consistently very high (> 9/10). This would

suggest only reporting overall experience hides areas of lower ratings, and may explain the consistently high reports of satisfaction across the literature.

Similar to Roush and Sonstroem (1999), the questionnaire content was used to inform the proposed model. In this study, however, the questionnaire was not subjected to statistical testing for internal and external validity. Hills and Kitchen (2007b) also developed a questionnaire within their overall research, but did not appear to incorporate the findings from this into their model development process. In this study, the process lacks the sample size of Hills and Kitchen (2007c) and the questionnaire validity testing (Roush and Sonstroem, 1999), but draws on the core concepts of their development process. This uses the strengths from the depth of description from the qualitative work and the quantitative analysis from the questionnaires in this study.

6.4 A proposed model of patient experience

Patient experience refers to the quality and value of all of the interactions, direct and indirect, clinical and non clinical, spanning the entire duration of the patient provider relationship (Wolf et al., 2014). Patient experience is a multi faceted concept and a number of empirical studies have found a positive relationship between patient experience and other facets of provider quality (Lehrman et al., 2014). Embedded within patient experience is a focus on individualised care and tailoring of services to meet patient needs and engage them as partners in their care (Wolf et al., 2014).

As patient experience continues to emerge as an important focus area across healthcare globally, the need for a standard consistent definition becomes even more evident, making it critical to ensure patient experience remains a viable, respected, and highly embraced part of the healthcare conversation (Wolf et al., 2014). As such, developing a model is an important step in defining and accurately measuring patient experience. As a result, a model for patient experience of musculoskeletal physiotherapy has been proposed here, based on the findings from this research study.

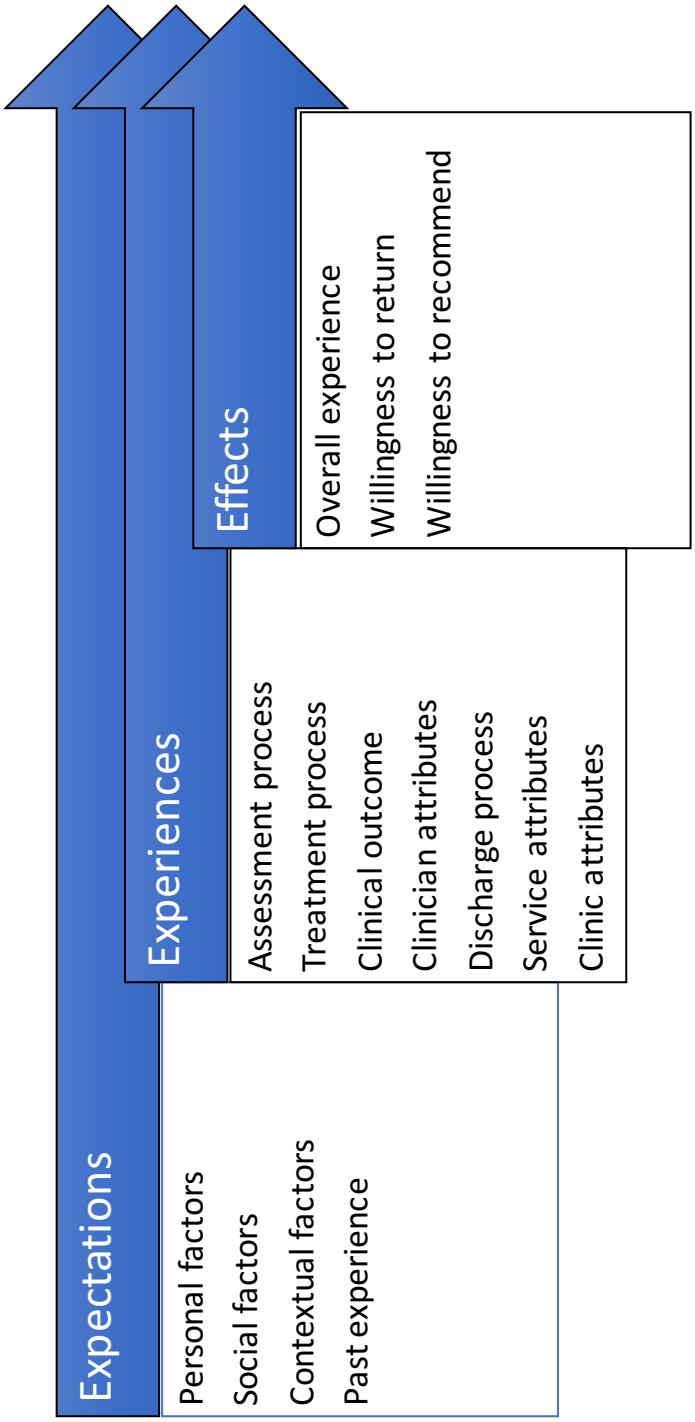
Figure 6.2: A proposed model of the concepts of patient experience

The proposed model (Figure 6.2) shows the underpinning conceptual aspects of patient experience of musculoskeletal physiotherapy (expectations, experiences, and effects) as discrete, but neighbouring, concepts. This reflected the idea that they are informed by each another, but the relationship between each cognitive state is not fully understood. In this model, effects have replaced satisfaction. While this model still relied on the relationship between expectations and experiences, it allowed for a more direct consideration of the patients' views of their experiences, across a range of dimensions. This placed the actual patient experience, and their direct perspective of this, at the centre of the model. Conceptually, this model differed from previous satisfaction theories (Figure 1.2), as it did not rely on expectations being met, or a service being ‘good enough’. Removing the concept of satisfaction is likely to provide a more accurate reflection of the service received and therefore, addresses one of the major flaws in satisfaction survey studies to date.

Although Figure 6.2 shows the concepts separately, they likely form a continuum. Expectations inform experiences, and perspectives of these experiences follow. This is turn informs future expectations, directly those based on past experience, and possibly shapes personal factors. This proposed model would apply at the micro and meso level, as outlined, across the episode of care. Patients’ experiences across a range of dimensions then effect perspectives of overall experience, willingness to return, and willingness to recommend. A patient reported experience measure administered at the end of an episode of care thus would encapsulate the patients’ perspectives of these evolving expectations and experiences. A measure that spans the dimensions of patient experience would also allow areas that rate more poorly to be identified.

The proposed model developed in this study could be applied in several ways. At the micro level, the model would run across each individual appointment, with the perspectives and knowledge gained applied at the next appointment. At the meso level, this would also apply across an episode of care. At the macro level, this could apply across the duration of the condition, or across several episodes of care for the same problems. As the patient experience represents a continuum of interactions (Wolf et al., 2014), Figure 6.3 shows the chronological application of the model.

Figure 6.3: A chronological application of the proposed model of patient experience



6.5 Conclusion

This model of patient experience appears to be the first that is specific to musculoskeletal physiotherapy. The model was based on the findings from research exploring the important aspects of experience from the patients' perspective. It requires further research and testing, but appears to provide a more theoretical underpinning for the experience measure.

The proposed model moves beyond satisfaction alone, towards a more comprehensive view of experiences. In this proposed model, the role of expectations and experiences are considered, and their effect on the overall rating of care. As the relationship between expectations and experiences is not yet fully understood, and the role of satisfaction remains theoretically unclear, these aspects have been removed when compared with extant models of satisfaction. This should allow a more direct understanding of the dimensions that appear to affect the patients' experiences and relate to quality and clinical outcome. This should also make it easier to design studies to incorporate an evaluation of the patient experience, to develop the empirical evidence base on the links with quality and clinical outcome.

The proposed model contributes to the knowledge base on the patient experience. The findings from the interviews with patients, incorporated in the model, provided new data to explain the previously highly reported levels of satisfaction across healthcare. The dimensions of experience, while similar to those previously described as dimensions of satisfaction, have been conceptualised more directly as the patients' perspectives, and are more directly measurable. The patient reported experience measure, presented in chapter five, provides new and more accurate method of assessing the patient experience.

Chapter Seven: Conclusions, recommendations, and summary

This chapter presets the conclusions, recommendations, and summary. The key findings are presented and their clinical and policy implications discussed. The strengths and limitations of the overall study are discussed. Areas for further research are proposed. Reflections on the research and an overall summary are presented.

7.1 Introduction

"A more coordinated approach is needed if we are to make better use of people's reports on their experiences. This should bring together the various data sources, enabling more in-depth analysis of these, exploring linkages and overlaps, developing and testing more efficient ways to gather the data, and working out how to ensure that the results are used for quality improvement. The strong policy focus on measuring experience has not been matched by a concerted effort to develop the science that should underpin it, so improvement of the knowledge base about the factors that influence patients' experiences will also be important."
- Coulter et al. (2014, page 3)

Over the last decade, policy has emphasised the importance of a good patient experience as a cornerstone of high quality health and social care in the UK, with many initiatives attempting to develop patient centred practice (Staniszewska and Churchill, 2014). This thesis has presented some of the first research exploring the patient experience of musculoskeletal physiotherapy in the NHS. This has included a systematic review and narrative analysis of existing studies, findings from exploratory interviews with patients, and a new patient reported experience measure for musculoskeletal physiotherapy. Further, it has proposed a new model of patient experience. While policy has attempted to place patient experiences at the heart of care, significant challenges still remain before patient experience is fully integrated conceptually and organisationally (Staniszewska and Churchill, 2014). Coulter et al. (2014) proposed that a more concerted attempt was required to make use of the evidence, and that an institutional focus could prove to be the key to getting it taken more seriously. The findings from this research have

provided a new questionnaire based measure and a new model that can be tested, and used in practice.

7.2 Key findings and originality

The research aims were met as follows:

- To explore patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
- To develop a method of measuring the patients' experiences of musculoskeletal physiotherapy
- To propose a model of patients' experiences of musculoskeletal physiotherapy

The primary aim of this research was addressed by phase one and two of this study. The systematic review and narrative synthesis explored the existing literature and identified the proposed dimensions of expectations, experiences, and satisfaction, and the interviews with patients explored the proposed dimensions of experience for patients receiving musculoskeletal physiotherapy. The secondary aim of this research was addressed by phase three of this study. The development of a patient reported experience measure was based on the findings from the first two phases and piloted on a sample of patients receiving musculoskeletal physiotherapy. The tertiary aim was across all three phases.

The main findings from the three research phases will now be presented. These findings will provide brief summary to support the discussion of the clinical and policy implications, the strengths and limitations, areas for further research, and reflections on the research process.

7.2.1 Systematic review and narrative analysis

There were a limited number of studies exploring the patient experience in musculoskeletal physiotherapy. The majority were based outside of the UK and focused on satisfaction, rather than direct experience. Most articles presented developmental work, and only Beattie et al. (2005a) validated their questionnaire

through psychometric testing. There was a clear demarcation in most studies between satisfaction with process and satisfaction with outcome. There were several core dimensions within process satisfaction including service factors and interpersonal relationship factors. Service factors appeared to take precedence, although interpersonal factors appeared to provide more useful and relevant data. Professionally derived questionnaires appeared to be prevalent, and may fail to capture the experiences from the patient perspective. Satisfaction with outcome is sometimes measured, but in practice, the use of a specific patient reported outcome measure is preferred. Questionnaires often include a global dimensions with overall satisfaction, willingness to return, or willingness to recommend being the most common.

The findings from the systematic review failed to identify an existing method to measure patient reported experience of musculoskeletal physiotherapy. The findings appeared to represent the first systematic review and narrative analysis of patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy. Core dimensions were identified relating to patient satisfaction, which appeared to be used as a proxy for patient experience in many studies. These appear to be appropriate dimensions to measure direct experience, but had not been tested in a musculoskeletal physiotherapy population in the UK. Testing of these dimensions was required to ensure that they were appropriate in this population, and reflected the actual experiences from the patients' perspective.

7.2.2 Interviews with patients

The majority of references made by participants who were interviewed referred to direct experiences or expectations. Dimensions previously reported in the satisfaction literature were described as direct experiences. Satisfaction accounted for very little of the overall responses and was very data poor. Emerging themes focused on the assessment and treatment process, clinical outcome, interpersonal relationships with the clinician, discharge planning, and administrative and service factors.

The findings appeared to suggest that patients place most emphasis on the direct experiences of their care, rather than satisfaction. Expectations and experiences

were expressed across a range of similar themes, with expectations becoming encompassed in the resulting experiences. Experiences were described more positively when compared with expectations. Satisfaction levels were more positive that the experiences described. The findings from the interviews appeared to support the need for a new questionnaire to measure patient experience, rather than satisfaction.

7.2.3 Development of a patient reported experience measure

The purpose designed patient reported experience measure included 40 questions across eight separate dimensions. There were limited differences between demographic groups including gender, age, employment status, problem area, and referral source. Duration of the condition showed small differences in the overall experience questions. The questions within each dimension correlated strongly with each other, which may indicate a reduction in the number of questions is possible. Experience with the assessment and treatment process, interpersonal relationships, and service factors were rated very highly (> 9/10). Treatment outcomes and the discharge process were rated significantly lower (6-7/10). The overall experience questions were rated very highly (> 9/10). This suggested that using a global report of overall experience potentially hides areas where experience is rated more poorly. This may explain the consistently high level of reported satisfaction across the literature, but also provided a new method of overcoming this methodological flaw.

The patient reported experience measure developed in this study appears to represent the first of its kind for musculoskeletal physiotherapy. It was developed from existing literature and findings from interviews with patients, and appeared to capture what they perceive as the most important factors. This differs from many previous measures which were derived from a professional or organisational perspective. The results from this questionnaire represent the first direct evaluation of patient experience in a musculoskeletal physiotherapy sample in the NHS. The findings indicated that experience is generally reported very good terms overall, but less so in some dimensions. The questionnaire appeared to demonstrate face validity, but requires further development.

7.3 Clinical implications

A patient reported experience measure must consider the views and perspectives of the patient, otherwise it has failed in its primary purpose. It must take into account what the patient thinks is important about their experiences, and test their perspective of what actually happened against this. An experience measure developed from a professional or organisation perspective, such as many of the extant satisfaction measures, is unlikely to focus on what the patient perceives as most important. It is therefore unlikely to capture the most important aspects of the experience from the patients' perspective. The patient reported experience measure developed in the current study is grounded in the patients' directly reported experiences, making it a more accurate representation of the patients' perspective.

Based on the findings from this research study, a new model of patient experience of musculoskeletal physiotherapy was proposed. This provides an apparently new conceptual approach to measuring the patient experience. While it still relies on the patients' perspective of their experience, informed by their expectations, it does not rely on an assumption of satisfaction. Therefore, the model represents a more direct representation of the dimensions of experience and service received.

There were no available published literature using satisfaction measures as a point to point or before and after measure across a clinical development or organisation change. There are examples of studies (Taylor et al., 2002; and Klaber Moffett et al., 2006) which, despite the widely acknowledged criticism and concerns, use satisfaction as a sole justification for changes in approach to treatment delivery. This would not appear to provide sufficient support a significant changes to treatment delivery. A more credible and generalisable measure of the actual patient experience would be required to provide sufficient support, ideally with data collection before and after the change. As there were no available studies to support this, the proposal that a high level of satisfaction is a suitable independent variable and is linked to quality of care and quality of service remains unsubstantiated, and should not be automatically assumed.

Overall, the proposed model and questionnaire developed in this study represented a more theoretically sound and direct method to assess patient experience. Clinically this provides a more accurate, useful, and relevant methods of evaluating how patients rate the services and care they receive. This could provide clinician and service level data, which could drive developments, in a much more meaningful and reliable way than previously done with satisfaction measures.

7.4 Policy implications

As the expectation of a high quality patient experience becomes the norm, there is little doubt that the patient experience has become, and is poised to remain, a central concern in healthcare for many years to come (Woolf et al., 2014). Despite this, the systematic review presented in this study failed to identify an acceptable model or measurement tool of patient experience of musculoskeletal physiotherapy. The model proposed in this study has provided a better theoretical basis for patient experience, and the questionnaire developed has provided a new method of measuring the patient experience in musculoskeletal physiotherapy.

The NHS Friends and Family Test (NHS, 2013) appears to be an increasingly present method of evaluating the patient experience across a range of healthcare services. Despite the widespread use, this tool appears to be a derivative of patient satisfaction measures, and therefore, suffers the same methodological flaws. Use of a specific patient reported experience measure would appear to provide more useful findings for organisation and clinicians alike. The policy direction towards using patient experience to develop services seems clear, but the methods currently used to achieve this appear to fall short of the rigour required. The use the patient reported experience measure developed in this study, would appear to provide a better basis for service developments.

7.5 Strengths and limitations

7.5.1 Strengths of the current study

The major strength of this study was the use of a mixed methods design, which supported a pragmatic approach to the research. The methods drew from existing studies, but many of these were conducted in isolation. Many presented either a literature review, interviews or focus groups with patients, or satisfaction surveys. The design used in this study used these three approaches sequentially, which allowed a progressive identification and development of key themes. This led to a more cohesive overall view of the research, and allowed the broad focus of the research aims to be clearly met.

Perhaps the most important consideration in resulting patient reported experience measure, it that the development process incorporated the views of patients. This overcame a major criticism in the literature, that many satisfaction surveys are professionally or organisational driven. The systematic review and the interviews with patients informed the questionnaire development, and provided conceptual support for the model of patient experience. This ensured that the resulting measure and proposed model were firmly grounded in the experiences of patients. This makes the findings from the measure represent a more accurate view of the patients' perspectives. This is important if experience is used a basis for service development.

Furthermore, the measure and model have moved onwards from satisfaction, towards a more balanced view of the patient experience overall. This encapsulates much more than satisfaction alone, and provides a sound theoretical model to explain, and a questionnaire to measure, the patient experience. This has provided a significant step forwards in the understanding of the patient experience of musculoskeletal physiotherapy.

7.5.2 Limitations of the current study

The study was conducted by a sole researcher, and would likely be classed as insider research. Insider research is where the researcher is part of the service

being studied. Although, in the current study, the researcher did not work directly in the service where the participants were recruited from, the study was conducted in an allied service and amongst the same profession as the researcher. This is likely to have a similar influence as insider research, as participants were unlike to make the demarkation between the services and roles. This is likely to have introduced bias throughout, which may have reduced the validity and credibility of the findings overall. The CRD (2009) estimated that on average a single researcher was likely to miss 8% of eligible studies, whereas a pair of researchers working independently would capture all eligible studies. The use of a single researcher in this study may have reduced the credibility of the review findings.

Both the interviews and questionnaires were conducted on a single site. Although the sample sizes used were comparable with similar studies, the use of a single site is likely to reduce the transferability and generalisability of the findings. The sample size used in the questionnaire phase was similar to those used in developmental studies. This may have reduced the validity of the findings, although the aim was to achieve face validity in this study. The method of questionnaire administration was based on comparable studies. The use of in clinic administration was preferable to postal administration due to both cost and high response rates. Administering surveys in clinic is also the most practical method, considering longer term use in wide spread clinical usage.

The methods used in the study did not capture the views of those patients who did not complete their treatment. This limits the generalisability of the findings, and did not allow an evaluation of which dimensions were linked to non completion of treatment.

7.5.3 Quality, trustworthiness, and dependability

Although the term reliability is a concept used for testing or evaluating quantitative research, the idea is often used in all kinds of research approaches, and the most important test of any qualitative study is its quality (Golafshani, 2003). The rigour of the findings from this study were strengthened by the use of comparable methods from previous studies. The content validity, how representative the items or questions are representative of possible items (Creswell, 2011), was enhanced

by the sequential mixed methods design. The topic guide (Appendix 8) for the interviews with patients was based on the findings from a review of the literature, ensuring the questions represented the existing knowledge base in the area. Furthermore, the questions used in the patient reported outcome measure were based on the findings from both the review and the interviews.

The findings from the interviews were likely to be transferable, to some extent, to similar services providing musculoskeletal physiotherapy. There is a clear description of the sample characteristics, and these were consistent with the demographics of the service. The findings were highly descriptive in terms of expectations and experiences, and these findings would likely be transferable to a similar sample in a similar service. The findings from the questionnaire were likely to be generalisable, to some extent, to a wider population of musculoskeletal physiotherapy patients in the NHS. The sample demographics appeared to be representative of the service, and the findings appeared consistent with the extant literature, and clinical experience. A study with a larger sample would be required to further assess the generalisability of the findings.

The credibility of qualitative research is improved by the researcher using multiple types of data to support or contradict the interpretation (Creswell, 2013). There was a notable overlap in the findings between the three phases of this study. This improves the credibility of the findings, as they were similar across several types of data sources. This is also referred to as triangulation. In triangulation, researchers make use of multiple and different sources, methods, investigators, and theories provide corroborating evidence (Creswell, 1998). The findings from this study were substantiated by their overlap with each other, and previous findings from existing studies. The conceptual model lacks testing, which would be required to improve its credibility.

7.6 Areas for further research

The aims of this research were to explore patients' expectations, experiences, and satisfaction, develop a method of measuring the patient experience, and to propose a model of patient experience of musculoskeletal physiotherapy. Although this measure was developed and pilot tested, it requires further development and

psychometric testing. The responses from the patient reported experience measure indicated face validity and clinical acceptability. Further research is required to refine the dimensions and questions, and administer the measure across a larger multi site sample. Psychometric testing, described by Beattie et al. (2005a), is also indicated to internally validate the questionnaire.

The questionnaire has been developed, piloted, and tested for face validity across a single site with a relatively small sample. One critique in the wider literature (Avis et al., 1995; Williams, 1994; Williams et al., 1998) is that questionnaire development often lacks further validation. The MRPS (Beattie et al., 2002) was the only measure to be validated and then used in multiple studies. Based on the questionnaire development to date, repeating the study across the UK within a multi site large scale study would be a potential option for further research. This would allow further development of credibility, validity, and generalisability, previously established as important factors in qualitative research studies. Administration of the questionnaire as part of a battery of measures would also allow external validation of the measure. A validated patient reported experience measure would be useful in a range of clinical and service delivery research.

A model of patient experience was developed based on the study findings, but requires further conceptualisation and testing. The proposed model of patient experience of musculoskeletal physiotherapy also requires further testing. A further study with patient interviews or focus groups, with a topic guide based on the proposed model, would help establish the credibility of the model. Further refinement of the questionnaire alongside this, would allow wider testing of the dimension included within the model and questionnaire. Psychometric testing, and comparison with extant outcome measures would enhance the credibility of both. Further exploration of the relationship between expectations and experiences would help develop the conceptual underpinning. Identification of dimensions that have the biggest influence overall on experience is an important step in being able to drive clinical effectiveness. Further, identification of patient characteristics that might influence experiences would be useful. Findings from the questionnaire indicated that the clinical outcome and discharge process was rated lower than others dimensions. Further exploration of why these dimensions are rated more poorly would be useful.

The methodology used in the questionnaire phase included patients who had completed their treatment. A study focusing on patients who do not complete their treatment would help identify the influence of any characteristics, expectations, or particular experience dimensions that contribute to completing or defaulting care. The response to the demographic section of the questionnaire was low, and an improved method of capturing this data would be beneficial in this type of study.

Psychometric testing would also be an important consideration for further research. Beattie et al. (2005a) demonstrated validity for their measure through a process of psychometric testing, and further research using a comparable method would be helpful in validating the measure developed in this study.

There are a number of previously published evaluations of new service models and new ways to deliver treatment. The common finding of most of these studies (Klaber Moffett et al., 2005; Taylor et al., 2002) is that patients are equally satisfied with the treatment received. These are not usually compared with a baseline assessment. Further use of this questionnaire as a point to point measure, or before and after measure would give a more accurate assessment of the patient experience.

In previous studies in musculoskeletal physiotherapy, there has been a lack of comparison with clinical outcome. Taylor et al. (2002) did not use any clinical outcome measures, and although Klaber Moffett et al. (2005) used several, they were excluded them from their main conclusions due to lack of a significant change. A further study comparing findings from a patient reported experience measures with clinical outcomes would provide important data on the proposed link between experience and outcome.

7.7 Reflection

In qualitative research, the inquirer reflects about how their role in the study and their personal background, culture, and experiences hold potential for shaping their interpretation, such as themes they advance and the meaning they ascribe to the data (Creswell, 2014). The majority of this study was based on an interpretivist

approach, with largely qualitative methods. The systematic review and narrative analysis included predominantly qualitative studies, and the interviews with patients used qualitative methods. Reflection is an important part of the qualitative research process. The questionnaire development, presented in chapter five, was underpinned by a post positivist approach and quantitative methods, but examines a subjective phenomena, so reflection remains a useful researcher tool.

7.7.1 Reflection as a researcher

A large proportion of this study was conducted as insider research, on a topic area of interest. My interest in the patient experience has developed as my career has progressed, underpinned by what appears to be a paradoxical experience that some patients describe. Patients often appear to complain about the hospital food while receiving excellent clinic care that they seem very happy with. A more common paradox within musculoskeletal physiotherapy practice seems to be that some patients are delighted with the treatment they have received, when they make no discernible improvement, even by their own admission. In other cases, patients will make a full recovery, yet still seem dissatisfied with what appears an insignificant aspect of their treatment. In all of these examples, the simple fact seems to be that what the patient focuses on is not what the clinician focuses on, and what level of priority is attached to different aspects of care is different. Further, it seems clear that whether a patient has a positive experience or is satisfied, is independent of their clinical outcome.

The research aims were developed based on these observations, with a view to exploring the patients experience from their perspective. Working with a musculoskeletal physiotherapy setting undoubtedly brings bias to the research, as there is an element of self interest in proving patients have a good experience. Despite this, I feel that the methods used, and the findings generated, are reflective of what I see in practice. Overall, most patients describe a good experience, but this is not universal, and is better with some areas of treatment than with others. Researching in this area has made me more aware of this clinically, and more focused on identifying the areas where I need to work harder to provide patients with a better experience.

On reflection, I think that the research process has provided a very valuable learning curve. I feel that this study has provided a contribution to the knowledge base, and the opportunity for further research in the area. The PhD journey has also fostered professional and personal development, alongside the research training. It has led to the development of a range of transferable research skills, primarily the ability to appraise and syntheses evidence, which has undoubtedly improved my clinical practice. Undertaking this research study has also developed my appreciation for work done in other studies, and that the perfect study and perfect findings are always elusive. Further, it has progressed my career further towards a clinical academic route, and cemented my desire to continue along this path.

7.7.2 Reflection as a clinician

The progression through the PhD process, and the move towards a clinical academic career has enhanced my clinical practice, alongside my research practice. The desire for evidence based practice is still at the forefront of healthcare, but conducting this study has given as awareness that it is ever difficult to create this evidence base. Working clinically and academically gives the benefit of a cross discipline understanding, but perhaps limits the ability to be an expert in both areas.

Conducting research, and completing a part time PhD alongside a clinical caseload has provided several challenges. This level of research and study remains the exception in physiotherapy departments. This can make the research poorly understood by colleagues, limited support can be offered by managers, and the process can be lonely at times. On reflection, there has been an equal balance of support from some, which has been extremely helpful, and apathy from others, which is disappointing. Working amongst practising clinicians, who typically strive to do the best for their patients, a better engagement with research seems essential. In future, perhaps there is more work to be done to engage more with less research aware colleagues, and more work to be done to involve a wider group of clinicians in research activity. This would improve the research skills within the services, and contribute to better patient experiences and outcomes.

7.8 Summary

This thesis presented the findings from a systematic review and narrative analysis, interviews with patients, and a patient reported experience measure. Most of the previous studies included within the systematic review focused on satisfaction rather than direct experience. The review failed to identify an existing method to measure patient reported experience of musculoskeletal physiotherapy. The majority of references made by interview participants referred to experiences. Satisfaction accounted for very little of the overall responses and was very data poor. A questionnaire was developed that demonstrated face validity and clinical acceptability. A model that explains the patient experience of musculoskeletal physiotherapy was developed. These appeared to be the first of their kind.

The patient reported experience measure for musculoskeletal physiotherapy, and the proposed model of patients' experiences provide a new approach to understanding and evaluating the patients' perspectives of their care. The proposed model encompasses the patients' expectations, experiences, and the effects these have on the patients' perspective of their care. This has moved the conceptual underpinning away from the theory of satisfaction alone, to a more direct evaluation of those experiences described by patients. These dimensions included in the proposed model and the patient reported experience measure represent a more useful evaluation of the patient experience. Through further refinement of the proposed model, psychometric testing of the measure, and use in further studies, the findings of this study should contribute to a better understanding of patients' experiences of musculoskeletal physiotherapy. In turn, this should allow clinicians and services to better evaluate the experiences of their patients, and to make practice and organisational developments based on these findings. Alongside patient reported outcomes measures, this improved approach to the assessment of patient experience would in turn lead to more empirical evidence to test the link between experience and outcome and service quality.

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Appendices

Appendix 1: NRES favourable ethical opinion (14th May 2014)

NHS
Health Research Authority

NRES Committee West Midlands - Solihull
East Midlands REC Centre
The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

Telephone: 0115 8839368

14 May 2014

Mr Iain Loughran
Lead ESP Physiotherapist
South Tyneside NHS Foundation Trust
MSK CATS,
Cleadon Park Primary Care Centre
Prince Edward Road
South Shields
NE34 7QD

Dear Mr Loughran

Study title:	**Patient expectations, experiences, and satisfaction with musculoskeletal physiotherapy for short to medium term conditions**
REC reference:	**14/WM/0102**
Protocol number:	**RE15-11-121413**
IRAS project ID:	**99298**

Thank you for your email of 12th May, responding to the Proportionate Review Sub-Committee's request for changes to the documentation for the above study.

The revised documentation has been reviewed and approved by the sub-committee.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator Wendy Rees, nrescommittee.WestMidlands-Solihull@nhs.net

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett (catherineblewett@nhs.net), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final

versions to the REC may cause delay in obtaining permissions.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The documents reviewed and approved by the Committee are:

Document	*Version*	*Date*
Covering Letter		
REC application	99298/574810/1/556	07 March 2014
Evidence of insurance or indemnity	UMAL	11 July 2013
GP/Consultant Information Sheets	2	05 September 2013
Interview Schedules/Topic Guides	3	24 March 2014
Investigator CV		
Letter of invitation to participant	2	05 September 2013
Other: CV - Nicola Adams		22 October 2013
Other: CV - Derek Jones		31 July 2013
Other: Physiotherapist Information Sheet	2	05 September 2013
Other: Research Project - Approval Granted		05 September 2013
Other: introduction to Good Clinical Practice Certificate		
Participant Consent Form	4	13 May 2014
Participant Information Sheet	4	13 May 2014
Protocol	2	05 September 2013
Response to Request for Further Information	Email from Iain Loughran	01 May 2014
Response to Request for Further Information	Email	12 May 2014

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

14/WM/0102	**Please quote this number on all correspondence**

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

With the Committee's best wishes for the success of this project.

Yours sincerely

pp. W Rees

Dr Rex J Polson
Chair

Email: nrescommittee.WestMidlands-Solihull@nhs.net

Enclosures: *"After ethical review – guidance for researchers" [SL-AR2]*

Copy to: *Prof Nicola Adams*

Mr Steven Maxwell, South Tyneside Hospitals Foundation NHS Trust

Appendix 2: NRES favourable ethical opinion (18th February 2016)

NHS
Health Research Authority

West Midlands - Solihull Research Ethics Committee
The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

Tel: 0115 8839525

18 February 2016

Mr Iain Loughran
Lead ESP Physiotherapist
South Tyneside NHS Foundation Trust
MSK CATS, Cleadon Park Primary Care Centre
Prince Edward Road
South Shields
NE34 7QD

Dear Mr Loughran

Study title:	**Patient expectations, experiences, and satisfaction with musculoskeletal physiotherapy for short to medium term conditions**
REC reference:	**14/WM/0102**
Protocol number:	**RE15-11-121413**
Amendment number:	**1.0**
Amendment date:	**29 January 2016**
IRAS project ID:	**99298**

The above amendment was reviewed at the meeting of the Sub-Committee held on 10 February 2016.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	*Version*	*Date*
Non-validated questionnaire [Patient experience with musculoskeletal physiotherapy]	2	15 February 2016
Notice of Substantial Amendment (non-CTIMP)	1.0	29 January 2016
Participant information sheet (PIS)	2	15 February 2016
Research protocol or project proposal	2	05 September 2013

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

14/WM/0102:	**Please quote this number on all correspondence**

Yours sincerely

pp.

Dr Rex J Polson
Chair

E-mail: nrescommittee.westmidlands-solihull@nhs.net

Enclosures: *List of names and professions of members who took part in the review*

Copy to: *Mr Steven Maxwell, South Tyneside Hospitals Foundation NHS Trust*
Prof Nicola Adams

West Midlands - Solihull Research Ethics Committee

Attendance at Sub-Committee of the REC meeting on 10 February 2016

Committee Members:

Name	*Profession*	*Present*	*Notes*
Dr Rex J Polson	Consultant Physician - Chair	Yes	
Dr Timothy Priest	Consultant in Pain Management - Vice Chair	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Joanne Unsworth	REC Manager

Appendix 3: Physiotherapist information (v2 05.09.2013)

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
Physiotherapist Information Sheet (v2 05.09.2013)

South Tyneside NHS NHS Foundation Trust	northumbria UNIVERSITY

Dear Physiotherapist,

What is the study about?

The aim of this project is to try to understand peoples expectations, experiences, and satisfaction with musculoskeletal physiotherapy for conditions commonly seen by physiotherapists. Once this is better understood, the aim will be to develop a questionnaire tool to help measure patients expectations, experiences, and satisfaction with musculoskeletal physiotherapy. This should then allow further recommendations regarding how musculoskeletal physiotherapy is delivered, and improve the care patients get, and improved how they travel through the system based on their current expectations, experiences, and satisfaction.

Why I have been given this information?

You have been asked to take part because you work in the physiotherapy provider selected as part of the study sample. You are not being invited to take part in the study as a subject or participant.

What I am being asked to do

If you chose to participate in this study, you will be asked to identify patients referred to you for physiotherapy, with a short to medium term condition. This is one that will generally last 6 weeks to 1 year, and that will improve or resolve with treatment. If you identify an appropriate patient, you will be required to give them the study information, and when they are discharged from care, pass their contact details onto the lead researcher. Your total involvement should take no more that a few minutes per patient identified, and should have no affect on your workload.

What happens if I do not want to participate

If you do not want to participate, you do not have to. If this is the case, you do not have to do anything further.

What would happen if I agree and then change you're mind?

You are able to withdraw your participation at any time, simply by contacting the lead researcher outlined at the end of this information sheet.

How will the data be collected? (tape recorded/videoed etc)

Information will be collected on paper, electronically (computer documents), and on tape. The paper and taped information will be kept in secure locked storage in line with University and NHS policy, and the electronic information will be kept on secure IT systems in line with University and NHS policy.

What is said will be anonymous

Everything that is said during the interviews will remain confidential. Any information used will be anonymous, so you or your patients cannot be identified by it.

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
Physiotherapist Information Sheet (v2 05.09.2013)

What will happen to the data that is gathered?

The information gained through this study will form the main part of a PhD submission. It will be analysed and then used to develop a questionnaire that will allow information about the patient experience to be easily assessed by physiotherapists and providers. The development and pilot of this questionnaire will form the next phase of this study.

How will the research report be disseminated?

The full version of the research report will be submitted for considerations of a PhD award at Northumbria University. Certain sections of the research report will be written up for publication in peer reviewed journals. An executive summary of the research report will be sent to all participants and contributors including local physiotherapists, GPs, Consultants, and Commissioners.

Who do I contact if I want to ask more questions about the study?

Mr. Iain Loughran, Principal Investigator
% MSK CATS Clinic, Cleadon Park PCC, Prince Edward Road, South Shields, Tyne and Wear, NE34 7QD, +44 (0) 191 402 8113, iain.loughran@northumbria.ac.uk

Prof. Nikki Adams, Principal Supervisor
Northumbria University, Coach Lane Campus, Coach Lane, Benton, Newcastle upon Tyne, Tyne and Wear, NE7 7XA, +44 (0)191 232 6002, nicola.adams@northumbria.ac.uk

What do I do if I want to make a complaint about the study?

For any complaints regarding the study please contact Mr. Iain Loughran or Prof. Nikki Adams as above. If you are not satisfied with your response, please contact The Customer Services Team at South Tyneside Hospitals Foundation NHS Trust (0191 404 1072).

Appendix 4: Patient invitation (v2 05.09.2013)

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
Patient Invitation Letter (v2 05.09.2013)

South Tyneside NHS NHS Foundation Trust	northumbria UNIVERSITY

Dear Patient,

You are being invited to take part in a research study entitled:

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy

This study is being done by a local physiotherapist in conjunction with Northumbria University and South Tyneside Hospitals Foundation NHS Trust. It is part of a study leading to a PhD award.

The overall aim of the study is to investigate peoples experiences with physiotherapy treatment, and to develop a questionnaire that will allow physiotherapists and providers to monitor peoples experiences more easily. This should ultimately lead to an improvement in the delivery of patient care with physiotherapy providers.

You are being invited to take part because you meet a number of criteria which we are looking for within the study. Your participation is voluntary, and you do not have to take part if you do not want to. Your treatment will not be affected whether you do or do not take part. Everything you say if you do take part will remain confidential and anything used in the study will be anonymous.

Enclosed with this letter is some further information, and a consent form. We would be grateful if you would take a few minutes to read the information and consider whether you would like to take part. If you do want to take part, then thank you for reading this. If you would like to take part, please read the information sheet attached. If you chose to take part, your GP will be informed, providing you agree to this.

We are very interested in your views on and your experiences of physiotherapy, and we hope that the results from this study will lead to an improvement in care for patients receiving physiotherapy in the future.

Yours sincerely,

Iain Loughran

Mr. Iain Loughran
ESP Physiotherapist, South Tyneside Hospitals Foundation NHS Trust
Ph.D. Candidate and Principal Investigator, Northumbria University

Supervised by Prof. Nikki Adams
Professor of Rehabilitation, Northumbria University

Appendix 5: Participant information (v4 13.05.2014)

Participant Information v4 13.05.2014

Study Title

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy

Invitation and brief summary

We are conducting a study to try and understand patients' expectations, experiences, and satisfaction with the musculoskeletal physiotherapy they have received. This will help us to design and deliver services that are better suited to patients needs.

As part of this study, we are conducting some interviews with patients that have received musculoskeletal physiotherapy recently to ask their opinions. There will be some questions that we ask everyone and also the chance for you to say what you want.

You have been given this information sheet and asked to take part in this part of the study because you have recently been referred for musculoskeletal physiotherapy. There is further information on this sheet to read if you are interested in participating. If you are not interested, then you do not need to read any further, and thank you for your time.

What's involved?

Purpose and background to the research and invitation

The study is interested in three important areas. There are: what patients' expect before they have treatment, what patients' experience during their treatment, and whether patients' are satisfied after their treatment.

In this stage of the study, we are interviewing patients who have recently had physiotherapy treatment to find out more about their experiences. This will allow us to develop a questionnaire to use in the next stage of the study, which will ask another group of patients about their experiences to and overall satisfaction.

Once complete, this study should help is understand patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy, and allow us to continue to measure this through the questionnaire. As a result of this, we hope that physiotherapy services can be improved to match the needs of people who use them.

What would taking part involve?

If you chose to participate in this study, you will take part in a telephone interview. This telephone interview is expected to last around 30 minutes. It will be done approximately 6 weeks after your last physiotherapy session on a day and time that is suitable for you.

During the interview, you will be asked a series of questions about your physiotherapy treatment. The questions will be about what you expected in before your treatment, what your experiences were during the treatment, and about your overall satisfaction with the treatment. You will also have the opportunity to say anything you want to make sure we cover everything that is important to you.

What are the possible benefits of taking part?

If you chose to, or chose not to take part, your treatment will not be affected in anyway. If you chose to take part your GP will be informed, providing you agree to this.

The main benefit of taking part is that you will have a chance to express your opinions on the treatment and overall experience you have had. This will then help the development of a questionnaire that can be used more widely to help us understand how patients are experiencing musculoskeletal physiotherapy. This will lead to a better understanding of what patients want, and in turn allow us to design and develop services to meet those needs.

What are the possible disadvantage and risks of taking part?

There are no clear disadvantages or risks to taking part. It will take around 30 minutes of your time but this will be done at and agreed time, by phone, which is convenient to you.

If you do not want to participate, your information will be removed from the study. No details about you will be kept. Your treatment will not be affected in any way if chose not to participate in this study.

If you agree to to participate and then change your mind you are able to withdraw your permission at any time. You can also ask to access the information that we have held at any time, simply by contacting the principal investigator outlined at the end of this information sheet. If you do wish to withdraw, all of your information will be removed from the study. This is in line with the Data Protection Act 1998.

Further supporting information

How will the data be collected?

The interview will be taped initially and the transcribed onto an electronic document. The recording will be destroyed and the transcript will be securely stored in an electronic document. This will be inline with University an NHS data protection policy. Once transcribed, all of your personal identifiable data will be removed from the transcription to maintain your anonymity and confidentially.

What will happen to the information that is gathered?

The information gathered throughout this study will be analysed and written up to form the main part of a PhD submission. It will also be written up with the intention of publication in peer reviewed journals. This work may contain some direct quotations from participants, but these will be anonymised.

The information from this phase of the study will be used to develop a questionnaire that will allow information about the patient experience to be easily assessed by physiotherapists and providers. The development and pilot of this questionnaire will form the next phase of this study.

How will the research report be disseminated?

The full version of the research report will be submitted for consideration of a PhD award at Northumbria University. Certain sections of the research report will be written up for publication in peer reviewed journals. An executive summary of the research report will be sent to all participants and contributors including local physiotherapists, GPs, Consultants, and Commissioners.

Who do I contact if I want to ask more questions about the study?

Mr. Iain Loughran, Principal Investigator
% MSK CATS Clinic, Cleadon Park PCC, Prince Edward Road, South Shields, Tyne and Wear, NE34 7QD, +44 (0) 191 402 8113, iain.loughran@northumbria.ac.uk

Prof. Nikki Adams, Principal Supervisor
Northumbria University, Coach Lane Campus, Coach Lane, Benton, Newcastle upon Tyne, Tyne and Wear, NE7 7XA, +44 (0)191 232 6002, nicola.adams@northumbria.ac.uk

What do I do if I want to make a complaint about the study?

For any complaints regarding the study please contact Dr. Nick Neave, Head of Ethics, Faculty of Health and Life Sciences, +44 (0) 191 227 4476 nick.neave@northumbria.ac.uk. If you are not satisfied with your response, please contact The Customer Services Team at South Tyneside Hospitals Foundation NHS Trust (+44 (0) 191 404 1072).

Appendix 6: Consent form (v4 13.05.2014)

Participant Consent v4 13.05.2014

Centre Number:

Study Number:

Participant Identification Number for this trial:

CONSENT FORM

Title of Project: Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy

Name of Researcher: Iain Loughran

Please initial box

1. I confirm that I have read the information sheet dated 13.05.2014 (version 4) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

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

4. I understand that the information collected about me may be used to support other research in the future, and may be anonymised and shared as part of academic presentations and publications. ☐

5. I agree to my General Practitioner being informed of my participation in the study. ☐

6. I agree to the University of Northumbria at Newcastle and South Tyneside Hospitals Foundation NHS Trust recording and processing this information about me. I understand that this information will be used only for the purpose(s) set out in the information sheet supplied to me, and my consent is conditional upon the University and Hospital complying with its duties and obligations under the Data Protection Act 1998. ☐

7. I agree to take part in the above study. ☐

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

When completed: 1 for participant; 1 for researcher site file; 1 (original) to be kept in medical notes.

Appendix 7: GP information (v2 05.09.2013)

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
GP Information Sheet (v2 05.09.2013)

South Tyneside NHS NHS Foundation Trust	northumbria UNIVERSITY

Dear GP,

What is the study about?

The aim of this study is to try to understand patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy. The study is interested in three important areas. There are: what patients' expect before they have treatment, what patients' experience during their treatment, and whether patients' are satisfied after their treatment.

The study is broken into three phases. The first is a systematic review of existing studies and literature in the same area. This helps us understand what has already been done, and help us focus this study on the right area. The second is to interview patients who have recently had physiotherapy treatment to find out more about their experiences. This will allow us to develop a questionnaire for the third phase of the study, which will ask another group of patients about their experiences and overall satisfaction.

Once complete, this study should help is understand patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy, and allow us to continue to measure this through the questionnaire. As a result of this, we hope that physiotherapy services can be improved to match the needs of people who use them.

Why I have been given this information?

You have been given this information sheet because one of your patients has given their consent to take part in the study. You are not being invited to take part in the study as a subject or participant.

What I am being asked to do?

As you are not involved in the study as a participant, essentially, there is no requirement for you to do anything, except be aware of the study.

What happens if I do not want to participate?

If you do not want your patient to participate, then you can inform the principal investigator on the contact details included at the end of this information sheet.

What would happen if I agree and then change you're mind?

You are able to withdraw your patients participation at any time, simply by contacting the lead researcher outlined at the end of this information sheet.

How will the data be collected? (tape recorded/videoed etc)

Information will be collected on paper, electronically (computer documents), and on tape. The paper and taped information will be kept in secure locked storage in line with University and NHS policy, and the electronic information will be kept on secure IT systems in line with University and NHS policy. Everything that is said during the interviews will remain confidential. Any information used will be anonymous, so you or your patients cannot be identified by it.

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
GP Information Sheet (v2 05.09.2013)

What will happen to the data that is gathered?

The information gained through this study will form the main part of a PhD submission. It will be analysed and then used to develop a questionnaire that will allow information about the patient experience to be easily assessed by physiotherapists and providers. The development and pilot of this questionnaire will form the next phase of this study.

How will the research report be disseminated?

The full version of the research report will be submitted for considerations of a PhD award at Northumbria University. Certain sections of the research report will be written up for publication in peer reviewed journals. An executive summary of the research report will be sent to all participants and contributors including local physiotherapists, GPs, Consultants, and Commissioners.

Who do I contact if I want to ask more questions about the study?

Mr. Iain Loughran, Principal Investigator
% MSK CATS Clinic, Cleadon Park PCC, Prince Edward Road, South Shields, Tyne and Wear, NE34 7QD, +44 (0) 191 402 8113, iain.loughran@northumbria.ac.uk

Prof. Nikki Adams, Principal Supervisor
Northumbria University, Coach Lane Campus, Coach Lane, Benton, Newcastle upon Tyne, Tyne and Wear, NE7 7XA, +44 (0)191 232 6002, nicola.adams@northumbria.ac.uk

What do I do if I want to make a complaint about the study?

For any complaints regarding the study please contact Mr. Iain Loughran or Prof. Nikki Adams as above. If you are not satisfied with your response, please contact The Customer Services Team at South Tyneside Hospitals Foundation NHS Trust (0191 404 1072).

Appendix 8: Interview topic guide (v3 24.03.2014)

Introduction

- Good morning / afternoon / evening.
- Introduce self and role.
- Thank the participant for agreeing to take part in this interview.
- Explain the interview should take around 30 minutes in total
- Explain that we can stop or take a break at any point.
- Explain that if the participant can have any questions repeated or clarified.

Background

- Explain the aims of the study

Consent

- Ask for confirmation of verbal consent

Question Topic Guide with Example Questions

Questions in blue, supplemental questions or basis for asking / information sought in black / brackets afterwards.

Did you have any expectations when you were referred for physiotherapy, clarifying factors below with supplementary questions

(Question centred around expectations based on Barron et al (2007): Personal influences included experience, information, interest, emotions, perceived consequences of outcomes, social influences, sociodemography, social norms, group pressures, equity)

Can expand on your expectations in terms of the ideal, predicted, normative, and unformed

(Questions centred around the nature of expectations based on Barron et al (2007):
Ideal
- an aspiration, desire, want, or preferred outcome, essentially concerned with an idealistic state of beliefs.
- Predicted
  - the realistic, practical or anticipated outcome, matching what users actually believe will happen in a service encounter.
- Normative
  - what should or ought to happen.
- Unformed
  - this state occurs when users are unable or unwilling, for various reasons, to articulate their expectations, which may be because they may not have any, or find it too difficult to express their feelings.)

What was you overall experience of receiving physiotherapy, expand on factors below with supplementary questions

Were you satisfied with the physiotherapy that you received, clarifying factors below with supplementary questions

(Questions centred around key predictors of satisfaction based on Beattie et al (2002)
- The patient-practitioner relationship
  - Competence
  - Personality of the practitioner

- Communication
- Location and accessibility of services
- Continuity of care
- Cost and payment issues
- The facility
  - Cleanliness
  - Noise
  - Equipment

Questions centred around predictors of satisfaction based on May (2001)

- A professional approach by the physiotherapist that inspires confidence and involves education of the patient while exhibiting a personable manner of friendliness and empathy
- The physiotherapist providing explanations for patients regarding the nature of the problem, prognosis, the treatment process and the patient's role
- Collaborative consultation by the physiotherapist with the patient to identify individual self-help needs and to monitor treatment effectiveness, while demonstrating active listening skills and responding to patient questions
- Structure of consultations to ensure flexibility in scheduling appointments, minimal patient waiting times, adequate one-to-one time with the physiotherapist and not feeling rushed
- Good treatment outcomes (e.g. reduction or elimination of pain) and providing self-management strategies for patients

Questions centred around determinants of satisfaction based on Hills and Kitchen (2007)

- Interpersonal
- Technical
- Organisational
- Clinical

Questions centred around determinants of satisfaction based on Avis and Bond (1995)

1. Overall quality
2. Humaneness
3. Technical competence
4. Outcome
5. Facilities
6. Continuity of care
7. Access
8. Informativeness
9. Cost
10. Bureaucracy
11. Attention to psychosocial problems

And:

- Patients' perceptions of the quality of care
- Their satisfaction with their own health
- Their level of wellbeing
- Their sense of control and feelings of anxiety

Appendix 9: Interview schedule

Interview Schedule

Interview	Date	Time	Name	ID
1	30.03.2015	11.00		11
2	30.03.2015	12.00		12
3	30.03.2015	13.00		13
4	01.04.2015	14.00		5
5	08.04.2015	10.00		1
6	08.04.2015	11.00		4
7	08.04.2015	12.00		6
8	08.04.2015	13.00		7
9	20.07.2015	10.00		8
10	21.07.2015	10.00		9
11	27.07.2015	11.00		10
12	27.07.2015	12.00		14
13	29.07.2015	10.00		15
14	03.08.2015	10.00		16
15	05.08.2015	12.00		17

Appendix 10: Participant information (v2 15.02.2016)

Participant Information Questionnaire v2 15.02.2016

Study Title

Patient expectations, experiences, and satisfaction with musculoskeletal physiotherapy

Invitation

You have been given this information sheet as you have recently received physiotherapy for a musculoskeletal condition. We are currently conducting a questionnaire survey about peoples experiences with their treatment. If you are interested in completing a brief questionnaire survey lasting 5 to 10 minutes, there is further information on this sheet to read. If you are not interested, then you do not need to read any further, and thank you for your time.

What's involved?

The study is interested in three important areas. They are (1) what patients expect before they have treatment, (2) what patients experience during their treatment, (3) and whether patients are satisfied after their treatment.

In this stage of the study we are giving questionnaires to patients who have recently had physiotherapy treatment. The questions we are asking are based on a recent review of existing literature and analysis of information collected from patient interviews we finished recently. This questionnaire will allow us to collect similar information from a larger group of patients.

Once complete, this study should help is understand patient expectations, experiences, and satisfaction with musculoskeletal physiotherapy. As a result of this we hope that physiotherapy services can be improved and developed to better meet the needs of the people who use them.

What would taking part involve?

If you chose to participate in this study, you will be given a questionnaire to fill in after your treatment session. It will take approximately 5-10 minutes to fill in.

What are the possible benefits of taking part?

The main benefit of taking part is that you will have a chance to express your opinions on the treatment and overall experience you have had. As a result of this we hope that physiotherapy services can be improved and developed to better meet the needs of the people who use them. Wether you take part or not, your treatment will not be affected in any way.

What are the possible disadvantage and risks of taking part?

Completing the questionnaire is expected to take approximately 5 to 10 minutes of your time. Apart from the time taken we do not anticipate any disadvantage or risks. If you do not want to participate your treatment will not be affected in any way.

What should I do if I want to withdraw from the study?

If you agree to participate and then change your mind you can able to withdraw at any time. All of your information will be removed from the study. If you want to do this then contact the chief investigator. You can ask to access the information that we hold about you at any time. If you want to do this then contact the chief investigator. All information is stored and handled in line with the Data Protection Act 1998.

How will the data be collected?

The questionnaire you complete will be paper based and completed before you leave the department. It will be collected from you and stored securely. The data from the questionnaires will be anonymised and then entered on to an electronic statistical database. All information is stored and handled in line with Northumbria University and South Tyneside NHS Foundation Trust NHS information governance policies and the Data Protection Act 1998.

What will happen to the information that is gathered?

The information gathered throughout this study will be analysed and written up to form the main part of a PhD submission for the chief investigator. It will also be written up for consideration of publication in peer reviewed journals. This work may contain some direct quotations from participants but these will be anonymous.

How will the research report be disseminated?

The full version of the research report will be submitted for consideration of a PhD award at Northumbria University. Certain sections of the research report will be written up for publication in peer reviewed journals. An executive summary of the research report will be sent to all participants and contributors including local physiotherapists, GPs, Hospital Consultants, and Commissioners. This work may contain some direct quotations from participants but these will be anonymous.

Who do I contact if I want to ask more questions about the study?

Mr. Iain Loughran, Chief Investigator
MSK CATS, Cleadon Park Primary Care Centre, Prince Edward Road, South Shields, Tyne and Wear, NE34 7QD, +44 (0) 191 402 8113, iain.loughran@northumbria.ac.uk

Prof. Nikki Adams, Principal Supervisor
Northumbria University, Coach Lane Campus, Coach Lane, Benton, Newcastle upon Tyne, Tyne and Wear, NE7 7XA, +44 (0)191 232 6002, nicola.adams@northumbria.ac.uk

What do I do if I want to make a complaint about the study?

If you have any complaints regarding the study please contact:

Dr. Nick Neave, Head of Ethics at the Faculty of Health and Life Sciences
Northumbria University, Coach Lane Campus, Coach Lane, Benton, Newcastle upon Tyne, Tyne and Wear, NE7 7XA, +44 (0) 191 227 4476, nick.neave@northumbria.ac.uk

If you are not satisfied with your response please contact:

The Customer Services Team, South Tyneside NHS Foundation Trust, +44 (0) 191 404 1072

Appendix 11: Questionnaire (v1 27.12.2015)

Questionnaire v1 27.12.2015

Patient Experience with Musculoskeletal Physiotherapy

Thank you for agreeing to fill out this questionnaire. It asks you some questions about your experience with the physiotherapy treatment you have had recently. Please rate each question on a scale of 1 to 10, with 10 being the best experience you possible. Once you have finished the questionnaire, please hand it back in.

How would you rate the profession approach of the administrative staff

1	2	3	4	5	6	7	8	9	10

How would you rate the personable manner of the administrative staff?

1	2	3	4	5	6	7	8	9	10

How would you rate the profession approach of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the personable manner of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the humaneness of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the interpersonal relationship with your physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the listening skills of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the communication skills of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the responses to your questions by the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the explanation and education you were given about your condition

1	2	3	4	5	6	7	8	9	10

How would you rate the education and advice you were given to manage your condition

1	2	3	4	5	6	7	8	9	10

How would you rate the emphasis put on your problems as you see them

1	2	3	4	5	6	7	8	9	10

Questionnaire v1 27.12.2015

How would you rate the technical competence of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the shared decision making process for your treatment

1	2	3	4	5	6	7	8	9	10

How would you rate the collaborative consultation process

1	2	3	4	5	6	7	8	9	10

How would you rate the amount of time you had for your treatment

1	2	3	4	5	6	7	8	9	10

How would you rate the continuity of your care

1	2	3	4	5	6	7	8	9	10

How would you rate the location of the service

1	2	3	4	5	6	7	8	9	10

How would you rate the ease of making / changing appointments

1	2	3	4	5	6	7	8	9	10

How would you rate the waiting time for appointments

1	2	3	4	5	6	7	8	9	10

How would you rate the cleanliness of the facility

1	2	3	4	5	6	7	8	9	10

How would you rate the treatment outcomes: reduction or improvement of symptoms

1	2	3	4	5	6	7	8	9	10

How would you rate the treatment outcomes: providing self-management strategies

1	2	3	4	5	6	7	8	9	10

Friends and Family Test Questions

Overall, were you satisfied with the treatment you received from this service

1	2	3	4	5	6	7	8	9	10

Overall, would you recommend this service to a family member or friend

1	2	3	4	5	6	7	8	9	10

Appendix 12: Questionnaire (v2 15.02.2016)

Questionnaire v2 15.02.2016

Patient Experience with Musculoskeletal Physiotherapy

Thank you for agreeing to fill out this questionnaire. It asks you some questions about your experience with the physiotherapy treatment you have had recently. Please rate each question on a scale of 1 to 10, with 10 being the best experience you possible. Once you have finished the questionnaire, please hand it back in.

How would you rate the profession approach of the administrative staff

1	2	3	4	5	6	7	8	9	10

How would you rate the personable manner of the administrative staff?

1	2	3	4	5	6	7	8	9	10

How would you rate the profession approach of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the personable manner of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the interpersonal relationship with your physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the communication skills of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the responses to your questions by the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the explanation and education you were given about your condition

1	2	3	4	5	6	7	8	9	10

How would you rate the education and advice you were given to manage your condition

1	2	3	4	5	6	7	8	9	10

How would you rate the emphasis put on your problems as you see them

1	2	3	4	5	6	7	8	9	10

How would you rate the technical competence of the physiotherapist

1	2	3	4	5	6	7	8	9	10

How would you rate the shared decision making process for your treatment

1	2	3	4	5	6	7	8	9	10

How would you rate the collaborative consultation process

1	2	3	4	5	6	7	8	9	10

How would you rate the amount of time you had for your treatment

1	2	3	4	5	6	7	8	9	10

How would you rate the continuity of your care

1	2	3	4	5	6	7	8	9	10

How would you rate the location of the service

1	2	3	4	5	6	7	8	9	10

How would you rate the ease of making / changing appointments

1	2	3	4	5	6	7	8	9	10

How would you rate the waiting time for appointments

1	2	3	4	5	6	7	8	9	10

How would you rate the cleanliness of the facility

1	2	3	4	5	6	7	8	9	10

How would you rate the treatment outcomes: reduction or improvement of symptoms

1	2	3	4	5	6	7	8	9	10

How would you rate the treatment outcomes: providing self-management strategies

1	2	3	4	5	6	7	8	9	10

Friends and Family Test Questions

Overall, were you satisfied with the treatment you received from this service

1	2	3	4	5	6	7	8	9	10

Overall, would you recommend this service to a family member or friend

1	2	3	4	5	6	7	8	9	10

Please add any additional comments you would like to make:

_____

_____

_____

_____

Appendix 13: Questionnaire (v3 17.05.2016)

Questionnaire v3 17.05.2016

Patient Experience with Musculoskeletal Physiotherapy

Thank you for agreeing to fill out this questionnaire. It asks you some questions about your experience with the physiotherapy treatment you have had recently. Please rate each question on the scale provided. Once you have finished the questionnaire, please hand it back in as directed.

How would you rate the profession approach of the administrative staff?

Poor	Fair	Good	Very Good	Excellent

How would you rate the personable manner of the administrative staff?

Poor	Fair	Good	Very Good	Excellent

How would you rate the profession approach of the physiotherapist?

Poor	Fair	Good	Very Good	Excellent

How would you rate the personable manner of the physiotherapist?

Poor	Fair	Good	Very Good	Excellent

How would you rate the interpersonal relationship with your physiotherapist?

Poor	Fair	Good	Very Good	Excellent

How would you rate the communication skills of the physiotherapist?

Poor	Fair	Good	Very Good	Excellent

How would you rate the responses to your questions by the physiotherapist?

Poor	Fair	Good	Very Good	Excellent

How would you rate the explanation and education you were given about your condition?

Poor	Fair	Good	Very Good	Excellent

How would you rate the education and advice you were given to manage your condition?

Poor	Fair	Good	Very Good	Excellent

How would you rate the emphasis put on your problems as you see them?

Poor	Fair	Good	Very Good	Excellent

How would you rate the technical competence of the physiotherapist?

Poor	Fair	Good	Very Good	Excellent

How would you rate the shared decision making process for your treatment?

Poor	Fair	Good	Very Good	Excellent

Questionnaire v3 17.05.2016

How would you rate the collaborative consultation process?

Poor	Fair	Good	Very Good	Excellent

How would you rate the amount of time you had for your treatment?

Poor	Fair	Good	Very Good	Excellent

How would you rate the continuity of your care?

Poor	Fair	Good	Very Good	Excellent

How would you rate the location of the service?

Poor	Fair	Good	Very Good	Excellent

How would you rate the ease of making / changing appointments?

Poor	Fair	Good	Very Good	Excellent

How would you rate the waiting time for appointments?

Poor	Fair	Good	Very Good	Excellent

How would you rate the cleanliness of the facility?

Poor	Fair	Good	Very Good	Excellent

How would you rate the treatment outcomes: reduction or improvement of symptoms?

Poor	Fair	Good	Very Good	Excellent

How would you rate the treatment outcomes: providing self-management strategies?

Poor	Fair	Good	Very Good	Excellent

Friends and Family Test Questions

Overall, how would you rate your satisfaction with the treatment you received from this service?

Poor	Fair	Good	Very Good	Excellent

Overall, would you recommend this service to a family member or friend?

Yes	No

Please add any additional comments you would like to make:

_____

_____

_____

Appendix 14: Questionnaire (v4 01.07.2016)

PhysioPREM / MSK **Patient Reported Experience Measure** **Musculoskeletal Physiotherapy**	*Trust Logo*	northumbria UNIVERSITY NEWCASTLE

Thank you for agreeing to complete this questionnaire. It should take no more than 5 minutes to complete. The answers you provide help us evaluate and improve the service that is provided.

Gender	Male		Female		**Ethnicity**					
Age group	0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+
Employment	Full-time		Part-time		Not-employed		Retired		Student	
Problem area	Spine		Upper limb		Lower limb		Other:			
Duration	0-3 months		3-6 months		6-12 months		12+ months		24+ months	
Referred by	GP		Consultant		Self		Other:			

Please rate the following questions / statements where 1 is the worst and 10 is the best experience.

1	The assessment process was explained to me	1	2	3	4	5	6	7	8	9	10
2	I was able to express my opinions and concerns	1	2	3	4	5	6	7	8	9	10
3	My opinions and concerns were taken seriously	1	2	3	4	5	6	7	8	9	10
4	I was asked appropriate questions	1	2	3	4	5	6	7	8	9	10
5	The diagnosis or condition was explained to me	1	2	3	4	5	6	7	8	9	10

6	The treatment process was explained to me	1	2	3	4	5	6	7	8	9	10
7	I was able discuss my treatment plan	1	2	3	4	5	6	7	8	9	10
8	I was able to choose the type of treatment I had	1	2	3	4	5	6	7	8	9	10
9	I felt treated as an individual based on my needs	1	2	3	4	5	6	7	8	9	10
10	My treatment plan was explained	1	2	3	4	5	6	7	8	9	10
11	My home exercise plan was explained	1	2	3	4	5	6	7	8	9	10
12	I was put at ease during my treatment	1	2	3	4	5	6	7	8	9	10
13	My questions were all answered	1	2	3	4	5	6	7	8	9	10
14	I had confidence that the treatment would work	1	2	3	4	5	6	7	8	9	10

15	My pain / symptoms have resolved since treatment	1	2	3	4	5	6	7	8	9	10
16	My normal function has returned since treatment	1	2	3	4	5	6	7	8	9	10
17	I have made a full recovery since treatment	1	2	3	4	5	6	7	8	9	10

18	I felt the clinician treated me with respect	1	2	3	4	5	6	7	8	9	10
19	I felt the clinician spent enough time with me	1	2	3	4	5	6	7	8	9	10
20	I felt the clinician was approachable and helpful	1	2	3	4	5	6	7	8	9	10
21	I felt the clinician was knowledgeable and skilful	1	2	3	4	5	6	7	8	9	10
22	I felt the clinician showed empathy towards me	1	2	3	4	5	6	7	8	9	10
23	I felt I had a good rapport with the clinician	1	2	3	4	5	6	7	8	9	10

24	I was advised on long term self-help strategies	1	2	3	4	5	6	7	8	9	10
25	I was referred on at the end of treatment if required	1	2	3	4	5	6	7	8	9	10
26	I felt I needed more treatment	1	2	3	4	5	6	7	8	9	10
27	I felt I needed a scan or investigation	1	2	3	4	5	6	7	8	9	10
28	I felt I needed a further specialist opinion	1	2	3	4	5	6	7	8	9	10

29	I felt the admin staff treated me with respect	1	2	3	4	5	6	7	8	9	10
30	I found it easy to make or change appointments	1	2	3	4	5	6	7	8	9	10
31	I saw the same clinician for each appointment	1	2	3	4	5	6	7	8	9	10
32	The waiting time for appointments was acceptable	1	2	3	4	5	6	7	8	9	10

33	The clinic location was convenient	1	2	3	4	5	6	7	8	9	10
34	The clinic building accessibility was suitable	1	2	3	4	5	6	7	8	9	10
35	The clinic opening times were convenient	1	2	3	4	5	6	7	8	9	10
36	The clinic and facilities were clean and up to date	1	2	3	4	5	6	7	8	9	10
37	The clinic facilities allowed enough privacy	1	2	3	4	5	6	7	8	9	10

38. Overall, how would you rate the experience of your care or treatment with our service?

Worst	1	2	3	4	5	6	7	8	9	10	Best

39. How likely are you to return to our service if you needed similar treatment?

Least	1	2	3	4	5	6	7	8	9	10	Most

40. How likely are you to recommend our service to friends / family if they needed similar treatment?

Least	1	2	3	4	5	6	7	8	9	10	Most

Please use this space to add any additional comments. Hand the questionnaire in once you are finished.

Appendix 15: Table of qualitative studies (including CASP scoring)

	Anaf and Sheppard, 2010		Beattie et al, 2002 (validation)		Beattie et al, 2005 (psychometric)	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	Australia		USA		USA	
Questionnaire, interview, focus group	Questionnaire		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Mixed Methods		Satisfaction		Satisfaction	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★★	Yes	★★★★★	Yes	★★★★★
2. Is a qualitative methodology appropriate?	Yes	★★★★★	Yes	★★★★★	Yes	★★★★★
3. Was the research design appropriate to address the aims of the research?	Yes	★★★••	Yes	★★★★★	Yes	★★★★★
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★★•	Yes	★★★★★	Yes	★★★★•
5. Was the data collected in a way that addressed the research issue?	Yes	★★★★•	Yes	★★★★★	Yes	★★★★•
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★••••	Can't Tell	★••••	Can't Tell	★••••
7. Have ethical issues been taken into consideration?	Yes	★★★★•	Yes	•••••	Yes	★★★••
8. Was the data analysis sufficiently rigorous?	Yes	★★★★•	Yes	★★★★★	Yes	★★★★★
9. Is there a clear statement of findings?	Yes	★★★★★	Yes	★★★★•	Yes	★★★★★
10. How valuable is the research?	Yes	★★★••	Yes	★★★★•	Yes	★★★★•

dd

	Beattie et al, 2005 (longitudinal)		Beattie et al, 2007		Boonstra et al, 2011	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	USA		USA		Netherlands	
Questionnaire, interview, focus group	Questionnaire		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Satisfaction		Satisfaction		Expectations	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★★	Yes	★★★★•	Yes	★★★★•
2. Is a qualitative methodology appropriate?	Yes	★★★★★	Yes	★★★★★	Yes	★★★••
3. Was the research design appropriate to address the aims of the research?	Yes	★★★★•		★★★★•	Yes	★★★••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
5. Was the data collected in a way that addressed the research issue?	Yes	★★★★•	Yes	★★★★•		•••••
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★•••••	Can't Tell	★•••••	Can't Tell	★•••••
7. Have ethical issues been taken into consideration?	Yes	★★•••	Yes	★★★★•	Can't Tell	★•••••
8. Was the data analysis sufficiently rigorous?	Yes	★★★••	Yes	★★★★•	Yes	★★•••
9. Is there a clear statement of findings?	Yes	★★★★★	Yes	★★★★★	Yes	★★★••
10. How valuable is the research?	Yes	★★★★•	Yes	★★★★•	Yes	★★★••

	Bradbury et al, 2013		Casserley-Feeney et al, 2008		Chiu et al, 2005	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	UK		Ireland		China	
Questionnaire, interview, focus group	Interview		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Mixed Methods		Satisfaction		Satisfaction	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★•	Yes	★★★★•	Yes	★★★••
2. Is a qualitative methodology appropriate?	Yes	★★★★•	Yes	★★★★★	Yes	★★★••
3. Was the research design appropriate to address the aims of the research?	Yes	★★★★•	Yes	★★★★•		•••••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★★•	Yes	★★★••		•••••
5. Was the data collected in a way that addressed the research issue?	Yes	★★★••	Yes	•••••		•••••
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★••••	Can't Tell	★••••		•••••
7. Have ethical issues been taken into consideration?	Yes	★★★★•	Yes	★★★★•		•••••
8. Was the data analysis sufficiently rigorous?	Yes	★★★★•	Yes	★★★★•		•••••
9. Is there a clear statement of findings?	Yes	★★★★•	Yes	★★★★•		•••••
10. How valuable is the research?	Yes	★★★★•	Yes	★★★★•		•••••

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	Dierckx et al, 2013		Eriksson et al, 2011		Foster et al, 2010	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Can't Tell		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	Belgium		Sweden		UK	
Questionnaire, interview, focus group	Mixed Methods		Interview		Mixed Methods	
Expectations, experiences, and satisfaction	Expectations		Experiences		Expectations	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★•	Yes	★★★★★	Yes	★★★★★
2. Is a qualitative methodology appropriate?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
3. Was the research design appropriate to address the aims of the research?	Yes	★★★••	Yes	★★★★•	Yes	★★★••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★••	Yes	★★★••	Yes	★★★★•
5. Was the data collected in a way that addressed the research issue?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★•••••	Can't Tell	★•••••	Can't Tell	★★•••
7. Have ethical issues been taken into consideration?	Yes	★★★★•	Yes	★★★••	Yes	★★★★★
8. Was the data analysis sufficiently rigorous?	Yes	★★★••	Yes	★★★★•	Yes	★★★••
9. Is there a clear statement of findings?	Yes	★★★★•	Yes	★★★★•	Yes	★★★••
10. How valuable is the research?	Yes	★★★••	Yes	★★★••	Yes	★★★••

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	French, 2002 (adobe version)		French et al, 2010		George and Hirsh, 2005	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	No		Yes		Yes	
Adult population	No		Yes		Yes	
Location	Ireland		Ireland		USA	
Questionnaire, interview, focus group	Questionnaire		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Satisfaction		Satisfaction		Satisfaction	
Is it worth continuing?	No		Yes		Yes	
1. Was there a clear statement of the aims of the research?		• • • • •	Yes	★★★ • •	Yes	★★★★★
2. Is a qualitative methodology appropriate?		• • • • •	Yes	★★★ • •	Yes	★★★★★
3. Was the research design appropriate to address the aims of the research?		• • • • •	Yes	★★★ • •	Yes	★★★★ •
4. Was the recruitment strategy appropriate to the aims of the research?		• • • • •	Yes	★★★★ •	Yes	★★★★ •
5. Was the data collected in a way that addressed the research issue?		• • • • •	Yes	★★★★ •	Yes	★★★★ •
6. Has the relationship between researcher and participants been adequately considered?		• • • • •	Can't Tell	★ • • • •	Can't Tell	★ • • • •
7. Have ethical issues been taken into consideration?		• • • • •	Yes	★★★ • •	Yes	★★★★ •
8. Was the data analysis sufficiently rigorous?		• • • • •	Yes	★★★ • •	Yes	★★★★★
9. Is there a clear statement of findings?		• • • • •	Yes	★★★ • •	Yes	★★★★ •
10. How valuable is the research?		• • • • •	Yes	★★★ • •	Yes	★★★★ •

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	Goldstein et al, 2000		Grimmer et al, 1999		Harding et al, 2005	
Physiotherapy	Yes		Yes		No	
Musculoskeletal condition	Yes		Yes		No	
Adult population	Yes		Yes		Yes	
Location	USA		Australia		UK	
Questionnaire, interview, focus group	Questionnaire		Mixed Methods		Mixed Methods	
Expectations, experiences, and satisfaction	Satisfaction		Expectations		Experiences	
Is it worth continuing?	Yes		Yes		No	
1. Was there a clear statement of the aims of the research?	Yes	★★★★★	Yes	★★★★•		••••••
2. Is a qualitative methodology appropriate?	Yes	★★★★★	Yes	★★★★•		••••••
3. Was the research design appropriate to address the aims of the research?	Yes	★★★★★	Yes	★★★★★		••••••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★••		•••••		••••••
5. Was the data collected in a way that addressed the research issue?	Yes	★★★★•	Yes	★★★★•		••••••
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★••••	Can't Tell	★••••		••••••
7. Have ethical issues been taken into consideration?	No	★••••	Yes	★★★••		••••••
8. Was the data analysis sufficiently rigorous?	Yes	★★★★•	Yes	★★★★•		••••••
9. Is there a clear statement of findings?	Yes	★★★★•	Yes	★★★★•		••••••
10. How valuable is the research?	Yes	★★★••	Yes	★★★••		••••••

	Hills and Kitchen, 2007 (survey)		Hills and Kitchen, 2007 (focus groups)		Hush et al, 2012	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	UK		UK		Australia	
Questionnaire, interview, focus group	Questionnaire		Focus Groups		Questionnaire	
Expectations, experiences, and satisfaction	Satisfaction		Satisfaction		Satisfaction	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
2. Is a qualitative methodology appropriate?	Yes	★★★★★	Yes	★★★★•	Yes	★★★★•
3. Was the research design appropriate to address the aims of the research?	Yes	★★★••	Yes	★★★★•	Yes	★★•••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★••	Yes	★★★••	Yes	★★★••
5. Was the data collected in a way that addressed the research issue?	Yes	★★★★•	Yes	★★★★•	Yes	★★•••
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★★•••	Can't Tell	★★•••	Can't Tell	★★•••
7. Have ethical issues been taken into consideration?	Yes	★★★★•	Yes	★★•••	Can't Tell	★•••••
8. Was the data analysis sufficiently rigorous?	Yes	★★★★•	Yes	★★★★•	Yes	★★★••
9. Is there a clear statement of findings?	Yes	★★★★•	Yes	★★★★•	Yes	•••••
10. How valuable is the research?	Yes	★★★★★	Yes	★★★★★	Yes	★★★••

	Kidd et al, 2011		Knight et al, 2010		Kvaren and Johansson, 2004	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	New Zealand		Australia		Sweden	
Questionnaire, interview, focus group	Interview		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Expectations		Satisfaction		Expectations	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★••	Yes	★★★••	Yes	★★★★•
2. Is a qualitative methodology appropriate?	Yes	★★★••	Yes	★★★••	Yes	★★★••
3. Was the research design appropriate to address the aims of the research?	Yes	★★★••	Yes	★★•••	Yes	★★★••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★•••		•••••	Yes	★★★••
5. Was the data collected in a way that addressed the research issue?	Yes	★★★••	Yes	★★★★•	Yes	★★★★•
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★★•••	Can't Tell	★★•••	Yes	★★★••
7. Have ethical issues been taken into consideration?	Yes	★★★••	Yes	★★★••	Yes	★★★••
8. Was the data analysis sufficiently rigorous?	Yes	★★★★•	Yes	★★★••	Yes	★★★★•
9. Is there a clear statement of findings?	Yes	★★★★•	Yes	★★★••	Yes	★★★••
10. How valuable is the research?	Yes	★★★••		•••••	Yes	★★•••

	Mahdzir and Ismail, 2012		May (2001)		May (2007)	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	No		Yes		Yes	
Adult population	Can't Tell		Yes		Yes	
Location	Malaysia		UK		UK	
Questionnaire, interview, focus group	Questionnaire		Interview		Interview	
Expectations, experiences, and satisfaction	Satisfaction		Satisfaction		Expectations	
Is it worth continuing?	No		Yes		Yes	
1. Was there a clear statement of the aims of the research?		● ● ● ● ●	Yes	★★★★●	Yes	★★●●●
2. Is a qualitative methodology appropriate?		● ● ● ● ●	Yes	★★★★●	Yes	★★★★●
3. Was the research design appropriate to address the aims of the research?		● ● ● ● ●	Yes	★★★★●		● ● ● ● ●
4. Was the recruitment strategy appropriate to the aims of the research?		● ● ● ● ●	Yes	★★★●●		● ● ● ● ●
5. Was the data collected in a way that addressed the research issue?		● ● ● ● ●	Yes	★★★★●		● ● ● ● ●
6. Has the relationship between researcher and participants been adequately considered?		● ● ● ● ●	Can't Tell	★●●●●		● ● ● ● ●
7. Have ethical issues been taken into consideration?		● ● ● ● ●	Yes	★★●●●		● ● ● ● ●
8. Was the data analysis sufficiently rigorous?		● ● ● ● ●	Yes	★★★★●		● ● ● ● ●
9. Is there a clear statement of findings?		● ● ● ● ●	Yes	★★★★●		● ● ● ● ●
10. How valuable is the research?		● ● ● ● ●	Yes	★★★★●		● ● ● ● ●

	McClellan et al, 2006		Metcalfe and Klaber-Moffatt, 2005		Metcalfe and Klaber-Moffatt, 2013	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Can't Tell		Yes		Yes	
Location	UK		UK		UK	
Questionnaire, interview, focus group	Questionnaire		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Satisfaction		Expectations		Expectations	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★•	Yes	★★★★★	Yes	★★★★★
2. Is a qualitative methodology appropriate?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
3. Was the research design appropriate to address the aims of the research?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
5. Was the data collected in a way that addressed the research issue?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★•••••	Can't Tell	★•••••	Can't Tell	★•••••
7. Have ethical issues been taken into consideration?	Yes	★★★•••	Yes	★★★★•	Yes	★★★★•
8. Was the data analysis sufficiently rigorous?	Yes	★★★•••	Yes	★★★★•	Yes	★★★★•
9. Is there a clear statement of findings?	Yes	★★★★•	Yes	★★★★•	Yes	★★★★•
10. How valuable is the research?	Yes	★★★★•	Yes	★★★★★	Yes	★★★★★

	Monnin and Perneger, 2002		Payton et al, 1998		Peersman et al, 2013	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Can't Tell		Can't Tell		Yes	
Adult population	Yes		Yes		Yes	
Location	Switzerland		USA		Belgium	
Questionnaire, interview, focus group	Questionnaire		Interview		Mixed Methods	
Expectations, experiences, and satisfaction	Satisfaction		Expectations		Expectations	
Is it worth continuing?	Yes		No		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★•		••••••	Yes	★★★★•
2. Is a qualitative methodology appropriate?	Yes	★★★★★		••••••	Yes	★★★★•
3. Was the research design appropriate to address the aims of the research?	Yes	★★★★•		••••••	Yes	★★★★•
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★★•		••••••	Yes	★★★★•
5. Was the data collected in a way that addressed the research issue?	Yes	★★★••		••••••	Yes	★★★★•
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★•••••		••••••	Yes	★★★★•
7. Have ethical issues been taken into consideration?	No	★•••••		••••••	Yes	★★★★•
8. Was the data analysis sufficiently rigorous?	Yes	•••••		••••••	Yes	★★★★•
9. Is there a clear statement of findings?	Yes	★★★★•		••••••	Yes	★★★★•
10. How valuable is the research?	Yes	★★★••		••••••	Yes	★★★★•

	Potter et al, 2003 (difficult patient)		Potter et al, 2003 (private practice)		Reeve and May, 2009	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	Australia		Australia		UK	
Questionnaire, interview, focus group	Focus Groups		Focus Groups		Interview	
Expectations, experiences, and satisfaction	Experiences		Experiences		Experiences	
Is it worth continuing?	No		Yes		Yes	
1. Was there a clear statement of the aims of the research?		• • • • •	Yes	★★★ • •	Yes	• • • • •
2. Is a qualitative methodology appropriate?		• • • • •	Yes	★★★★ •	Yes	★★★★ •
3. Was the research design appropriate to address the aims of the research?		• • • • •	Yes	★★★ • •	Yes	★★★★ •
4. Was the recruitment strategy appropriate to the aims of the research?		• • • • •	Yes	★★ • • •	Yes	★★★★ •
5. Was the data collected in a way that addressed the research issue?		• • • • •	Yes	★★★★ •	Yes	★★★★ •
6. Has the relationship between researcher and participants been adequately considered?		• • • • •	Can't Tell	★ • • • •	Can't Tell	★★ • • •
7. Have ethical issues been taken into consideration?		• • • • •	Yes	★★★★ •	Yes	★★★ • •
8. Was the data analysis sufficiently rigorous?		• • • • •	Yes	★★★ • •	Yes	★★★★ •
9. Is there a clear statement of findings?		• • • • •	Yes	★★★★ •	Yes	★★★★ •
10. How valuable is the research?		• • • • •	Yes	★★ • • •	Yes	★★★★ •

	Roberts, 2013		Roush and Sonstroem, 1999		Scascighini et al, 2008	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	UK		USA		Germany	
Questionnaire, interview, focus group	Questionnaire		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Experiences		Satisfaction		Satisfaction	
Is it worth continuing?	Yes		Yes		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★•	Yes	★★★★★	Yes	★★★★•
2. Is a qualitative methodology appropriate?	Yes	★★★★•	Yes	★★★★★	Yes	★★★•••
3. Was the research design appropriate to address the aims of the research?	Yes	★★•••	Yes	★★★★•		•••••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★•••	Yes	★★★••		•••••
5. Was the data collected in a way that addressed the research issue?	Yes	★★★•••	Yes	★★★★•		•••••
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★••••	Can't Tell	★••••		•••••
7. Have ethical issues been taken into consideration?	Can't Tell	★••••	Yes	★★★★•		•••••
8. Was the data analysis sufficiently rigorous?	Yes	★★★•••	Yes	★★★★★		•••••
9. Is there a clear statement of findings?	Yes	★★★•••	Yes	★★★★•		•••••
10. How valuable is the research?	Yes	★★★★•	Yes	★★★★★		•••••

	Sheppard et al, 2010		Stenberg et al, 2012		Stiller et al, 2009	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	No		Yes		Yes	
Adult population	Yes		Yes		Yes	
Location	Australia		Sweden		Australia	
Questionnaire, interview, focus group	Interview		Interview		Questionnaire	
Expectations, experiences, and satisfaction	Satisfaction		Mixed Methods		Satisfaction	
Is it worth continuing?	No		Yes		Yes	
1. Was there a clear statement of the aims of the research?		• • • • •	Yes	★★★★•	Yes	★★★★★
2. Is a qualitative methodology appropriate?		• • • • •	Yes	★★★••	Yes	★★★★•
3. Was the research design appropriate to address the aims of the research?		• • • • •	Yes	★★★••	Yes	★★•••
4. Was the recruitment strategy appropriate to the aims of the research?		• • • • •	Yes	★★•••	Yes	★★★★•
5. Was the data collected in a way that addressed the research issue?		• • • • •	Yes	•••••		•••••
6. Has the relationship between researcher and participants been adequately considered?		• • • • •	Yes	★★★★•	Can't Tell	★•••••
7. Have ethical issues been taken into consideration?		• • • • •	Yes	★★★••	Yes	★★★••
8. Was the data analysis sufficiently rigorous?		• • • • •	Yes	★★★★•	Yes	★★★★•
9. Is there a clear statement of findings?		• • • • •	Yes	★★★★•	Yes	★★★★•
10. How valuable is the research?		• • • • •	Yes	★★★★•	Yes	★★★★•

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	Taylor and May, 1995		Wottrich et al, 2004		Wylde et al, 2008	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		No		Yes	
Adult population	Yes		Yes		Yes	
Location	UK		Sweden		UK	
Questionnaire, interview, focus group	Questionnaire		Interview		Questionnaire	
Expectations, experiences, and satisfaction	Satisfaction		Experiences		Satisfaction	
Is it worth continuing?	Yes		No		Yes	
1. Was there a clear statement of the aims of the research?	Yes	★★★★•		••••••	Yes	★★★★★
2. Is a qualitative methodology appropriate?	Yes	★★★★•		••••••	Yes	★★★••
3. Was the research design appropriate to address the aims of the research?	Yes	★★★★•		••••••	Yes	★★★••
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	★★★★•		••••••	Yes	★★★★★
5. Was the data collected in a way that addressed the research issue?	Yes	★★★★•		••••••	Yes	★★★★★
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	★••••		••••••	Can't Tell	★••••
7. Have ethical issues been taken into consideration?	Yes	★★•••		••••••	Can't Tell	★••••
8. Was the data analysis sufficiently rigorous?	Yes	★★★••		••••••	Yes	★★•••
9. Is there a clear statement of findings?	Yes	★★★★•		••••••	Yes	★★★••
10. How valuable is the research?	Yes	★★★••		••••••	Yes	★★•••

Appendix 16: Table of randomised studies (including CASP scoring)

	Kalauokalani et al, 2001		Klaber Moffett et al, 1999		Klaber Moffett et al, 2005	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
18 years or over	Yes		Yes		Yes	
Location	USA		UK		UK	
Questionnaire, interview, focus group	Questionnaire		Back pain trial, not suitable		Questionnaire	
Expectations, experiences, and satisfaction	Expectations		Expectations		Expectations	
Is it worth continuing?	Yes		No		Yes	
1. Did the trial address a clearly focused issue?	Yes	★★★★•		••••••	Yes	★★★★•
2. Was the assignment of patients to treatments randomised?	Yes	★★★••		••••••	Yes	★★★★•
3. Were all of the patients who entered the trial properly accounted for at its conclusion?	Yes	★★★★•		••••••	Yes	★★★★•
4. Were patients, health workers and study personnel 'blind' to treatment?	No	★★•••		••••••	No	★★•••
5. Were the groups similar at the start of the trial?	Yes	★★★★•		••••••	Yes	★★★★•
6. Aside from the experimental intervention,	Yes	★★★★•		••••••	Yes	★★★★•
7. How large was the treatment effect?	Yes	★★★••		••••••	Yes	★★★••
8. How precise was the estimate of the treatment effect?	Yes	★★★★•		••••••	Yes	★★★★•
9. Can the results be applied in your context? (or to the local population?)	Yes	★★★★•		••••••	Yes	★★★★•
10. Were all clinically important outcomes considered?	Yes	★★★••		••••••	Yes	★★★★•
11. Are the benefits worth the harms and costs?	Yes	★★★★•		••••••	Yes	★★★★•

	Klaber Moffett et al, 2006		Taylor et al, 2002		Thomas et al, 2004	
Physiotherapy	Yes		Yes		Yes	
Musculoskeletal condition	Yes		Yes		Yes	
18 years or over	Yes		Yes		Yes	
Location	UK		UK		UK	
Questionnaire, interview, focus group	Neck pain trial, not suitable		Questionnaire		Questionnaire	
Expectations, experiences, and satisfaction	Satisfaction		Satisfaction		Expectations	
Is it worth continuing?	No		Yes		Yes	
1. Did the trial address a clearly focused issue?		• • • • •	Yes	★★★ • •	Yes	★★★★ •
2. Was the assignment of patients to treatments randomised?		• • • • •	Yes	★★★ • •	Yes	★★★ • •
3. Were all of the patients who entered the trial properly accounted for at its conclusion?		• • • • •	Yes	★★★★ •	Yes	★★★★ •
4. Were patients, health workers and study personnel 'blind' to treatment?		• • • • •	No	★★ • • •	Yes	★★★ • •
5. Were the groups similar at the start of the trial?		• • • • •	Yes	★★★★ •	Yes	★★★★ •
6. Aside from the experimental intervention,		• • • • •	Yes	★★★★ •	Yes	★★★★ •
7. How large was the treatment effect?		• • • • •	Yes	★★★ • •	Yes	★★★★ •
8. How precise was the estimate of the treatment effect?		• • • • •	Yes	★★★ • •	Yes	★★★ • •
9. Can the results be applied in your context? (or to the local population?)		• • • • •	Yes	★★★★ •	Yes	★★★★ •
10. Were all clinically important outcomes considered?		• • • • •	Yes	★★ • • •	Yes	★★★ • •
11. Are the benefits worth the harms and costs?		• • • • •	Yes	★★★★ •	Yes	★★★★ •

Appendix 17: Table of review studies (including CASP scoring)

	Anaf and Sheppard, 2007		Chewning et al, 2012		Foster, 2007	
Physiotherapy	Yes		Can't Tell		Yes	
Musculoskeletal condition	Can't Tell		No		Yes	
18 years or over	Can't Tell		Can't Tell		Yes	
Location	Australia		USA		UK	
Questionnaire, interview, focus group	Systematic Review		Systematic Review		Systematic Review	
Expectations, experiences, and satisfaction	Physiotherapy in emergency departments		Patient preferences for shared decision but not within physiotherapy		Expectations	
Is it worth continuing?	No		No		Yes	
1. Did the review address a clearly focused question?		• • • • •		• • • • •	Yes	★★ • • •
2. Did the authors look for the right type of papers?		• • • • •		• • • • •	Can't Tell	★ • • • •
3. Do you think the important, relevant studies were included?		• • • • •		• • • • •	No	★ • • • •
4. Did the review's authors do enough to assess the quality of the included studies?		• • • • •		• • • • •	No	★ • • • •
5. If the results of the review have been combined, was it reasonable to do so?		• • • • •		• • • • •	No	★ • • • •
6. What are the overall results of the review?		• • • • •		• • • • •	Can't Tell	★ • • • •
7. How precise are the results?		• • • • •		• • • • •	No	★ • • • •
8. Can the results be applied to the local population?		• • • • •		• • • • •	Yes	★★ • • •
9. Were all important outcomes considered?		• • • • •		• • • • •	No	★ • • • •
10. Are the benefits worth the harms and costs?		• • • • •		• • • • •	Yes	★★★ • •

	Hush et al, 2011		May, 2001		Mondloch et al, 2001	
Physiotherapy	Yes		No		No	
Musculoskeletal condition	Yes		Yes		No	
18 years or over	Yes		Yes		Yes	
Location	Australia		UK		Canada	
Questionnaire, interview, focus group	Systematic Review		Systematic Review		Systematic Review	
Expectations, experiences, and satisfaction	Satisfaction		Satisfaction		Expectations	
Is it worth continuing?	Yes		No		No	
1. Did the review address a clearly focused question?	Yes	★★★★•		••••••		••••••
2. Did the authors look for the right type of papers?	Yes	★★★★•		••••••		••••••
3. Do you think the important, relevant studies were included?	Yes	★★★★•		••••••		••••••
4. Did the review's authors do enough to assess the quality of the included studies?	Yes	★★★★•		••••••		••••••
5. If the results of the review have been combined, was it reasonable to do so?	Yes	★★★••		••••••		••••••
6. What are the overall results of the review?	Yes	★★★★★		••••••		••••••
7. How precise are the results?	Yes	★★★★•		••••••		••••••
8. Can the results be applied to the local population?	Yes	★★★••		••••••		••••••
9. Were all important outcomes considered?	Yes	★★★★★		••••••		••••••
10. Are the benefits worth the harms and costs?	Yes	★★★★★		••••••		••••••

	Parsons et al, 2007		Slade and Keating, 2010		Verbeek et al, 2004	
Physiotherapy	No		Yes		No	
Musculoskeletal condition	Yes		Yes		Yes	
18 years or over	Yes		Yes		Yes	
Location	UK		Australia		Netherlands	
Questionnaire, interview, focus group	Systematic Review		Systematic Review		Systematic Review	
Expectations, experiences, and satisfaction	Expectations		Mixed Methods		Expectations	
Is it worth continuing?	No		Yes		No	
1. Did the review address a clearly focused question?		• • • • •	Yes	★★★★•		• • • • •
2. Did the authors look for the right type of papers?		• • • • •	Yes	★★★★•		• • • • •
3. Do you think the important, relevant studies were included?		• • • • •	Yes	★★★★★		• • • • •
4. Did the review's authors do enough to assess the quality of the included studies?		• • • • •	Yes	★★★••		• • • • •
5. If the results of the review have been combined, was it reasonable to do so?		• • • • •	Yes	★★★★•		• • • • •
6. What are the overall results of the review?		• • • • •	Yes	★★★★★		• • • • •
7. How precise are the results?		• • • • •	Yes	★★★••		• • • • •
8. Can the results be applied to the local population?		• • • • •	Yes	★★★★•		• • • • •
9. Were all important outcomes considered?		• • • • •	Yes	★★★★★		• • • • •
10. Are the benefits worth the harms and costs?		• • • • •	Yes	★★★★★		• • • • •

Appendix 18: Example interview transcript

Participant 9, Site 1, 21st July 2015, 10 am

You have been having some physio along the corridor – when you first came into physio did you have a telephone call to start with and an initial assessment or did you come straight in for a face to face appointment.

I was given an appointment and attended the appointment.

Did your GP do the referral or did they give you the phone number?

No, what happened was the GP referred me to I don't think it was a Consultant, someone in the muscular-skeletal department, and I think he was actually a Physiotherapist himself but was working, I understand, from the hospital rather than from here but I think he has a patient clinic here, and that gentleman put me onto the physio here. So GP, then the clinic, then the physio.

Before you had your first physio appointment in the physio department where you are now, did you have any expectations about what might happen or what it might involve. Had you thought about it or had you been given any information?

It was the only choice I had, there was no other choice with any other form of medication at that time or help.

So you went because it was offered?

That didn't happen too long, and I think I only had about 3 sessions, in fact the first session wasn't treatment hardly at all, it was just about 5, 6 or 7 minutes but initially they had to do all the form filling which did take time so my first sessions wasn't very long at all insofar as the treatment went. That was a short time.

Was it different on the subsequent times?

Yes, the second session was starting the treatment.

So you weren't really given much information before you actually went there. You just thought that that was one of the options so you went and you didn't really know what to expect particularly?

When I came and saw the Consultant, can I call him the Consultant because I can't remember his title other than I do remember it was a musculoskeletal technician or something maybe. However, he said to me, and I must say I was completely and utterly unimpressed totally with what he did. How he could assess from what he did I can't imagine but his conclusion was that I had a trapped nerve in my neck. What had happened was that I had had a back massage, first time in my life and a big mistake. But I am not sure that the physiotherapist who was treating me had asked his opinion.

What didn't impress you?

Well he put his arm out and said ' put your arm there' so my arm was like that over his arm and he said 'right now I want you to press down'. Well I am in complete and utter agony as nothing has helped it up to now. So I was trying my hardest but I'm 100% certain that he probably realised I couldn't do it and I think he was just gently trying, and he knew I wasn't doing it. And his arm was stronger than mine and I was running out of time. And then he said he would get onto the physiotherapy and that I would get a telephone call, which I did, although actually it was a letter, and I was unimpressed with that because the appointment letter I got was for the 4th August. Now this would have been about a week ago and I am in so much pain even now and couldn't wait. And I thought they were useless, and I went twice but felt I couldn't spend any more time doing this. So I just made an appointment to go privately at Newcastle.

And was that because of the wait?

Yes. Then the hospital rang and said there was a cancellation and would I like to take it but it was actually the same day and I had actually booked to go in the afternoon in Newcastle. And then they gave me another cancellation, which I

thought was very good, but I did ask them if I could be on their cancellation list because 4th August seemed to be a long time off and because of the pain I have. So they rang me back a few days later and I got another one and so I am sticking with this for now.

What has your experience been like since you actually started and had the treatment in this place?

I just feel that do they really listen to what the patient says or do they want to do what they think is the right thing to do. Now maybe if I was a nurse I could do my own thing and even my GP never once said 'we had better get you an x-ray or an MRI. But the Physiotherapist who was treating me did point out that if it is a trapped nerve, which she didn't think it is, as you see I want to know what it is then they should be treating that problem. If anybody is just guessing I could go on like this for months and it is has truly, truly got me down. I feel a wreck.

So you don't feel as if you have had a diagnosis or explanation?

I haven't but I think even the GP wouldn't send me as he thought it was unnecessary. So that was when he sent me to this chap and then I came to the Physiotherapists. So I have had 3 sessions of the physio which to be absolutely honest hasn't helped me.

Do you know what was involved in the type of treatment, has there been hands on exercises?

With the Physiotherapist, yes it was hands on. But it hasn't worked, sadly for me but the Physiotherapist agreed and although I didn't ask for it she said 'would you be prepared to take Acupuncture' and I said I would because I have had it before 4 years ago for my neck problems as I have osteoarthritis in my spine and neck, and I had it then and it was almost the last resort, and it really helped. Doesn't last too long mind, about 3 months but it was worth it. So I've just had my first session of Acupuncture and will see how that goes.

Do you feel with this sort of treatment you have had much input to that or has it been that you have been told that this is the treatment you should have or feel that you have had some say?

No, I was told I was going to have physiotherapy, but I have to say after the third session, even the physiotherapists probably realised, I am assuming this, because I was saying that really I wasn't improving, and it had got me down and I can't sleep at night for the pain. It's all day and all the time, its 24 hours almost. So she said 'would you be prepared to take Acupuncture', so she did ask, and I said yes.

So there was a bit of a discussion about this?

Well I thought maybe she thought I might be a bit scared about it, but I have had it before and I was really scared to do it before but I was in so much pain with my leg and my back, you know you get to a stage where you think you have just got to do it because nothing else is working. So I'm booked in for next week, as well as next Wednesday, but I don't know how many sessions and I would like to think I might get probably another 8 or something like that.

So how satisfied do you feel about things so far though I could probably guess the answer?

I just feel that, you see without knowing the full facts that's how I look at it, If I had had an MRI scan, I mean the Physiotherapist did say that if you had only had an x-ray that wouldn't have shown a trapped nerve, but that it would on an MRI scan. But even this morning she said I wasn't ready to go down that road yet. I don't know how much more I can take of the pain. I'm taking the painkillers that I have been given, I was given 2 lots from the GP. However, when I came to see the musculoskeletal technician and he asked what I had taken and I told him, he said that he would stop those ones, but I have a bigger problem than I already have when I take tablets so I'd rather not take them if they are not any good, but I was taking them. However he said I should stop taking them because he said that they are not painkillers but more anti-inflammatory. But he said I would continue to take the ones you get over the counter, Paracetamol. They are also giving me problems which I knew it would but at the end of the day I'm really not getting any

relief from these tablets. So I just feel that if this Acupuncture doesn't help I don't know where I go from here apart from a bullet to my head I think.

Hopefully it will not come to that.

So I just think it's all about the money with the GPs now and I just feel that they have no idea the pain I am in.

I am mindful of the time so we will have to stop there. Thank you.

Appendix 19: Conference abstract (BSA Medical Sociology 2016)

Abstracts

2007) new migrants access health services in the UK, and the ways in which primary care professionals (PCPs) are providing care. For the first study, community researchers recruited 23 migrants (from a range of countries e.g. Iran, Poland, Zimbabwe) and interviewed them in their chosen language; for the second, we interviewed 19 PCPs from 10 practices. A comparative thematic analysis of narrated interactions from both studies indicated that while there were overt misunderstandings caused by differences in language or vocabulary, both migrants and health professionals talked about a communicative disjoint. PCPs worried whether patients who sought to communicate in English understood what had been discussed; migrants felt that PCPs' decisions e.g. on prescriptions were not explained to them and some felt their health problems were not taken seriously. PCPs developed strategies to reach out (e.g. by greeting the patient in their own language) and to pick up misunderstandings at subsequent consultations. We used Spencer-Oatey's (2000) model of intercultural rapport to interpret these interactions. For example patients' need to present themselves as competent could mean that they did not ask questions, while different understandings of 'association rights' i.e. how much interaction to expect, could result in patients feeling dissatisfied. Understanding these interaction patterns could help explain miscommunication and suggest ways to overcome it.

Patients' Experience of Continuity of Care in Hospital Care: The Case of Hospital Discharge

Corrigan, O., Georgiadis, A.
(Healthwatch Essex)

Continuity of care is an essential attribute of healthcare that aims at promoting seamless patient care over the duration and as patients move from one care provider to another. In this chapter we examine how patients experience continuity of care in relation to discharge planning and when they transition from hospital care to self-care. Firstly, we demonstrate that a theoretical framework centred on Goffman's dramaturgical approach can help us elucidate the effects of personal, professional, and organisational factors to patients' experience of continuity of care. Secondly, we explore the utility of the framework by applying it to the semi-structured interview and audio diary data that we collected from patients between June 2015 and December 2015. Following Goffman, we employ the concepts 'frontstage' and 'backstage' to illustrate which and how the sub-types of continuity affected patients' experience of hospital discharge and care transition. Whereas management and informational continuity (backstage) were the most essential sub-types of care continuity for patients to experience their overall care as connected and coherent, relational continuity (frontstage) was not reported as important. Goffman's dramaturgical approach was a useful framework to explore how the different types of continuity of care relate to patients' experience of discharge planning and care transition. Further research is required to better understand the concept of continuity of care in hospital care, and which of its sub-types are important to patients when they transition between different levels and/or locations of care.

Patient Expectation, Experience, and Satisfacption with Musculoskeletal Physiotherapy

Loughran, I., Adams, N., Caplan, N.
(Northumbria University)

Musculoskeletal conditions are highly prevalent across the population, and in particular across the working age population. They account for a significant burden on the health care systems and a significant cost to the wider economy. Physiotherapy is one of the first line treatments for most common musculoskeletal conditions. Patient experience and satisfaction with treatment is though to be an indicator of compliance with treatment. There has been little work to date to investigate patient experience with physiotherapy treatment for musculoskeletal conditions.
A three phase approach was designed, with each phase building on the previous work. A systematic review and narrative analysis was undertaken to examine existing literature. Then, a series of patient interviews were undertaken to test the experiences of patients who had physiotherapy against the wider literature. A questionnaire was then developed and piloted as a method of studying a wider range of patients who had received physiotherapy.
The systematic review found most existing measures were non UK based and undertaken in varied healthcare environments so not immediately applicable to the UK. The concept of satisfaction is not clearly defined and therefore not easy to measure. Patients experience appears related to interpersonal factors rather than service factors.
Service developments can be based on the assessment of patient experience, which is an independent variable. Basing developments on patients reported experiences should improve services and make them more patient focused, which is the high level policy aim of the NHS.

Feeling 'Dismissed' and Imposed Consumerism: Accounts of Patient-Professional Interactions from People with Multiple Sclerosis

Eccles, A., Ryan, S., Locock, L., Ziebland, S.
(University of Oxford)

BACKGROUND: Recent decades have seen the promotion of patient involvement during healthcare interactions. There has been a paradigm shift where the concept of 'shared decision making' (SDM) has been advocated. During

Appendix 20: Conference poster (Physiotherapy UK 2017)

Patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy

NHS North Tees and Hartlepool NHS Foundation Trust

Iain Loughran[1,2], Nicola Adams[2], Nick Caplan[2]

North Tees and Hartlepool NHS Foundation Trust[1], Northumbria University[2]

northumbria UNIVERSITY NEWCASTLE

Background

Musculoskeletal conditions are the most common cause of severe long term pain and physical disability, and they affect hundreds of millions of people around the world (Woolf and Pfleger (2003). Musculoskeletal conditions result in a significant burden on the individual and the health service, with an estimated 93% of treatment provided by GPs and physiotherapists in a primary care setting (Casserley-Feeney et al., 2008). Patient experience provides a vital insight into aspects of care that create value for patients, which must be a fundamental part of any service provision or service change (Staniszewska and Churchill, 2014). There have been few empirical studies to date that have explored the patient reported experience with musculoskeletal physiotherapy. Satisfaction is commonly used, but widely criticised. The aims of this study were to:

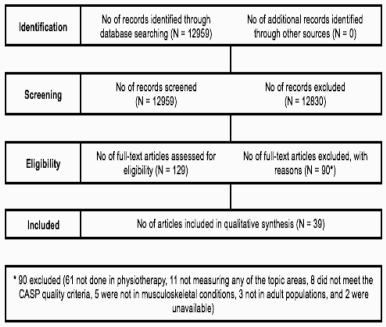
- Explore patients' expectations, experiences, and satisfaction with musculoskeletal physiotherapy
- Develop a method of measuring the patient experience with musculoskeletal physiotherapy

The first phase involved a systematic review and narrative synthesis of the existing literature. The second phase involved semi structured interviews with patients. The third phase involved the development of a patient reported experience measure. A favourable ethical opinion was given by Northumbria University (RE15-11-121413), the NHS REC (14/WM/0102), and South Tyneside NHS Foundation Trust (039/2013).

Phase One: Systematic review and narrative synthesis

A systematic review and narrative synthesis of the existing literature was undertaken. The methodology was based on the CRD guidance and included a quality appraisal based on the the CASP framework. The search results are shown in accordance with PRISMA (Figure 1). There were 39 studies included in the final synthesis.

Figure 1: Systematic review search results



Ten articles reported patients' expectations, nine articles reported patients' experiences, and 20 articles reported patient satisfaction.

There were few differences in reported expectations between different patient demographics, and uncertainty over the effect of expectations on outcome. Expectations included personal, social, and contextual.

Overlapping themes and dimensions were identified across the experience and satisfaction articles. These included (1) patient-physiotherapist interaction, (2) physiotherapist attributes, (3) service attributes, (4) clinical outcome, and (5) overall experience or satisfaction. Articles reporting satisfaction appeared to be exploring or measuring direct experiences, and then inferring satisfaction. This led to an oversimplification of the patient experience. Although overall experience and satisfaction were highly rated, areas of poor experience were hidden within this due to the methods used.

Several possible measures were identified, but most were satisfaction focused, and most were developed in non UK based samples. No suitable measure was identified.

Phase Two: Interviews with patients

Semi structured interviews with a purposive sample of 15 patients were then undertaken. A topic guide was developed based on the findings from the systematic review. The thematic analysis was based on Braun and Clarke (2006).

Overall, there were 474 separate responses coded across the interviews. There were 323 relating to experiences, 121 responses relating to expectations, and 30 responses relating to satisfaction. Overall, 15% of the responses were negative, 38% were neutral, and 47% were positive. (Figure 2). There was an incremental level of positivity from expectations, through experiences, to satisfaction. This may provide one explanation of the highly reported levels of satisfaction across the literature (Figure 2).

	Expectations		Experiences		Satisfaction		Total	
	N	%	N	%	N	%	N	%
Positive	19	16	181	56	25	83	225	47
Neutral	73	60	103	32	3	10	179	38
Negative	29	24	39	12	2	7	70	15
Total	121	100	323	100	30	100	474	100

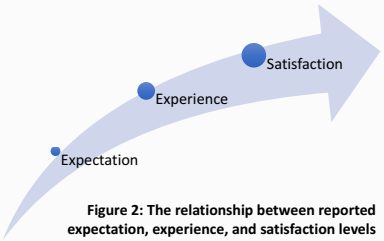


Figure 2: The relationship between reported expectation, experience, and satisfaction levels

There were a number of common themes across expectation, experience, and satisfaction. The type of treatment (19% of responses) was the most common theme and was discussed mainly as an experience or expectation. The assessment process (11%) was the second most common theme, which was also an experience or expectation. Being able to put their point across (7%), receiving and explanation (6%), and building a rapport or relationship (4%) were the most commonly reported communication themes.

Descriptions of experiences and expectations provided the most data rich responses. Satisfaction was very data poor, and typically expressed in yes or no terms. Experiences appeared to provide the most useful information about the perceived quality of the service received. Expectations were typically encompassed in these descriptions.

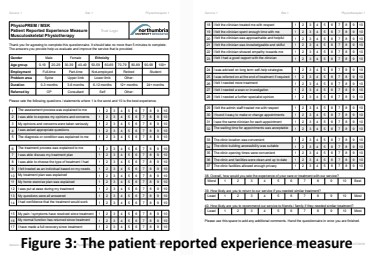


Figure 3: The patient reported experience measure

Phase Three: Questionnaire development

The third phase of the study involved the development of a patient reported experience measure. This was piloted in two samples of 25 and then a main administration of the final measure in a sample of 200 (Figure 3). The content of the measure was based on the findings from the systematic review and the interviews with patients.

Responses were received from 117 participants (58.5% response rate) in the main administration phase. There were 78 (67%) female and 38 (32%) male participants. Only 14 (12%) participants indicated their ethnicity with 13 (11%) being British and (1%) being Asian. Participants aged 50-59 were the most common followed by 40-49 and 60-69, with two-thirds of the participants between 40-69 years. Two-thirds of the participants (65%) were in employment, 17 (15%) were not in employment, 19 participants (16%) were retired and four participants (3%) were students. There was an even distribution of problem area between the spine, the upper limb, and the lower limb. Two-thirds of participants reported a condition duration lasting up to 12 months and there were only 19 participants (16%) that reported a condition lasting over 24 months. Participants reported their referral sources as their GP (41%), their consultant (17%), self referral (27%), another source (not specified) (5%), and 10% were left blank.

Responses to the dimensions were > 9/10 for the assessment process, treatment process, clinician attributes, service attributes, clinic attributes, and overall experience questions. The clinical outcome dimension (6.34-7.17/10) and the discharge process dimension (6.83-8.82/10) were much lower rated.

There were significant differences ($p < 0.05$) in the overall experience between both the 3-6 and the 6-12 month groups when compared with the 24+ month groups. Longer condition durations were associated with poorer ratings of overall experience. There were no other significant difference found across the results.

Conclusions

Findings from the systematic review indicated that although most articles reported on satisfaction studies, the content of these actually focused on direct experiences. Dimensions of experience and satisfaction were typically similar and often overlapped. No existing suitable measure of patient experience with musculoskeletal physiotherapy in the UK was found. Data from the interviews with patients indicated that experience provides the most data rich and useful information about patients' direct perceptions of their experiences. Satisfaction was reported in more positive terms than expectations or experiences, which may explain the high levels of satisfaction reported in the literature. A patient reported experience measure was successfully piloted in a sample of musculoskeletal physiotherapy patients. This appears to represent the first of its kind in the UK. Overall experience was highly rated, but the discharge process and clinical outcome were less well rated. Reporting of overall experience seems likely to hide areas of poorer experience.

Implications

The evaluation of patient experience in practice requires more than the assessment of satisfaction alone. Simple satisfaction measures are unlikely to provide an accurate measure of experience or service quality. The use of a multi dimensional patient experience measure appears to capture more meaningful and useful data which would allow a more accurate evaluation of perceived service quality from the patients' perspective. The findings from this study appear to represent the first of their kind in an NHS based sample of musculoskeletal physiotherapy patients. Further research is required to refine, validate, and test the measure across a larger multi site sample.

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Acknowledgements

This work was undertaken as part of a PhD at Northumbria University. Thank you to Professor Nicola Adams and Professor Nick Caplan for their supervision and support. Thank you also to the Chartered Society of Physiotherapy Charitable Trust for an Educational Award of £1500 towards the academic fees. Thank you to all of the staff and patients that contributed to and participated in this study.

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Appendix 21: Physiotherapy journal abstract (December 2017)

transition from acute to chronic pain following musculoskeletal trauma.

Methods: To understand transition to chronicity, outcome measures relating to the four primary mechanisms of pain are required, specifically: *nociceptive* (injury location, severity and characteristics), *neuropathic* (painDETECT tool and pain extent), *inflammatory* (biomarkers), and *central hypersensitivity* (quantitative sensory testing, painDETECT and pain extent). Concurrently, patient-reported outcome measures are required to assess general health and psychosocial factors (e.g. EQ-5D-5L, Hospital Anxiety and Depression Scale), which are likely to influence pain and disability. Choosing an outcome to measure long-term pain recovery is a key but difficult decision for a post-trauma population, owing to likely clinical heterogeneity. The Chronic Pain Grade Scale, with its established measurement properties, is the best measure to capture both pain and disability.

Results: A prognostic study to gain a comprehensive baseline profile of acute post-trauma pain mechanisms using a variety of measures (patient reported outcome measures, psychophysical testing and biomarkers), and evaluate their relationships to long-term pain and disability is required. This will allow us, for the first time, to (1) develop and validate a prognostic tool to predict development of chronic and disabling pain (2) begin the process of targeting precision rehabilitation interventions.

Conclusion(s): There is a need for a prognostic study of this kind to comprehensively evaluate the primary mechanisms of pain to predict transition from acute to chronic pain in a musculoskeletal trauma population. This understanding is crucial to optimising physiotherapy practice through precision rehabilitation.

Implications: Understanding predictors of long term pain and disability will support the development of a prediction tool. This will inform rehabilitation decision making, and facilitate improvements in clinical and cost effectiveness.

Funding acknowledgements: NIHR SRMRC.

https://doi.org/10.1016/j.physio.2017.11.106

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Patient expectation, experience and satisfaction with musculoskeletal physiotherapy

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Purpose: Musculoskeletal conditions are highly prevalent globally and result in a significant burden in the United Kingdom. Most care is delivered in primary care by general practitioners and physiotherapists. Patient experience has been linked to clinical outcome and quality assurance across healthcare. There has been little research focusing on musculoskeletal physiotherapy. The aim of this study was to explore and measure patient reported experience within musculoskeletal physiotherapy. A three phased study was developed.

Methods: Phase one was a systematic review and narrative analysis exploring the extant literature and measures. Phase two comprised of semi structured interviews with patients to explore their experiences. A topic guide was developed from the literature review. Phase three involved the development of a patient reported experience measure including the domains identified from phases one and two. The questionnaire was successfully pilot tested and demonstrates face validity.

Results: Patient satisfaction is often substituted for experience but lacks a clear definition and is widely criticised as an abstract concept. Several consistent domains and global dimension were identified in questionnaires. There was no extant patient reported experience measure identified for musculoskeletal physiotherapy. Dimensions of satisfaction and experience appear similar but experience is a more direct measure. Experiences of the sample appeared broadly like that reported in the literature. Domains such as interpersonal and clinical factors seem more important than organisational factors. Overall experience is well rated but there are significant differences in condition duration and clinical outcome and discharge process domains score lower.

Conclusion(s): This patient reported experience measure appears to be the first developed specifically for a musculoskeletal physiotherapy population in the UK. Further work is required to validate the questionnaire and develop the proposed model of patient experience.

Implications: This patient reported experience measure appears to be the first developed specifically for a musculoskeletal physiotherapy population in the UK. Further work is required to validate the questionnaire and develop the proposed model of patient experience.

Funding acknowledgements: CSP Charitable Trust Academic Awards Grant £1500.

https://doi.org/10.1016/j.physio.2017.11.107

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Exercise interventions for balance in people with diabetic peripheral neuropathy to reduce falls: a systematic review

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Purpose: Diabetes with its high incidence has become one of the fastest growing health threats. Diabetes Peripheral Neuropathy (DPN) is one of the most common complications of diabetes. Presence of DPN affects a person's quality of life in many ways. One of the most debilitating factors of DPN is impaired balance, thus increasing the rate of falls. Exercise

PATIENTS' EXPECTATIONS, EXPERIENCES, AND SATISFACTION WITH MUSCULOSKELETAL PHYSIOTHERAPY

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PhD

2017