Physiotherapists’ Discursive Construction of Their Role in Patient Education.

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Abstract

There has been little research into physiotherapists’ role in patient education in the UK. The purpose of this case study was to understand to a greater extent the perceptions and concepts of physiotherapists in relation to their role in patient education with a view to generating new perspectives, informing debate and course development, and providing a springboard to further research. Physiotherapists (16) who were all associated with one Higher Education Institution (HEI) in the UK participated in the study and represented a spectrum of experience from novice to expert. The participants included 4 final year students on the brink of qualification, 9 qualified physiotherapists who were MSc students and 3 physiotherapy academics who taught on practice educator role development modules and were research active. A qualitative, interpretive approach was based on semi-structured interviews which were recorded and transcribed. A two-stage approach to analysis was adopted, with a thematic approach to the total data set followed by deeper analysis of key themes drawing on interpretative repertoire, focussing particularly on the use of metaphor.

Five themes were identified:- Concepts of patient teaching; Patient educator role; Preparation for the patient educator role; Therapeutic relationship; Workplace context. The repertoires participants employed in relation to each theme constructed patient education as an integral and extensive component of their practice. Concepts of patient teaching included transmission, interpretation, facilitation and empowerment. Conflicting repertoires of compliance and collaboration were identified in the therapeutic relationship theme. Participants’ discourse was set within a context of workplace pressures and multi-professional working. Parallels were drawn between teacher-centred and therapist-centred approaches to patient teaching, and student-centred and patient-centred approaches. The possible mismatch between transmission-based concepts of patient education and the goal of patient-centred care was highlighted, together with time pressures in acute as compared to community settings which might militate against the use of patient-centred approaches.

The results of this study have enhanced understanding of the way physiotherapists’ articulate and conceptualise their pedagogic role with patients. Suggestions were made for changes to pre-registration and post-registration courses to prepare physiotherapists for a practice educator role with patients by encouraging critical reflection on their own discourse and practice in relation to patient education. The importance of patient educator discussion in communities of practice was also considered. Recommendations have been made for further research which includes surveys addressing current practise in preparing physiotherapists for a role in patient education, comparison of repertoires between different health professional groups and evaluation of the effectiveness of patient-centred as opposed to therapist-centred approaches to patient teaching. Confusion in the literature with regard to the definition of patient education in physiotherapy could be addressed by the development of a model through a grounded theory study.
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……….and all those who have been (and the many who still are) with me in “the maze”.

Dedication

This thesis is dedicated to the loving memory of my parents Fred Jackson and Marjorie Jackson (later Halhead) who would have been so pleased.
Declaration

I declare that the research contained in this thesis unless otherwise formally indicated within the text, is the original work of the author. The thesis has not been previously submitted to any other university for a degree, and does not incorporate any material already submitted for a degree.

Signed…………………………………………………………………………………..

Dated……………………………………………………………………………………
Glossary of terms

**Accreditation** - has been defined by the Society and College of Radiographers (2006) as occurring when “an individual has been assessed as meeting stated criteria and judged as fit for practice and purpose”.

**Accreditation of Clinical Educators’ (ACE)** - scheme developed by the CSP “to give greater recognition to the important role of the clinical (practice) educator and to try to raise the quality of physiotherapy clinical education in the UK “ (CSP 2004).

**Clinical educator** – physiotherapists responsible for the education of students during work placements (practice educator is an alternative and more recent term).


**Education**- “the process of teaching or learning in a school or college, or the knowledge that you get from this”. (Cambridge Advanced Learner’s Dictionary, 2010). Accessed on 20/9/10 at [http://dictionary.cambridge.org/](http://dictionary.cambridge.org/)

**Health education** – “comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health” (WHO, 1998).

**Health promotion** – “is the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions”. (WHO, 2009a). Health promotion is identified (WHO 2009b) as involving three major components - health education, service improvement and advocacy for policy changes

**Learning**- “The combination of processes whereby the whole person – body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses): experiences a social situation, the perceived content of which is then transformed cognitively, emotionally and practically (or through any combination) and integrated into the person’s individual biography resulting in a changed and more experienced person”. (Jarvis, 2006, p.13).

**Patient education** -planned systematic, sequential, and logical process of teaching and learning provided to patients and clients in all clinical settings (Dreeben, 2009, p.457)

**Post-graduate Certificate in Clinical Education** – A 60M credit course which is part of the School of Health Professions (University of Brighton) portfolio. It focuses on continuing professional development of allied health professions for their role in educating students in the practice setting.

**Practice educator** – physiotherapists responsible for the education of students during work placements (clinical educator is an alternative but older term).

**Teaching** - the highest form of understanding (Aristotle)
1. Introduction

This thesis is structured in a relatively ‘traditional’ way with an introduction to the subject area followed by literature review, statement of the problem and research questions. An exploration of potential methodology is then followed by the identification of specific approaches and findings, discussion, and conclusion. Direct quotations are included in quotation marks with longer quotes presented in italics indented in the text. From time to time throughout the thesis sections in non-indented italics will be found where I have reflected upon aspects of the process or have been reflexive in relation to my impact as a researcher on elements of the study. Reflexivity is viewed by several sources (e.g. Sword 1999; Rolfe, 2006; Wetherell et. al., 2001) to be an important element of qualitative process and documentation. Sword (1999) emphasized the importance of reflexivity in this way “disclosure of how one is inherently enmeshed in the research enhances the legitimacy of findings and new insights” (Sword, 1999, p.277).

The introduction gives the background to this research study. In doing this terminology is defined and patient education is set in context in the UK and beyond.

1.1 Background to the study

This thesis, submitted for stage two of the Doctorate in Education, builds upon the three submissions for stage one of this award. The submissions for stage one focussed on the views of recent participants on a Post-graduate Certificate in Clinical Education course with regard to their perceptions of the influence of the course on their practice as educators. In this multi-professional course the main emphasis is on preparation for a role in educating students during placements. During the analysis and discussion phase of the small-scale research study for stage 1, submission 3, the wider role of physiotherapists in educating learners came to the fore together with participants’ perceptions of a lack of readiness for the role. The following two quotes are from participants in that study:-
We learn to be physios and then …..you’re trying to teach other people, but actually we don’t have the skills of teaching ….. what I’ve done so far is probably just what’s natural … and kind of what I’ve emulated from other educators, I’ve sort of gleaned bits off other people and hoped that that’s been good education. 

I know that if I look back on my career …..suddenly bam… you’re told well now you’re a senior clinician you have to do it. And you’re thinking well how do I know what to do, whereas if I perhaps had been gently coaxed and shown and given the information, and obviously gone out and had a bit of training on that then I would have just slowly evolved. 

Submission 3 was completed in September 2008 shortly after the Next Stage Review report (DoH, 2008c) had been published. At that time it was the latest in a sequence of government publications which emphasised the importance of health professionals’ involvement in health promotion and the prevention of ill health. I had also recently read a study by Lindquist et al., (2006) suggesting that students recognised ‘educator’ as a physiotherapy role with patients. The combination of policy, recent research evidence and the comments made by participants in my own study channelled my interest towards the educator role of physiotherapists with patients and the focus of this thesis became physiotherapists’ role in patient education. In order to introduce the reader to the subject area of this thesis a short introduction, in part drawing upon the submission referred to above follows to explain the developmental nature of the focus of the study.

Physiotherapy is one of the fifteen Allied Health Professions currently registered with the Health Professions Council (HPC, 2010a), the regulatory body in the UK. Physiotherapists use:-

“physical approaches to promote, maintain and restore physical, psychological and social well-being, taking account of variations in health status” (CSP 2009).

The physical modalities used include manual, electrical and exercise based approaches, across the full range of age groups and patient groups. According to the Chartered Society of Physiotherapy (CSP) physiotherapists:-
“work in a wide variety of health settings such as intensive care, mental illness, stroke recovery, occupational health, and care of the elderly... In particular they treat neuromusculor (brain and nervous system), musculoskeletal (soft tissues, joints and bones), cardiovascular and respiratory systems (heart and lungs)” (CSP, 2010).

Physiotherapy has evolved from its nineteenth century roots in massage and must continue to evolve if it is to maintain its relevance in health care. Physiotherapists in the practice setting have a range of roles which might include those of clinician, manager, administrator, professional, researcher and educator (Cross et al., 2006). A role in the education of students is now well recognised and has been the subject of an increasing volume of research in recent years (e.g. Cross, 1994; Baldry Currens and Bithell, 2000; Bennett, 2003; Kell and Jones, 2007). Physiotherapy in common with other professions, for example nursing (Billay and Yonge, 2004) and teaching (Tang, 2004), includes varying amounts of education in the practice or professional setting as part of the pre-registration curriculum. During these periods of learning, physiotherapy practitioners (practice educators) are expected to take responsibility for students’ education as part of their professional role. As such they have responsibility for the management, facilitation and often assessment of learning (Moore et al., 1997). Cross et al. (2006) identified the key aspects of the educator role in relation to the learner as: facilitator; assessor; and evaluator and analysed the complex dimensions of each of these. An added complexity is that the role of practice educator is assumed to extend beyond that with students; clinicians may also have an educational role with junior staff, colleagues from other health professions, patients and their carers. There has been little research about physiotherapists’ role in patient education in the UK and it is the focus for this study.

Physiotherapists are prepared to be competent and practice autonomously upon graduation however despite statutory regulation by the Health Professions Council there is currently no formal requirement for practitioners to demonstrate their competence in this pedagogic area of practice either at pre-registration or post-registration level. This is in contrast to the nursing and midwifery professions which
are regulated by the Nursing and Midwifery Council (NMC). Findings from the small scale study undertaken for submission 3 of the doctorate in education (and referred to earlier) suggested that the physiotherapists who participated felt that they had received little formal preparation for an educational role. As Eraut (1994) noted “the teaching role is important in most professions, yet rarely included in training” (Eraut, 1994, p.115).

In the absence of any regulatory requirement, the Accreditation of Clinical Educators’ (ACE) scheme was developed by the Chartered Society of Physiotherapy (CSP):

"to give greater recognition to the important role of the clinical (practice) educator and to try to raise the quality of physiotherapy clinical education in the UK" (CSP 2004).

The ACE scheme has now been adopted by other allied health professionals, including radiography and occupational therapy. Podiatry and several other health professions are in discussion and expected to follow. The emphasis of ACE has mainly been on physiotherapists’ role with students. In the host HEI (University of Brighton, School of Health Professions), there are currently 3 routes to accreditation for physiotherapists which are shown in table 1.1 (below).

<table>
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<th>Level</th>
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<th>Mode</th>
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<td>Postgraduate Certificate in Clinical Education (P.G.C.E.)</td>
<td>Masters (7)</td>
<td>60</td>
<td>Part time</td>
</tr>
<tr>
<td>Health Professional as an Educator</td>
<td>Masters (7)</td>
<td>20</td>
<td>Intensive – 1 week</td>
</tr>
<tr>
<td>Experiential</td>
<td>Not applicable</td>
<td>No academic credits</td>
<td>Reflective portfolio</td>
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Table 1.1 ACE routes at university of Brighton
1.2 Reflexivity in relation to the focus of the study

At this point I need to be transparent about my initial ‘position’ in relation to patient education.

My growing interest in relation to the professional development of ‘clinical educators’, over the last two decades, has developed through collaboration with a small, but passionate, community of practice (Lave and Wenger, 1998). Having moved to the University of Brighton in 1991, I took responsibility for placement education as one of my early roles in the School of Physiotherapy (as it was known at that time). Through that activity, I worked with two colleagues in my own school and also with two others based at a university in London. Together we began to plan, design and deliver a range of regional, pedagogic study days and postgraduate modules for physiotherapists. I found the collaboration quite exhilarating. We had a range of knowledge and skills to contribute and there was a ‘buzz’ between us which made the activity productive, dynamic and enjoyable. The original concentration on workshops and study days eventually resulted in the co-production of a distance learning text (Moore et al., 1997). Within the university this then led to the development of an associated masters’ level module (The Health Professional as an Educator), for which I am still module leader, and also the move of one of our London-based colleagues to join our team in Brighton. Together we developed a postgraduate certificate in clinical education (‘practice education’ is now more commonly used terminology), to which I have contributed extensively over the years, including module leadership. In 2006 the same team worked with a colleague from another university to completely revise the distance learning text. The new book (Cross et al., 2006) reflected the growing emphasis on continuous professional development in the health professions and also the development of ACE.

The professional development of practitioners for the educator role has therefore been a focus for much of my own postgraduate teaching in the last decade. I was also closely involved in the design and launch of the ACE scheme and have chaired the national steering group since its foundation in 2004. The CSP has now
recognised the accreditation scheme as a core element of its activity and it has recently transferred to be the responsibility of the Education Committee via its Quality Assurance and Enhancement Group (on which I now sit).

I approached this research as an academic staff member who is a physiotherapist, my focus is on physiotherapists (who may also be educators), and my professional experiences and involvement mean that my starting point is therefore not neutral. The reasons for this are that as a physiotherapist I have had first-hand experience of ‘treating’ countless patients who have needed to learn new knowledge or skills, and as an academic educator have listened to students’ stories and reflections about educating patients over the years. From these first (and second-hand) experiences it was my observation that as well as subject knowledge and skills, skills as an educator in the practice setting are also very much needed. It was also my observation that they are taken for granted, as if they are intuitive or develop automatically. My starting point in this study was therefore that I felt that physiotherapists have a wider role in educating learners (in this study the emphasis is on patients) than is currently recognised and that to do this effectively physiotherapists, and other health professionals, need some form of pedagogic preparation as part of their professional preparation.

1.3 Terminology used in the thesis

A wide range of terms relating to patient education are used in this thesis and can be found in the glossary (page xii). The context and derivation of some of the key terms will now be briefly explained.

The terms ‘health education’, ‘health promotion’ and ‘patient education’ are often used interchangeably in the literature. Health education:-

“comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving
knowledge, and developing life skills which are conducive to individual and community health” (WHO, 1998).

according to a glossary published by the World Health Organisation. A later WHO definition of health education seemed to omit the “skills” element and focus on knowledge:-

“education that increases the awareness and favourably influences the attitudes and knowledge relating to the improvement of health on a personal or community basis”. (WHO, 2009b).

The same organisation defined health promotion as:-

“the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions” (WHO, 2009a).

The roots of this definition on the WHO website can be traced back to the first international conference on health promotion which was part-sponsored by the WHO. The Ottawa Charter of 1986 was issued following this conference and called upon the World Health Organization and other international organizations:-

“to advocate the promotion of health in all appropriate forums and to support countries in setting up strategies and programmes for health promotion” (Ottawa Charter, 1986).

Health promotion is identified (WHO 2009b) as involving three major components - health education, service improvement and advocacy for policy changes. In this description it sets ‘health education’ within the context of ‘health promotion’.

The term ‘patient education’ is less clearly defined. Several writers offer definitions which share common elements. Coates (1999) definition was:-
“the planned combinations of learning activities designed to assist people who are having or have had experience with illness or disease in making changes in their behaviour conducive to health” (Coates, 1999, p.5).

Whilst Bastable (2008) defined patient education as:-

“a process of assisting consumers of health care to learn how to incorporate health-related behaviours (knowledge, skills and/or attitudes) into everyday life with the purpose of achieving the goal of optimal health.” (Bastable, 2008, p.632).

She noted that the term is often used interchangeably with ‘health education’. The definitions provided by these authors share much in common but do indicate some variation in emphasis and approach. The terms appear to be social constructs which may vary from profession to profession and evolve over time. Dreeben’s (2009) definition was the most recent at the time of writing, most inclusive and most relevant for the present study and eventually formed the basis for the consideration of the topic. Dreeben (2009) considered patient education to be “a significant component of modern health care” (Dreeben 2009, p.4) which includes clinical teaching and learning and health education. She defined it as:-

“a planned systematic, sequential, and logical process of teaching and learning provided to patients and clients in all clinical settings” (Dreeben, 2009, p.457).

She further noted that the health education component “concentrates mostly on wellness, prevention and health promotion” (Dreeben, 2009, p.4). This definition opens up patient education to incorporate health promotion (which in the WHO (2009b) definition subsumes health education) and seems to better reflect the intended focus of the present study.
1.4 Patient education and the global context

Patient education is not the preserve of any one professional group and “the development of patient education as a discipline and its foundation in scientific research is relatively new” (Hoving et al., 2010, p.275). The development of patient education has been traced from the early 1970s to the present time and across health professions. Hoving’s (2009) account, largely from the perspective of the medical profession, tracked the medical authority of the 1960s and 70s which was replaced by increasing patient engagement in decision making and promotion of their own health during successive decades. This shift was also associated with a growth of patients’ legal rights towards the end of the 20th century. As Deccache and van Ballekom, (2010) noted, the influence of the Council of Europe (1980) in “encouraging patients to self care” (Deccache and van Ballekom, 2010, p.283) was also associated with the growth of patient education. During this period there was also a dramatic growth in information technology including the development of the internet with its opportunities for the generation of electronic sources of medical information and advice, accessible to the wider community (Deccache and van Ballekom, 2010).

Deccache and van Ballekom, (2010) also discussed the impact of demographic changes which included a higher percentage of older people and increasing numbers from other cultures and religions. They linked this growth to the need to cut health costs and to increasing pressure from patient groups for better care and more ‘humanisation’ of care. The more recent concepts of ‘empowerment’, ‘participation’ and ‘alliance’ (between practitioner and patient) in health care in Europe is interpreted by Deccache and van Ballekom, (2010) as in part reflecting the economic interests of health policy makers and insurance companies as they drive for reduction in hospital length of stay and increased prevention of illness. They discussed the extent to which existing models of patient education may serve a social control goal, “aiming at social norms of behaviour and lifestyle” (Deccache and van Ballekom, 2010, p.269). They also called for “continued training of health
care professionals and managers, and patient organizations” (Decca and van Ballekom, 2010, p.286).

Elizabeth Dean, a Canadian physical therapist and educator has recently written about the opportunities in relation to health education (and health promotion) for physical therapy in the twenty first century (Dean, 2009a, 2009b). She noted that:-

“education that is tailored to the individual or to a group is perhaps the most important component of the expertise of the contemporary physical therapist to effect health behaviour change along with the individual’s motivation to effect such change” (Dean, 2009b, p.364).

She considered various health behaviour theories and their application in practice in depth but omitted, and perhaps took for granted, pedagogic knowledge and skills. Although the stated focus of the paper was ‘health education’ the author used the term ‘patient education’ (as in the quote below) suggesting that she regarded this as a synonymous term:-

“given health and health care priorities in the 21st century, patient education needs to be viewed as a distinct clinical competence and implemented in every interaction between an individual and a physical therapist.” (Dean, 2009a, p.345).

In the USA physical therapy has embraced the concept of patient education in a way that does not appear to have occurred in the UK. The American Physical Therapy Association (APTA) accreditation criteria have included the ability to apply basic educational concepts in the design, implementation and evaluation of learning experiences since 1978 (May, 1999). These were recently updated, in 2006 (APTA, 2006).
1.5 Patient education and the UK context

In the UK, patient education appears to have evolved more slowly than in the USA with differences of emphasis between health professions. Since the beginning of the decade, the Department of Health (DoH 2000a) has moved patient-centred care into greater prominence. This has included an emphasis on health promotion and ensuring patients have the necessary understanding and skills to manage or improve their own health. The document “Framing the contribution of allied health Professionals” (DOH, 2008b) consolidated the theme, stressing the need for health professionals to be involved with health promotion and for:-

“personal and responsive services that empower individuals and communities to manage their own health and enable them to live healthy lives” (DoH, 2008b, p.16).

This change in emphasis from a traditional, paternalistic, practitioner-centred approach to one in which the patient takes a more active part in self-care has major implications for physiotherapy practice and for patient education in the role of physiotherapists.

The context in which healthcare takes place is changing. Recent initiatives (e.g. DoH, 2006) mean that there is less concentration of services in acute settings, such as hospitals, and more emphasis on the provision of services in the community. The impact of this shift is largely unexplored but is likely to change physiotherapy practice with new ways of working, extended roles and greater autonomy at an earlier stage of practice development. This may lead to increased isolation for junior staff from physiotherapy communities of practice with the attendant loss of opportunities to learn from more senior practitioners, which has been traditional in large hospitals. Other recent initiatives targeted at the efficient use of resources are leading to earlier discharge from hospital and inevitably greater responsibility given to patients for their own care (DoH, 2003). This in turn will have an impact on how physiotherapy students need to be prepared for practice.
1.6 Physiotherapy education

The education of physiotherapists has evolved substantially since the profession was founded in 1884 as the ‘Society of Trained Masseuses’ (CSP 2010) and gained ‘chartered’ status in 1900. Since 1992 (CSP, 2010) physiotherapy has been an all-graduate profession with courses leading to qualification at BSc or MSc level validated by Higher Education Institutions (HEIs) and approved by the regulatory body – the Health Professions Council (HPC). Guidance for HEIs in relation to the curriculum content has also been issued by the professional body, the Chartered Society of Physiotherapy (CSP, 2002). This guidance included a recognition of the “increasingly important role in health promotion and education” (CSP, 2002, p.17). It included the statement:

“Physiotherapists play a broad role in health promotion, health education and self-care. This can extend to advising and teaching patients and clients, other health care professionals and support workers in order to provide a coherent approach to maximising individuals’ independence and well-being.” (CSP, 2002, p.19)

There is a short section on health education and promotion and a brief mention of learning teaching skills (CSP, 2002, p.49). While the CSP curriculum framework document has guidelines which have to be met to gain approval for the course, it is not clear how systematically these are evaluated. The HPC standards of proficiency (SoPs) are linked to registration as a physiotherapist in the UK. These standards set down requirements for the professions that are regulated. There is a specific SoP for each profession including physiotherapy. Analysis of the Physiotherapy Standards of Proficiency (HPC, 2010b) show detailed consideration of a spectrum of approaches to treatment, note the need for team working and leadershps skills but there is no mention of patient education or teaching skills. As these standards form the basis for periodic re-registration by all (50,000+) physiotherapists and together with the Standards of Education and Training (SETs) are the basis for successful validation
of qualifying courses this omission is probably highly influential. This may help to explain why so little is known about the scope of patient education in the UK and why physiotherapists’ attitudes and approach to an educational role is under-researched. It may also help to explain why planning of relevant training (either at pre-registration or post-registration level) is limited. This omission in the scope of practice for physiotherapists in the UK has obvious implications for standards of patient care and may limit the impact that physiotherapy as a profession can have in a time of changing emphasis in healthcare in the UK. In contrast analysis of the UK Nursing and Midwifery Council regulatory documentation (NMC, 2004) includes several references to an educational role including:

- “provide support and education in the development and/or maintenance of independent living skills” (NMC, 2004, p.28)
- “contribute to the application of a range of interventions which support and optimise the health and well-being of patients and clients” (NMC, 2004, p.30)
- “identify and respond to patients and clients’ continuing learning and care needs”. (NMC, 2004, p.30).

This chapter has provided an introduction to the motivation for the study, introduced terminology and has also set patient education within a UK and international context. In the next chapter relevant literature is reviewed.
Chapter 2

Literature Review

2.1 Introduction

In this chapter literature relating to patient education together with three key areas which formed a theoretical framework for the study is reviewed. This is followed by a statement of the research problem based on the literature review, presentation of the purpose of the study and research questions. The chapter concludes with the anticipated outcomes of the study.

Extensive literature searches were carried out during the period from March 2009 to the end of 2010. Potential sources included books, peer reviewed journal articles, index of theses and other information, for example government documents, accessed via the internet. When searching for peer reviewed articles online databases available on the University of Brighton online library website were used. These included Cumulative Index of Nursing and Allied Health Literature (CINAHL), Allied and Complementary Medicine (AMED) and British Nursing Index (BNI). A few articles had to be accessed in hard copy. The search strategy entailed selecting keywords and phrases and Boolean logic was used by combining search terms with AND, OR, NOT as necessary. Searches with terms specifically related to patient education (e.g. patient education, health promotion, health education, physiotherapy, pedagogy, teaching) were carried out in parallel with those addressing topics which were identified as important in terms of the theoretical framework (e.g. concepts of teaching, patient-centred care) of the study as well as extensive searches relating to research methodology. Search criteria included both qualitative and quantitative studies and were usually limited to post 1990 articles in the English language.

A search carried out in 2009 using Cumulative Index of Nursing and Allied Health Literature (CINAHL) with the term ‘patient education’ produced 26,000 results. However using ‘patient education AND physiotherapy’ only 106 results were produced. Most of these titles related to specific conditions and none related to
pedagogy of patient education. A CINAHL search using the term ‘health promotion AND physiotherapy’ gave 217 results. Searches using CINAHL, AMED and BNI with the terms “patient education AND pedagogy AND physiotherapy” did not yield any studies of direct relevance. This was also the case when “podiatry” was substituted for “physiotherapy”. A search in the Cochrane library database of systematic reviews using the term ‘patient education’ produced 141 results, ‘patient education AND physiotherapy’ gave 8 results (though it transpired that although all had some relevance not all of them related exclusively to physiotherapy) and ‘patient education AND pedagogy’ gave 0 results. A search of the Department of Health Website for ‘patient education’ yielded only 3 results, all three related to diabetes education including a DoH paper (DoH, 2005a) which set out comprehensive guidelines based on those used in the USA for patients with diabetes. Using the term ‘health education’ on the Department of Health website produced a series of publications (including DoH, 2004a; DoH, 2004b; DoH, 2005b; DoH 2005c) signalling health education as a high priority. In response to recommendations in these documents various health competency frameworks have emerged which relate to particular patient ‘care pathways’ including the diabetes framework referred to above (DoH, 2005a).

Appraisal of sources began by sifting for relevance of the title of articles to the areas of interest. For those which seemed relevant abstracts were then accessed. Full articles were then downloaded or acquired in hard copy if appropriate to the study. Sources which were based on research studies were critically appraised and some critique is included within the literature review in this chapter. Because of the paucity of research in relation to “patient education and pedagogy” (particularly linked to physiotherapy) methodological deficiencies, noted in a small number, were not a prime concern when studies were thought to be informative. A structured review of key research-based sources relating to patient education and pedagogy and areas providing theoretical underpinning for my research is presented in appendix 11 using a format adapted from that in Thorpe et al., (2009).
2.2 Patient Education

There is a substantial body of literature relating to patient education in nursing, particularly from the USA, including a range of textbooks (e.g. Coates, 1999; Rankin et al., 2005; Bastable, 2008) and journal articles (e.g. Saarmann et al., 2000; Syx, 2008). Bastable (2008) wrote an educational textbook for nurses in which she included extensive recommendations for future research relating to patient education. Among these recommendations she noted that “few studies have examined nurses’ perceptions about their role as educators in the practice setting” (Bastable, 2008, p.19). This is perhaps surprising given the emphasis that there appears to have been on patient education in the USA in recent times.

In physiotherapy (or physical therapy) research relating to the concept of ‘patient education’ has predominantly emanated from the USA, with a number of recent publications being indicative of its high profile in that country. A comprehensive textbook aimed at Physical and Occupational Therapists (Dreeben, 2009) traced the historical development of patient education in the USA and suggested that practice as a patient educator is well established there. The author acknowledged “the requirement for the health-care practitioner to act as an educator as well as an expert clinician” (Dreeben, 2009, p.xvii) as a patient-centred approach to care gains prominence.

Jensen et al. (1990, 1992, 1999, 2000) in a series of studies, explored the concept of expertise in physical therapy practice and Resnik and Jensen (2003) later built upon this work. A theme that ran throughout the studies was that patient education was central to expertise. The expert therapists in the Resnik and Jenssen (2003) study were distinguished by:-

Physiotherapists’ identity was studied by Lindquist et al. (2006) in a phenomenographic study with graduating physiotherapists in the UK and Sweden. The perceptions, of their role, practice, vision, belief and scope of practice were explored and three different categories of professional identity were presented. These were ‘treater’, ‘educator’ and ‘empowerer’. The characteristics of each category were given together with illustrative quotes from participants. This is one of few studies which has addressed UK physiotherapists’ educator role.

Although there are relatively few studies with patient education as a primary focus there is a growing body of literature across health professional contexts which refers to patient education as a treatment intervention. In these studies ‘patient education’ is often used as a generic category to be compared against a treatment intervention of interest to the researchers. As discussed earlier there is variation in the way that the term is defined and this is true of many studies in which it is included. This problem can be illustrated by comparing the 3 (out of 8) relevant Cochrane systematic reviews referred to in the last section. The following are the operational definitions of patient education from these reviews.

“Education could be given verbally or in any written or audiovisual form, and could include pre-operative instruction of postoperative exercise routines “(McDonald, 2004, p.3).

“Any advise (sic) or information (verbal, written or audiovisual) given by a health care professional in order to improve patients’ understanding of their back problems and what they should do about them. Studies on advise (sic) to stay active were included, studies on instructions on how to perform exercises were not included.” (Engers, 2008, p.4)

“Any learning experience intended to influence consumer health knowledge and behaviour” (Haines et al., 2009, p.3).
The first of these reviews (McDonald, 2004) included ‘instruction’ in exercises as well as other verbal or written forms in their review of 24 studies into pre-operative education for hip or knee replacement. The authors concluded that “educating and informing patients pre-operatively without considering individual needs is not sufficient to improve postoperative outcomes” (McDonald, 2004, p.8). In the study of low back pain by Engers (2008), referred to above, their definition of patient education limited their criteria for inclusion to ‘advice and information’ and instructions on how to ‘perform’ exercises were not included. The study by Haines et al. (2009), also referred to above, into patient education for neck pain, provided an open definition which might have included a range of educational interventions. In this study full consideration was given to the type of educational intervention and included individual and group teaching but there was no consideration of the skills of the therapist providing the educational intervention. They concluded that there was “no strong evidence for the effectiveness of educational interventions in various neck disorders” (Haines et al., 2009, p.13). Whether this is because of the methodology of the review, the variations in the strategies employed in the articles that were included, or a lack of pedagogic skills of therapists is not known.

Another study reviewed as part of the Cochrane search (Deane et al., 2001) did not define ‘patient education’. They did however note that they regarded education as central to this aspect of physiotherapy practice:-

“the purpose of physiotherapy in Parkinson’s disease is to maximise functional ability and minimise secondary complications through movement rehabilitation within a context of education and support for the whole person” (Deane et al., 2001, p.3).

Given the importance attached by the NHS, and other stakeholders, to the systematic reviews which are part of the Cochrane data base, there is still considerable variation in how ‘patient education’ is defined. The validity of such systematic reviews might also be questioned when the working definitions upon
which their methodology is based is limited, historical or does not reflect current practice. It is also of concern that ‘education’ in various guises is implicitly acknowledged within such reviews (and associated studies) as part of practice with patients there is little recognition of this in regulatory guidelines.

Patient self-management formed a focus for a study by Cooper et al. (2009). Their narrow definition of ‘traditional patient education’ - the provision of information and technical skills – and an apparent underlying assumption that self-management strategies are not traditionally part of the educational role of a physiotherapist limits the impact of their study. It also raises the possibility that the participants in this study may not have benefitted from a patient-centred approach to any education they did ‘receive’.

A recent study carried out in the USA (Rindflesch, 2009) relating to physical therapy practice and patient education identified this as a critical and frequently used component of practice but noted that “research describing the practice of patient education in physical therapy is scarce” (Rindflesch, 2009, p.193). This qualitative, grounded theory study identified common themes and concluded that there was a need for additional research and comparison in other locations. The study provided rich description of the patient education practice of nine participants and formed a useful springboard for my proposed study with UK physiotherapists in one HEI.

2.3 Patient education and health behaviours

Literature relating to patient education frequently focuses on a range of health behaviours rather than pedagogy. Some authors, for example Syx, (2008); Bastable, (2008); Dreeben, (2009), set the practice of patient education within a theoretical basis which provided the framework for determining (health behaviour) approaches to education for each individual patient. An understanding of the complex factors likely to influence a patient’s health choices is widely viewed as necessary in order to influence compliance and adherence with treatment. The main features of some key models are listed in the table 2.1.
Whilst there are relatively few physiotherapy publications focussing on the pedagogy of patient education there is a body of literature relating to health behaviour models with a theoretical basis of one or more of the theories above. Some relevant studies will now be reviewed. In doing this I have been conscious of the chronology of publications whilst clustering those with a specific health behaviour focus, and draw on relevant studies from a range of health professions but focus predominantly on physiotherapy publications.

<table>
<thead>
<tr>
<th>Model</th>
<th>Author</th>
<th>Date</th>
<th>Main features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive dissonance theory</td>
<td>Festinger</td>
<td>1957</td>
<td>Dissonance refers to the stress or discomfort when current behaviour differs from what patient believes (e.g. continuing to smoke when they know it is harmful). Desire to change is associated.</td>
</tr>
<tr>
<td>Health belief model</td>
<td>Hochbaum</td>
<td>1992</td>
<td>Individual perceptions of severity susceptibility and threat of illness, and benefits and barriers, are linked to probability of taking preventative action.</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>Rotter</td>
<td>1954</td>
<td>Health behaviour internally (self) directed or externally controlled (higher force, fate, practitioner).</td>
</tr>
<tr>
<td>Self Efficacy model</td>
<td>Bandura</td>
<td>1977</td>
<td>Degree of self-belief in terms of competency and capability in relation to certain behaviours is a predictor of outcome.</td>
</tr>
<tr>
<td>Trans-theoretical model of change</td>
<td>Prochaska and Di Clemente's</td>
<td>1982</td>
<td>Health behaviour change moves through a series of stages: pre contemplation, contemplation, preparation, action and maintenance.</td>
</tr>
<tr>
<td>Health promotion model</td>
<td>Pender</td>
<td>1996</td>
<td>Success influenced by complex mix of personal, interpersonal, situational, perceived benefits, self efficacy, and current competing demands and preferences.</td>
</tr>
</tbody>
</table>

Table 2.1 Some key health behaviour theories.
Watson (1996) issued a clarion call to the physiotherapy profession to encourage self-responsibility through research based self-directed intervention strategies. He cited studies by Stankovic and Johnell (1990, 1995) into the 'McKenzie’ approach to back pain and concluded that the public was ready to take responsibility for management of neuro-musculoskeletal disorders when given the opportunity and linked this to ‘internal locus of control’. Although these studies by Stankovic and Johnell (1990, 1995) compared the McKenzie techniques (which themselves include the teaching of self-help exercises) with ‘education’ they do nevertheless support his argument. Although Watson (1996) had not taken the opportunity to specifically identify ‘education’ as key in terms of greater patient self-responsibility he concluded that “the concept of therapists and patients as equal and active partners” was fundamental to the approach we should be adopting. (Watson, 1996, p.356).

An American study published by Saarmann et al., (2000) relating to nurses’ role in patient education used the trans-theoretical model of change, referenced to Prochaska (1992), to propose the use of motivational interviewing and cognitive behavioural approaches in the promotion of health related behavioural change. By this integration of methods Saarmann et al., (2000) proposed that the style of patient education used by practicing nurses could be improved. The Saarmann et al., paper was theoretical but Sheedy et al., (2000) writing in the same year used a controlled trial with 204 subjects. In this study the trans-theoretical model of change was again the focus for introducing stage-based aims and content for exercise promotion by physiotherapists. It involved an intervention, described as an “educational intervention which was delivered by physiotherapists and consisted of behavioural counselling, information brochures and a physical activity diary” (Sheedy et al., 2000, p.282). Self-reported physical activity was measured at baseline and six weeks later. In this trial results for the patient participants were disappointing with no significant difference evident between groups of patient participants although pre and post-surveys of the physiotherapists involved had suggested that participants’ confidence and knowledge with regard to physical activity promotion had improved.
Although the models proposed by Sheedy et al., (2000) and Saarman et al., (2000) could have wider application across a variety of health professions with a role in patient education, pedagogic considerations, other than transmission models in the Saarman et al., (2000) article, are absent from both of these reports. The absence of this consideration in the Sheedy et al. (2000) study and the narrow definition of “educational intervention” could have contributed to the lack of significant results between the intervention and control groups.

Simm (2002) discussed the importance of physiotherapists’ involvement in health education in relation to cardio respiratory physiotherapy and considered it to be “a highly appropriate role” (Simm, 2002, p.294). Education was described in terms of advising, explaining, instructing, teaching behaviours and patient empowerment was seen as key. In order to achieve these goals he stressed the importance of communication skills and factors associated with health behaviour change models including locus of control and trans-theoretical model of change. Stanton and Jull (2003) also focussed on locus of control but this time in relation to outcome of treatment involving physiotherapy modalities for headache. Finlayson and Rourke (2006) later based a correlational study with patients with hemiplegia undergoing physiotherapy on ‘locus of control theory’ and its link to motivation. Teaching approach was not explicitly considered in these three sources.

Hammond (2003), an occupational therapist, discussed how “a range of patient education and motivational approaches could be integrated into clinical practice to help people make behavioural changes to benefit their health” (Hammond 2003, p.84). She concluded that rheumatology health professionals needed to “to develop skills in motivational interviewing, effective teaching and integrating behavioural approaches into education” (ibid, p. 95). Although the need for health professionals to develop skills in effective teaching was identified the article concentrated on other aspects which are not relevant to the present study.
A study by Smith et al., (2005) investigated compliance of elderly patients with an exercise programme. The two experimental groups were taught simple exercises by a physiotherapist and instructed on daily frequency and number of repetitions. One of the groups in addition received an exercise sheet as a reminder. The exercises had been taught using “verbal description and physical demonstration by the physiotherapist” (Smith et al., 2005, p.96), they were then corrected until they could have produced a perfect score on the exercise assessment scale. They were told that the exercises were important and that they should be done every day. Potential subjects found to have poor memory scores had been screened out. When asked to demonstrate the exercises two or three days later there was no significant difference between the two groups in the ability to recall the exercises. The authors concluded that older patients “do not remember exercises effectively after a single teaching session” (Smith et al., 2005, p.93) and they “clearly required a higher level of supervision and repeated teaching in order to remember the exercises” (Smith et al., 2005, p.99). This conclusion seems to reflect a behaviourist, physiotherapist-centred approach to education. The inclusion of the sheet of exercises in the appendix showed that improvements could have been made to the written instructions to better meet the needs of the older age group involved. In addition there is no way of assessing the quality of most of the ‘teaching’ or its relationship to relevant pedagogic concepts.

Scobbie et al., (2009) carried out a review of the literature relating to theories of behaviour change. Their article was particularly aimed at goal setting and achievement in health rehabilitation settings. They identified three theories of behaviour change which they found to be key: Social Cognitive Theory (specifically the self-efficacy component); Goal Setting Theory; Health Action Process Approach. In discussing application there was no consideration of teaching approach though they did acknowledge that this was a first step towards the intended development of a goal-setting practice framework.
All of these studies focussed on ‘health behaviours’ with little consideration of the pedagogic knowledge, skills and approach of the health professions concerned. The next section reviews studies which have paid more attention to pedagogy.

2.4 Patient education and pedagogy
Learning theories and their application or potential application in patient education have recently been addressed by several USA based authors (Smith, 1999; Bastable, 2008; Dreeben, 2009). The characteristics of behaviourist, cognitive and constructivist educational approaches were considered by each of these authors with Dreeben (2009) relating the models to aspects of patient education. She considered that passive approaches to learning sometimes linked to behaviourist transmission models have given way to active learning whilst didacticism has been replaced by facilitation of learning. Patient-centred approaches have replaced practitioner-centred approaches, with empowerment of the learner regarded as preferable to models of transmission (Dreeben, 2009). If correct the paradigmatic and methodological transitions in the health sector have perhaps echoed those in the education sector. That is not to say that there is a particular consensus in terms of approach any more than exists within education. However, little is known about UK physiotherapy practitioners’ approach to patient education and it may be that this is generally more often informed by raw experience and ‘gut instinct’ (as was suggested in my earlier study) rather than engagement with the evidence base and theory.

A relatively small number of studies have focussed on pedagogical aspects of patient education. The review which follows identifies relevant studies but the paucity of research in this area in the UK relating to physiotherapy means that most research has been either USA based or linked to other health professions. Again some consideration will be made of chronological sequence whilst recognising that later studies were not necessarily influenced by earlier ones.
The educational strategies used by physicians in their practice with patients in the USA were the focus of a study by McCann and Blossom (1990). They advocated the application of androgogic principles built on the work of Knowles (1985) to encourage ‘adherence’. While they were critical of pedagogic approaches in which “the relationship between the teacher and learner is based on authoritative expertise” (McCann and Blossom, 1990, p. 44) they promoted an androgogic approach “because the results of adherence research confirm the usefulness of this approach” (ibid, p. 44). This is somewhat ironic in that adherence (often referred to as compliance) and associated with a paternalistic approach apparently remains the goal. The authors did however recognise a need for patient education to be based on educational theory and made a case for the adoption of methods that facilitate the active involvement of patients in decision making processes consistent with androgogy.

Chase et al. (1993) carried out a quantitative study with physical therapists in the USA and developed a questionnaire based on a small sample of structured interviews to assess participants’ perceptions regarding involvement in patient education. Based on 200 responses their results showed that 87% reported that they had a teaching role with 80-100% of their patients. Although therapists regarded patient education as an important part of their practice with patients and agreed they were involved in some way, only 22.5% of respondents reported using active (as opposed to passive) approaches to patient learning. The researchers identified a need for better development of patient teaching skills. This study together with previous quantitative studies by US authors demonstrated positive attitudes (Sotosky, 1984) and a high level of involvement in patient education but inadequate preparation for the role (May, 1983).

In the Netherlands Sluijs (1991) studied patient education behaviours of physical therapists by audio taping 227 treatments of 25 patients by 6 physical therapists. She counted the number of “informative” statements given per treatment session. Gahimer and Domhaoldt (1996) later extended this work to therapists in the USA, in
a largely quantitative study, to investigate the amount and perceived effects of patient education. They concluded that “provision” of information, instruction and advice about their current illness predominated and therapists were rarely “providing” information about general health and health promotion topics. The language used in these studies reflects the passive, therapist-centred approach which may have been the accepted model at that time.

A study relating to ‘adherence’ (Kerssens et al., 1999) with physiotherapists in Holland recognised the role of physiotherapists in patient education and also their lack of preparation for this role. Psychotherapists were used to train a group of physiotherapists “to improve their communication skills and the transfer of their adherence enhancing skills” (Kerssens et al., 1999, p. 167). This quantitative research attempted to measure “the dosage of educational activities” (ibid, p.173). It yielded a mass of data but had procedural and analytical limitations, some of which were recognised by the authors. The article seems to illustrate some of the excesses of the positivist paradigm in educational research evident at that time.

Trede (2000), an Australian physiotherapist, noted that “possession of even the most up-to-date and complete professional knowledge will not guarantee that it will be conveyed to patients in a meaningful manner” (Trede, 2000, p. 427). She carried out a pilot study into physiotherapists’ educational practice with patients with low back pain. This study with 8 physiotherapists purported to use a grounded theory approach but there was insufficient methodological information to be certain. The author discussed the dichotomy between a therapist-centred and patient-centred patient education. She concluded that an experience–based model, perhaps drawing on progressive learning theory might lead to greater patient independence and responsibility. Progressive learning theory she noted is based on Dewey’s work and sources such as Boud et al., (1993) which have suggested the value of experience counter-posed with something external to the learner to create meaning. In relation to the present study this could equally apply to the patient or the practitioner as learner. Trede (2000) concluded her study by calling for more
research “to ensure that physiotherapists become more informed educators and more effective healthcare practitioners” (Trede 2000, p.432).

Friberg and Scherman, (2005) argued for an expanded meaning of compliance in relation to health. They noted and challenged the paternalistic connotations of both the terms compliance and adherence and their links to the biomedical perspective and behaviourist tradition, aimed at getting the patient to obey. They suggested that the terms could be enriched by the addition of a “patient-centred teaching and learning perspective” (Friberg and Scherman, 2005, p.278). They also argued that “health professionals need pedagogical knowledge to meet the patient, not as a compliant but as a learning person” (ibid, p.278).

According to Anderson and Funnell (2005) “health professionals are socialised in a paradigm derived from acute illnesses”…in which…"patients surrender varying amounts of control” (Anderson and Funnell 2005, p.153). In attempting to move away from a compliance model Anderson and Funnell (2010) sought to clarify the concept of patient empowerment (in relation to diabetic patients). Rather than being an approach in which the patient is externally motivated (the health professional wants the patient to exercise) it is an approach which seeks to increase the learner’s freedom and autonomy and make informed decisions (linked to internal motivation). The concept of empowerment builds on work by Freire (1972), from his publication “Pedagogy of the Oppressed”, and was promoted by Funnell et al., (1991) in the context of diabetes education. Instead of focussing on increasing compliance the focus of Anderson and Funnell (2010) was on “increasing the capacity of the patient to think critically and make informed decisions” (Anderson and Funnell 2010, p.278) and has similarities with the work of Friberg and Scherman (2005) noted above. It involved working with patients to support and facilitate reflection on their experience of living with a condition, leading to enhanced awareness of consequences of their self management decisions (i.e. not persuasion). The autonomy encouraged through this approach seems to have parallels with student-centred learning approaches (for example problem based learning - PBL) where life-long responsibility for learning is
promoted. Barrett et al. (2005) have previously identified the relationship between Freire’s (1972) philosophy and PBL.

Two studies were recently carried out in Sweden related to nurses’ role in patient education. Danielson et al. (2007) found that nurses’ preparation for roles such as informing and advising on health was decidedly inadequate. Whilst (Ivarsson and Nilsson, 2009) concluded that nurses (in Sweden) “need education to develop their pedagogic skills, which in turn will ensure high quality health care” (Ivarsson and Nilsson, 2009, p. 514).

A review of studies of patient-centred asthma education was carried out by Smith et al., (2007). They identified that although asthma education was well established the main emphasis was on behaviour change rather than on the education process. They suggested that the move to more patient-centred approaches to care challenges healthcare professions to re-evaluate the pedagogy of the asthma education programmes they deliver. They followed this review by a quantitative study with asthma patients (Smith et al., 2008) in an Australian emergency department and tentatively concluded that a learner-centred approach to education, which included allowing patients to prioritise the order in which they received information topics “offered more promise” (Smith et al., 2008, p. 990) than “standard” patient education. This strategy was based on a belief that health professionals are influenced by their own experience of education in the way they sequence information for patients and that this is not patient-centred and may not be the most effective way.

Perreault (2008) identified a greater need for integration of health promotion in physiotherapy but feared that physiotherapists may not be adequately trained for this aspect of practice. In addition she raised the broader issue of the need for physiotherapists to reconceptualise health and their role with the people who consult them and who are traditionally labelled as patients. As part of this literature review she identified key conceptual and practical issues which included individual
empowerment which requires enhanced understanding if physiotherapists are to move away from the passive recipient model of practice.

In a qualitative study set in Sweden Hult et al., (2009) regarded “care and education as having much in common and work in the healthcare sector” as being “closely associated with learning and teaching” (Hult et al., 2009, p.1). Their study aimed to describe the pedagogical discourse of participants (physicians, nurses and occupational therapists). The results suggested that there is a strong need to support the development of pedagogic professional knowledge of healthcare professionals. They noted that their participants commented that it was rare to talk about this aspect of practice. Whilst clinical aspects of health professions roles are frequently discussed pedagogic aspects “seem to be mostly left to the individual” (Hult et al., 2009, p. 8) with lack of support for pedagogic development and therefore little opportunity for updating and reflection leading to a pedagogical discourse that is almost silent or tacit. More explanation of the methodological approach to this study would have been beneficial to facilitate judgement of its value.

Although there has been little research in the UK into this aspect of practice, Harrington et al., (2010) carried out an evaluation of a community-based exercise and education scheme for stroke survivors using a control and intervention group. A key component of the intervention group was that lay trainers were taught exercises by physiotherapists that could then be applied with subjects. While this method reduced physiotherapy interventions to a formulaic, one size fits all approach; it also demonstrated the evolving responsibility of physiotherapists for educating others. In this study the results for the intervention group were deemed superior to the control group who received ‘standard’ care. In this case standard care was not well described but seemed to have consisted of two contacts with each patient in a six month period by a stroke co-ordinator which involved ‘giving’ information.

Although it was not possible to locate any studies carried out with physiotherapists in the UK with regard to an educator role with patients, an article by Kell and Jones
(2007) has given some insight into the pedagogic approaches that physiotherapy educators may adopt with their students during placements. A large quantitative study surveyed all potential clinical educators in Wales (266), 141 responses were received which included completion of “Lecturers Conceptions of Teaching and Learning Questionnaire” (Gow and Kember 1993) and “Trainer Type Inventory”. The results showed a preponderance of a transmission (rather than facilitation) model of teaching. They concluded that when they were busy, inexperienced or poorly motivated clinical educators in the study had a tendency to fall back to their ‘comfort zone’ which may involve drawing on approaches they experienced as students. This was viewed as potentially problematic by the authors in that it may be at odds with the contemporary aims of the pre-registration curriculum which seeks to foster student responsibility for their own learning. There are some parallels between this study and the present study. The physiotherapists in the study by Kell and Jones (2007) would also have had responsibility for patient education. It could be hypothesised that their approach to patient education would also follow the predominantly transmission model evidenced in their work with student learners but this was not a focus of their study nor was it discussed in their article and so cannot be assumed. This study (Kell and Jones, 2007) and other similar studies illustrate the importance of facilitatory approaches in the primary education of physiotherapists and other health professionals. In this way not only is student-centred, active learning encouraged for the students themselves but may also translate to a similar approach to patient education.

The study by Kell and Jones (2007) focussed on physiotherapy educators’ role with students, and whilst it cannot be assumed that the same strategies translate into their practice with patients this provides a fascinating avenue for further exploration. By introducing me to the literature on concepts of teaching it opened up an area which provided one of three foci for the theoretical framework of this study. The other two being patient-centred care and socio-cultural theory. They each provide a lens through which the findings of his study will later be viewed and discussed. In the next section literature sources relating to these concepts are reviewed.
2.5 Theoretical framework

During the review of literature three areas emerged which have been identified as key to the present study. Concepts of teaching, patient-centred care and socio-cultural theory each provided a different lens or way of looking at patient education. A short review here will be followed later in the thesis by discussion of the findings relating to each.

2.5.1 Concepts of teaching

‘Concepts of teaching’ formed the basis for the study by Kell and Jones (2007) referred to above. There is a body of literature from the last two decades (for e.g. Dall’Alba, 1991; Samuelowicz and Bain, 1992; Gow and Kember, 1993; Kember, 1997) which has developed the notion of concepts of teaching. Devlin (2006) drew on work by Pratt (1992) and Kember (1997) in defining conceptions of (university) teaching as “specific meanings attached to university teaching and learning phenomena, which are claimed to then mediate a teacher’s view of and responses to their teaching context” (Devlin, 2006, p. 112). A series of studies which took place between 1991 and 1997 and which formed the basis for a review by Kember (1997) provided a possible theoretical framework for analysis of elements of the data in the present study.

Kember (1997) reviewed 13 articles which had explored teachers’ conceptions of teaching. He noted that variation in terminology (terms such as ‘beliefs’, ‘approaches’ and ‘intentions’ were often used synonymously) was felt to have been an impediment to research in this area. In most of the studies that he reviewed conceptions of teaching were represented by several categories. Kember (1997, p.260) included a table in which, despite wide variation in specific wording from the different authors, there was a spectrum ranging from more teacher-centred to more student-centred concepts. A study by Samuelowicz and Bain (1992) was included in the table. They suggested that a hierarchy exists with characteristics present in lower categories being present in those above and talked of a continuum of
concepts. Prosser et al., (1994) referred to a spectrum of concepts with “two strongly contrasting sub-sets……. The first might be described as a transmission and acquisition category and the second a conceptual development and change category” (Prosser et al., 1994, p. 228). In a similar way Kember (1997) summarised his review of concepts of teaching under two main headings (or orientations):-

- teacher-centred/content-orientated
- student-centred/learning-orientated

An additional, intermediate conception, student-teacher interaction was identified as providing a link between the two main orientations. As Kember (1997) noted, in many of the studies there is “an implication that is often made explicit, that the conceptions towards the student-centred end of the continuum are superior” (Kember, 1997, p.261).

Richardson (2005) traced the evolution of teachers’ approaches to teaching. He drew heavily on Kember’s (1997) study in identifying a student-oriented, learning-oriented approach as superior to a teacher-centred, content-oriented approach (the former often seen as an evolution of the latter). Richardson’s (2005) conclusions included the identification of a model of approaches to teaching influenced by “conceptions of teaching and perceptions of the teaching environment” (Richardson, 2005, p.673). The former varying between disciplines and related to teachers’ beliefs about the nature of the subject they are teaching and the latter potentially influenced by situational factors such as attitudes of senior staff. He highlighted the importance of ensuring that teachers’ student-centred approaches were matched by commensurate concepts of teaching and suggested that contextual factors (such as students’ preference for didactic teaching and criticism of new methods by senior staff) “tend to frustrate teachers’ intended student-centred approaches to teaching” (Richardson, 2005, p.678).

While authors such as Richardson (2005), Gow and Kember (1993) and Kell and Jones (2007) seem to point to the superiority of one approach over another (facilitatory rather than transmission approaches), other authors (Jarvis, 2006;
Banning, 2005) point to teaching as art and science and the advantages of diverse styles and flexibility of their application. Whether particular approaches are superior to others or flexibility and diversity of approach are key it seems essential that physiotherapists are able to make an informed choice of approaches based on firm concepts when educating patients. There has been a ‘chicken and egg’ discussion for some time about whether changes in conceptions of teaching must come before changes in practice or vice versa. Until further evidence is available Kember (1997) suggested that trying to improve the quality of teaching by focussing upon approaches (methods) might have little impact and concluded that “real changes in teaching quality are only likely to be brought about by changes in the beliefs about teaching of faculty” (Kember, 1997, p. 273). This view of the primary importance of concepts of teaching is widely held, but Devlin (2006) took a critical stance on previous studies in calling for more research “to determine more precisely the part that CoTs (concepts of teaching) play in the process of teaching improvement” (Devlin, 2006, p.118) for university teachers.

While the precise details of preparation may vary, in recent years the need for university academic staff to demonstrate more than professional subject expertise in order to be considered as suitable educators has been seen in the move to professional recognition with the Higher Education Academy. This development of a framework for professional standards for teaching and supporting learning in higher education was proposed in the White Paper The Future of Higher Education (DES, 2003). It specifically called for “accredited training for all staff” with “all new teaching staff to receive accredited training by 2006” (DES, 2003, p.46). In response to this the Higher Education Academy was invited to consult with the higher education sector to develop a relevant framework. Since 2006 all new academic staff in higher education have been required to complete an accredited programme (HEA, 2006). There is no similar national requirement for health professionals with educator roles in practice settings (with students, patients or others) to undertake pedagogic development but the professional body accreditation schemes, such as ACE, (launched in 2004) referred to earlier do provide an option for certain allied health
professionals to engage with. In addition the PGC in Clinical Education which was the focus of this study has gained approval from the HEA and all graduates are eligible for registration as Fellows of the HEA.

The recent Browne review of higher education included the following:-

“It will be a condition of receipt of income from the Student Finance Plan for the costs of learning that institutions require all new academics with teaching responsibilities to undertake a teaching training qualification accredited by the HE Academy, and that the option to gain such a qualification is made available to all staff – including researchers and postgraduate students – with teaching responsibilities.” (Brown report, 2010, p.45)

It is perhaps surprising that subject expertise alone has been the basis for employment of academic staff in HEIs in the past. It remains to be seen whether healthcare staff who educate students on placement (and patients) will be included in a requirement to meet standards of teaching and learning at some point in the future.

2.5.2 Patient-centred care

Patient-centred care provides the second of the three theoretical frameworks or lenses for the present study. Since the publication of the NHS plan (DoH, 2000) there has been an increasing emphasis on ‘patient-centred care’ (PCC) in the UK. The concept of patient-centred care is complex and there is no one accepted definition. Stewart (2001) suggested that “It may be most commonly understood for what it is not—technology centred, doctor centred, hospital centred, disease centred” (Stewart, 2001, p.444). Cooper et al., (2008) attempted to bring some clarity about PCC from the patients’ perspective in relation to physiotherapy management of low back pain. In their study they demonstrated variation across several PCC models which were derived from different professions (nursing, occupational therapy and medicine), using different methods. Cooper et al., (2008) provided an additional model, from the patients’ perspective. One of the models with which they compared their own model with was that of Mead and Bower (2000). They (ibid, 2000) had proposed five key dimensions of patient-centred approaches
which related to doctors’ practice with patients: “a Biopsychosocial perspective; ‘Patient-as-person’; Sharing power and responsibility; The therapeutic alliance; The ‘doctor-as-person’ “(ibid, p. 1088).

Using the Mead and Bower (2000) dimensions as a guide there has been some evidence to suggest that physiotherapists’ practice is not always patient-centred. For example, Daykin and Richardson (2004) carried out a grounded theory study of physiotherapists treating patients with low back pain. They noted that the physiotherapists in the study adopted biomedical rather than biopsychosocial approaches with their patients and suggested that transition to such an approach would be beneficial for the patient, therapist and the NHS.

Pelzang (2010) has recently carried out a literature review of the definitions, methods and models of patient-centred care (PCC). In the conclusion he suggested that PCC is “understood to be a healthcare system which considers patients as a whole person with biological, psychological and social needs” (Pelzang, 2010, p.916). An academic physiotherapist, in an online research journal editorial about PCC, recently wrote “Although much work remains to be done in this field, there is potential for collaboration across all health professions in developing educational experiences which facilitate the journey towards patient-centred practice” (Roskell, 2009). Despite its complexity the notion of PCC is seen as a desirable approach in healthcare in a similar way to ‘student-centred’ approaches to education. It presents another lens through which to frame my study.

2.5.3 Socio-cultural learning theory
Socio-cultural learning theories stem from the work of Vygotsky. His ideas of human development emphasise the influence of social and cultural forces and form the third theoretical framework for aspects of the discussion in this study. Vygotsky (1978) introduced the concept of the zone of proximal development (ZPD) by relating child development to their relationship with parents or other adults who could ‘stretch’ them through giving support and working alongside them. The notion of ‘scaffold’
learning is linked to ZPD. In the current context this could be understood as the space within which a physiotherapist’s pedagogic knowledge and skills develop with the support and guidance of more experienced patient educators in practice. It could also apply to the physiotherapist’s interaction with patients as learners.

Several authors have built on Vygotsky’s ideas and help to explain how cognitive learning and the development of skills, including those of a patient educator, might take place. Examples include Engestrom’s (1987) activity theory, Lave and Wenger’s (1991) situated learning, and Wenger’s (1999) communities of practice. A common thread between socio-cultural approaches is a focus on learning occurring through social interaction with an emphasis on semiotic (or language) mediation of learning with a particular emphasis on speech (e.g. Wertsch, 1991). Activity theory and communities of practice help to set physiotherapists’ practice in a socio-cultural context in the present study. These will now be briefly considered in relation to physiotherapists’ role and potential development as patient educators.

Engestrom’s (1987) activity theory has been used to form the basis for the investigation of the various factors (social, cultural and historical) which underpin activity or functioning. It provides a framework which can aid understanding of human activity as a socially situated phenomenon. Rather than being seen in isolation, use of this model permits greater understanding of the complex interactions between individuals and the cultural, social and historical setting in which they operate, in learning and development. In figure 2.1 the physiotherapist may be the subject with the object and outcome may relate to patient education but the two do not operate in isolation. The tools employed to meet the outcome together with the wider community of staff in the locality and the rules of professional conduct all impact on the activity. This model will be considered again in light of the findings in chapter 5.
In Lave and Wenger’s (1991) notion of “situated learning” social interaction is a critical component to learning and engagement with a ‘community of practice’ is key. Communities of practice (CoP) have been defined as:-

“groups of people who share a concern, a set of problems or a passion about a topic, and who deepen their knowledge by interacting on an ongoing basis. Wenger” (2002, p.4)

Traditionally in physiotherapy culture physiotherapists working in particular specialties (for example hydrotherapy, manipulative therapy, and neurology) have been able to join Chartered Society of Physiotherapy (CSP) special interest groups (SIGs). Although physiotherapists and their co-workers in particular settings may be seen as a community of practice with regard to patient education there is currently no SIG specifically based on practice as patient educators. In the past the concentration of large groups of physiotherapists in acute trusts (hospitals) has also provided ready-made communities of practice with opportunities to share and
discuss practice. With the move to increasing emphasis on practice in community settings this may change. Loftus (2010, p.42) has noted that “communities of practice have been around for a long time” but the concept and importance has only been recognised relatively recently. He also noted the danger of specialist practitioners being isolated “in silos where they can find it difficult to share problems and insights into practice” (Loftus, 2010, p.42). Wenger (2002) acknowledged that the members and the knowledge they bring to a group are the CoPs most valuable resource, but also noted the benefits of looking externally to understand the other possible ways of achieving learning goals. Loftus (2010) suggested that of particular interest for the future is how people negotiate their way through many different CoPs that they are part of.

The lens provided by these facets of socio-cultural theory (communities of practice and activity theory) aid the focus of my study on physiotherapists’ practice and will form the basis for further consideration as part of the discussion.

2.6 Summary of the literature review.
In recent years the educational role of health professionals with patients and their carers has grown in prominence in some countries (most notably the USA and parts of Europe), in certain health professions (most notably nursing), and with regard to certain pathological conditions (for example diabetes). Several key articles (e.g. Jensson, 2000; Dean, 2009a; Dean, 2009b) have heralded the way for a transition of physical therapy practice in line with developments in health prevention and promotion. Despite some overlap in definitions and confusion within the literature in relation to the term patient education (and health education and health promotion) involvement in any of these activities implies the need for health professionals to have a skills set that requires not only subject knowledge but also pedagogical understanding and competency. Authors including Chase et al. (1993); Kerssens et al. (1999); Trede (2000); Kell and Jones (2007); Danielsson and Berntsson, (2007); Perreault (2008); Ivarsson and Nilsson (2009) were cited earlier and have identified a need for this. Five of these seven authors are physiotherapists but only one (Kell
and Jones, 2007) are based in the UK. Their study was in relation to the educator role with students and not patients.

There is a dearth of literature which specifically relates to the physiotherapists’ role in patient education in the UK. Whilst texts by authors from the USA and those targeted at a nursing audience may well be appropriate for UK physiotherapists the small amount of literature in this area in the UK is indicative of the current profile of the educational role with patients (and vice versa). Little is known at present about the scope of patient education in contemporary physiotherapy practice or physiotherapists’ attitudes and approach to an educational role. The nature of physiotherapists’ discourse as it relates to pedagogic practice with patients is also unknown. This lack of understanding may limit the relevance of any training and development that is available. It seems vital that physiotherapists in the UK are well equipped for an educational role that is compatible with the increased emphasis on patient-centred approaches to care. Failure in this regard has possible implications for standards of patient care.

In order for physiotherapists to be able to contribute optimally to patient education both the role and associated learning needs should be understood so that physiotherapists can be adequately prepared not only in terms of content but also of pedagogic approach. While there is a substantial body of literature relating to patient education in specific conditions which suggests that there is a role for physiotherapists in this regard, there is little clarity about the nature of the role and developmental needs of physiotherapy practitioners.

2.7 The problem arising from the literature
Physiotherapists (and other allied health professionals) appear to have a role in educating patients, students and peers. However:-

- little is known about the specific nature of physiotherapists’ role in educating patients
• there has been no research into UK physiotherapists’ perceptions of patient education
• there has been no research into UK physiotherapists’ conceptions of teaching and learning in relation to patient education
• there is no specific requirement from the regulatory body for physiotherapists to be prepared for an educational role

2.8 Purpose of the study
Based on the emerging problems the purpose of the present study was:
To gain insight into physiotherapists’ perceptions and concepts of their role in patient education in order to generate new perspectives.

2.9 Research Questions
- How do physiotherapists articulate their perceptions of patient education?
- How do physiotherapists articulate their approach to teaching and learning in relation to patients?

2.10 Anticipated outcomes
The anticipated outcomes of the study were:
• Identification of repertoires in use within physiotherapists’ patient education discourse
• Increased understanding of physiotherapists’ educational role with patients in contemporary practice in the UK
• Enhanced awareness of physiotherapists’ learning needs in preparation for their role in patient education
• Insight into the theoretical underpinning required to support the practice of patient education in physiotherapy which will inform curriculum development
• Contribution to the literature in the field to inform debate and stimulate further research and discussion.
Chapter 3.
Methodology

3.1 Introduction
This chapter begins by outlining the philosophical basis which informed my approach in terms of selection of research methodology and methods for data collection and analysis. This is followed by discussion of the broad research strategies and procedure and concludes with consideration of ethical issues including those related to my role and relationship to participants.

3.2 Philosophical basis of the study
Understanding the philosophical underpinning of research in its various forms has been important to me during the process of selection of methodology and methods. Having previously been exposed to a predominantly natural science and (as I now recognise) positivist approach to research, it has been an exciting, if complex, protracted, and at times problematic exploration. In part, the complexity has stemmed from my previous education which has been largely theoretical and practical, rather than philosophical, but this has been compounded by semantic variation between authors reflecting various professions, paradigms and cultures.

In my exploration of the maze of the philosophy of science and associated methodologies I have taken a tortuous path, hit many dead ends and often returned to my starting point – Crotty (2003) to try to get my bearings. Each time I returned to base my re-launch was a little easier. At times I have felt to be making progress and have even imagined that I’ve had glimpses of the horizon, but my journey through the maze is not yet over and the complexity of the maze keeps me enthralled. Being inside the maze has all sorts of unexpected bonuses. Every turn presents a new and intriguing vista, and from time to time I encounter a colleague, or even a stranger, eager to discuss the path they have taken, the discoveries they have made and to point the way to new or fascinating features. Some are more lost than others.
and I’ve now realised that the maze is three dimensional. It has paths at many different levels but I’m no longer at ground floor. From where I am now my perspective on research methodology (and life) will never be the same again. Having entered and adapted to an early sense of panic I’m not certain that I’ll ever get out again. I’m not even sure that I want to. I like it in here, and the full exploration may take some time.

As Crotty (2003, p.1) noted “terminology is far from consistent in research literature” with the same term used in different and “sometimes even contradictory ways”. He presented a hierarchy of four basic elements related to a research question (see Fig 3.1). ‘Epistemology’ (the study of how we know what we know) is at the top of the hierarchy and embedded in the ‘theoretical perspective’ (the philosophical stance informing the strategy). The ‘methodology’ is in turn informed by the theoretical position and leads to selection of appropriate ‘methods’ or tools for data collection.

![Figure 3.1 Research hierarchy (Adapted from Crotty, 2003 p.4.)](image)

Crotty omitted ‘ontology’ (the study of being) from his hierarchy whereas other authors (e.g. Burrell and Morgan, 1979) have included it as the highest level. According to Crotty (2003) it sits alongside ‘epistemology’. When carrying out social research ‘realist’ ontology and ‘objectivist’ epistemology would indicate that “understandings and values are considered to be objectified” (Crotty, 2003, p.8) in the people being studied and it would be possible to discover an objective truth by using appropriate methods, usually involving direct observation and measurement. This is an epistemology which is synonymous with a ‘positivist’ or ‘post-positivist’
approach to research and more often linked to the natural sciences. ‘Constructionism’ is an epistemology which rejects this objectivist view of knowledge with the possibility of the discovery of objective truths. For researchers holding this view “meaning is not discovered, but constructed……different people may construct meaning in different ways, even in relation to the same phenomenon” (Crotty, 2003, p.9). It seems clear that in cultural, religious, historical, professional and other contexts individuals’ interpretation of events and behaviour may vary. (Social constructionism is addressed in more detail on page 73). The third epistemology identified by Crotty is subjectivism. Whereas in constructionism the subject and object are partners in generating meaning, in subjectivism this is not the case and meanings are gleaned “from anything but an interaction between subject and object” (Crotty, 2003, p. 9). Subjectivism, according to Crotty, may be linked to post-modernism.

In the next layer of the hierarchy identified by Crotty (2003) the theoretical perspectives are also described as the philosophical stance. As an example of differing terminology, referred to above, Denzin and Lincoln (2000) recognised world views which equate closely to Crotty’s theoretical perspectives and Willis (2007, p.8) used the term “paradigm”. Examples of this layer of the hierarchy include Positivism, Post-positivism, Interpretivism, Feminism and Post-modernism (although some authors e.g. Rolfe (2006) used the term ‘post-modernism’ in a way that seemed to include interpretivism). “Interpretivists assert that all research is influenced and shaped by pre-existing theories and world views of researchers” (Willis, 2007, p.96). The relevant epistemology is embedded within these theoretical perspectives which in turn link to the adoption of an appropriate methodology or research strategy and form the basis for selection of particular methods of data collection.

My understanding of the research paradigms has been facilitated by exploring the historical development of research. Willis (2007) tracked the development of the philosophy of science from the middle ages (330-1450) when uncritical application of the thinking of Greek and Roman philosophers and adherence to Christian values
and beliefs dominated the source of knowledge. According to Willis (2007) this was followed by the period of the renaissance (1450-1600) which saw religion and philosophy assuming less importance and experiment and observation becoming more important. Empiricism developed during the Age of enlightenment (1600-1800) when “rudimentary scientific method became the major source of knowledge” (Willis, 2007, p.36). During the twentieth century positivism was the predominant paradigm or world view (Willis, 2007). Positivists at that time believed that by following the rules of good experiment the truth could be uncovered. The critique of positivism by Popper (1959, cited in Willis, 2007) led to a modified version or ‘post-positivism’ as it is referred to by some authors. The term post-positivism can also be used in a historical sense to refer to the view that a positivist philosophy is no longer the dominant paradigm, and this can lead to some confusion. According to Charmaz (2006) positivist (or post-positivist) methods assume an unbiased and passive role for the observer, “the existence of an external world separate from the scientific observers and their methods, and the accumulation of generalisable knowledge” (Charmaz, 2006, p.5) through the use of valid instruments and research designs that can be replicated.

During the 1960s quantitative methodology, based on post-positivist epistemology, prevailed and qualitative research was still looked upon by many as being unsystematic, impressionistic and unreliable, and suitable only for pre-studies. Researchers in the social sciences were increasingly discontent with the limitations of positivistic inquiry. Lichtman (2006) noted that educational researchers were beginning “to question the dominant traditional paradigms of experimental research and hypothesis testing” (Lichtman, 2006, p.42) by the 1980s. These methods, which may be appropriate for research in the natural sciences, have over the last few decades come to be seen as less appropriate for social science research. Meanwhile some hardcore natural science researchers remain dismissive of qualitative studies. Flyvbjerg (2001) has referred to the continuing debate as “Science Wars” (Flyvbjerg, 2001, p.1) and has explored at length why the social sciences should not and cannot seek to emulate natural science methodology with
its aim to produce explanatory or predictive theory. His analysis revolved around the concept of ‘phronesis’ which can be traced back to Aristotle who identified three intellectual virtues: “episteme; techne and phronesis” (Flyvbjerg 2001, p.3). Whilst the first two terms have been subsumed into the English language, and form the basis of natural science, phronesis has not. He noted that the term has been translated from the teaching of Aristotle in various ways that equate to ‘practical wisdom’ and constructs an argument seeking to reclassify social science as “phronetic social science”. Flyvbjerg argued that the “purpose of social science is not to develop theory, but to contribute to society’s practical rationality in elucidating where we are, where we want to go and what is desirable according to diverse sets of values and interests” (Flyvbjerg, 2001, p.167). The vision of a transformed social science includes a refined purpose “sometimes to clarify, sometimes to intervene, sometimes to generate new perspectives, and always to serve as eyes and ears in our ongoing efforts at understanding the present and deliberating about the future” (Flyvbjerg, 2001, p.166).

Whereas realists view the world (and truth) as being ‘out there’, objective and available to study by bias-free and detached observation, social science researchers operating in a more relativist, constructionist paradigm assume that researchers only have access to a socially constructed reality “constructed by individuals who participate in it” (Gall et al., 1996, p.19). Crotty (2003) contended that in contrast to the positivist, objective view of research the interpretivist approach looks for “culturally derived and historically situated interpretations of the social life-world” (Crotty, 2003, p.67). The researcher with their previous experience and background has a central role in filtering or “interpreting” the meaning in most approaches to qualitative research. As Finlay and Ballinger (2006) noted two researchers studying the same phenomenon might interpret it differently. Researchers adopting an interpretive stance look for “verstehen” (understanding) of a phenomenon rather than “Erklären” (explanation), (Willis 2007, p.100).
While some authors (e.g. Finlay and Ballinger, 2006) do not advocate rigidly following particular methodologies in the selection of methods, the identification of an epistemological position is widely recommended. Therefore following detailed consideration of possible approaches, particularly influenced by Crotty (2003), I reached the following conclusion. My qualitative study, drawing as it did on participants' perceptions of patient education and acknowledging the socially constructed nature of practice within particular professions, followed a ‘constructionist’ epistemology. I was seeking deeper understanding of patient education rather than searching for objective truths. My relativist ‘ontology’ was reflected in acceptance that the truth is not out there ‘waiting to be discovered’ (as researchers in the natural sciences and with a positivist approach might contend). My acceptance of multiple, socially constructed realities, within the culture of physiotherapy fits with an ‘interpretative’ theoretical perspective. The result of the present study was intended to be about understanding in context, rather than theory, rules and laws. However, the phronesis (knowledge about professional practice) can, according to Willis (2007), be communicated to others to use as part of their context for decision making. The difference between truth and understanding is that “truth can be exported to other settings and applied directly as a rule…..understanding informs a decision maker” (Willis, 2007, p.121). The findings of this study would provide local knowledge about the perceptions and concepts of this group of physiotherapists at this time (through an interpretive lens). Although findings may not be directly applicable in other settings they may “generate new perspectives” (Flyvberg, 2001, p.166). These may inform curriculum developments locally and may also influence future research questions and interpretation in this area of practice. This should help to illuminate an aspect of practice which has previously had little attention.

My exploration of the philosophy of science has been compelling and rewarding but I note an intriguing ‘twist in the tail’ in the caution issued by Lincoln and Guba (1985) in relation to paradigm shifts over the centuries - “Since all theories and other leading ideas of scientific history have, so far, been shown to be false and
unacceptable, so surely will any theories that we expound today” (Lincoln and Guba, 1985, p. 16).

3.3 Selection of Methodology

Having reached a conclusion that a qualitative approach linked to relativist ontology, constructionist epistemology and an interpretative theoretical perspective was the foundation for this research the selection of methodology and methods followed. In reaching a conclusion about the methodology to answer my research questions I explored a broad spectrum of possibilities including phenomenology and narrative analysis, which I had drawn on for a study with a small number of participants for an earlier submission for stage 1 of the doctorate in education. Both of these methodologies and grounded theory were considered for the present study. I will now briefly explain my understanding of them and the rationale for my eventual selection.

As I developed the research questions for the present study the methodology was influenced by my understanding of phenomenology which has been defined as “a theoretical point of view that advocates the study of direct experience taken at face value” (Cohen et al., 2007, p.22). My interest in participants’ perceptions and experiences of patient education seemed to fit with such an approach. In-depth consideration of a specific approach to phenomenology resulted in rejection of the transcendental phenomenology described by Moustakas (1994) because of the need “to be completely open, receptive, and naïve in listening to and hearing research participants describe their experience of the phenomenon being investigated” (Moustakas, 1994, p.22). My previous experience of educating patients meant that this was not possible it also did not fit with my interpretive perspective. Smith and Osborn (2008) described an alternative approach which acknowledges the part that interpretation by the researcher plays. “The aim of Interpretive Phenomenological Analysis (IPA) is to explore in detail how participants are making sense of their personal and social world”. At the same time it also emphasises “an active role for
the researcher” (Smith and Osborne, 2008, p.53). In IPA a two-stage interpretation process or “double hermeneutic” is involved:-

“The participants are trying to make sense of their world; the research is trying to make sense of the participants’ trying to make sense of their world (Smith and Osborne, 2008” p.53).

As previously explained my approach involving research into perceptions of aspects of participants’ practice as physiotherapists led me to reject the notion of an objective reality in relation to the data generated. Instead I adopted a constructionist, interpretive perspective that appeared to have a better fit with IPA. IPA focuses on in-depth consideration and interpretation of the experiences of participants it is usual to study a small sample but analyse individual interviews in detail.

As I reviewed the early transcripts three things diverted my focus away from IPA: I began to feel that I could not take it for granted that patient education was part of physiotherapists’ role and experience in the UK; I decided that the trend in IPA is in-depth consideration of smaller numbers of participants than in my novice to expert group; I read a recent grounded theory article by Rindflesch (2009) in relation to physical therapists in the USA and their role in patient education and began to think that this would be a more appropriate approach.

Grounded theory was developed by Glaser and Strauss (1967) at a time when positivist, quantitative research predominated and qualitative methodology was struggling to gain recognition. They “advocated developing theories from research grounded data rather than deducing testable hypotheses from existing theories” (Charmaz, 2006, p.4). Glaser’s approach stemmed from a positivist source whilst Strauss had his roots in pragmatism (Charmaz 2006). Glaser and Strauss subsequently diverged in their view on grounded theory and Strauss later worked with Corbin. They encouraged researchers to utilise grounded theory with other
methodologies and build on their own insights and experience (Strauss and Corbin, 1990). They defined grounded theory as:-

“a qualitative research method that uses a systematised set of procedures to develop and inductively derive grounded theory about a phenomenon” (Strauss and Corbin, 1990, p.24).

Grounded theory has been used widely in education research in the last few decades as it has been seen as a rigorous approach but, according to Charmaz (2000), it has also become known for its positivist assumptions, which qualitative researchers might regard as a limitation. In turn Glaser (2002) has been critical of Charmaz who adapted the basic grounded theory guidelines and moved it away from positivism. While Glaser and Strauss (1967) sought to discover theory emerging from collected data which is separate from the observer. Charmaz (2006) view is that the researcher is part of the world being studied and the data collected:-

“we construct our grounded theories through our past and present involvement and interactions with people, perspectives and research practices. ........Research participants’ implicit meanings, experiential views – and researchers’ finished grounded theories are constructions of reality” Charmaz (2006, p.10).

My understanding is that Charmaz’s (2006) approach assumes an interpretive portrayal of the phenomenon studied rather than an exact picture. The intention of grounded theory is to generate theory relating to a particular situation (Strauss and Corbin, 1990). In order to achieve this, participants with appropriate experiences must be initially selected. Sample size is determined by ‘theoretical saturation’ (Glaser & Strauss, 1967; Corbin and Strauss, 2008) with data collection continuing until theoretical saturation occurs or until the interviews reveal no new data. At this stage data gathered from the interviews becomes repetitive – no new data emerges. It is not possible to predict in advance when this will occur and therefore the exact sample size cannot be specified.
Although the version of grounded theory described by Charmaz (2006) offered an interpretive iteration of grounded theory I eventually decided that ‘explanation’ and ‘theory building’ was not my intention at this time. My study, set in the UK, was exploratory in nature rather than explanatory. It may later lead to a more explanatory approach which might be suitable for grounded theory methodology. In addition the language being used by participants in initial interviews was beginning to fascinate me and I searched for a way to do justice to it.

From the outset I was interested in how physiotherapists talked about practice education. Narrative analysis with its emphasis on stories was therefore considered. Clandinin and Connelly (2000) were prominent proponents of narrative as a research methodology and method. They built on Dewey’s (1963) ideas of “experiences growing out of other experiences and leading to further experiences” (Clandinin and Connelly, 2000, p.2). They argued that:-

“experience happens narratively. Narrative inquiry is a form of narrative experience. Therefore educational experience should be studied narratively” (Clandinin and Connelly, 2000,p.19).

Narrative has been widely used in education and in health related areas. Holloway and Freshwater (2007) reviewed a range of potential approaches to narrative analysis. They concluded that the task is a complex and intense process. They suggested that the researcher “does not need to stay firmly adherent to one particular approach” but that it “should be congruent with the aims and intended direction of the study” whilst being “as flexible or rigid as the individual applying it” (Holloway and Freshwater, 2007 p. 89). Cortazzi (1993) catalogued teachers’ stories of class-room experiences using narrative analysis. His use of metaphor was particularly appealing but I eventually rejected narrative as a sole methodology because this was the first study that I could identify which focussed on physiotherapists’ role in patient education in the UK. I was therefore uncertain about
whether all participants would be able to offer rich stories which I understood to be central to narrative methodology.

My fascination with participants’ use of language and in particular with metaphors prompted further investigation of methodology. This occurred in parallel with a growing understanding of social constructionism (which I will address later) which led me to interpretative repertoire (a form of discourse analysis) based on a case study approach. The rationale for the selection of a case study approach followed by interpretative repertoire will now be discussed.

3.4 Case study research
A wide variety of authors have written at length about case study design (Bassey, 1999; Simons, 2009; Stake, 1995; Yin, 2009). There is variation between authors as to whether they consider case study a method (or tool) or a methodology (or strategy). Bassey (1999) largely avoided the distinction but mentioned it as a “tool” in his preface. For Baxter and Jack (2008, p.54) and Finlay and Ballinger (2006, p.11) it is a methodology. Yin (2009, p.4) advocated the use of case study to answer “how and “why” questions about some social phenomenon and when the research questions require in-depth description of the phenomenon. Yin’s approach appears to have been influenced by a positivist philosophy through his utilisation of terms. He emphasised the need for “rigor” and “lack of bias”, (Yin, 2009, p.40) whereas other authors in a more interpretive vein have emphasised the need for trustworthiness (Rolfe, 2006) and celebrate the individual nature of the findings. According to Simons (2009, p19) case study “has different meanings for different people, in different disciplines”, while Adelmann et al. (1980, p.59) noted that “case study researchers recognise the complexity and embeddedness of social truths”. Several authors have commented on the power of the singular, Flyvbjerg (2001) argued forcefully in support of case study research as being “essential for the development of social science research” (Flyvbjerg, 2001 p.87) noting that “the power of a good example is underestimated” (ibid, p.77). Flyvbjerg (2004) used the example of Galileo’s rejection of Aristotle’s law of gravity based on a single experiment (or case
study) rather than “a large random sample of falling objects” (Flyvbjerg, 2004, p.423) to illustrate the power of the single case. Stake (1995, p.76) argued that “the quantitative side of me looked for the emergence of meaning from the repetition of phenomena; the qualitative side of me looked for the emergence of meaning in the single instance”.

I have considered long and hard about whether the structure of this study fits the criteria for case study methodology. Views about case study vary as discussed above and I have considered the alternative possibility of identifying this research as a discourse analytic study with participants selected on the basis of a maximum variation sample. I eventually came to the conclusion that the research draws on a case study approach. The development of the research stemmed originally from my curiosity about the effectiveness of the PGC in Clinical Education in preparing participants for a role in patient education. My initial interest in the perceptions of graduates of this course regarding their pedagogic practice with patients developed into a broader interest in patient education as part of physiotherapy culture. The participants were all students or staff of the host HEI and were centred around the PGC clinical education course. The variation in the experience of participants, along a novice to expert spectrum seems to fit with Flyvbjerg’s (2004) description of “information oriented selection” for a “maximum variation” case (ibid, p.426).

A case study approach was selected because of the unique access available in one HEI to physiotherapists with a range of expertise and experience in pedagogy and physiotherapy practice. It constituted a particular study of a general issue in that it offered access to a range of groups and individuals with a spectrum of expertise and experience (Dreyfus and Dreyfus, 1986) from novice to expert in terms of physiotherapists’ educational role with patients. As such the alumni of the PGC course (all of them still current MSc students and physiotherapists) as well as their university physiotherapy educators were potential participants. In addition students on the brink of qualification as physiotherapists and experienced physiotherapists who were also students on the MSc course, who might potentially access the PGC
as an optional component, were also potential participants. This single case offered the possibility of the “generation of new perspectives” (Flyvberg, 2001, p.199), insight and understanding into physiotherapists’ role in patient education as a basis for development of current CPD strategy in my own institution and possibly elsewhere and to inform future research and debate.

3.5 Reflexivity in relation to the methodology
The methodological part of my journey has been particularly formative and I have attempted in the section above to acknowledge and explain the shift that took place between the initial proposal and the final version. It has not been particularly neat or comfortable but it has been an important learning experience and one which I hope will stand me in good stead in my future research activity.

3.6 Selection of data collection methods.
A range of methods may be used as a basis for a case study approach. Yin (2009) and Stake (1995) referred to a variety of methods of data collection which might include documents, interviews and observation. Direct observation of practice of patient education, whilst not occurring within the limited timescale of this project, has been a constant feature during my career as a physiotherapist and as a lecturer. In part this has been through my experiences of working with patients and with other physiotherapists, but it has also occurred more recently as a visiting tutor for students on placement. As such my observational memory has contributed to the design of the study and will have inevitably impacted on the interpretation and analysis of the data. Some analysis of documentation was also carried out, in particular HPC documentation relating to required Standards of Practice. However, for this study interviews were selected as the primary and most appropriate way to generate data and for this reason the design is a case study approach rather than a case study. The rationale for the choice and specific format of the interviews and their recording and transcription are now expressed.
Interviews are well established as a common method of data gathering in qualitative research (Sarantakos, 2005; Willis, 2007). There are many possible types of interviews including individual, group or focus group (Sarantakos, 2005). The advantage of individual interviews was that they presented the opportunity to hear specific perspectives and experiences. For pre-registration students who were approaching the end of their course but might have some lack of confidence paired (a variant of group) interviews were offered as an alternative to individual interviews or focus groups. Focus groups are often favoured for the rich data that they can yield as participants build on each other's thoughts and for some of the less experienced participants focus group or paired interviews can offer an element of peer support. As Krueger and Casey (2000) noted "a group possesses the capacity to become more than the sum of its parts, to exhibit a synergy that individuals alone don't possess" (Krueger and Casey, 2000, p.24). The choice between these interview options was in part pragmatic for some groups of participants, for example the MSc students, as their part time study and diverse geographical locations made organisation of paired or group interviews impractical.

The extent of structure of interview questions was also a consideration. Structured interviews were rejected because they would preset the agenda. As an outsider in terms of current practice as a patient educator I could not assume that I had the necessary scope to select appropriately. Unstructured interviews were deemed unsuitable as I already had wide knowledge of the area and wanted some focus. All interviews were therefore semi-structured (the schedule of the draft outline of questions and subsequent adapted schedule can be found in appendix 1 and 2)

Most sources (e.g. Walford, 2001, p.83; Wilkinson and Birmingham, 2003) recommend recording the interviews using a reliable voice recorder. It is also possible to record telephone interviews, a method which had been trialled successfully for an earlier research stage. There has been disagreement amongst authors about the merits of self-transcription of recordings. Some sources (e.g. Lichtman, 2006, p.164) suggested it is worth the effort to do it on your own, whilst
others find it “extremely dull and mind-numbing” (Walford, 2001, p.93) and does not make the researcher engage with the data, as some others contend. Walford’s (2001) view was that when producing the transcript the focus is on the next word or phrase rather than what actually is being said, so that doing the transcription actually “adds little to …understanding of the content” (Walford, 2001, p.94). In this study interviews were recorded and subsequently transcribed by a third party.

Although interviews are well established as a qualitative research method there are potential problems with interview data. Walford (2001) questioned the concentration of researchers on the spoken word and had some concern about trying to identify what people do rather than what they say they do. While it seemed necessary to retain some scepticism about whether interview data actually reflects what people do and say in practice this study focused on the socially constructed discourses which participants drew upon.

3.7 Selection of data analysis method

The method adopted to analyse the interview transcripts in this qualitative study had to fit with the constructionist epistemology and interpretative theoretical perspective previously identified. As Sarantakos (2005) suggested there is little consensus about how qualitative data should be analysed although there are an array of possible approaches. Holloway and Freshwater (2003, p.347) identified “thematising meanings” as one of a number of shared generic skills in qualitative analysis.

A two-stage approach to analysis was adopted for this study, with a thematic approach to the total data set followed by the identification of interpretative repertoires (a form of discourse analysis) in relation to these themes. Braun and Clarke’s (2006) more general six stage thematic approach had been trialled effectively for an earlier submission. They argued that thematic analysis
“can be applied across a range of theoretical and epistemological approaches...and ....can potentially provide a rich and detailed, yet complex, account of data” (Braun and Clarke, 2006, p.78).

While these authors refer to the selection of “vivid, compelling extract examples” to illustrate the identified themes in this case my purpose was to first identify themes and within each theme subsequently recognise patterns in the data from which interpretive repertoires could be identified. In selecting the procedure for identification of interpretative repertoires a variety of options was considered but there is little guidance in the literature in this regard. Potter (1996) described the process of discourse analysis as “very much a craft skill like riding a bike or sexing a chicken” (Potter, 1996, p.140). Talja (2005) was less cryptic and suggested that the analysis of interpretative repertoires involves the following three stages:-

- “analysing variability in descriptions of (patient education) in individual participants’ interviews
- identifying recurring patterns of context-dependent variability by comparing interviews
- comparing the interpretive repertoires identified from interviews with available literature”. Talja (2005, p.15)

This second tier of analysis therefore involved in-depth consideration of participants’ language related to the identified themes to seek variability and recurring patterns which led to the identification of interpretative repertoires which in turn were illustrated with rich extracts.

This dual approach of thematic and discourse analysis is relatively novel but was advocated by Cohen et al. (2007, p.390) and has been used effectively more recently by other authors (e.g. Hokka et al., 2010). Several, possibly contradictory, repertoires or discourses may emerge. These discourses perform certain functions in interaction with members of a culture or community of practice drawing on them “to justify particular versions of events, to excuse or validate their own behaviour, to fend off criticism or otherwise allow them to maintain a credible stance in an
interaction.” (Burr, 2003, p.60). In a similar way to the Hokka et al., (2010) study of teacher education, the discourses adopted by physiotherapists may also “frame interpretations that direct the implementation” (Hokka et al., 2010, p.846) of patient education. Deeper consideration will now be given to discourse analysis.

3.7.1 Discourse analysis
Definitions of Discourse analysis (and discourse) are many and varied and represented by a wide range of approaches. According to Wetherell et al. (2001) it is a “set of methods and theories for investigating language in use and language in social contexts” (Wetherell et al., 2001 p.i). Denzin and Lincoln (1998) observed that approaches such as discourse analysis seek to “bring out the hidden meanings in the text” (Denzin and Lincoln, 1998, p.43). Discourses are thought to influence our behaviours in the world (Taylor, 2001; Gee, 2005), and “language available to people enables and constrains not only their expression of certain ideas but also what they do” (Taylor, 2001, p. 9).

Interpretative repertoire (IR) is just one type of discourse analysis and has its roots in critical discursive psychology (Potter and Wetherell, 1987; Edley, 2001; Hokka et al., 2010). Potter and Wetherell (1987) introduced the notion of interpretative repertoires by building on “Moscovici’s….. theory of social representation” (ibid, p.138.) and referring to a study by Gilbert and Mulkay (1982). Although these latter authors used the separate words ‘interpretative’ and ‘repertoire’ in relation to the ways the scientists in their study had used language to portray their actions and beliefs, they did not bring the two together.

Interpretative repertoires relate to discourse at the level of the individual (micro as compared to macro) and have been defined as “the building blocks speakers use for constructing versions of actions or cognitive processes” (Wetherell and Potter, 1988, p. 172). In interpretative repertoire research:-
“The key question asked is: Which reality is constructed by talking about a subject in a specific way and by using certain concepts instead of others?” (Nexo and Koch, 2003, cited in Hvas and Gannick, 2008, p.160)

According to Edley (2001, p.198) interpretative repertoires are “relatively coherent ways of talking about objects and events in the world……providing a basis for shared social understandings”. The repertoires or “discourses” (Taylor 2001, p.8) that interview participants have available to draw upon is governed by cultural, historical and social influences, mediated through language. In this respect there are similarities with the approach to discourse analysis based on the ideas of Foucault. His emphasis was on the association between knowledge and power (Foucault, 1980; Wetherell, 2001) and how this manifests in discourses at a more macro level of society, organisation or a profession. Although accepting the possibility of original or novel conversation Edley (2001, p. 198) noted that people usually talk “in terms provided to them by history” utilising a medley of quotations from various repertoires. In doing so the talk “creates a specific position” for the speaker and “produces a certain type of relationship” (Juhila, 2009, p.131); in the present study, between the physiotherapists and their patients. This idea of subject position is seen by Edley (2001) as closely related to IR:-

“In a sense it is this concept that connects the wider notions of discourses and interpretative repertoires to the social construction of particular selves. Subject positions ……are the identities made relevant by specific ways of talking”. (Edley, 2010, p.210).

Edley (2001) likened IR to books on a library shelf, to be borrowed when needed. There may be several, possibly conflicting, discourses in existence in a particular field of knowledge at a certain point in time and “novel or alternative interpretations emerge as corrections to prior discourses” (Talja, 1999, p. 468). This leads to a situation were within the interviews of individual participants conflicting repertoires
may be identified but similar repertoires may be identified across a range of participants.

Interpretative repertoires can be recognised by identifying patterns (including for example metaphors, images and figures of speech) in the way people talk about a topic (Potter and Wetherell, 1987). The identification of metaphor and related terms was important in the present study. Metaphor analysis is not unique to IR and is an established research methodology in its own right. It stems from the work of Reddy (1978) and later Lakoff and Johnson (1980) and is well established, particularly in Germany (Schmitt, 2005). Cameron (2003) is prominent in the area in the UK and has noted the intrinsic nature of metaphor in everyday communication and that it provides “a foundation for thought and conceptualisation” (Cameron, 2003, p.2).

According to Schmitt (2005) it is through our choice and use of metaphors in language that we construct the world and make sense of it. Schmitt (2005) contended that a particular phenomenon “can be represented in many, sometimes contradictory metaphors” (Schmitt 2005, p. 361).

Lakoff (1993) considered metaphor at length. He used the “love as a journey” metaphor to explain the theory first expounded by Lakoff and Johnstone (1980). This metaphor is used widely (possibly universally) and refers to the various sets of everyday expressions that are based on the conceptualisation of love as if it is a journey. He cited terms such as “look how far we've come”, “a long bumpy road”, “we’re at a crossroads” (Lakoff, 1993, p.206) and many others in illustrating the concept. In this metaphor the lovers represent the travellers; their relationship corresponds to the vehicle, with their common goals as the destination of the journey. He reserved the term metaphor to refer to the overall conceptual mapping (e.g. love as a journey) and used the term metaphorical expressions for the linguistic expressions (or correspondences), such as ‘we can’t turn back’. Some of the fundamental aspects of Lakoff’s (1993) theory are that “metaphorical language is a surface manifestation of conceptual metaphor”, that “metaphor is the main mechanism through which we comprehend abstract constructs” and that “metaphor
is fundamentally conceptual, not linguistic, in nature” (Lakoff, 1993, p.244). In other words the metaphors we use reflect our conceptions of phenomena.

In my study the use of metaphor and metaphorical expressions by participants contributed to the identification of particular interpretative repertoires. IR been used in the last two decades in a wide range of studies on topics as diverse as masculinity (Edley, 2001), internet use (Savolainen, 2004), computing skills (Talja, 2005), teacher education (Hokka, 2010), career choice (Hsu et al., 2009) and social work (Juhila, 2009). There is variability in how IR is used but this last study by Juhila (2009) and that by Hokka (2010) provide some parallels (and initial inspiration) for the way that IR has been used in my study. As alluded to earlier, this type of discourse analysis has its roots in social constructionism (Burr, 2003).

Social constructionism is a complex set of ideas and approaches which according to Burr (2003) stems from various branches of sociology and psychology. She noted that no one description would be adequate for the variety of approaches the term represents and identified a set of key assumptions. These included: “a critical stance to knowledge that is taken for granted” (Burr, 2003, p. 2) which is in opposition to an objective, positivist view of knowledge and truth, with access to an external reality; our understanding if the world is “historically and culturally specific” (Burr, 2003 p.3); “knowledge is sustained by social processes” (ibid, p.4). In particular language has a social function, and is used to ‘construct’ what is spoken or written about:-

“Social constructionism views discourse about the world not as a reflection or map….but as an artefact of communal interchange” (Gergen, 1985, p.266).

From a social constructionist perspective there is no reason to expect that all healthcare practitioners’ or even all physiotherapists’ definitions of ‘patient education’ would be the same. Our knowledge about people, objects, abstract and concepts is accumulated in the course of social communication, and “are a product of social practices in which language plays a central role” (Guise and Gill, 2007 p.897). This
had implications for the way that I approached participant interviews in that it was necessary to ask questions and respond to participants answers in a way that fully explored their role in line with my original, broad, guiding definition (see page vii). Burr (2003) noted that although Gergen (1985) wrote about ‘social constructionism’ subsequent authors:

“took up the spirit of these ideas as discourse analysis (Potter and Wetherell (1987),……discursive psychology, Edley and Potter (1992)" (Burr 2003, p.26)

The terms ‘constructionism’ and ‘constructivism’ are used inconsistently in the literature. ‘Constructivism’ “focuses on meaning making and the constructing of the social and psychological worlds through individual, cognitive processes” (a psychological construct) while social ‘constructionism’ “emphasizes that the social and psychological worlds are made real (constructed) through social processes and interaction” (a sociological construct), (Young and Collin, 2004, p.375).

Interpretative repertoire differs from certain other types of DA in that the fine detail of sequence which is of great interest to conversation analysts is less important than the words and ideas in the transcribed interviews (Taylor 2001). The analysis is interpretive in nature with reality therefore co-constructed rather than attempting to seek a ‘truth’ about an external world. Researchers participating in interviews and analysis of discourse have to be competent users of the repertoires, in order to be able to identify, describe, and theorise from these discourses (Roth, 2005).

Potential shortcomings in studies using discourse analysis as a method or methodology were discussed by Antaki et al., (2003). They suggested that:-

“Writers are not doing analysis if they summarise, if they take sides, if they parade quotes, or if they simply spot in their data features of talk or text that are already well-known. Nor are they doing analysis if their discovery of discourses, or
mental constructs, is circular, or if they unconsciously treat their findings as surveys” (Antaki et al., 2003, online).

It was necessary to be alert to these potential pitfalls in order to avoid them.

In summary this qualitative case study followed ‘relativist’ ontology, ‘constructionist’ epistemology with an ‘interpretative’ theoretical perspective. Physiotherapists’ perceptions of patient education formed the focus for individual semi-structured and focus group interviews. An assumption was made “that language use reflects the knowledge or skills shared by members of the same culture” (Taylor, 2001, p.25). The data was analysed into themes based on the guidelines of Braun and Clarke (2006). Within each theme interpretative repertoires or ‘discourses’ were identified guided by Talja (2005). The way that I employed interpretative repertoire was influenced by the way that studies by Juhila (2009) and Hokka (2010) reported their use whilst also being alert to more ‘macro’ discourse noted earlier and often associated with the work of Foucault. I subscribed to the socially constructed nature of aspects of physiotherapy practice including patient education and was interested in the variation in repertoires within each theme, and the underlying concepts that they represented. The use of particular terms including metaphors was of particular interest in identifying the interpretative repertoires.

3.8 Ethical considerations.

The study was submitted to and gained approval from the Faculty of Education’s Research, Ethics and Governance committee (see appendix 3). For any participants who were employed by the NHS there was additional issue in relation to the possible need for ethics approval from each individual’s local research ethics committees (LREC). This presented practical recruitment problems as until potential participants had been contacted and had volunteered their workplaces (which could be scattered nationally) would not be known. Having considered and discussed this at length with chairs’ of ethics panels I reached the conclusion that it was not necessary to gain NHS ethics approval. The rationale for this decision was that:-
I was interviewing participants in their role as students or staff of one HEI in the South of England rather than because of their workplace role.

Interviews would not be carried out on NHS premises or during NHS work time.

Any subsequent publications will not identify any trusts, other workplaces or participants.

Interviews concentrated on participants’ views of the physiotherapy role in patient education in general and their own associated learning needs.

There are recent precedents in the school involving related research with similar groups of participants which had not required LREC approval.

Verbal reassurance was received from the Head of a local NHS Research and Development committee that LREC approval was not required following discussion about the aim, methods and type of questions.

Participants were drawn from physiotherapists within the School of Health Professions. As such there was potentially a range of ethical issues some of which were associated with my role as Head of School. As an ‘insider’ researcher I was aware of the impact that my role might have had on participants in the study and needed to make my own position as a researcher very clear to participants. For those who did know me and volunteered to participate it may be argued that interviewees might have felt more comfortable and freer to talk openly if familiar with the researcher, particularly as participation was voluntary. Although this may not have been the case, I felt that the greater problem lay with participants who had not met me on a one to one basis previously. Response to requests for participation was slower and lower from this group, especially from students on the brink of qualification. I also felt that face to face interviews were preferable with this group so that we had the opportunity to interact relatively informally prior to embarking on the interview.

My management role could have led to some staff being reluctant to voice views that they might consider to be contentious or to reveal a lack of insight into the research.
area which might have some future adverse impact upon their school role. This might have potentially prevented some staff from volunteering to participate.

Some potential postgraduate student participants knew me through various previous roles in the School. This includes my previous role as module leader for one of the modules of the postgraduate certificate in Clinical Education. In case any of these participants were still current students (perhaps completing a master’s course) I ensured that another member of faculty staff chaired any examination boards at which their future awards were considered. This arrangement was in place for a previous phase of the Doctorate in Education and will continue until all participants have graduated.

In accordance with the British Educational Research Association (BERA) guidelines and University of Brighton’s Good practice in Research Ethics and Governance guidelines issues of confidentiality and protection of participants’ identity were given highest priority (BERA, 2004; University of Brighton, 2007). All data collected was treated as confidential and the audio-tape, written transcript and computer disks kept in a locked cabinet in my office. Data on computer was accessible via a password known only to the researcher and was not stored on a computer with general access by colleagues or other people. Confidentiality and protection of participants’ identity during write up and publication was observed. Participants were given a pseudonym in the write up to prevent any quotations being attributed to them. Any references made in interviews to specific placement sites were also anonymised. The precise wording of the write up was considered carefully once participants and themes were known in order to prevent, as far as it is possible, association of particular comments to individuals or sites. Interview participants received a copy of the transcript for verification of their comments. Recordings made during the interviews will be destroyed at the end of my studies.
3.9 Funding
I applied for and was awarded a small internal grant from the Clinical Research Centre, School of Health Professions. In addition a small sum of money was added to this from the Teaching Excellence Award received in 2007. This money was available to pay for transcription of the recordings, small equipment purchases and travel costs of participants as necessary. No ethical issues were identified in this regard.

3.10 Quality
There is conflict and inconsistency about the measures or criteria to try to ensure the quality of qualitative research. Concepts of reliability, validity and repeatability are associated with positivist and post-positivist paradigms in which the researcher is seeking truth about an external world and it is assumed that the findings will contribute to world knowledge. For research based in more constructionist, interpretive paradigms there is an acceptance that the knowledge produced will be situated or specific to the particular case, contingent rather than stable and enduring and reflexive rather than neutral, reflecting “a particular world view and set of interests” (Taylor, 2001, p.319).

Hope and Waterman (2003), cited in Rolfe (2006), suggested that qualitative researchers usually adopt one of three different approaches when addressing quality of their work. The first is use of traditional positivist criteria referred to above such as ‘validity’ and ‘rigour’, which Rolfe (2006) considers inappropriate. The second is the adoption of separate and distinct criteria such as ‘trustworthiness’ and ‘authenticity’ (Lincoln and Guba, 1985). The third approach identified is a rejection of all criteria (which I am not advocating). Rolfe (2006,) argued that “because there is no one unified qualitative research paradigm it makes little sense to attempt to establish a generic set of criteria by which quality can be judged for all qualitative studies” (Rolfe, 2006, p.308). He concluded that each piece of research should be “appraised” by the reader and that reflexivity should be a key component.
Potter (1996) considered reliability and validity in relation to constructionist approaches such as discourse analysis. In common with Rolfe (2006) he had also noted problems in attempts to apply criteria more commonly associated with traditional forms of psychology (from which types of discourse analysis evolved). Potter (1996) suggested that one of the most important forms of validation is “the presentation of rich and extended materials in a way that it allows readers....to evaluate their adequacy” (Potter, 1996, p.139). Cousin (2009) suggested that trustworthiness replaces notions of validity within interpretivism and also advocated “collecting and surfacing sufficient data for plausibility”. Another strategy for validation is through ‘member checking’, giving participants the opportunity to give feedback on either their own transcription or a section of the completed findings. The opportunity to view the transcript may lead to participants deciding they wish to comment further on the topic of the interview. As Taylor (2001) acknowledged that there may be a problem with providing the completed findings in interpretive research as the findings are “not being presented as truth but as an analysis underpinned by theory” (Taylor, 2001, p.322).

My approach to quality drew on these sources and resulted in the following actions:-

- Transcripts were produced from a digital tape recording by an experienced transcriber
- Each interview was listened to by the researcher at least twice and checked against transcripts
- Transcripts of the interview for each participant where sent to them with an invitation to edit or comment.
- Rich data in the form of quotations was presented within the findings section
- Sample data of a complete interview with coding is included in appendix 21.
- A research diary contributed to the researcher reflexivity which formed part of the thesis.

Finlay and Ballinger (2006) identified the need for a researcher to evaluate their own research. She suggested the need for criteria selected “to be compatible with the
special nature of the research in question” (Finlay and Ballinger, 2006, p. 319) and proposed a set of five criteria suitable for qualitative research. These were:- clarity, credibility, contribution, communicative resonance and caring. These criteria will form the basis for self-evaluation in section 6.5.

3.11 Participants
The case study was centred on a PGC course in one university in the South of England. Participant interviews with physiotherapists representing a spectrum of physiotherapy patient educator experience ranging from novice to expert (Dreyfus and Dreyfus, 1986) were a major component. Particular groups were targeted to ensure a spectrum of experience. Interview type and numbers who participated are indicated in table 3.1.

<table>
<thead>
<tr>
<th>Participant groups</th>
<th>Type of interview</th>
<th>Total number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic staff involved in teaching PGC (“experts”)</td>
<td>Focus group</td>
<td>3</td>
</tr>
<tr>
<td>Current MSc students including PGC Clinical Education</td>
<td>Semi-structured interviews</td>
<td>5</td>
</tr>
<tr>
<td>Current MSc students not including PGC Clinical Education</td>
<td>Semi-structured interviews</td>
<td>4</td>
</tr>
<tr>
<td>Final year pre-registration Physiotherapy students (“novice”)</td>
<td>Focus group or individual interview</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3.1 Participant group information.

An email (see appendix 4) was sent to university staff and students who fulfilled the selection criteria (see appendix 5) inviting them to participate in the study and enclosing an information sheet (appendix 6). To avoid coercion the email was sent via a third party (school administrator) in order to minimise any sense of obligation to participate. I was open about my role in the school for any contact who did not know
me. Positive responses from potential participants were forwarded to me. I then contacted these individuals to arrange details of time, location and whether the interview would be face to face or by telephone.

Brief details of all participants will now be given below. (See table 3.2 for more detailed information). I have arranged participants from novice to expert in terms of my interpretation of their physiotherapy and educational experience. Hence on my scale P1 is at the novice end of the spectrum and P16 the expert end.

**P1** was a newly qualified physiotherapist (April 2010) who had a previous first degree.

**P2** was a newly qualified physiotherapist (July 2010) who had had some previous experience of sports coaching.

**P3** was a newly qualified physiotherapist (April 2010) who had a previous first degree.

**P4** was a newly qualified physiotherapist (July 2010). Prior to starting her degree she worked as a physiotherapy assistant for a year in a large teaching hospital. In this post she had the opportunity to take on the role of educator to patients and their carers. This continued during her student placements. She had quite extensive experience of teaching as a sports' instructor.

**P5** graduated in 2006. Following a year working overseas she worked in the UK as a physiotherapist. Although she had not yet had experience of educating students she had had some experience of supervising physiotherapy assistants and junior staff. Her main educational role lay in educating patients on correct breathing and movement techniques, correct usage of equipment or walking aids, the purpose of exercise as well as the progression of exercise.

**P6** qualified as a physiotherapist in 2006. Since graduating she had worked as a physiotherapist in a post that had involved training and educating clients with complex needs, and their carers, as part of a multi disciplinary team. Part of this work entailed facilitating courses and workshops. She had also been a clinical educator for physiotherapy students on placement. Before beginning her physiotherapy degree she had some experience of facilitating workshops in another non health context.
P7 was an experienced physiotherapist who had been qualified for over 8 years and was in a management role. She had had experience of working in a variety of settings including acute teaching hospitals, district hospitals, community and outpatient settings since qualifying. A large part of her role was educating and teaching patients and she was involved in running programmes with other members of the multi-disciplinary team which focussed on teaching patients to help educate them about their disease and how they could help themselves.

P8 qualified as a physiotherapist in 1983. She was an extended scope practitioner and a private practitioner. Although she had no formal educational qualifications she had been involved in organising and participating in in-service training of other staff for several years. She acted as a supervisor for musculoskeletal physiotherapists as well as being a mentor to less experienced physiotherapists. Additionally GP registrars and other medical staff observed her clinics to gain insight into musculoskeletal conditions. Outside work she had been involved with junior sports coaching.

P9 qualified in 1998 and recently completed a PGC in Clinical Education as part of an MSc. She is currently working within neurology in the acute sector. Since qualification she has supervised physiotherapy and medical students (from a range of universities) in community and acute practice settings. She has also participated in undergraduate teaching of neurology within the university setting. She currently supervises and mentors band 5 physiotherapists and takes an active role in in-service training for students and band 5 therapists.

P10 had a senior post in community rehabilitation. He qualified in 1996 and subsequently had had experience in a wide range of health settings. He had had experience in educating physiotherapy students on placement and delivering in-service training to colleagues as well as extensive experience in educating patients and their carers. He has completed the PGC.

P11 qualified as a physiotherapist in 2003. She was responsible for a rehabilitation service. Much of this role was focused on delivery of patient education, which occurred in a class setting several times a week and also with patients in their own home. In her role she also had responsibility for student education and ran in-house training for her team. She also led on some in-service training for other health professions staff, delivered training to GP practices and lectured at conferences attended by consultants and GPs. She had completed a PGC. She had extensive
experience of teaching sporting activities, some of which predated her entry to physiotherapy education.

P12 was an experienced physiotherapist and physiotherapy educator. She led a community service and had been a clinical educator for several years. In this role she has been involved in the education of students on placement, supervision and mentorship of more junior staff, and in-service training of other health professional staff. She had completed a PGC.

P13 was a senior physiotherapist who initially qualified as a teacher and taught for several years before completing a physiotherapy degree in 1983. He had extensive experience as a physiotherapist in the UK and elsewhere. He also had extensive experience of supervising students on placement and had completed a PGC.

P14 was a member of academic staff who taught on master’s level education modules. She was a qualified physiotherapist who was research active and a co-author of journal articles and key learning texts for health professionals.

P15 was a member of academic staff who taught on master’s level education modules. She was a qualified physiotherapist who was research active and a co-author of journal articles and key learning texts for health professionals.

P16 was a member of academic staff who taught on master’s level education modules. She was a qualified physiotherapist who was research active and a co-author of journal articles and key learning texts for health professionals.

Further details of participants are given in table 3.2.

3.12 Methods of data collection and analysis.
This section outlines the methods used for data collection and analysis of the findings. The rationale for choice of methods has been addressed earlier.

An initial pilot interview with one physiotherapy academic member of staff, who volunteered to take part, took place at the end of November 2009. The purpose of this interview was to enable me to review the flow of my areas of questioning and to become familiar with the particular digital recorder. The data from this interview did not form part of the final study but following this pilot interview minor changes to wording of the interview schedule were carried out to improve clarity and reduce
<table>
<thead>
<tr>
<th>Participant</th>
<th>Year of qualification</th>
<th>M/F</th>
<th>Current role</th>
<th>PGC education</th>
<th>Interview type</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>2010</td>
<td>F</td>
<td>Newly qualified</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P2</td>
<td>2010</td>
<td>M</td>
<td>Newly qualified</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P3</td>
<td>2010</td>
<td>F</td>
<td>Newly qualified</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P4</td>
<td>2010</td>
<td>F</td>
<td>Newly qualified</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P5</td>
<td>2006</td>
<td>F</td>
<td>MSc student Senior PT</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P6</td>
<td>2006</td>
<td>F</td>
<td>MSc student Senior PT</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P7</td>
<td>2002</td>
<td>F</td>
<td>MSc student Clinical specialist</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P8</td>
<td>1983</td>
<td>F</td>
<td>MSc student Extended scope practitioner</td>
<td>No</td>
<td>Individual</td>
</tr>
<tr>
<td>P9</td>
<td>1998</td>
<td>F</td>
<td>MSc student Senior PT</td>
<td>Yes</td>
<td>Individual telephone</td>
</tr>
<tr>
<td>P10</td>
<td>1996</td>
<td>M</td>
<td>MSc student, Senior Community Rehabilitation</td>
<td>Yes</td>
<td>Individual</td>
</tr>
<tr>
<td>P11</td>
<td>2002</td>
<td>F</td>
<td>MSc student Clinical specialist</td>
<td>Yes</td>
<td>Individual</td>
</tr>
<tr>
<td>P12</td>
<td>1998</td>
<td>F</td>
<td>MSc student, Team leader community</td>
<td>Yes</td>
<td>Individual telephone</td>
</tr>
<tr>
<td>P13</td>
<td>1983</td>
<td>M</td>
<td>MSc student, senior Community Rehabilitation</td>
<td>Yes</td>
<td>Individual</td>
</tr>
<tr>
<td>P14</td>
<td>1974</td>
<td>F</td>
<td>Academic and researcher</td>
<td>Yes</td>
<td>Focus group</td>
</tr>
<tr>
<td>P15</td>
<td>1975</td>
<td>F</td>
<td>Academic and researcher</td>
<td>Yes</td>
<td>Focus group</td>
</tr>
<tr>
<td>P16</td>
<td>1972</td>
<td>F</td>
<td>Academic and researcher</td>
<td>Yes</td>
<td>Focus group</td>
</tr>
</tbody>
</table>

Table 3.2 Demographic data for each participant.
repetition. In addition a new digital tape recorder was accessed. An information sheet (see appendix 6) and outline of the areas of questioning was sent in advance of each interview to give participants an opportunity to focus on this aspect of their practice. Written, informed consent was obtained from each participant prior to interview (see appendix 7). Participants were also aware that they could withdraw at any time without the need for an explanation or fear of any consequences. The interviews were held in a room in a quiet location in the School of Health Professions. A high quality audio-tape-recorder and microphone were used to record the discussion. The taped discussion was transcribed by an experienced third party prior to checking and analysis. Telephone interviews were successfully piloted in an earlier stage of research and were available as an alternative to face to face interviews.

Individual, paired or group interviews were available to participants. The inclusion of one or more focus groups had been favoured for the rich data that they can yield as participants build on each others’ thoughts and for some of the less experienced participants, focus group or paired interviews could offer an element of peer support. As Krueger and Casey (2000) noted “a group possesses the capacity to become more than the sum of its parts, to exhibit a synergy that individuals alone don’t possess” (Krueger and Casey, 2000, p.24). All interviews were eventually individual apart from one focus group with three experienced physiotherapy educators (the “expert” group). For some participants, for example the PGC alumni, their diverse geographical locations made organisation of group interviews impractical. Individual interviews did have some advantages in that they presented the opportunity to hear specific perspectives and experiences.

All interviews were semi-structured. Structured interviews were rejected because they would preset the agenda. Unstructured interviews were deemed unsuitable as I already had wide knowledge of the area and wanted some focus. Interviews took place during the period from December 2009 to July 2010. They were either carried out by telephone or face to face (see table 3.2). The interview schedule can be found
in appendix 2. The aim of the interviews was to get participants talking about patient education.

I have earlier indicated that during planning my working definition of patient education was:

“The planned systematic, sequential, and logical process of teaching and learning provided to patients and clients in all clinical settings” (Dreeben, 2009, p.457).

The interview schedule was also influenced by two papers which were related to the subject area (Resnik and Jenssen, 2003; Rindflesch, 2009). The semi-structured nature of interviews permitted me to explore participants perceptions based on the above definition in an attempt to prevent misunderstandings associated with the term patient education.

A digital recorder was used with participants' permission. The questions were based on an interview schedule. As indicated earlier for the face-to-face interviews a quiet location was selected. Telephone interviews were an option that had been piloted for an earlier phase of my research. For participants who I did not know I tried to arrange face to face interviews if at all possible. For telephone interviews I rang participants on a pre-arranged number and used an ear piece connected to the digital recorder which produced recordings of excellent quality. Interviews took between 30 minutes and 75 minutes. All recordings were transcribed by a third party and these were listened to more than once and transcripts read several times initially, and returned to frequently throughout the process of analysis. Transcriptions were subsequently available to each participant so that they had the opportunity to comment on or add to their own interview content if they wished to.

The 'expert' focus group was the first to take place (in December 2009) with the intention of helping to inform further interview structure and data collection. The participants in the group were academic staff involved in teaching the PGC and were regarded initially as experts in view of their extensive experience as physiotherapists.
(all had been qualified for over 35 years) together with their qualifications and experience as educators (all had been university educators for over 20 years). All are Fellows of the Higher Education Academy. All are research active in RAE terms with physiotherapy and education related output.

The group was initially briefed on what to expect from the focus group discussion (appendix 8). A reflection sheet completed following this interview can be found in appendix 9. Some key points relating to the reflection were:-

- Questions began by an attempt to set them in context by stating the associated research question. This led to unwieldy questions and was adapted for subsequent interviews.
- Some of the questions felt repetitive and a modified sequence was used for subsequent interviews
- The interview was semi-structured but I kept quite tightly to the original questions. While this worked in the focus group I was concerned that it might limit flow in individual interviews and so stuck less rigidly to the schedule in subsequent individual interviews.
- The interview and initial analysis of the data coincided with reading Mellion and Torvin (2002) which briefly led me to consider possible refinement of the fundamental research question to fit with a grounded theory approach.
- Identification of the need for a standard format for subsequent reflections following interviews.

This last point resulted in a quest for a standard approach to future reflection on interviews and the adoption of a format based on Miles and Huberman (1994, p.53) see appendix 10. As can be seen from a sample completed sheet (appendix 11) reflection using this structure resulted in a more complete analysis. It was following this reflection that I began to realise the richness of the language being used by participants and following discussion with supervisors began to explore discourse analytic approaches as a possible alternative methodology to grounded theory. Further interviews (all individual) took place throughout the first seven months of
2010. All but two of these were face to face. The remaining two were by telephone interview.

3.13 Reflexivity in relation to interviews

3.13.1 Insider/outsider perspective

In preparing for the interviews with participants I noted Sword’s (1999) reflections on her own research and the challenges in relation to presence of self. I was aware of my role as researcher and the impact this might have on participants and their discussion. In terms of how I might be viewed on an ‘insider’ to ‘outsider’ spectrum I considered that this might vary between sub-groups of participants and even between individuals in those groups. For the novice group it was likely that I would have been seen towards the outsider end of the spectrum. For the group of academic staff with whom I had planned curriculum and courses, shared peer observation of classes, and published I felt that it was likely I would be viewed closer to the insider end. For all of the qualified physiotherapists I considered myself to be an insider to some extent in that I am also a physiotherapist. For all participants I might have been seen to be in some position of ‘power’ by virtue of the responsibilities that are part of my role within the School. From my own perspective it did not feel at all like this at the time. I saw myself as a relatively novice researcher and had respect for the varied experience of participants. I was aware, however, that I needed to consider this issue in the way I made initial approaches to potential participants and all subsequent interactions. I was also aware that this might influence responses to questions.

For all email communication I kept the style relatively informal but ‘professional’. For interviews I planned in advance the location, specific room, where to sit in relation to the participant and what clothes I should wear that day. In all of these aspects I attempted to maintain a neutral feel and for example kept clear of my own office and tried to dress relatively informally on interview days. Sword (1999) had observed that her anxieties about the presence of self had been allayed to some extent because participants had been fully informed about the study and had volunteered to take
part, and this was also true for my study. Recruitment to the study was slow, particularly for students close to qualification and this may have been in part because of concerns about talking to me about patient education.

In terms of the conduct of the interviews, I found that I already knew 9 of the 16 participants. These interviews were easier to conduct as we had some common ground for preliminary informal interaction prior to switching on the recorder and beginning the interview. For the remaining 7 which included all of the ‘nearly or newly qualified’ group I tried to set them at ease before beginning the questions.

3.13.2 Analysis of interview data
After the first few interviews I began to look in detail at types of discourse analysis to identify a form of analysis which would do more justice to the rich language which was used by my participants. At this stage I realised that not only would my methodology change but also the wording of the research questions might need adaptation to fit with this different perspective. There followed a period of several weeks of intensive reading when there was a gap in interviews as my head began to swim with possibilities. I reached a point where I had some form of mental constipation and could not see the way forward. In terms of my earlier allusion to being inside a maze I think I was scrabbling around in the undergrowth at this stage. When I eventually found that interpretative repertoire might provide the vehicle I was searching for there was a sense of relief but also a realisation that because the text did not occur naturally and my ontology was not as far right of the realist/relativist spectrum as some discourse analysts I would be drawing on, rather than using interpretative repertoire in a pure sense. I take some comfort from Cousin (2009, p.2) who noted the “strong craft dimension” of qualitative research but also cautions of the need to know “some of the rules before throwing them away”.

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3.14 Analysis of data

Data analysis for all interviews was carried out in two main stages. The first was the identification of themes in the data influenced by the model described by Braun and Clarke (2006, p.87). This involved the following stages:-

1. Familiarisation with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes

I began by listening to the tapes while reading each transcript and then re-reading each transcript several times. Interesting ideas and items were then coded by highlighting in the text and the attribution of a descriptor (code) in a generous margin on the right-hand side of the transcript. The data from the first interview (focus group) was ‘coded’ manually. These initial codes can be found in appendix 12. Although at a very early stage of data collection I subsequently organised the codes into possible themes (see appendix 13) to help me understand and further organise my thinking about the study before subsequent individual interviews were carried out. After I had coded a few more interviews in this way I made a further attempt to identity emerging themes (appendix 14).

At this stage I attended a seminar which explored the potential of NVivo in the process of qualitative data analysis. This session aroused my interest but also triggered memories of an earlier key discussion with an experienced researcher about the merits of using software packages for this purpose. I then spent a (very) long weekend using a web based tutorial package to ‘get to grips’ with the basics of NVivo. For subsequent data analysis I was able to use the ‘free node’ and ‘tree node’ facility to collect, organise and display data of interest and relevance. For each transcript I later transferred the codes into Nvivo which enabled me to organise data elements as ‘free’ nodes. I subsequently clustered and re-clustered the codes using the ‘tree’ nodes facility which permitted the production of a more hierarchical
structure. The tree node main titles formed the themes with the interpretive repertoires, once identified, forming branches from the themes.

The tentative identification of repertoires began at an early stage. The initial thematic structuring of the extensive data made the task of identifying repertoires (relating to each theme) more manageable. In identifying repertoires relating to each theme, as noted earlier, I followed the advice of Talja (2005) by:-

- “analysing variability in descriptions in individual participants’ interviews
- identifying recurring patterns of context-dependent variability by comparing interviews
- comparing the interpretive repertoires identified from interviews with available literature”. Talja (2005, p.15)

The identification of themes and interpretative repertoires was informed by my experiential knowledge of the professional area and by in-depth review of the literature relating to patient education. Advice from supervisory meetings and further reading informed adaptations which included the adoption of a “concepts of teaching” repertoire and additional vigilance for the use of metaphor. The initial model of interpretative repertoires thus identified was then “tested against a larger set of data” (Talja 1999, p.473; Hsu et al., 2009), in that as I analysed subsequent transcripts I continued to review the relevance of the repertoires selected whilst actively seeking sections of text to code for my emerging interpretative repertoires. The credibility of the selection was peer reviewed through discussion of the potential repertoires with a small group of academic colleagues with relevant subject expertise (my ‘expert’ group).

A print of an Nvivo page showing the free nodes part way through the coding process can be seen in appendix 15 and the completed set of free nodes in appendix 16. The gradual organisation of codes, themes and interpretative repertoires is shown in appendices 17/18. An overview of the evolution of thematic titles associated with this process is shown in table 3.3.
1. **Expert focus group - January 2010**

- Patient-centred
- Facilitatory
- Integral
- Partnership
- Context
- Way forward

   became part of “concepts of teaching”

   became part of “concepts of teaching”

   became part of “role”.

   became part of therapeutic relationship

   elements included as part of discussion

2. **May 2010 following initial analysis of 10 interviews**

- Pedagogic
- Preparation
- Practice
- Political

   became “concepts of teaching”

   closely related to one of final themes

   elements distributed between final themes

   elements included in “context”

3. **Early August 2010 following analysis of all interviews**

- Concepts of teaching
- Preparation
- Role
- Practice

   closely related to one of final themes

   closely related to one of final themes

   closely related to one of final themes

   elements distributed between final themes

4. **August 2010 following review of coding and themes**

- Concepts of teaching
- Preparation
- Role
- Practice
- Culture
- Therapeutic relationship

   closely related to one of final themes

   closely related to one of final themes

   closely related to one of final themes

   elements distributed between final themes

   elements distributed between final themes

   closely related to one of final themes

5. **September 2010 following further review**

- Concepts of teaching
- Role
- Preparation
- Therapeutic relationship
- Context

   closely related to one of final themes

   closely related to one of final themes

   closely related to one of final themes

   closely related to one of final themes

   closely related to one of final themes

6. **December 2010 Final version.**

- Concepts of (patient) teaching
- The patient educator role
- Preparation for the role
- Therapeutic relationship
- Workplace context

   one of final themes

   one of final themes

   one of final themes

   one of final themes

   one of final themes

**Table 3.3 Evolution of Thematic Titles**

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This chapter has considered the methodology of the study in depth including methods selected for data collection and analysis. The next chapter will present the findings of that analysis.
Chapter 4

Findings

4.1 Introduction

In the last chapter methods selected for data analysis and the rational for selection were outlined. In this chapter the themes and repertoires are presented, together with related quotes from participant interviews. As noted in chapter 3 interpretative repertoires are “relatively coherent ways of talking about objects and events in the world……providing a basis for shared social understandings” (Edley, 2001, p.198). The repertoires or “discourses” (Taylor 2001, p.8) that interview participants have available to draw upon is governed by cultural, historical and social influences, mediated through language. Several, possibly contradictory, repertoires might be found within the data for an individual participant.

Participant quotes are indicated by the use of indentations and italic script, individual participants are identified in brackets after the quote (P1, P2 etc.) together with the specific location (line number) in the original transcriptions (e.g. 222-223). Rather than presenting findings and discussion together discussion of these findings can be found in the next chapter (5), together with consideration of how the titles of the themes and repertoires were selected.

4.2 Themes and repertoires

The five themes indicated in table 4.1 were initially identified by thematic analysis as explained in the previous chapter. Repertoires associated with each theme are shown in the columns of table 4.1 below the thematic title. There is no horizontal link between repertoires. Focussing on each of these themes I then drew on the notion of interpretative repertoires (also previously outlined) to further analyse the transcripts. In this section each of the repertoires will be illustrated showing how physiotherapists constructed patient education, their role within it and in so doing positioned themselves in relation to patients and education.
Table 4.1 Theme and interpretative repertoire titles.

<table>
<thead>
<tr>
<th>Concept themes</th>
<th>Theme 1</th>
<th>Theme 2</th>
<th>Theme 3</th>
<th>Theme 4</th>
<th>Theme 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concepts of patient teaching</td>
<td>The patient educator role</td>
<td>Preparation for the role</td>
<td>Therapeutic relationship</td>
<td>Workplace context</td>
<td></td>
</tr>
<tr>
<td>Repertoire 1</td>
<td>Transmission</td>
<td>Integral</td>
<td>Natural</td>
<td>Compliance</td>
<td>Pressures in the workplace</td>
</tr>
<tr>
<td>Repertoire 2</td>
<td>Interpretation</td>
<td>Extensive</td>
<td>Experiential</td>
<td>Collaboration</td>
<td>Multi professional working</td>
</tr>
<tr>
<td>Repertoire 3</td>
<td>Facilitation</td>
<td>Theoretical</td>
<td>Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repertoire 4</td>
<td>Empowerment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2.1 Theme 1 – Concepts of patient teaching

The physiotherapists interviewed talked extensively about their educational interactions with patients. The positions adopted in relation to their pedagogic role showed variability within individual interviews but recurring patterns of variability between participants. Four interpretative repertoires were identified from the data associated with theme 1 and are listed in table 4.1. The use of particular verbs and metaphors was of particular interest together with how participants positioned themselves in relation to an educator role with patients.

4.2.1.1 Transmission

The transmission repertoire represented the most common way that participants talked about their teaching role and was identified in most of the transcripts. The term ‘transmission’ has been widely used in the literature relating to educators’ concepts of teaching with students (e.g. Kember, 1994; Richardson, 2005; Kell and Jones, 2007) and the word could be defined as “the act of sending a message” (Wordnet, 2010). In this repertoire participants positioned themselves as well informed sources or ‘experts’ providing or conveying information or knowledge to
less well informed passive recipients (patients or clients in this case). Metaphors and verbs associated with movement, and the sending and receiving of messages were used frequently.

P4 talked at length about her role with young patients:-

_It’s absolutely about getting across as much as you can as quickly and as easily as you can to patients, P12, 455-6_

In “getting across” information speed (“as quickly”) and simplification or coding (“as easily) of the message seemed to be essential. The use of the term “getting across” had been preceded earlier in the interview (see below) by one of reception, in this case “take on board” which might have indicated that the information would be stowed away for future use:-

_They need to be ready to take on board that we’re needing to teach them something. P12, 130-131_

This use of the phrase “we’re needing to teach them something” suggests some urgency and a process in which the patient is a passive recipient. This participant had earlier in the interview positioned herself as the expert in the relationship with patients but with obvious reservations:-

_I spend a lot of time being on the sort of slant of being seen as the expert, because we’re seeing families very early on through diagnostic periods and I think at that point in the relationship between myself and them as clients, I think there is a great informing part of that education role… that’s not because I want to, it’s because they’re very much in that seeking phase of information and knowing what, you know, the future’s going to look like. P12, 46-50._
She softened the reference to herself as an expert by prefixing the word with an unusual phrase “on the sort of slant” and then added to the apparent reluctance to identify herself as an expert. She strives to present the families concerned as being on a more equal footing than the term “patient” might imply by using the word “client” and justifies her reason for having to provide them with information (“not because I want to”) because they were in “that seeking phase”. It seemed that this participant saw herself as something of an authority but wished to play down the potentially powerful position this might place her in, in relation to the families she worked with. The same participant gave additional justification for the approach taken later in the interview, relating to trust:-

*and patients know that they can trust us, that we’ve got the right information and we can teach them in the right way so that they… they can go away and manage things and know that it… they’re on… you know, they’re in control of their lives.*

_P12, 458-461._

She then linked the possession of new information (and its portability) with the ability of the patient to be “in control” of their lives which has links with the repertoire of ‘empowerment’ (considered later).

Other verbs were used to indicate the movement of information between the physiotherapist and their patients. The verb ‘to deliver’ or ‘delivery’ (noun) as a result of that movement were terms frequently used:-

*we’ve put our expertise in on what we deliver and how we deliver it.* _P6, 314-315_

_I deliver patient education within a pulmonary rehab setting, so every session of rehabilitation, that’s twice a week, patients get up to an hour of some kind of educational topic delivered through a variety of methods._ _P11 7-9._
The same participant (P11) talked about her methods of delivery which included the use of powerpoint for group sessions:

*I kind of definitely think it’s got it’s place, but as I’ve got more experienced at delivering those sessions, I’ve come away from using powerpoint and I tend to let the patients almost lead us to where we’re going to go in the session and that way it’s a bit more individual to them. There are certain… there are certain things that I try to get across, um… to make sure that we’ve covered, so it might be how I respond to a certain question direct because it ran sort of that way, but I think they enjoy it more because there’s much more interaction and so hopefully it’s a bit more memorable for them.* P11, 223-240.

P11 demonstrates uncertainty (“I kind of definitely”) or reluctance to be seen as an authority with regard to the how useful she does or should regard powerpoint at the beginning of this passage. Again she began by talking in terms of “delivery” but linked increasing experience to less reliance on powerpoint as a medium. She went on to talk about “trying to get things across” and “covering” topics, both of which seemed to suggest transmission of information. Interspersed with this are references to patients “leading the way” and “interaction” which demonstrate a more collaborative approach and some tension in the repertoires being employed by this experienced participant. Another common reference in the transmission repertoire was that of “getting it through”:

*If you can get something through to them in completely layman’s terms and very, very simply, they’re more likely to understand it and follow your advice.* P1, 217-218.

For this same participant “getting something through” to a patient was only part of the story:
I think if you can actually go through it with them step by step, explain exactly what muscles are working, which muscles aren’t… why you want them to work, I think that sort of really cements the idea in their heads that that’s what they’ve got to do. P1, 84-87.

….."cementing" it in position was also necessary. This is an interesting construct of learning which implies that the information once received can be fixed in place on a permanent basis.

“Provision” of information or sources of knowledge was a recurrent term for many participants at some point in their interview. In these two extracts from different participants information is “provided” with a view to enhancing patients’ decision making:-

and then you have maybe other clients where the OA… let’s say a knee or hip, has gone so far that there’s really nothing you can do with acupuncture. Maybe an exercise and maybe even injection is just a few days, few weeks pain relief. And then my role would also be to… to um… provide information about other options, such as surgery of er… total hip, knee for instance. P13, 81-84:-

patient education means to me providing patients with information, resources, um… and knowledge to be able to understand maybe some of the issues relevant to them, so whether that’s about their condition or about how they can best help themselves, um… to then be able to take that information and knowledge forward for themselves to be able to cope better in life generally. P7, 6-11.

“Provision” was clarified by this latter participant to relate to information, resources and knowledge. In this extract the “movement “or “transmission” metaphor is apparent again in that the physiotherapist hopes the information will be “taken forward” to help the patient cope better. The same interviewee went on to discuss learning needs of patients and other learners but returned to familiar metaphors to
describe the education process and in doing so giving some insight into her approach to teaching. In the extract (below) education is being “given”, and in doing so moving from one person to the other. The use of the phrase “what level to pitch it at” also suggesting a target for the movement of the object between the transmitter and recipient:

So actually it’s about gauging the audience and working... what they want to know. It’s always lovely if you know what level they’re at before you start because then you know what education to give them and also what level to pitch it at. P7, 120-123.

Giving information is also the focus of the next extract from a novice participant. Here there is a suggestion of a condescending approach to the patient. It is not clear who the plural “we” relates to, perhaps it is physiotherapists in general or perhaps she is still referring to the student cohort she has just left. Maybe she sees a more pronounced divide between health professionals and patients. She first suggests that things that are common sense (to “us”) and can be “pointed out” to the patient. She stumbles as she follows this up with “because someone’s taught that” as she appears to see a tension between the notion of common sense and being taught. Finally the act of transmission takes place in “giving” it to the patient:

sometimes it’s just about pointing out things that we find common sense because someone’s taught that... um... you know, taught us that and just kind of give that to the patient to use. P4,108-11.

P5 also “gives” information, on request, but converts it into terms which might be more easily accessible (and as such has some overlap with the next repertoire of interpretation):

if ......they specifically request some information, then I will give them as much as I know, and as far as possible in layman’s terms. P5, 46-48.
The following extracts are also about “giving” but here it is initially referred to as “spoon-feeding” but then the speaker perhaps feels that it is not appropriate to use that term and so adapts the wording to “support”. In another section of the same interview a distinction is made between “telling” someone what to do and “giving” information so that they can make decisions for themselves:-

*I guess to begin with you’re spoon-feeding, um…or you’re giving them a lot of support rather than spoon-feeding. Um… but you are also trying to listen to what… you know, what they want to achieve. P9, 137-139.*

*you’re trying to give people the information so that they can use that, so they don’t feel that they’re being told what to do, but they’re being given the information so that they can make a more informed decision about how they want to change their lifestyle. P9, 93-95.*

The notion of “spoon-feeding” seems to draw on the idea of the patient (or learner) as a child or incapacitated individual in need of help. Other similar terms were used by other participants as in this extract where the process of getting information through seems to be visualised as more protracted by some sort of transfusion:-

*so in some ways they’re in quite a strong situation that they can build more rapport and sort of drip-feed through for three or four sessions. P8. 133-135*

Two participants, during dialogue in the expert focus group, were quite critical of teaching methods which purported to transmit (in this case by delivery) information to learners and the potential uncertainty about whether patients had understood. The second speaker drew an analogy with students which questioned whether any learning took place when a delivery method was employed:-
Or delivering… giving somebody leaflets, again they might use leaflets to save time, but actually checking the patient’s understanding of what’s required, etc can be pared back. P15, 171-173.

Which of course is analogous to having cohorts of 300 students and er… so you give them a power-point presentation and a reading list and it’s up to them to get on with it, and then you wonder why they’ve all failed their exams. P16, 175-177.

In summary, the transmission repertoire functioned to indicate that physiotherapists positioned themselves as potential sources of information, sometimes as experts with patients positioned as passive recipients. They needed to “receive” the available information and knowledge through explanation and advice, both verbal and written (e.g. leaflets).

4.2.1.2 Interpretation
A less frequent but nevertheless important repertoire was that of “interpretation”. It was closely related to the transmission model in that helping patients to “understand” was the aim but in the interpretation repertoire there was an additional element suggesting the need to process and adapt information prior to onward transmission. It functioned to show that the physiotherapists felt they were good communicators who held knowledge and understanding and were able to use this to interpret complex information into layman’s language for the less able patient.

The extract below emphasises the importance of communicating in a way that patients find accessible. Several participants referred to a perceived need to help patients understand what doctors had said to them:

The doctors did a lot on the ward rounds, but I think it’s important to... for us to cement that and repeat what the doctors have said to them and to really get it through. P1, 117-118.
The use of the analogy of cement was used previously by this relatively inexperienced participant in relation to fixing new information in place. Here it seems to be similar to the repertoire of transmission but an additional dimension of reinforcement of information given by other staff is evident which sets it apart from transmission. P1 demonstrates a perceived need, also felt by other participants (below), to repeat what doctors have said, but in lay terms, so that the message does “get through”:

*they specifically request some information, then I will give them as much as I know, and as far as possible in layman’s terms. A lot of the time patients say to me oh that makes so much sense, I wish actually someone’s said that to me or told me that, instead doctors tend to use just medical terms and they kind of… it just goes right over their head, they get lost. P5, 46-50*

Staying with the perceived need to act as translator of information relayed by a doctor this was sometimes linked to the time pressures that these health professionals face. In the extract below it was also necessary to explain the link between symptoms and their pathology:

*and sometimes they don’t really understand what’s going on, why they have all this pain and er… the physiotherapist is… is a vital part, important part in… in explaining a lot of the mechanisms between the pain and their problems which the GP or their orthopaedic consultant or rheumatologist don’t have time to do. P16, 696-700.*

In the next extract the issue of level of education of patients is raised and the perceived need for the use of lay terminology in order that information has a better chance of being understood and followed:

*I think it’s the sign of a good educator if someone that can get a point across in the simplest way possible, where someone can understand it. There’s no point using*
big words and being overcomplicated because I think it will just scare people off, especially patients who maybe don’t have a high level of education. If you can get something through to them in completely layman’s terms and very, very simply, they’re more likely to understand it and follow your advice. P1, 212-218.

The apparent need to do this “very, very simply” seems to assume that patients will either be of low cognitive ability, relatively uneducated or both. She mitigates this by acknowledging that this applies in the main to those who don’t have a high level of education. The speaker uses the phrase “I think it will just scare people off” flagging the possibility that this is speculation rather than built on solid experience. Other participants also talked about the part they played in aiding understanding:

it’s part of what I really love about the community because um… I do feel that you’re given the opportunity to help patients to understand what’s going on and to um… I suppose make the most of their everyday life by using things that, you know, you can teach them. P11, 166-168.

This experienced participant seems to convey that it is a joy to help patients understand. She loves doing it and regards it as an opportunity, and maybe almost a privilege. The sentence functions to convey a sense of humility in the claim that it can help them make the most of their everyday life. Other participants emphasised the importance of getting the communication right, this example also refers to the use of lay terminology:

So one of the great examples I heard of, which was a patient who um… had been told that her um… disease was um… oh I can’t remember… progressing, that was the word”.

(Interviewer) “Was what, sorry?”
“Disease was progressing. And she was smiling! And the consultant couldn’t work out why and he went no I’m sorry, I’ve told you it’s progressing, and you know, he couldn’t work out why, and he ended up getting a clinical psychologist to
come and see the patient because he thought they were deluded. You know, he was like I can’t make sense of this. And, you know, the clinical psychologist went in and you know, and actually they put it down and said well what do you mean by the word progressing? And they said well that means getting better doesn’t it? And actually, you know, it wasn’t what he meant at all. P7, 426-439

She went on…..

And it’s things like that, terms that we use, that are very dangerous, that patients take on… and certainly in the pulmonary rehab world you say exercise to patients and they think comprehensive gym, oh my god, I don’t want to be in that environment. P7, 444-446.

Having illustrated the point she was about to make with two short stories she came to her conclusion:-

And it’s things like that that you pick up as you gain more experience, that you’re very careful about what words you use, you’re very careful about what you say, but also you’re gauging, when you’re speaking to somebody, whether it’s one to one or whether it’s a group, how are they taking that. P7, 450-453.

P13 also saw part of his educator role as helping patients to understand. In this case he needed to be able to draw on his knowledge of anatomy and pathology in order to explain why the patient might still be in pain after surgery. The emphasis here is on needing to “try to make them understand” and whilst reinforcing the interpretive role of the physiotherapist as an educator notes that success is not inevitable:-

And we have to educate them and sort of address the issue that just because they’ve got a new knee, you could… you could still have pain, you know, osteoarthritis not necessarily just… just that particular joint, you know, it could be other places in their body and it could also have affected the… the er… soft tissues around that new knee so badly that they will still have a lot of muscular
pain and... try to make them understand that it's... it's... I mean it's not the... it doesn't really solve all the problems and that sometimes that's difficult for them to understand. P13, 116-123.

However there is considerable satisfaction to be gained through this aspect of the role:

*I think it's one of the best parts of my job, actually being able to help them understand what's going on.* P11, 172-173.

Here P11 rates educating patients as one of the best parts of her job. "Being able to help them understand what’s going on" is flagged as the key to this satisfaction. The interpretation alluded to by most participants was by verbal means but could take other forms. In this example below a more graphic explanation is described where the therapist's hands are used “as pictures” as well. In the final sentence she seems uncertain about the success of this particular interlude as she concludes “so they kind of understand:-

*I'll try and given them the same understanding that I have in layman’s terms, for example, like I told you, a patient with an ICD, I explained to him how to do deep breathing exercise, and I'll use my hands as pictures and I'll explain to then say, for example, this is your lung and there's a sheet around your lung and there's a tube in between. And the more you breathe, the more your lung expands and pushes the fluid, pushes the air out of that tube, and then they're like oh OK, so they kind of understand.* P5, 154-160.

The final contribution in this section relates to the growing access that patients have now and are likely to have in the future to sources of information through the internet. This participant and others recognise the growing need for physiotherapists and other health professionals to help in the interpretation and evaluation of that information so that patients can understand it in relation to their condition:-
And thinking in terms of patient access to information, they’ll have more ready access to a wealth of information, so again part of the educational role for me is the ability to help patients to interpret information and evaluate information, so that is an additional role I think that we have as educators. P15, 75-79

In summary, the repertoire of interpretation is associated with aiding patients’ understanding through “decoding”. Patients took a relatively passive role. Physiotherapists positioned themselves as health professionals with knowledge and understanding who were good communicators and able to use their skills to translate complex or information including medical jargon back into layman’s language for the less able and passive patient. In an increasingly technology-based world this aspect of their role was seen to be evolving.

4.2.1.3 Facilitation

The facilitation repertoire refers to helping patients to understand through encouraging active reflection and discussion. In this repertoire participants positioned themselves as helping groups of patients to explore their experiences in more depth as a basis for discussion and enhanced understanding by the patient.

Some participants specifically used the term “facilitate” in relation to working with a group of patients and the part they play in getting them to discuss common issues. They described themselves as leading discussion often through questioning and encouraging patients to contribute. P11 talked at length about this part of her role and the value of sharing experiences in this way:-

“that part of it we do through… through discussion, getting them to draw on… and getting them to share their own experiences, um… rather than us just saying well these are all the things you need to look out for if you’ve… you know, got an infection, we get them to discuss well, you know, when you’re not very well, what
is it… how do you know you’re not very well, what is it you’re looking for and get them to chat about it. P11, 459-461.

She referred to “us” seeming to indicate a team approach and stresses that they are trying to avoid telling patients what to look out for and instead draw on their own illness experience. She uses the term “get them to chat about it” which seems to reflect the tone of the group discussion as informal and friendly. A little later in the interview (below) she returns to this point and now uses the word “facilitate” and indicates that one strategy would be to explore certain points in more depth through the use of questioning:-

To facilitate it really, it’s to facilitate the discussion and perhaps to ask, you know, certain questions. If they mention something perhaps to um… get them to go a bit deeper into what they’re saying or… um…P11, 474-476.

P12 also noted the importance of discussion which involved getting groups together, in this case parents of children with similar problems.

and so having that opportunity to have that sort of discursive relationship, not just with us as professionals, but with other parents. P12, 154-156.

The use of this sort of approach with groups of patients in order to “problem solve” in relation to everyday activities is also illustrated in the extract below. In the last sentence P11’s use of the term “rather than us just sitting there” serves to change the relationship from the physiotherapist as a sort of mechanical transmitter of knowledge and information (with the patient as passive recipient) into one of the patient actively taking part in their own learning through supported problem solving in a group in which she was the facilitator:-

and then we sort of reiterate that they can take that process to any activity that they’re doing at home so… it doesn’t have to be shopping, it could be gardening,
and they can break it down into what is... what is it about that activity that’s causing the problems and then try and problem solve, so um... it’s quite good practice for... for them actually doing it, rather than us just sitting there telling them all the different ways that they could... they could, you know, cope. P11, 305-311.

P10 used the term “facilitate” but differentiated it from delivery, a term which has earlier been linked to transmission.

so that any sort of education that you’re trying to sort of facilitate or deliver is meaningful to them. P10, 70-71

P15, one of expert group, talked about this way of working with patients. Her use of the word “could” in the first line (below) suggests that this is to some extent hypothetical or that she is promoting this approach for use with patients. She acknowledges that this isn’t an easy option (it takes time) but follows it up with an observation that suggests that she has direct experience of this way of working with patients. In the last sentence she positions facilitated groups as having the potential to be “patient centred” when done well. She also positions herself as experienced and being confident in her own evaluation:

a good educator working with a group of patients could again generate discussion and some key points that they could again discuss together. But that requires time. But some of the best facilitated groups are the ones where patients are contributing and discussing and getting out of it what they want. P15, 451-454.

In summary, the facilitation repertoire positions physiotherapists as helping patients to learn in a less passive way than the previous two, often through effectively leading discussion in groups which provide opportunities for peer exchange and sharing of experiences. The exchange in these groups also provides physiotherapists with opportunities to assess understanding. In doing so it positions the patients as being actively involved in reflecting upon their own experiences and those of others in order to have enhanced understanding of their situation and improve their problem
solving ability in order to cope better with life.

4.2.1.4 Empowerment

Participants talked at length using language that fits with the current emphasis in the health workplace on “empowerment”. This repertoire was often linked to the movement of care from the acute sector into the community. It positioned physiotherapists as helping patients to self-manage through the provision of information and direction they provided. Talk of self-help, self-management, promoting independence and helping patients to cope was at the heart of this repertoire. Reference to provision (or transmission) of knowledge is often linked ultimately to empowerment. In the following extract it can be seen that once knowledge has been “taken on board” the patient is then “carrying it over” (indicating “movement” common in the transmission theme) into their everyday life to help them to manage better. As was the case in the transmission repertoire the concept of a “target” for the knowledge is once again linked to level of education. In this extract there does appear to be some tension between repertoires:-

it’s about providing them with the knowledge to empower them in their disease management really, um… and it’s… it’s both management techniques and the background knowledge, because I think very often if people understand why… why they need to do something, then they’re more likely to actually take that on board and carry… carry it over into their everyday life so um… obviously you have to target it at their kind of educational ability and what they can handle, um… but I think it… yeah… it’s about getting them to manage things better. P11, 49-56.

The aim here is to get patients “to manage things better” which seems to relate to self-management. Later I will discuss the association of self management with an empowerment approach but the initial strategy here appears to be one of transmission. Consideration of the concept of self-management appeared to be accompanied by a degree of cynicism. In response to my question “Are there any
other sorts of activities which you would count as education?” P13 distances himself from the idea of using self-management as a way to reduce waiting lists by starting his reply with “now maybe some people” (not him), he then goes on to refer to the patient in this context as a “client” maybe distinguishing this group who are subject to early discharge, from patients. His description of a short intervention stage then leads in to a “more self-management approach” which seems possibly to be a euphemism for “left to their own devices”:-

Now for some people it could be um… or maybe some Trusts or manager of a team it could be maybe all about self-management of a client. Um… so it’s one way of dealing with waiting lists, you know, to discharge clients fairly um… quickly and sort of have a maybe not as long inter… an intervention with the clients and then sort of lead them on to more self-management approach, P13, 43-48

P13 also drew on the current ‘hot topic’ of meeting waiting list targets as a rationale for early discharge of some patients (leaving space for the next in line). There was an indication in some interviews of a threat to the profession from the empowerment agenda. The following extract almost seems to suggest that resources like the internet might make the need for professional input superfluous. P12 felt that by holding the “right” information and teaching patients in the “right way” they (patients) had access to “control of their lives”:-

there’s a lot more self management out there now, and we need to keep our profile high in the professions context and patients know that they can trust us, that we’ve got the right information and we can teach them in the right way so that they… they can go away and manage things and know that it… they’re on… you know, they’re in control of their lives. P12, 457-461.

Although some participants used this repertoire as part of a consideration of positive enhancement of patients’ lives there was another side to the empowerment repertoire……
I think that patient education tends to come into the more holistic side of management, um… and it’s all about, you know, in hospitals it tends to be these days about how quickly you get them out the door, um… and about them not, you know, not being admitted in the first place. P11, 609-613.

In the extract above the speaker refers to it being about “how quickly you get them out of the door”. This reference to swift discharge of patients turns people with their various illnesses into an amorphous “them” and the use of the metaphor “out of the door” suggests that it might be closed on them once out. This idea is then followed through in the next sentence with the reference to them not being admitted in the first place. The term “the more holistic side of management” is not very self explanatory but is used here perhaps to throw up a smoke screen to try to justify the swift exit and restricted admittance. Patient education is used in this section in relation to the empowerment agenda with its links to the need for financial restraint in public spending.

A similar theme is apparent in the extract below teaching them “how to manage their own illness” in the second line has shifted to teaching them “how to treat themselves” three lines later. The feeling that patients with distressing problems might be left to cope by themselves under the banner of the empowerment agenda creates some unease:-

instead of coming to hospital every time they feel ooh I’m short of breath, I can’t breathe, you teach them how to manage their own illness so… helping them to identify early, and showing them on how to… or teaching them on how to be aware, and to treat themselves……that will obviously involve teaching them the anatomy, physiology, pathology, pharmacology of a disease, teaching them how to manage their breathlessness, how to treat themselves. P5, 492-500.
This extract also suggests an extensive teaching role with patients (“anatomy, physiology, pathology…”) which at once signals the potential scope of the task with particular patient groups and the skills necessary to be effective.

P9 talked about empowerment in association with self-management and seemed to be critical of those who adopt a passive role (as in the passage below):

> it’s about empowering people to be able to learn to self-manage, so that um… they can… you know, they’re aware of the signs and symptoms a little bit more and know how to be more independent with how to fix themselves and be less dependent on the service. Because some people are very passive I think, P9, 39-42.

She returned to the theme of passivity later in the interview in the extract below. She used the word “you’re”, to provide some distance from the thought that older people “are waiting to be done” (though this was said with some hesitancy and perhaps self-consciousness) rather than being more proactive and helping themselves:

> you’re trying to get away from the passiveness of… of healthcare and the context of healthcare from perhaps…especially with it… a more elderly population who, you know, are waiting to be, you know… done… if you see what I mean, done to … rather than actually helping themselves. P9, 168-171.

Several participants noted a transition in physiotherapists’ educational relationship with patients. This participant drew a parallel with the autonomy of the physiotherapy profession (now well established) and expectations of patients in relation to their own health:

> we’ve gone into a different period in time in terms of our evolution as health professionals, because we’re… we’re working autonomously… more
autonomously now than we’ve ever done before, but also we’re expecting the patient to become more autonomous within that therapeutic alliance. P14, 61-64.

P16 drew on progressive learning theory and linked the process of patients working towards their goals with the notion of “mentorship”. Her expressive use of a “vision” of the future and the journey towards that (“take the steps they need to take”) before receiving “help” to get over the “threshold” seems to capture the essence of the empowerment repertoire:-

In a way it’s mentorship. If you think of a good mentor and there’s, you know, the three classical pillars of mentorship, support, challenge and vision. It’s exactly what you’re trying to do with patients or with learners or with friends or whatever, you know. Support them in difficult situations to take the steps they need to take. Help them over the threshold, you know, to… to challenge them to deal with issues and to show them a vision of a future that’s worth living. That’s really what it’s about. P16, 813-819.

Her extensive use of graphic metaphor, not only in this short passage but elsewhere in the interview, suggests well-developed concepts of key strategies. In her concluding comment “that’s what it’s really about” suggests confidence in her own knowledge in relation to this area of practice.

In summary, in the “empowerment” repertoire physiotherapists predominantly positioned themselves as agents of their employer trying to meet discharge and productivity goals. References to positive enhancement of patients’ lives through their approach to education were concealed behind the needs for rapid discharge and avoidance of admission to hospital. Patients in this repertoire were positioned as at times being reluctant to take responsibility for their own care.

Theme 1, concepts of patient teaching, included four repertoires: transmission, interpretation, facilitation and empowerment. The first two of these positioned the
patient as the passive recipient of new knowledge and skills, with the physiotherapist
as the active agent. In the last two repertoires patients had a more active part to
play. I will discuss parallels with teacher-centred and student-centred approaches to
learning in the discussion section (chapter 5).

4.2.2 Theme 2 – The Patient educator role
Prior to carrying out these interviews I was not aware of any research in the UK
supporting the notion that patient education was a part of a physiotherapist’s role.
The transcripts contained rich description about participants’ identification with the
role enabling me to identify two main sub themes from analysis of the interview
transcripts.

4.2.2.1 Integral
Participants regarded educating patients as being integral and an extensive part of
their role as a physiotherapist. A range of descriptors and metaphors was used to
express this. In the first series of extracts patient education is characterised by
similar metaphors which signalled centrality:-

patient education for me is embedded in practice on a daily basis and it’s never
been for me anything I’ve ever thought of as separate aspect of the job P12, 9-11.

patient education really is at the heart of everything that I do, on a daily basis.
P10,8.

Enmeshed. P6, 436.

education was something that I thought of quite early on as a student, was
something I wanted to do and I think probably why I felt that was part and parcel of
the job, because it was something I enjoyed. P12, 293-295.
I think it should be that they don’t sit apart, but they’re integral to one another. P4, 149-151.

In these quotes terms such as “embedded” in practice, “at the heart” of everything I do, “enmeshed” and “part and parcel” of the job, indicate that participants found it difficult to separate an educational role from other aspects of working with patients such as clinical components. Participants also used terms which signified the importance they attributed to it using words such as “vital” and “essential” to describe this aspect of their role. P4’s use of the word “integral” was adopted as the repertoire title:

so the patient education or client education is a vital and essential part of our role, especially in community I think. P13, 32-33.

I think the patient education is a vital role no matter where they are. P7, 651-2.

For another participant her description of patient education as “one of the best parts of her job suggests that not only is it implicit to the job but is also a part that she enjoys:

I think it’s one of the best parts of my job, actually being able to help them understand what’s going on. P11, 172-173

Several participants gave estimates (when prompted) of the amount of their role which could be classified as education of patients. The estimate given was always over 50%. The following extract, from a physiotherapist based in the community, serves to illustrate the perpetual (it seems) need to “teach” patients:

frequently you get the same questions over and over again, um… every time you see the client so it’s… I don’t feel it’s… it’s straightforward um… just walk in, do the home exercise… review the home exercise programme and leave, it’s… it’s all this… all these queries, questions around the condition and why they have this
pain or, you know, why it takes so long and... so it’s... it’s not like it ever ends. I feel like I’m a teacher and my role is actually an educator with the clients. P13, 132-138.

In this passage P13 illustrates his sense of identity as a teacher. Even in the accounts of a few participants who were less certain of their role in education explanation of what they did with patients in treatment sessions seemed to point to substantial educational components. In the extract below P5 at first explained that she did not “sit down with patients….. and talk specifically on education” but what she said seemed to indicate that education was involved:

you see I don’t really have sessions where I sit down with patients actually one to one and talk specifically on education, it might be that I get them to do something and I’ll say but why is this and why is that, and I’ll just give them a brief explanation or description of what we’re doing, so it’s not… it’s not the focus on education, it’s more a focus on getting the exercises done and improving their functional outcome. P5, 125-130

A little later in the interview she then went on to give an explicit example of how she helped someone to understand how to do breathing exercises that graphically illustrated how she worked with a patient in a educational capacity:

I’ll try and given them the same understanding that I have in layman’s terms, for example, like I told you, a patient with an ICD, I explained to him how deep breathing exercise, and I’ll use my hands as pictures and I’ll explain to then say, for example, this is your lung and there’s a sheet around your lung and there’s a tube in between. And the more you breathe, the more your lung expands and pushes the fluid, pushes the air out of that tube, and then they’re like oh OK, so they kind of understand. P5, 154-160.

P1 considered the relationship of patient education to physiotherapy practice overall.
Initially she saw them as separate entities:

*I do kind of still see them as separate things, P1, 226.*

But within a few lines had changed her position (below) and concluded that it was part of the wider role. This serves to illustrate the confusion felt by some participants about physiotherapists' role as an educator:

*Because when you... when you sort of actually think about what physios do, a lot of it is educational, but I don’t think it’s something that you think of as a separate entity. P1, 240-241*

In the final extract an experienced physiotherapist and educator voices her concerns about the educational role being seen as an "add-on". She refers to evidence from patients suggesting that being educated about issues relating to their condition is important to them:

*I mean I think some people prioritise it and other people just think it’s a nice add-on if you’ve got the time and that...that is a big concern to me, because when you talk to patients, this is one of the things that they say is central to their needs and their expectations. P14, 151-155.*

In summary, most participants described education of patients as being an integral part of their role. For a few this conclusion was reached from the examples of their practice that they gave. They described finding it difficult to disentangle this aspect of practice from other parts of their role with patients.

### 4.2.2.2 Extensive

Analysis of the data suggested that not only do physiotherapists identify with an educator role with patients, they also see themselves as educators in relation to carers, support staff, junior staff and other healthcare professionals, and that this
education is in part about how to teach patients. Most participants seem to accept this as a natural part of their role even though many have had no formal preparation in how best to do it.

One participant explained how she would approach such a task with a support worker: 

\[
\text{we will bring the... show the healthcare worker, this is how he transfers on and off the commode, she will stand there and watch how myself and for example, the occupational therapist does it, and then they will have to continue with that. P5, 517-520.}
\]

In this extract P5 talked about the need to teach other health workers to carry out key tasks with patients. Her use of the verb “show” seemed to indicate that for the healthcare worker this is a one-off passive opportunity and this seems to be confirmed by the rest of the sentence in which she “stands there and watches”. The language used seemed to give insight into the approach adopted by the speaker, one that is somewhat hit and miss in which there may not be any evidence of learning having occurred. After a prompt from me to explore whether there is anything to add she continued: 

\[
\text{we would just show them so maybe if the patient needed a little bit of assistance, for example, to get their bottom over... over onto the bed, you know, it would just be a case of demonstrating how to do it, and then they would just have to continue. P5, 529-532.}
\]

…..and this seemed to illustrate the importance of physiotherapists being effectively prepared to teach their colleagues. Another participant, P2, went one stage further when discussing how he would teach carers a pre discharge functional activity, by not only demonstrating but then “practising it with them”:-
well I know if they were close to discharge I’d try my best to get their carers… try and catch the patient when like their carers or partner were there and I’d take them both to the gym and… similarly with my outpatients, sort of go… talk to them about various exercises that they can do and the reason why they’re doing it and then I’d show them it and then practise it with them. P2, 170-175.

There were many examples that participants gave of the need for them to educate others (e.g. parents, support workers, carers) for the benefit of patients. The terms they used showed some variation including “teaching”; “managing”; “sort of education”; as in the extracts below:

it’s not only involved in, you know, teaching children how to do things and manage their conditions, it’s also um… about managing their parents and the wider network of um… you know, er… families and schools, support staff…P12, 13-16.

but I think that this is the bit sort of… is it patient education or not? Is sort of… then I’m sort of setting up rehab plans for either rehab support workers or carers to sort of undertake as well so… making sure that they understand what they’re doing and why they’re doing it and sort of what not to do as well. P10, 142-146.

It might be that I teach a carer and then a carer then supports that client to do it when I’m not there P6, 98-99.

I’m in charge of putting together their (support workers) sort of education… you know, their sort of in-service training P10, 253-4.

This last participant was hesitant and a little uncertain as he described his work in teaching support workers, many of whom will have received little formal training to treat or educate patients safely, and his responsibility for their in-service training. What he described was also recounted by other participants and seems almost to be a form of “vicarious” education of patients. P13 also described the requirement in his
trust for physiotherapists to teach and supervise an unqualified assistant in what he refers to as “on the job training”:

So they work with him, supervise and as time goes by and they feel confident... they wouldn’t let the assistant run the groups on their own. There would always be a senior physiotherapist present, not necessarily a Band 7, that could be like a Band 6, um… so it’s not like they’re being um… sort of put in that particular role right away, so it’s on the job training, P13, 619-624.

P7 gave a comprehensive account of her responsibilities for educating others:

we’ve got the therapy support workers… within our Trust we’re actually very much integrated so we do a lot of training with the nurses, with the MDTs (multi-disciplinary teams), it’s not just physios, and then obviously you’ve the physio students, you’ve got work experience, and then you’ve, you know, got your patients. And then I also do a lot of teaching outside of the Trust in terms of other health professionals, other physio groups, you know, in a number of different ways I suppose. P7, 133-1

Whilst education of patients is the focus of this research a wider educational role with support workers and carers was also common. This role included teaching others to teach patients. Patient education was constructed as involving physiotherapists in a broad range of educational activity. It included teaching different types of exercise, explaining conditions through the use of modified anatomy and pathology, and teaching preventative and health promotion strategies. Table 4.2 gives examples of the type of patient education activity referred to by participants. A full table on which this table is based can be found in appendix 19.
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<th>Patient education activity</th>
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<tr>
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<td>Cognitive Psychomotor Affective</td>
<td>Then also a lot of them had … many conditions like arthritis, so it was sort of educating them how to manage that and how they could use exercise to manage that condition. P1,34-36.</td>
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<td>Exercise</td>
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<tr>
<td>Self management (Pulmonary)</td>
<td>Cognitive Psychomotor</td>
<td>I’ve talked about breathlessness management and again, not just showing the positions, but also talking about why they work, and what’s happening and why they’re getting breathless. P11, 100-103.</td>
</tr>
<tr>
<td>Self management (Condition)</td>
<td>Cognitive</td>
<td>I think it’s essential that the patients understand what… what their problem is. They understand the pathology, what’s causing it, um… the structures that are causing it. I think they’ve got to understand the contributing factors as to why it’s happened P8, 51-55</td>
</tr>
<tr>
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<td>Cognitive Affective</td>
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<tr>
<td>Health promotion (Exercise)</td>
<td>Cognitive Psychomotor</td>
<td>the physiotherapy part of it is about movement, it’s about exercises, you know, range of movement, maintaining, and all that sort of thing, the importance of keeping up and moving P10, 557-559.</td>
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<tr>
<td>Preventative education /health promotion</td>
<td>Cognitive Affective</td>
<td>whether it’s injury prevention in people in outpatients or whether it’s smoking cessation things for respiratory. I think we’re having more of a role in… in the preventative education with patients. P11, 708-711.</td>
</tr>
<tr>
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<td>Equipment use (Children)</td>
<td>Cognitive Psychomotor</td>
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<tr>
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<td>Cognitive Psychomotor</td>
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<tr>
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</tbody>
</table>

Table 4.2 Specific quotes related to types of education activity.
In summary in theme 2, “The patient educator role”, patient education is constructed as being not only integral to physiotherapy practice but also an extensive component. Participants reported having responsibility for educating a wide range of learners. This included many learners who would have secondary responsibility for teaching, or reinforcing the teaching, of patients.

4.2.3 Theme 3 – Preparation for the role
With regard to preparation for the role of patient educator participants drew on three repertoires: “natural”; “experiential”; “theoretical”.

4.2.3.1 Natural
In the natural repertoire participants viewed physiotherapists as having varying degrees of inborn ability, in relation to the skills required by a patient educator.

P8 seemed to lack confidence in her ability and in the extract below initially expressed a view that it came naturally to some people. She then seemed to reflect on what she had said and began to wonder whether the people she regarded as natural educators had in fact had some formal preparation that she did not know about. She then compared herself to her reference group and seemed to lack confidence in her abilities in that comparison:-

*I think some people are much more natural educators than… than not. It comes more naturally to some people, definitely. And so I think a little bit of theory would… would help um… maybe they do it already, I don’t know. But seeing how they teach and manage patients, it’s… I think they must know more than I do.* P8, 247-250.

She had previously referred to a choice she had made not to study this area as part of a postgraduate qualification and justified the decision by noting that “you can’t do everything”:-
I haven’t gone down the education route I must admit, um… I would like it, but um… you can’t do everything can you. P8 238-239.

Another participant made a comment early in the interview in which she expressed a “hope” that the educator role was something that physiotherapists “do quite naturally”. This hope was linked to her observation that education is a “massive part of our role”. Later in the interview (by line 233) she recalled her own student cohort being petrified by this aspect of practice and that it did not come naturally. She also linked this lack of confidence to limited knowledge (presumably clinical). Her comment about “coming across well” seems to imply separateness of this aspect of the professional role:-

I would like to think it’s something as physios we do quite naturally, and it’s something that is a massive part of our role. P7, 122-124.

it was something I can remember everybody feeling petrified about, and it wasn’t something natural that came to them, and equally, you know, you’re coming out as a brand new physio, your knowledge isn’t that great. Then actually if you’re not confident of your own knowledge, how can you come across well as an educator. P7, 232-237.

In the final line of the next extract P11 also suggests that some have a natural ability and enjoy it, but not all. She alludes to the feeling that there is an expectation in relation to patient education that students will either intrinsically “know how to do it” or that the ability will just develop over time, along with communication skills:-

when I went through university, we weren’t exactly taught about patient education, it wasn’t something that was covered, it was almost just expected that you would know how to do it. Um… and I suppose it’s… it’s part of your communication I guess that your communication develops, you know, as you go through the profession, as you go up you become more skilled at it. I suppose it’s almost
expected in the same way that um… your ability to… to give patient education will develop at the same time, but it doesn’t always I think, because some people really enjoy it and are naturals at it and others…. P11, 535-542.

The issue here seems to be what happens to the ones who do not have “natural ability”.

In summary, the natural repertoire positions physiotherapists as potentially having the ability to function effectively in an educator role with patients without formal preparation.

4.2.3.2 Experiential

A second repertoire relating to preparation for a role of patient educator drew on experience as preparation. Again it positioned physiotherapists as being able to function effectively as educators without formal preparation. The types of experience were varied with several participants talking about relying on previous roles in teaching or coaching positions to help them in their education of patients.

In the first extract the participant reflects on her time as a student and what patient education meant to her then:-

patient education at that stage was about providing information, written information, it was a bit one-way, it was a bit like that’s what you do and, you know, if you’ve got a condition you do that, if you’ve got a splint, this is a splint leaflet and… it kind of… that’s how it came across from what I got from within the university I think at the time, but I think as soon as I got out on placement I started getting my head around what it was about. P12, 396-402

To P12 at that stage the scope of patient education was quite narrow being restricted to provision of information including a prescription type approach to leaflets. It was once she started practice placements that she “started to get her
head around” it. Although unspoken it appears that it was the experiences on those placements which was influential. This was also the case for P3:-

*on my outpatients placement there was a lot of emphasis on educating patients so… I mean I spoke about that with my educator quite a lot. A lot of it has been through… through experience P3, 184-186.*

Although these placements are a formal part of pre-registration programmes it seems to be the naturally occurring experiences in these settings which are influential in developing these participants’ approach:-

*I think the majority of it has been drawn from being in the clinical work space and kind of watching others and… I don’t think we’ve had… I’ve had any structured, you know, er… lessons about teaching in my placements, but I think just being in that environment and watching others do it...P4, 240-244.*

The trial and error nature of these experiences also comes through. With learning through personal failure seen to be important:-

*it’s client mileage, … the more patients that you see, and the more mistakes you make, er… you know, the more avenues you… you go down to try and find the right way to… to help that person understand what’s happening P6, 226-229*

*I think experience counts for a lot because I think um… you do have a few stumbles on route don’t you? You learn through um… failure, you learn through things when they go wrong. P11, 264-266.*

But learning from the failure of other staff was also a feature:-

*You find some things work and some things don’t… you… and also sitting in with other um… having done the ESP job I’ve spent quite a long time sitting in with*
um… orthopaedic consultants and learning from others how they… or not as the case may be, but seeing how they approach it, um… P8, 199-203.

Others had positive experiences in learning from fellow health professionals. P15 felt unprepared initially and although she expresses some uncertainty about how her abilities as an educator, developed earlier in her career, she attributed this to working within a multidisciplinary team. She emphasised the importance of patient education in the specialist area that she worked in at that time:

*I felt unprepared initially but I think I developed it through working with team members and certainly in a specialist area where education, specialist renal area, where education was um… very… a key part of practice for the whole team* P15, 533-537.

P16 noted the need for experience in practice to include mentorship for clinicians in relationship to their developing role as an educator with students and also with patients. She used the term “support mechanism” drawing again on Daloz (1999) mentorship model:

*some real meaningful human mentorship from… as a clinician, so that you can gradually get that confidence and know you’ve got a… a support mechanism around you so that you can then, as it were, then be an educator, both of students and of patients, um… at the same time as you’re building your confidence as a practitioner* P16, 861-865.

In summary, the repertoire of “experience” positioned physiotherapists as being able to function effectively as educators without formal preparation or as an adjunct to it. In this repertoire exposure to more senior physiotherapists and other health professionals as role models and mentors was important as well as a trial and error approach through patient contact.
4.2.3.3 Theoretical

In the theoretical repertoire physiotherapists were positioned as recognising a need for formal preparation in order to effectively carry out the role of patient educator. In the first extract P8 acknowledged that she had had no formal training in education but indicated an awareness that she felt she was missing something but did not know what she did not know:-

*I've had no formal training in education, but I know there’s... there’s huge amount of stuff and I’m sure some of that… even just starting with the basic levels of how to approach teaching somebody, would... would be useful. I mean I don’t know, I mean I haven't got a PGCert, I don't know what teachers do but...*

**Interviewer** “Well you’re obviously successful with your patients which is… Yes but it’s the theory of why, is... is er... what I haven’t got. P8, 227-234.

I suggested to her that she was nevertheless successful with her patients, though this was based only on what she had spoken about in the interview and was intended as encouragement. She clarified that it was the theory that she felt that she was missing. This view was slightly different to that of P11 who used “learning needs” as an example of not realising your gaps until you participate in formal role preparation:-

*I think until you do it you don’t necessarily realise that you’re lacking in it, but a better understanding of learning needs, um... because I know... I know that physiotherapists are very good at setting... at goal setting. Um... but that tends to be around physical needs, not necessarily learning needs. P11, 580-584.*

P7 talked about the one day study days which are common preparation for an educational role with students at postgraduate level. She expressed reservations about their usefulness and in doing so drew on the language of the “transmission” model which was explored in the “concepts of teaching” section earlier. She used
“we” in relation to uncertainty about how much is “taken on board” to suggest that she did not think that she was alone:-

because it’s all very well doing theoretical study days, but how much of it do we actually take on board. P7, 470-471.

Several participants had experience of master’s level formal preparation. One of these (P12) seemed to indicate in the first sentence below (“…I probably just felt were personal “) that she had previously felt that she practiced in an intuitive way but in the course of his PGC had found that certain aspects of this practice had a theoretical basis. “I’d really thought about the theoretical basis” suggests that she was then able to reflect more effectively on her practice as an educator:-

And then not until I did my PGC had I looked at the sort of underpinning theory behind a lot of things that I probably just felt were personal. And I know that, you know, um… that was really interesting for me that, you know, certainly when… by the time I got to the last module of that when I’d… I’d really thought about the theoretical basis behind teaching and education P12, 296-301.

This same participant talked about the initial difficulty of “getting her head around” the language (of education) because it was different. She describes it as being like a “journey” and it seems that she began to be able to match elements of her practice to theoretical elements:-

it took me a long time to get my head around the language, because it looked totally different. This didn’t fit with a lot of my day to day practice and it wasn’t um… yeah, first of all no it didn’t seem to fit at all and I think it just… it was like a journey of a lot of things suddenly started to have parallels. P12, 246-250.

This is an important point and one raised by other participants. Understanding and processing the language with which to talk about education may well be key to
effective practice. Much of the emphasis in the interviews in relation to theory was about postgraduate preparation. Consideration of undergraduate preparation was in the main about potential or necessity:

I actually think they should be doing it as students really. Part of their undergraduate or, you know, pre-registration um… because we would still expect students to be coming out and taking on a role within patient education. I mean certainly when the students come to me I expect them to lead at least one of the patient education sessions. P11, 642-646.

P11 thinks “they should be doing it as students”, suggesting that they’re probably not. As a senior physiotherapist she expresses an expectation that she (and others in her position – she uses the term “we” in line 643) will come out on placement able to lead patient education sessions. As placements are an integral part of a physiotherapy student’s education the view here seems to be that whether they are prepared now or not, they need to be:-

Another participant (below) also sees the necessity but the rationale is slightly different:-

think it should start at the beginning, I think it’s part of, you know, what we do, I think it’s a massively important part of our everyday practice, that our face to face relationship with… with the clients we’re seeing, IS about educating. You know, there’s not as much time ….now for hands on therapy. P12, 452-455.

As a “massively important” part of practice she also views it as being in the ascendancy because “there’s not as much time now……for hands on therapy”.

In the focus group discussion participants had another view on the reasons why theoretical preparation was needed. They talked about the support or mentorship that physiotherapists could give each other in their educational interventions in
practice settings. Whilst they agreed that this sort of critical friendship with colleagues was desirable the perception seemed to be that this model might not work at present:

un**less you know about the sorts of skills that you’re looking at and you’re supporting, then you can’t do any of that, so it’s probably, you know, we need something in higher education that actually promotes educational skills as part of the curriculum and celebrates them in different ways.** P14, 757-760.

P14 identified a need for the “promotion” and “celebration” of educational skills as part of the (undergraduate) curriculum. The ‘expert’ focus group had a lengthy discussion about the perceived need for an educational role to be:

**embedded in the curriculum.** P15, 939.

They considered how this might work and felt that right from the selection process for admission to the undergraduate course there should be a shift of emphasis to recognise physiotherapists’ educational role. “So every student is an educator for his or her fellow student”. (P16, 965). A “solid understanding of adult learning” (P16, 917) was seen by all this subgroup of participants to be essential. This theme was echoed in other interviews including P13 (below) who suggested that being an educator should be one of the goals of undergraduate education, “like a GP” where being an educator was “part of who they are” from graduation:

and maybe defined as one of their outcomes or their goals by the end of graduation that they are actually not just clinicians, they are also educators. Like a GP, I think the doctors, they have that sort of um… part of their training through er… towards their graduation, they are, as part of who they… who they are, not just clinicians, but also being able to educate their patients. P13, 546-550.
In summary, in this repertoire physiotherapists were positioned as recognising a need for formal preparation in order to effectively carry out the role of patient educator.

The third theme was “preparation for the role” in which participants drew on “natural”, “experiential” and “theoretical” repertoires.

4.2.4 Theme 4 – Therapeutic relationship

4.2.4.1 Compliance

In the compliance repertoire physiotherapists held the knowledge and the power. They asked or told patients what to do and there was an expectation that they would do it. The first extract traces the evolution of this type of expectation and ethos for this participant:

*And I think, you know, perhaps for whatever reason, when I first qualified, that wasn’t really taken into account. There was kind of this ethos that if a nurse, physio or doctor told you to do something, you’d do it. They’re the professional and you have the respect and you just follow their advice regardless. Whereas I think, you know, that’s changed quite significantly in general culture and I think now it’s about it’s about... if you’re going to ask them to do something you really have to explain why, to explain how it’s going to benefit them, let them understand what you’re doing, and then you’re more likely to get the compliance with them doing it. P7, 300-309.*

The participant reflects on the time when she had just qualified, recalling that if a “nurse, physio or doctor” told you to do something, you’d do it. Placing the physiotherapist in the centre of this triumvirate seems to indicate the profession’s core place within a large and powerful group. She then changes to using the third person, “they’re” the professional and uses “you” to indicating unknown others who respect these health professionals and follow advice “regardless”. However, she goes on to analyse the position now and concludes that all that has changed. In this
passage the nature of the change is the need for explanation but the ultimate goal of is still that of patient compliance. A similar position is apparent in the next extract. P2 first expresses uncertainty about the potential for compliance with an exercise schedule but then suggests that understanding is the key and it is obvious by the end of the passage that his goal is compliance:-

the patient will think OK look I’ve been given these exercises, obviously they’re going to do something, but… I don’t know what they’re going to do. Um… most are just going to put them off and then not going to stick to it. If they understand why they’re doing it and they fully understand that, then they’re much more likely to sort of be compliant with it and want to do it at home so… P2, 286-291.

Compliance also seems to be the ultimate target for P3. She had recounted a story about a patient who was in hospital and struggling to breathe. The doctor had just left his bedside having unsuccessfully tried to explain his current symptoms. The patient was in a state of near panic when P3 appeared for his treatment session. She tried to reassure him by careful explanation without the use of jargon. The patient settled down and was less distressed and the participant noted with some satisfaction that the had been achieved:-

And I think that’s probably the most compliant patient I’ve ever had. Every time I saw him he was doing his exercises P3, 174-175.

Another relatively inexperienced participant was less secure in her ability to influence patients but nonetheless certain that she held the high ground in terms of advice on smoking and that the truth would out when "something happened". She used the verb “tell” in an educational context:-

You can tell them as much as you like that they shouldn’t be smoking, but it’s not until something happens that they’re going to think... they were right all along, I shouldn’t be smoking. P1, 268-269.
P16 draws parallels between the approach to patient education and the education of students in which there has been a shift over time from an emphasis on “fitness for practice” to:

*taking a much broader view about personal development for an uncertain future.*

P16, 26.

She goes on to talk about the relationship with patients and positions a “training” type approach with an expectation of the patient “doing as they are told” in the past:

*And I think that you can extrapolate to the patient in exactly the same way, so in our relationships with patients perhaps in the past it has been about training, ie you’ve got this problem, do this set of exercises according to this regimen and everything will be fine if you do as you’re told sort of thing.* P16, 26-31.

In summary, there was a repertoire suggesting an expectation of compliance from patients evident across many of the interviews. This repertoire positions physiotherapists as having the power, authority and superior knowledge in the relationship. They provide the means to achieve healing and expect patients to comply. Patients are placed in a passive role of unquestioning acceptance, respecting the superior position of the health professional.

### 4.2.4.2 Collaboration

The participants use and produce a repertoire of collaboration when describing their practice as educators. In this repertoire patients are partners in learning. Many of the descriptions of participants’ role had a strong emphasis on education as a two-way process. There are frequent references to working “with” the patient as learning occurs. Not only were they learning together but they were learning from each other with a sense of bringing complementary components to that process.
For P3 the collaboration was sequential, she first learns about the patient’s problems from the patient so that she can then “educate” the patient as appropriate:

It’s me learning about what their particular problems are, so in that I’m learning from them what their problems are and then trying to educate them about specific problems. P3, 67-69.

P1 also had a strong sense of collaboration and positioned the patient as having something to teach her by being the expert in relation to the progress and impact of their illness. She draws on a recent experience as a student on a neurology placement. She seems to have not been the only student on that placement as she refers to “us” throughout but indicates that they were not the only ones “doing” the education. She seemed slightly surprised (“it was interesting because it wasn’t just us educating them”) but also to like the balance that this offered to the relationship. Rather than the learning being sequential as in the last extract there was a feeling of the “educating” occurring in parallel:

on my neurology placement on the stroke ward, we had some… quite a few outpatients, and a lot of that was education, but it wasn’t just us… these were in the main, patients that had multiple sclerosis. It was interesting because it wasn’t just us educating them, it was them educating us on their… um… illness and how it progressed for them and how they felt it, so it was quite nice there was a two-way ………… So I think it was quite nice because it was a two-way education and not just educating them, but them educating us, because of course they’re experts on their… you know, their particular illness really. P1, 61-70.

For P7 a suggestion of collaboration was interwoven with a “transmission” repertoire demonstrating the tension that may exist within an individual’s narrative. She talks about “trying to get a message across” which might initially seem to suggest that this is a power relationship, she holds the necessary information and passes it to the patient. This is then tempered by the observation that this works both ways, the physiotherapist at times being the recipient:
just sitting and talking with a patient might not be the best way. Drawing them a picture, giving them a leaflet, having an actually model to go through with them is a very good way of educating them if you’re trying to get a message across. And equally, you know, they’re trying to get a message across to you. P7, 411-414.

In order for the collaboration to be effective good communication by both parties seems key. The learning collaboration might not always be directly with the patient. P12 worked with children, she positioned herself as keen to continue to learn (almost absorbing new things like a sponge). She initially seemed to welcome the enthusiasm of parents who brought new information about their child’s condition but followed this up a few lines later by an acknowledgement of the threat that this might also present:-

I have to absorb everything, because I see my job as learning all the time anyway, so I absolutely am more than happy that parents come in and say ooh I’ve found out this, that and the other. P12, 68-69.

Depending on their understanding it can sort of be quite threatening at times when they’re looking at things and it’s… it’s quite scary because we might not know the ins and outs of a particular treatment that’s happening in the middle of America or something. So it makes you sort of sit on your toes and think well I need to keep informed and I do need to get on top of it myself. P12, 77-80.

It is interesting to consider the source of the threat alluded to in this extract. The words used are strong “it’s quite scary”. The possibility of loss of status, position, authority seems to be bound up within the position expressed by this confident and experienced physiotherapist.

Some saw the education process as one of working with the patient to problem solve. In the first of the next two short extracts the participant is confident enough to shift the power away from himself as the health professional and shows a willingness
to learn with the patient in a two way process which he emphasised several times. This is further illustrated in the second short extract as he describes accepting new information that the patient has discovered on the internet as a basis for working together to resolve a troublesome symptom:-

So it’s less sort of one-way, well this is the solution to your problem… it’s more how are we going to… how are we going to solve this together? P10, 114-115.

I was getting him sort of used to his environment and things and one time I walked in and he said, come on, have a look at this, and he tapped away on his computer and he showed me this… this website about mirror therapy, and then we worked together um… and his phantom pain is now gone. P10, 226-230.

A sense of informality in the therapeutic relationship comes across as they work together and learn together within the patient’s home setting but according to P13 collaboration may not always be welcome and the physiotherapist has to recognise when to pull back and accept that:-

And based on your assessment you could… or you should ideally start planning on your intervention in cooperation or collaboration with the client. Sometimes they don’t want to participate. It happens… they don’t want any more of this physiotherapy intervention, leave us alone… well… and you just have to accept that. P13, 166-169.

Other participants talked about collaboration but related this to the feedback that patients could give them or they could give each other. This feedback might take various forms but could include feedback about their progress, about their learning needs, preferred learning style or attitude to self managing their condition:-

We… I really felt it was a two-way process, it wasn’t… it wasn’t me telling him what to do, it was very much giving… both of us giving feedback on each other
and working out a fitness programme for him, so it was quite collaborative. P2, 77-80.

it is about clinicians helping patients to understand why they have a particular problem, giving them information about a particular problem, giving them information and sharing information about what they can do about it, but also getting their feedback from patients about how they feel about self-managing. P14, 9-13

In summary, in the collaboration repertoire physiotherapists positioned themselves as partners working with patients (or clients) in a two-way education process. They were educators but also learners and in this repertoire there is a more equal power relationship. The relationship was described in a way that suggested that it was on a more equal footing than in the previous repertoire of compliance. Participants often stressed their readiness to accept “messages” from their patients and in general were not threatened by this.

4.2.4.3 Care

Although there were no questions directly linked to care as part of physiotherapy practice this repertoire was evident in participants’ responses. For P12 this had been one of the reasons she entered the profession, she wanted to “help people”:-

Um… I know that I always came into the profession as a people person. I really wanted to do… I really wanted to help people. P12, 263-265

P9 reflected on being a student and a junior member of staff and seemed to imply in the passage below that some transition has occurred in which young staff though wanting to express their caring through a “hands on” approach find they have to take a more advisory role:-
I think it was harder when you were a student and junior, especially sort of er... a few years ago, because we sort of... you wanted to be hands on and very caring and things like that and I think it was very hard to take a step back, um... and you know, give... you know, more of a step back advisory role P9, 81-84

The choice of the term “step back” seems to illustrate a need to keep the patient at arms length and keep your hands away from the patient and yet it was the “hands on” which P9 had associated with being caring. Several other participants also mentioned a move away from physiotherapy as a “hands on” role. In most cases it was some form of education or advice that had taken its place:-

Other participants expressed care as part of practice through specific interventions. P11 talked about her “love” of working in a community setting and “helping” patients. She linked this to having time available to spend with patients and the opportunity to teach them:-

it’s part of what I really love about the community because um... I do feel that you’re given the opportunity to help patients to understand what’s going on and to um... I suppose make the most of their everyday life by using things that, you know, you can teach them, um... and you get to spend lots of time with them so therefore you can make sure that they’re actually taking it on board as well. Um... but no I, you know, I think it’s one of the best part of my job, actually being able to help them understand what’s going on.” P11, 167-174

This time also gave the opportunity to “help them understand” and ensure that this was the case. Understanding was also a two way thing and P9 linked an understanding by the physiotherapist of what patients wanted to achieve as necessary in order to give them help:-

... you are also trying to listen to what... you know, what they want to achieve. I mean that’s the relationship you have. You know, you need to understand what
they want and where they’re wanting to go so that then you can give them the help that they want P9, 38-41

Listening was part of this and the use of the phrase “where they’re wanting to go” seems to suggest that she thinks of patients being on a journey as they recover from health problems. Working with the patient was also part of the way P10 described his practice to help them to manage their condition (and this links back to the repertoire of “collaboration”):

if you can sort of work with someone and get them able to be proactively managing their condition, um… it’s a really wonderful thing and you learn so much as well P10, 221-223

His aim seems to be empowerment so that they can manage their condition. His use of the term “it’s a really wonderful thing” suggests that he gets pleasure from this and as a bonus notes that he also learns so much.

In summary the care repertoire positioned physiotherapists as “helping patients”, “listening to them” and “working with them” to achieve their goals. The underlying sense is one of “giving” which generates some level of satisfaction.

Theme 4, “therapeutic relationship” included repertoires of “compliance”, “collaboration” and “care”.

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4.2.5 Theme 5 – Workplace context

4.2.5.1 Pressures in the workplace

This repertoire was about the constraints associated with current ways of working in healthcare settings. Inevitably some these related to time but others related to the structure of services and the predominant culture in the practice setting.

While stressing the importance of an educational role with clients P4 emphasised the limitations in terms of time. In the quote below physiotherapy traditional “hands on” therapy is alluded to as being in too time intensive with a need to get across “as much as you can, as quickly as you can” and an associated emphasis on self management:

*I think it’s a massively important part of our everyday practice that our face to face relationship with… with the clients we’re seeing, IS about educating. You know, there’s not as much time ….now for hands on therapy. It’s absolutely about getting across as much as you can as quickly and as easily as you can to patients for them… there’s a lot more self-management out there. P12, 435-437.*

There were other references associated with time pressures experienced by other health care professionals in this case creating a need for additional “explanation” from physiotherapists:

*and sometimes they don’t really understand what’s going on, why they have all this pain and er… the physiotherapist is… is a vital part, important part in… in explaining a lot of the mechanisms between the pain and their problems which the GP or their orthopaedic consultant or rheumatologist don’t have time to do. P13, 60-64.*

The possibility of using leaflets as a way of saving time in the process of educating patients was mentioned by P15 with an underlying concern that checking the
patient’s understanding might be “pared back”:–

    Or delivering… giving somebody leaflets, again they might use leaflets to save time, but actually checking the patient’s understanding of what’s required, etc can be pared back. P15, 171-173.

A similar point was raised by P8 but this time teaching exercise was the focus:–

    if they’re receptive and you’ve got enough time, actually demonstrating and getting them to repeat back to you what… what you’ve taught them, I think is really important. P8, 100-102.

Finding time could be problematic and in the next extract forced the physiotherapist concerned into covert tactics. His rationale for the need to have an additional appointment with the patient seems to demonstrate good, safe practice but he was forced to adopt a child like position (it “was a bit naughty”) as a defence for apparently having disobeyed some higher authority or prevailing system:–

    I managed to get him in another couple of days later which was a bit naughty, but I got him in a couple of days later to… because during that time period I’d written him up a finalised exercise programme and on that day we went through it together, just so that I could reinforce techniques of everything, make sure it was nice and safe and how he could adapt it to his home environment. P2, 85-90.

The spectre of a higher authority setting rules that might constrain professional decision making is also evident in the next quote. P15 was concerned about feedback from postgraduate learners suggesting that there was an expectation of some sort of conformity in the approach they adopted to treatment. This she feared might not be appropriate for patients with individual needs:–
And one of the questions I had recently at a group of postgrad learners illustrated to me that again they... some of the Trusts were expecting if they’re working with a group of patients if they’re delivering perhaps a short presentation, it to be very um... prescriptive and... and almost the same across different settings and that worried me because again that flexibility and ability to meet the needs of the patients wasn’t being recognised. P15, 157-162.

There was also a sense that the health and safety culture might limit what could be done. In the example below there had been some consideration of a peer approach to patient education prior to the speculative concern, expressed here, that the culture would probably stifle innovative approaches such as this:-

*But of course people would say oh you couldn’t possibly do that because, you know, then Mrs. Smith might break Mr. C’s arms because she hadn’t had proper training and on it would go then about health and safety and you’d have to fill something in...*P16, 655-658.

Overall the community setting was seen to be much more conducive to patient education than the acute sector (hospital in patients). Recent graduates, working in the acute sector, were seen by many participants as having access to good professional experience through rotations across specialties but that this experience might include less emphasis on patient education because of time pressures:-

*And probably a lot of that is that again they’ve come from the acute setting where there wasn’t the opportunity to do the patient education when they were Band 5’s. Um… because it’s just very limited. I think that patient education tends to come into the more holistic side of management, um… and it’s all about, you know, in hospitals it tends to be these days about how quickly you get them out the door, um… and about them not, you know, not being admitted in the first place, P11, 607-613.*
A similar though more graphic point in relation to swift discharge, and the lack of time for patient education in that setting, was made by P9. Her use of the term “conveyor belt” suggested a mechanical, dehumanising quality to the system of rapid discharge:

you come along, you tell them what you’re doing, they have no choice in the matter particularly, because they need to be… they’re on the conveyor belt, they need to be out, because they need the hospital bed for the next surgery patient coming through. Um… so yeah, there’s no education at all. P9, 260-264.

In summary, participants positioned themselves as active patient educators working at times against constraints inherent to the present workplace culture. Shortage of time to spend with patients and limited opportunity for patient education was particularly reported in relation to the acute sector.

4.2.5.2 Multi-professional working

In this repertoire participants worked with, learned from or were supported by other health professions in their education of patients. Team working was evident and for some this aspect of practice was seminal in their development as an educator:

I felt unprepared initially but I think I developed it through working with team members and certainly in a specialist area where education, specialist renal area, where education was um… very… a key part of practice for the whole team and I think that’s where I started to gain the interest and hopefully some skills, because the patients were educated, they… the patients were told about every aspect of their… their problems and disease etc, and so as a result, the whole team had to be educating, working with patients P15, 533-540.

P15 reflects on her development as part of a renal team in a major hospital. She places education as a key part of practice for all team members and identifies that experience as one that gained her interest and is self effacing about the impact on
her skills. In the final she puts “educating” and “working” with patients on an interchangeable basis. Full team working was an important part of practice for others:–

I work in a very… actually a very tight multidisciplinary team and we deliver a lot of training together, so you’ll have a training session with speech and language, ourselves, OT and nursing, so that experience, and then their experience of the planning, bringing them together, that’s really interesting, that’s definitely been of value. P6, 241-245

In the extract above the description of the multidisciplinary team as being “very tight” seems to indicate closeness and bonding. They deliver a lot of training “together” also emphasising the close working relationship. The planning of these sessions jointly seems to be an important factor in “bringing them together” and there is a sense of an equal team partnership. Some participants gave profession specific examples:–

home education programmes as we call them um… are multidisciplinary in that respect as well so we’d be working very closely with the speech therapist and saying if a child needs to be in a standing frame to be, you know, gaining skills for a weight bearing activity that it would be good that if they did this particular face to face speech and language, you know, programme at that time because it would be a good position P12, 108-114.

In the extract above it appears to be the physiotherapist “giving instructions” to the speech therapist in relation to home education programmes but again “close” working is identified. The need for team working was seen by P7 (below) to be necessary also to avoid confusion for the patient. Her concern seemed to be that the team members might not be “giving” the patients the same information unless there was cohesive working:–
I think the concern would be if you don’t work cohesively, is whether you’re giving the patients the same information and therefore the same education, because there’s nothing worse than seeing two or three people and they all tell you something different, or you perceive what they say to be slightly different. P7, 597-601.

While team working was referred to favourably and there appeared to be respect for other health professional staff, some concern was expressed, in terms of expertise and competence, about boundary crossing:

I think there’s lots of things we do that other professions, you know, that’s not within their area of expertise and I suppose in some areas they might… they might try and do bits of it, but um… you know, there are certain things that we do well and that they do well and it’s about respecting those things. P11, 732-735.

Although P7 recognised education as part of the role of other team members she appeared to feel more comfortable with more traditional demarcation of roles:

there’s a lot of things that actually, you know, as part of the team it doesn’t have to be one specific person that gives that education, it could be anyone in that team. But I think it’s very… we need to be very clear what each other’s individual roles and individual skills and, you know, techniques are, and actually we keep to those. P7, 615-619.

In summary, participants positioned themselves as working with, learning from or being supported by other health professions in their education of patients. Team working was evident in most interviews.

The final theme (5), “workplace context”, included repertoires of “pressures in the workplace” and “multi-professional working”.
This concludes the presentation of findings from the data analysis. The next section will go on to discuss the content and the selection of titles for the themes and repertoires.
Chapter 5
Discussion of findings

5.1 Introduction
In this section the findings, which were presented in the last chapter, are reviewed and discussed as they relate to the research questions. As each of the themes is reviewed links are made to relevant literature, some of this will be new because of the ideas generated by the analysis of the data. It should be noted that because this was a small-scale qualitative study, based on a (more) relativist rather than realist ontology and drawing on a type of discourse analysis, the generalisability of findings often accepted from research carried out in a more positivist paradigm are not claimed. ‘Understanding’ rather than ‘explanation’ of an under-researched area to generate new perspectives and discussion, and to form a springboard for future research in this area has been the goal.

Discussion of each theme and associated repertoires will be followed by consideration of the contribution of the study to knowledge, limitations of the study and implications for practice.

The research questions for this study were:-
- How do physiotherapists articulate their perceptions of patient education?
- How do physiotherapists articulate their approach to teaching and learning in relation to patients?

Initial data analysis led to the identification of five themes within which deeper analysis resulted in identification of several interpretative repertoires, giving an indication of the ways that physiotherapists constructed an educational role as integral to their professional practice with patients. Each of the themes and repertoires will now be discussed.
5.2 Theme 1 - Concepts of patient teaching

Four main interpretative repertoires were identified relating to physiotherapists’ concepts of patient teaching. These were: ‘knowledge transmission’; ‘interpretation’; ‘facilitation’; ‘empowerment’. These will first of all be summarised before giving further consideration to the theme as a whole including how the title of the theme was selected.

5.2.1. Repertoire 1 - Transmission

The transmission repertoire represented one way that participants talked about their education role with patients (see section 4.2.1.1). Commonly used terms were associated with movement of a message between the physiotherapist as a transmitter and the patient as passive recipient. Terms such as “getting it across”, “getting it through”, “delivery”, “providing”, “giving”, “spoonfeeding”, “drip feeding”, were used by several participants. The language adopted placed physiotherapists in a position of expert or source of information with the patient in need of “taking on board”, “taking the information forward”, “cementing” the information in place.

5.2.2 Repertoire 2 - Interpretation

The interpretation repertoire (see section 4.2.1.2) related to the perceived need to help patients understand information available to them. In some cases this was initially relayed by other health professionals such as doctors. Terms frequently used included “repetition”, in “layman’s language”, “help them understand”, “interpret and evaluate information”. The interpreter role was often perceived as required because other staff were short of time to explain adequately. Although physiotherapists are also working to targets, the nature of their therapeutic role and relationship with patients may mean that they have more opportunity to talk to patients. The “interpretation” repertoire was clearly related to the “transmission” repertoire which was the predominant construction in the transcripts; nevertheless it was an associated but distinct repertoire. It related to the perceived need to help patients understand information available to them and adds an additional dimension to the transmission repertoire which merits a distinct and, in terms of previous concepts of
teaching literature, novel title. This repertoire could be linked to patients’ difficulties with jargon or speedy explanations from other hard-pressed staff. In order to carry out this role effectively, physiotherapists not only need to have a fundamental understanding of a wide range of subject areas such as anatomy, pathology and associated terminology, but also need to be able to convert medical terminology back into lay terms if necessary. In addition they need to be able to draw upon a range of pedagogic skills including assessment of learning needs. The role of an interpreter in this context is not well represented in the literature. While there has been substantial emphasis on the production of comprehensible leaflets and other sources of information for many years (e.g. Meade et al., 1989; Butow et al., 1998), and a UK forum exists “to promote and support excellence” in this regard (Patient Information Forum, 2010), there is little written about ‘interpretation’ as an aspect of practice.

5.2.3 Repertoire 3 - Facilitation
In the facilitation repertoire participants positioned themselves as helping groups of patients to explore their experiences in depth as a basis for discussion and enhanced understanding. In doing this opportunities were provided for peer exchange and sharing (between patients). Such sessions also hold the opportunity for physiotherapists to check the learning of patients and perhaps in doing so also provide some motivation to patients (to demonstrate their learning). Terms such as “sharing experiences”, “discuss together” and “facilitate discussion” were used (see section 4.2.1.3). The facilitation repertoire was limited to references to discussion in groups where its potential for development using peer-learning principles was evident.

5.2.4 Repertoire 4 - Empowerment
Empowerment was the final repertoire in this theme (section 4.2.1.4) and seemed to have a dual function. On the one hand it served to position patients as being supported in taking responsibility for their own management which would be beneficial for them. In this context the repertoire was associated with terms such as
“self management”, “independence” and “autonomy”. However, it was also associated with language that was critical of “passivity” on the part of patients, “getting them out of the door”, “treating themselves”, and “avoiding admission”. This talk of fast discharge, avoiding admission, treating themselves, moving patients out of the system (and keeping them out) appeared to be associated with meeting targets and financial imperatives. “Empowerment” had also been noted as a key aspect of patient education by Rindflesch (2009) in a grounded theory study with experienced physical therapists in the USA. He had interviewed nine therapists who had been identified as “outstanding” by their peers and had concluded that “the purpose of patient education was to empower patients towards self-management (and prevention)” (Rindflesch 2009, p. 193). “Empowerer” was also identified by Lindquist et al. (2006, p.272) as part of the identity of graduating physiotherapists. Patient-centred, time-rich, participation, and inter-professional were all components of the category of empowerer in their study. The findings of my study relating to the empowerment repertoire have considerable resonance with these descriptors.

5.3 Reflection on choice of theme 1 title (concepts of patient teaching)

I spent a considerable time deciding on the most appropriate term to use for this thematic title. “Concepts of patient education”, “concepts of learning relationship” and “concepts of teaching” were possible alternatives. The first was eventually rejected because the concepts of patient education are much wider and represent the whole study. “Concepts of learning relationship” was a possibility but I then returned to the full transcripts and searched for the terms teach/teaching/taught and found that participants had used these terms themselves, mainly before I had (see table 5.1 below). In one case a long list of activities that I would classify as teaching was given and when I used the word “taught”, to clarify, the participant (P11, 93-119) quickly agreed. In another various euphemisms were used in relation to the role with support workers, my suggestion that this was teaching was agreed with (P10, 143-150). In both of these instances the meaning was co-constructed. I later considered adaptation to “concepts of education” and this was partly influenced by the focus group discussion which included reflection on the transition in the language used in
the last two decades from “training” to “education”. Further thought followed and I decided to stay with the term “teaching” as being more representative of the data and also to form a link with the previous literature. The modification to “patient teaching” came some time later and once identified it seemed the obvious choice despite the convoluted process.

Participants use of the terms teach / teaching

<table>
<thead>
<tr>
<th>Use of term</th>
<th>Description</th>
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<tr>
<td>Teach / teaching</td>
<td>really trying to teach them about it P1, 13.</td>
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<tr>
<td>Teach / teaching</td>
<td>Um… mainly, just through discussion, um… sort of teaching, I suppose P2, 19.</td>
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<tr>
<td>Teach / teaching</td>
<td>so it depends on what’s happening for them, what I teach them and tell them about P6, 14-15.</td>
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<td>Teach / teaching</td>
<td>And then I also do a lot of teaching outside of the Trust in terms of other health professionals P7, 136-137</td>
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<tr>
<td>Teach / teaching</td>
<td>I think perhaps my um… communication and teaching has improved since I’ve been doing this job P8, 121-123</td>
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<tr>
<td>Teach / teaching</td>
<td>even then there may be sort an educative element because you might be sort of teaching someone through hands on about movement P10, 47-49</td>
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<tr>
<td>Teach / teaching</td>
<td>And I feel at the moment it’s a massively important part of what we do on a day to day basis, um… it’s not only involved in, you know, teaching children how to do things and manage their conditions, P12, 12-14</td>
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<tr>
<td>Teach / teaching</td>
<td>I’ve seen a gentleman who I reviewed his inhaler technique and then went through the correct technique with him and then got him to practise, um… so…I demonstrated that and then, you know, he’s then gone on to hopefully be doing the right technique now at home. Um… then I’ve gone through things like active cycle of breathing technique and I’ve talked about why… why it works and how it works, um… as well as how to actually do it, um… so that they can see why it’s important. And I’ve used diagrams and things to support my explanations. I’ve talked about breathlessness management and again, not just showing the positions, but also talking about why they work, and what’s happening and why they’re getting breathless……….. and he had questions around how much exercise he should be doing, so it kind of… he was generating the questions really and I was just responding in that respect, um…” “………..you taught him inhaler technique.” “Yeah.” P11, 93-119.</td>
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<tr>
<td>Teach / teaching</td>
<td>…then I’m sort of setting up rehab plans for either rehab support workers or carers to sort of undertake as well so… making sure that they understand what they’re doing and why they’re doing it and sort of what not to do as well.” “So you’re teaching them?” “So I’m teaching them to sort of be… sort of working with the client as well…. P10, 143-148.</td>
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Table 5.1 participants’ use of the term “teaching”
5.4 Discussion of ‘concepts of patient teaching’ theme and repertoires

The choice of “concepts of patient teaching” as the thematic title and the associated repertoire titles was influenced by the terms that participants used (see table 5.1) as well as the work of previous authors. A body of research relating to concepts of teaching has focussed on educators’ role with students and was considered earlier (see section 2.5.1). Authors included Dall’Alba (1991); Pratt (1992); Samuelowicz and Bain (1992); Gow and Kember (1993); Kember (1997); Devlin (2006). In all of these studies the notion of concepts of teaching related to an academic setting.

The identification of four repertoires, in the ‘concepts of patient teaching’ theme in the present study has some resonance with those considered in the review by Kember (1997). The first two (‘transmission’ and ‘interpretation’) have parallels with Kember’s ‘teacher-centred/content-orientated’ category. This could be adapted to ‘therapist-centred/content-orientated’. ‘Facilitation’ and ‘empowerment’ are more externally facing and have parallels with Kember’s ‘student-centred/learning-orientated’. Within the literature on ‘concepts of teaching’ the term ‘student-centred’ is frequently used. Devlin (2006) reviewed previous articles relating to concepts of teaching and traced the common use of the dichotomy of “teacher-centred (imparting information/transmitting structured knowledge) and student-centred (facilitating understanding/conceptual change)” concepts (Devlin, 2006, p.112). In the context of the present study it might be appropriate to substitute ‘patient-centred’ for ‘student-centred’ as the patient is the learner in the context of healthcare.

The validity of the adoption of the alternative term (patient-centred) can be argued based on recent literature such as that of Holmstrom and Roing (2010) who have recently compared the terms ‘patient empowerment’ and ‘patient-centeredness’ and traced the latter from a psychological/psychotherapeutic framework in the late1960s, which has since then been “supported as good medicine, yet poorly understood” (Holmstrom and Roing, 2010, p.167). They concluded that “‘patient-centeredness’ and ‘patient empowerment’ are complementary concepts which do not oppose one-
another” (ibid, p. 171), with ‘patient-centeredness’ being, on the one hand, a goal of treatment and on the other part of the process of empowering patients. With its emphasis on the patient, rather than the therapist, it appears to have valid parallels with the term ‘student-centeredness’ considered above.

Participants in the present study drew extensively on a discourse of ‘transmission’. They frequently talked using language, which suggested that they conceptualise certain interactions with patients as involving movement of information from source to recipient. The diagram below has been adapted from one by Boldt (1998) in relation to teachers and their students. Boldt’s (1998) simple diagrammatic representation of the teacher’s knowledge below (Figure 5.1) being organised and structured for onward transmission to the student may also be applicable to physiotherapists in some interactions with patients. However, little is known about how, or whether, that knowledge is practiced, applied and reproduced by the patient. The extent to which it is evaluated (assessed) by physiotherapists is also unknown, as are the methods used.

Transmission of knowledge may be a prominent feature in physiotherapists’ practice because of their own previous experiences of learning but for students, evaluation (or assessment as it is more commonly referred to the UK literature) is a key component of the process. Assessment can provide a form of external motivation to learn. The implication for learning if it is absent in interactions between physiotherapists and their patients is also under-researched.

Although the repertoire of ‘interpretation’ has some similarity with ‘transmission’ there are distinctive qualities in terms of the necessary skill set and nature of interaction which sets the two apart from each other. The repertoire of interpretation is not specified within any conception of teaching reported in the Kember (1997) review or subsequent studies that I have identified.
Figure 5.1 Transmission model of teaching in physiotherapy. (Adapted from Boldt, 1998, additions in bold).
In the present study ‘interpretation’ is therefore a novel category which may be a distinctive feature of certain health professional (physiotherapist in this case)/patient relationships. These two repertoires (transmission and interpretation) complement Sfard’s (1998) ‘acquisition’ metaphor (which will be discussed later) in relation to learners. The repertoires of ‘Facilitation’ and ‘empowerment’ are more allied with Sfard’s (1998) participation metaphor. ‘Empowerment’ could also equate to the ‘conceptual change’ referred to by Dall’Alba (1991), ‘facilitating personal agency’ referred to by Pratt (1992), and fall within the broad orientation of ‘learning facilitation’ identified by Gow and Kember (1993) and reiterated by Kember (1997). Some of the language used within the ‘empowerment’ repertoire had a direct link with that used by Daloz (1999) in relationship to ‘mentorship’. This led me to consider the inclusion of an additional repertoire (‘mentorship’), but the focus of the interview references to this was from one participant (P16) who made several related comments including:

- support them in difficult situations to take the steps they need to take. (P16, 816)

which seemed to also fit with an empowerment agenda. The elegant use of metaphor from P16 in relation to mentorship was considered briefly in the ‘findings’ section and raises interesting notions of the relationship of cognitive concepts and metaphor use. In some ways these contributions from P16 might be seen as an outlier in the data set.

The choice of title for the ‘empowerment’ repertoire was not straightforward and there may be an argument that the repertoires of ‘facilitation’ and ‘empowerment’ should have been merged. Anderson and Funnell (2010) suggested that “the empowerment approach involves facilitating and supporting patients to reflect on their experience of living with diabetes” (Anderson and Funnell, 2010, p.281) and linked this approach to enhanced self-reflection, self-direction and self-management. In the present study the use of the term ‘facilitation’ was limited to references to
discussion in groups (see section 4.2.1.3) where its potential for development using peer-learning principles was evident.

Terms such as ‘self-management’, ‘independence’, ‘autonomy’ and ‘empowerment’ are often used almost interchangeably in the literature and all could be argued to be suitable contenders for the repertoire title. However, the first three are indicative of the goals of physiotherapists’ interventions but they are not appropriate for the process by which they can be achieved and were therefore not adopted as a repertoire title. ‘Empowerment’ is a complex and multidimensional term which has political undertones. However, it was a term used by some participants and seemed to encapsulate both the process and the goal, reflecting participants’ stated or implied intended outcomes. The use may indicate that they have bought into the terminology employed in DoH policy documents in recent years (e.g. DoH, 2000a; DoH, 2002; DoH, 2004). In a very recent white paper (DoH, 2010) it is interesting to note that the language of ‘empowerment’ is being applied to clinicians rather than patients. It includes several references including “reforms will empower professionals and providers, giving them more autonomy and, in return, making them more accountable for the results they achieve” (DoH, 2010, p.4)

The eventual decision to use ‘empowerment’ as a repertoire title is in line with the way it was used by Anderson and Funnell (2010), writing about diabetes who noted that,

“empowerment occurs when the HCP’s (healthcare professional’s) goal is to increase the capacity of patients to think critically and make autonomous, informed decisions. Empowerment also occurs when patients are actually making autonomous, informed decisions about their ….self-management” (Anderson and Funnell 2010, p.277).

In this quote the authors also linked the process of empowerment with both autonomy and self-management as an end result. The decision to use ‘empowerment’ is further supported by the work of Holmstrom and Roing (2010).
According to these authors the concept of empowerment evolved as a reaction to oppression and inequality within society rather than within health and is linked to authors such as Freire and the “pedagogy of the oppressed” (Holmstrom and Roing, 2010, p.168). The empowerment agenda originally intended to support the oppressed may now be having repercussions on patients as it is used to shift responsibility for care to the patient (autonomy, self-management) and leading to early discharge for financial, rather than patient-oriented reasons. Some of this agenda was evident in the discourse of participants (see section 4.2.1.4). It is interesting that in their conclusion Holmstrom and Roing (2010) noted the need for educational skills training for healthcare professionals who are involved in empowering patients.

The empowerment agenda in the NHS has been emphasised in recent DoH documentation (DoH 2010). One of the current QIPP (Quality, Innovation, Productivity and Prevention) work-streams is ‘long term conditions’. One of the priorities for this work-stream is noted on the website as “empowering patients to maximise self-management including ensuring patients have a care plan and appropriate information and knowledge about how to manage their condition” (DoH, 2010). Empowerment of patients was high profile in recent DoH publications including those associated with the “Next Stage Review” report (DoH, 2008a; DoH, 2008b). The emphasis on empowerment in this document appeared to be primarily on the provision of information to improve patient choice, noting that “we will empower them to make informed choices” (DoH 2008a, p.39). A subsequent document noted that “Health professionals will need to become partners with patients and true champions of patient empowerment.” (DoH 2008c, p.15).

An emphasis on empowerment is closely linked to a patient-centred approach to care. As noted earlier, in the literature review, Pelzang (2010) has recently carried out a literature review of the definitions, methods and models of patient-centred care (PCC). He provided a list of the skills required by the health professional for a patient-centred approach to care, “education and information giving” (Pelzang, 2010,
p.916) was part of a “communication” category. There seems to be a tension in that “education” appears to be associated here with “information giving” suggesting a passive transmission model which I have argued is more aligned with therapist-centred approaches. Pelzang (2010) had earlier cited another author (Flarey, 1995) who had identified “empowerment” as a central component of a patient-centred environment (Pelzang, 2010, p.915). This example serves to demonstrate a potential mismatch between the central tenets of PCC and practitioners’ (and some researchers’) ‘concepts of teaching’ which are based on a ‘transmission’ model. This mismatch may contribute to making true PCC hard to achieve.

Empowerment has been linked here to self-management. It is important to note the relevance of the ability to self-manage chronic health problems to the sustainability agenda. Self-management of long term health conditions was the focus of the “The Expert Patient” (DoH, 2001) report in which the government of the time sought to reduce reliance on the resources of the healthcare system through involvement of patients with chronic conditions in educating others. Although the CPD of health professionals was noted in the recommendations as necessary action to:-

> promote health professionals’ knowledge and understanding about the benefits (DoH, 2001, p.34)

there was no mention in the document of the need for development of pedagogic skills of health professionals or the expert patients. In the study by Rindflesch (2009, p.193) “the purpose of patient education was to empower patients toward self-management and prevention”. In the present study empowerment was one of the identified concepts of patient teaching and was regarded at the upper end of a hierarchy of related concepts. In Rindflesch (2009, p.193) therapists used “a patient-centered approach to decide upon content”. In my study a patient-centred approach has also been linked to concepts in the upper part of the hierarchy of concepts of patient teaching (facilitation and empowerment) and this in turn associated with more experienced participants.
The studies into 'concepts of teaching' reviewed by Kember (1997) and referred to earlier are all based on research involving university or school based academic staff and the learners were therefore students. There do not appear to have been any qualitative studies involving health-care staff, in which 'concepts of teaching' have specifically been the focus. Learners in a health care setting may be different to students in several respects for example:-

- patients may not think of themselves as “learners”
- they may have specific needs because of their illness, disability or age
- patients may not have the motivation (including assessment) which might encourage them to want to learn
- the teaching/learning relationship may be transient because of time or other pressures (particularly in acute care settings)

In addition the physiotherapist (or other health care professional) may not explicitly think of themselves in a teaching role and may not conceptualise teaching/learning events as such. Despite these reservations the studies previously carried out with academic staff seemed to provide a useful starting point for comparison until more research has been carried out.

5.5 Concepts of patient teaching theme and use of metaphor

As noted earlier the use of metaphorical expression was an important feature of the concepts of patient teaching repertoire and all of the other repertoires and merits further discussion. Sfard (1998) contended that the metaphors used in communication can give an insight into tacit assumptions and beliefs in relation to learning (as opposed to teaching, which is the main focus of the present study) by illuminating “fundamental assumptions underlying both our theorizing on learning and our practice as students and teachers” (Sfard, 1998, p.4). She considered the learners’ perspective in relation to mathematics and proposed two metaphors of learning – “acquisition” and “participation”. She appeared to regard these as encapsulating all thinking at that time about learning. Her mapping of the acquisition metaphor included notions of the teacher as provider / facilitator / mediator (Sfard,
The distinction between transmission and facilitation proposed by Gow and Kember (1993) as opposing positions might both sit within Sfard’s ‘acquisition’ category. The participation metaphor however, related to learning a subject as “a process of becoming a member of a certain community”, this entails above all else she suggested “the ability to communicate in the language of this community and act according to its particular norms” (Sfard 1998, p. 6). She argued for the possibility of the “peaceful coexistence” of the competing metaphors of “acquisition” and “participation” in relation to learning, suggesting that “too great a devotion to one particular metaphor can lead to theoretical distortions and to undesirable practices” (Sfard 1998, p. 4). This might suggest the desirability of an educator having awareness of and access to a broad repertoire of metaphors associated with concepts of teaching and related approaches to teaching. This might enable them to adapt their approach to patient education to fit the learner or group of learners. The range of abilities, backgrounds and entry behaviours of patients as learners seems to make this broad repertoire and informed selection essential.

For some participants (particularly in the novice group) there was a sense of a lack of availability or limitation of key metaphors and ways of talking about an educational role with patients (for example P1, see table 5.2).

<table>
<thead>
<tr>
<th>Participant</th>
<th>Quote and line number</th>
<th>Repertoire /Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>like one week for example we did some circuits with them and <strong>we’d go through</strong> each exercise 26-27</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P1</td>
<td>I think that sort of really <strong>cements the idea</strong> in their heads 86-87</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P1</td>
<td>so you have to educate them into how to now <strong>run their lives</strong> 113-114</td>
<td>Empowerment Patient centred</td>
</tr>
<tr>
<td>P1</td>
<td>that’s the best way you’re going to <strong>get through to them</strong> if you can empathise with them 207-208</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P1</td>
<td>someone that <strong>can get a point across</strong> in the simplest way possible 212-213</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P1</td>
<td>If you can <strong>get something through</strong> to them in completely layman’s terms and very, very simply 216-218</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P1</td>
<td>I suppose we tend to use <strong>instructing people</strong> to do something, them doing it and us explaining how that would benefit them. I suppose that’s the way we might mainly teach people 284-286</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P7</td>
<td><strong>providing</strong> patients with information P7, 6</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P7</td>
<td>to then be able to <strong>take that information and knowledge forward for themselves</strong> to be able to cope better in life generally. P7, 9-11</td>
<td>Empowerment Patient centred</td>
</tr>
<tr>
<td>P7</td>
<td><strong>I give</strong> them knowledge about P7, 19</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P7</td>
<td>But I think it’s important that patient education doesn’t just involve <strong>giving</strong> them the information, it involves <strong>giving them</strong> ways in which they can get more information or find out more for themselves P7, 44-47.</td>
<td>Reservations about transmission</td>
</tr>
<tr>
<td>P7</td>
<td>very good ways of educating them if you’re trying to get a message across. P7, 413-414</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P10</td>
<td>you might be <strong>giving them</strong> literature as well on various different services P10 111-112</td>
<td>Transmission Physiotherapist centred</td>
</tr>
<tr>
<td>P10</td>
<td>So it’s <strong>less sort of one-way</strong>, well this is the solution to your problem... it’s more how are we going to... how are we going to solve this together? P10,114-116.</td>
<td>Facilitation/collaboration Patient centred</td>
</tr>
<tr>
<td>P10</td>
<td>so it’s often sort of just <strong>directing them</strong> in that way and then they can... they can investigate it themselves P10, 127-128</td>
<td>Empowerment Patient centred</td>
</tr>
<tr>
<td>P16</td>
<td>it’s about the patient <strong>moving beyond you</strong>, you know, so that you’re becoming redundant 701-702</td>
<td>Empowerment Patient centred mentorship</td>
</tr>
<tr>
<td>P16</td>
<td>you really want the patient to say well, you’ve given me the tools, I <strong>can cope now</strong> and if I can’t I’ll let you know, goodbye, you know, and that really is success.707-709</td>
<td>Empowerment Patient centred</td>
</tr>
<tr>
<td>P16</td>
<td>And that’s a philosophy we need to be developing more within current practice where we have to <strong>step back</strong> ultimately 711-712</td>
<td>Empowerment Patient centred mentorship</td>
</tr>
<tr>
<td>P16</td>
<td>Support them in difficult situations to <strong>take the steps they need to take</strong>. 816-817</td>
<td>Empowerment Patient centred mentorship</td>
</tr>
<tr>
<td>P16</td>
<td><strong>Help them over the threshold</strong>, you know, to... to challenge them to deal with issues and to show them a vision of a future that’s worth living. That’s really what it’s about. 818-819.</td>
<td>Empowerment Patient centred mentorship</td>
</tr>
</tbody>
</table>

**Table 5.2 comparison P1, P7, P10 and P16 terms related to concepts of teaching.**
There are parallels in this regard with a study of school teachers by Munby (1986). The reason for restriction in the use of discourse relating to a teaching role for some participants is not known. It may be that they have not yet have been sufficiently exposed to relevant experiences (to have ‘participated’ in Sfard’s terminology) or have been involved in discussion within a community of practice. It also suggests that their learning to date has not included consideration or reflection on this area of their practice. This is of particular concern as participants have talked of the ‘integral nature’ of education in the role of the physiotherapist.

In this study participants drew on a range of repertoires relating to their concepts and approach to patient teaching. The repertoires are not exclusively linked to particular participants but are spread across the interviews. It has been argued above that the use of particular metaphors (which are intertwined with the repertoires) may illuminate but also constrain practice. The ‘transmission – reception’ metaphor for teaching is widespread and part of an accepted tradition. According to Lakoff (1993) the use of metaphors involves not only linguistic expression but also are a reflection of conceptual mapping. Restriction in metaphorical expression in relation to teaching and learning may be reflected in limitations in the approaches adopted by physiotherapists in patient education. Table 5.2 shows the terms used by one participant from each of the four sub-groups in relation to concepts of teaching.

Some sources have suggested that there is a “hierarchy of concepts of teaching moving from teacher-focussed to student-focussed categories” (Entwistle and Walker, 2000, p. 335). The terms used by participants in this study seem to suggest parallels with this in relation to ‘therapist-centred’ and ‘patient-centred concepts’. From table 5.2 it can be seen that for P1 there was an emphasis on terms which I have identified with transmission whilst for P16 terms associated with patient autonomy or “empowerment” predominated. As noted earlier in the literature review Samuelowicz et al., (1992) suggested that a hierarchy of characteristics exists with those in lower order categories also present in higher categories and talked of a continuum of concepts.
Following the line of reasoning of Lakoff, (1993) and Sfard, (1998) the metaphors used in communication may give some insight into participants’ concepts of teaching. Tobin and Tippens (1996) have argued that if the referent metaphors underpinning individuals’ concepts of the roles of teachers and learners are identified and changed, learning “might be enacted in ways that reflect re-conceptualisations of these roles, the result being improved learning environments” (Tobin and Tippens, 1996, p.713). Through employing reflective practice and the identification of prevailing metaphors with physiotherapists and other health professionals in relation to their pedagogical beliefs self-assessment and understanding may be facilitated. This could subsequently lead to enhancement of their repertoire of metaphors which might then change or broaden their concepts of teaching. Enrichment of physiotherapists’ repertoires relating to pedagogy could have a beneficial impact on patient outcomes. This exciting prospect could help foster the development of a wider range of facilitatory approaches from which individual physiotherapists can select and be actioned through my involvement in master’s level education modules. I intend to achieve this through a range of strategies which are described in section 5.14.1. In seeking to enhance the practice of physiotherapists as patient educators there would be an irony in employing a non ‘participatory’ model, to use Sfard’s (1998) terminology. Participation in a community of practice educators may be regarded as an ideal way of learning but this can only be truly effective if sufficient expertise already exists within that community. If there is uncertainty in this regard the solution may be to use the principles of problem-based learning to build on experiences that physiotherapists (and other health professionals) have had with regard to patient education.

I have noted earlier the eloquent use of metaphor by P16 who is an experienced physiotherapist and educator. Some qualitative researchers (e.g. Cahnmann, 2003; Furman, 2006) have suggested that poetic representations of participants’ narrative can add an additional dimension to the presentation of research findings. The extract
below has been modified only to structure the lines as I was struck by its natural metre and flow.

_In a way it’s mentorship._

_If you think of a good mentor_
_there are the three classical pillars,_
support, challenge and vision.

_It’s exactly what you’re trying to do with patients_  
or with learners  
or with friends  
or whatever.

_Support them in difficult situations_  
to take the steps they need to take.

_Help them over the threshold,_  
to challenge them to deal with issues  
_and to show them a vision of a life that’s worth living._

(P.16, 815-821)

5.6 ‘Concepts of patient teaching’ and patients as learners

Physiotherapists’ concepts of patient teaching and the effect that this may have on the approaches they adopt in educating their patients are only one part of the equation. The ways that patients learn are also of crucial importance. Knowles (1985, 1990) theory of adult learning, Kolb’s (1984) learning cycle and Honey and Mumford’s (2000) contentious ‘learning styles’, are examples of learning theories which are relevant to patients and other learners. Although not the focus of this study there is the potential for a mismatch between the therapists’ teaching approach and how patients might best learn. This raises the possibility of a wider range of research opportunities which will be considered later in section 6.4.
5.7 Theme 2 - The patient educator role

The language used by participants in this study constructed physiotherapists as having an ‘integral’ and also an ‘extensive role’ in patient education. These two terms provided the repertoire titles. As can be seen in section 4.2.2.1 metaphors such as “embedded”, “at the heart”, “enmeshed”, “part and parcel” were employed in relation to the role. Many either offered, or were later in the interviews prompted, to estimate how much of their role involved educating patients. The figure given was always above 50%. As participants talked about their practice an education role with patients was articulated and participants also positioned themselves as having responsibility for the training of carers, support workers and junior staff to educate patients.

In the grounded theory study by Rindflesch (2009) with experienced physical therapists in the USA referred to earlier, he concluded that physical therapists “could not easily differentiate patient education from other interventions” (ibid, p.193). The findings of the present study though based on a different methodology and set in the UK, have some resonance with the Rindflesch (ibid) study in relation to the integral nature of the role in physiotherapy practice.

There was variation in how participants identified with an education role. Some had clarity, one participant noted:-

“I feel like I’m a teacher and my role is actually an educator with the clients” (P13, 132-138).

Others (for example P5 below) were less sure that they educated patients but what they said seemed to indicate that they did:-

“you see I don’t really have sessions where I sit down with patients actually one to one and talk specifically on education, it might be that I get them to do something and I’ll say but why is this and why is that, and I’ll just give them a brief
explanation or description of what we’re doing, so it’s not… it’s not the focus on education, it’s more a focus on getting the exercises done and improving their functional outcome.” P5, 125-30.

The terminology used by participants to construct their educational role with patients (and others) varied. Terms such as “teaching”, “showing”, “sort of educating”, “making sure they understand”, “demonstrating”, and “training” were used. Participants also positioned themselves as teaching carers, parents, support workers not only how to “treat” patients but in some cases also how to teach patients (section 4.2.2.2). This latter point introduces a form of “vicarious” teaching or “teaching by proxy” which has not previously been recognised in the literature.

The physiotherapists in this study constructed patient education as ‘integral’ to their role, if this is the case there appears to be little formal recognition of it. The Health Professions Council (HPC) is the body responsible for regulating the 15 professions allied to health including physiotherapists. The HPC’s Standards of Proficiency (SOPs) set down the requirements for these professions. There is a specific SoP for each profession including physiotherapy (HPC, 2010b). Analysis of these standards shows detailed consideration of a spectrum of approaches to treatment, notes the need for team working and leadership skills but does not mention patient education or a teaching role. As these standards form the basis for periodic re-registration by all (50,000+) physiotherapists and together with the Standards of Education and Training (SETs) are the basis for successful validation of qualifying courses, this omission is probably highly influential in terms of the status of a patient educator role. This may help to explain why so little is known about the scope of patient education in the UK and why physiotherapists’ attitudes and approach to an educational role is under-researched. It may also help to explain why this area is under-represented in the literature. This omission in the scope of practice for physiotherapists in the UK has obvious implications for standards of patient care and may limit the impact that physiotherapy as a profession can have in a time of changing emphasis in healthcare in the UK. In contrast analysis of the UK Nursing
and Midwifery Council (NMC, 2004) regulatory documentation includes several references to an educational role including the need to:

- provide support and education in the development and/or maintenance of independent living skills (NMC, 2004, p.28)
- contribute to the application of a range of interventions which support and optimise the health and well-being of patients and clients (ibid, p.30)
- identify and respond to patients and clients’ continuing learning and care needs (ibid, p.30)

If physiotherapists do have a role in educating patients and relevant others, some form of preparation seems desirable to assure quality of practice, promote evidence based practice and ultimately protect patients.

5.8 Theme 3 - Preparation for the role

The ways that participants talked about preparation for the role of patient educator was organised in the findings into three repertoires: ‘natural’; ‘experiential’ and ‘theoretical’. In the first two, physiotherapists were positioned as needing no formal preparation whilst theoretical preparation at pre and post-registration level was considered in the third. There may be some overlap between the ‘natural’ and ‘experiential’ repertoires. Various socio-cultural theories of learning were identified earlier (in the literature review) in relation to learning. Some aspects of these theories will now be drawn upon in considering ‘preparation for the role’.

5.8.1 Natural

Possession of a natural ability (or expectation from others in this regard) in relation to the skills necessary for educating patients was alluded to (see section 4.2.3.1) by several participants but none from the ‘novice’ or the ‘expert’ groups. Comments such as “some people are more natural educators than others” (P8), “it’s something as physios we do quite naturally” (P7) and “it was almost just expected that you would know how to do it” (P11) were made. There was also some uncertainty from one participant (P8) about whether what she assumed was natural ability of some other physiotherapists was actually the result of formal preparation for the role that she was unaware of.
The natural repertoire has parallels with what Torff (1999) referred to as “folk pedagogy......the intuitive basis by which individuals not trained in education make judgements about teaching and learning” (ibid, 1999, p.200). In my study transmission was a predominant repertoire in the concepts of patient teaching theme. Torff (1999) cited a transmission of content approach in illustrating folk pedagogy and linked this type of knowledge to “tacit knowledge –knowledge that is rarely openly expressed or stated” (Torff, 1999, p. 195).

5.8.2 Experiential

Development as an educator through experience (section 4.2.3.2) was also part of the discourse of participants from all of the sub groups. Physiotherapists were positioned as being able to function effectively as educators without formal preparation. This experience may have been gained prior to entry to a pre-registration physiotherapy course, perhaps through schooling, sporting activities, music and other lessons. Table 5.2 earlier presented quotes from four of the participants in this study (P4, P6, P8, P11) who had this type of experience to draw upon. Further development seems also to have occurred informally during their qualifying courses, through their experience of observing practice educators during placements. The metaphors of “client mileage” (P6) and “learning from failure” (P10, P11) were part of this repertoire.

Experience has been recognised as a key way in which people learn (Dewey, 1963; Knowles, 1990) and forms the basis for many current educational strategies for adult learners. Jarvis (2006) considered at length the complexity of human learning. He identified primary and secondary experience as ways that we learn about the world and suggested that “all learning is from experience but experiential learning is more concerned with primary experience” (ibid, p.85). The examples he gave of primary experiences included role-play and simulation. In defining secondary experience as “the interpreted experiences of others that is transmitted to us” (Jarvis, 2006, p.85), he urged caution and suggested the need to be critical of this type of experience. He
also referred to a type of primary experience “sitting by Nellie” (Jarvis, 2006, p.29) as a traditional way of learning from experts and warned of the potential for what he called “non-reflective learning” when new knowledge, skills and behaviours are accepted without question. While learning from experience was part of the discourse of the participants in this study it may be a challenge for physiotherapists to apply what they have learnt in this way in the education of patients without some support. The possibility also exists of a mismatch between their evolved ‘concepts of teaching’ and the associated teaching methods adopted, and also of limited or inappropriate approaches for their role with a range of patients with varying learning needs. Various strategies have been devised in an attempt to optimise experiential learning.

Reflection on action and in action (Schon, 1983) has been widely adopted in recent decades as a basis for the enhancement of practice. Particular models, for example that of Kolb (1984), Gibbs (1998), and Johns (2000), have been developed with the intention of giving structure to the way people think about their experiences as a basis for evaluating their feelings, actions and responses in order to learn and to make subsequent improvements to their practice. Jarvis referred to this as “thoughtful and reflective learning” (Jarvis, 2006, p.29). Reflective practice already forms a cornerstone for many aspects of physiotherapists’ professional development (including as a practice educator for students) and is used widely both for facilitating learning and also as a medium for assessment (for example the ACE experiential route). Further use could be made of this method by its application to physiotherapists’ experiences of educating patients. While this can take place on an individual basis, drawing on aspects of peer-learning and the sharing of experience in groups might further facilitate practice educator development. The potential role in this regard of communities of practice (CoPs) was considered earlier, in the literature review.

Little is known about what networks exist and how they operate in relation to physiotherapy patient education. It may be that CoPs for physiotherapists involved in
patient education might be absent, dysfunctional or evolving in isolation from research evidence and theory. It may of course be that more clinically orientated CoPs include pedagogy as part of their activity but it seems likely that consideration of this aspect of practice is overshadowed by clinical concerns. The formation of local or national patient educator CoP could perhaps be facilitated through web sites or other e communication (perhaps as part of ‘National Association of Educators in Practice’ website).

5.8.3 Theoretical

“Theoretical” preparation for the role was the third repertoire in the theme of “preparation for the role” (see section 4.2.3.3). In this repertoire participants recognised a need for formal preparation in order to carry out the educator role with patients effectively. P8 was an experienced physiotherapist but had not yet completed any education modules, she perceived a need for some “basic level of how to approach teaching somebody” (P8, 230-231). P7 was part of the same subgroup and referred to her experience of attending a study day to prepare her for a clinical educator role with students. She drew on the metaphor of “transmission” in voicing scepticism about how much attendees “actually take on board” (P7, 471). Some participants noted that it was only once they had begun their PGC studies that they realised they had gaps in understanding which included “the language” of education (P10) and “learning needs” (P11). Several participants (including P11, P12, P13 and P14) felt that learning to be a patient educator should be part of the undergraduate curriculum. P12 noted “it’s a massively important part of our everyday practice, that our face to face relationship with …clients ..is about educating” she also cited restriction in time available for “hands on” therapy. The expert focus group (P14, P15, P16) had a lengthy discussion about the perceived need for preparation for an educator role to be “embedded in the curriculum” (P15, 939). They played with ideas of how this might work in practice and concluded that there was a need for the educator role to be recognised as part of the role of a physiotherapist from the admissions stage to undergraduate courses. The selection process should include
elements which help to ensure applicants understand the integral nature of the role and are selected accordingly.

There has been little research about the theoretical preparation of physiotherapists for a patient educator role. As mentioned earlier there is currently no requirement in regulatory body (Health Professions Council) guidelines in this regard. Professional body (CSP, 2002) guidelines do include some minor references to patient education. This guidance included a recognition of the “increasingly important role in health promotion and education” (ibid, p.17). It included the statement:

*Physiotherapists play a broad role in health promotion, health education and self-care. This can extend to advising and teaching patients’ and clients’ carers, other health care professionals and support workers in order to provide a coherent approach to maximising individuals’ independence and well-being.*

*(CSP, 2002, p.19)*

Although course approval by the CSP is needed for graduates to be able to gain membership as a ‘chartered physiotherapist’ it is HPC registration that is required prior to employment as a physiotherapist. At validation events it is the guidance from these two bodies which primarily drives course content and approach nationally. Clear guidance which acknowledges physiotherapists’ changing roles in healthcare (including preparation for involvement in patient education) may help to raise the profile of the role.

At postgraduate level HPC guidelines (Standards of Proficiency - SoPs) are once again the basis of periodic re-registration. These together with changing DoH agendas set the priorities for postgraduate funding. From my own experience locally I am aware that preparation of allied health professions staff (including physiotherapists) for an educator role is not high on the list of priorities which are currently focussed around the “Quality, Innovation, Prevention and Productivity” (QIPP) agenda (DoH, 2010). Modules and courses are available in this HEI and at
other HEIs around the UK to prepare physiotherapists and other healthcare staff for an educator role. The focus in the host HEI has mainly been on preparation for an educator role with students. Research is needed to ascertain whether other HEIs include preparation for an educational role with patients and the form that this takes.

There appears to be a major barrier to potential development of the patient educator role in physiotherapy in that, although articulated as part of participants’ identity in this study, it is not explicit within the profession. Because of this there is currently little structure supporting physiotherapists to improve their abilities in this aspect of practice and no formal professional regulatory body requirement for physiotherapists to achieve competence in relation to educational criteria. This is despite senior staff having an established and well-recognised role in the education of students on placement. Preparation for a role in patient and student education would probably share many common features and it seems paradoxical that elements which potentially form a large component of a physiotherapist’s role are not regarded as in need of development.

Specific strategies to encourage further development of the role based on the discussion in this section could include:

- The development of patient educator communities of practice
- The use of models of reflective practice as a basis for analysis of practice educator critical incidents
- Group discussion to share examples of practice as a patient educator

5.9 **Theme 4 - Therapeutic relationship**

The relationship that physiotherapists and other health professionals have with patients is at the heart of every treatment session. Three repertoires were identified from the data in relation to the therapeutic relationship – ‘compliance’, ‘collaboration’ and ‘care’.
Compliance and collaboration might appear to represent opposite ends of a spectrum. The compliance repertoire presents physiotherapists as holding the knowledge and the power. According to this repertoire participants reported asking or telling patients what to do and having an expectation that they would do it. For several decades the term ‘compliance has been used in relation to the favoured response to the advice, guidance or treatment regime prescribed. Falvo (2004) considered the notion of ‘compliance’ at length. She noted that other terms have been coined “in an attempt to diminish the paternalistic and authoritarian nature of the term compliance” (Falvo, 2004, p.2). She suggested that words such as adherence, therapeutic alliance, collaboration, concordance are examples of preferable alternatives. In a later edition of her publication (Falvo 2010) replaced ‘compliance’ with ‘adherence’ in the title.

The term ‘adherence’ is now often used in the literature. For example McLean et al. (2010) carried out a systematic review in relation to interventions to enhance adherence with physiotherapy. Their aim was to identify strategies to increase adherence to musculoskeletal outpatient treatment. In doing this ‘adherence’ and ‘compliance’ as well as a range of synonymous terms were used by McLean et al., (2010) to search for relevant studies. (It is interesting to note that although a wide range of research articles and associated strategies were reviewed the results were inconclusive. ‘Patient education’ was also a search term in the systematic review but pedagogic approach does not seem to have been considered in any of the articles reviewed).

The consequences of ‘non-compliance’ or ‘non-adherence’ for the patient may well be failing health but there are also consequences for society in general and the NHS in particular in terms of finance. This latter point and the associated target culture is probably one of the reasons that there is a deep-rooted drive for physiotherapists and other health professionals, as “agents” of the NHS (and state), to strive for compliance. The repertoire of compliance and that of empowerment, discussed above, seem to demonstrate a disjuncture which Deccache and van Ballekom,
(2010) have previously noted “the conflict between compliance with prescriptions and empowerment is still alive” Deccache and van Ballekom, (2010, p.286).

In the present study the repertoires which participants drew upon as they talked about educating patients suggested a marked distinction between ‘compliance’ and ‘collaboration’. As noted above Falvo (2004) had suggested that ‘adherence’ might be used as one of the possible alternatives to ‘compliance’. As I chose the titles for the three repertoires in this theme I considered the possibility of using ‘adherence in place of ‘compliance but finally decided that the latter reflected the content and meaning more accurately. This repertoire positions physiotherapists as having the power, authority and superior knowledge in the relationship. They provide the means to achieve healing and expect patients to comply. Patients are placed in a passive role of unquestioning acceptance, respecting the superior position of the health professional. Despite moves to a less practitioner-centred, paternalistic approach to patients the repertoire of compliance is still very much in evidence here.

Although collaboration may be seen as a strategy en-route to the goal of compliance the discourse in this repertoire suggested an additional dimension which relates to the reciprocal nature of the therapeutic relationship. In this repertoire patients are partners in learning. Many of the descriptions of participants’ role had a strong emphasis on education as a “two-way” process. There are frequent references to working ‘with’ the patient as learning occurs. Not only were they learning together but they were learning from each other with a sense of bringing complementary components to a reciprocal process. It could be argued that this repertoire sits more appropriately in the theme ‘concepts of patient teaching’. However, on balance, it seemed to be more about the nature of the relationship rather than the mechanism of teaching (or learning).

Some participants talked about the teaching and learning process as if it were sequential:-
It’s me learning about what their particular problems are, so in that I’m learning from them what their problems are and then trying to educate them about specific problems. P3, 67-69.

whilst for others it was a parallel process emphasising the reciprocity:-

because it was a two-way education and not just educating them, but them educating us, because of course they’re experts on their… you know, their particular illness really. P5, 68-70.

Participants also positioned themselves as working together with patients to solve problems. They positioned themselves as educators but also learners and in this repertoire there is a more equal power relationship. At times there appear to be parallels with the peer learning which has been an increasing feature of learning and teaching theory in higher education in recent years. In particular it resonates closely with reciprocal peer learning, “in reciprocal peer learning students within a given cohort act as both teachers and learners” (Boud et al., 1999, p. 414). It is interesting to speculate whether a willingness to engage in this form of learning with patients may have stemmed from their own participation in peer learning with fellow students or professionals. Although participants have not referred specifically to “reciprocity” the two-way process of learning they talked about suggests that this is a feature of their collaboration with patients. Trede and Higgs (2008) in their consideration of clinical reasoning emphasised the importance of a collaborative approach with the patient (or client as they prefer) which included “facilitating a reciprocal process of teaching and learning from each other” (Trede et al., 2008, p. 53). Whilst their focus was on collaborative clinical decision making, there are areas of overlap between this and the current focus on collaboration in patient education. Both have an ethos of ‘patient-centred care’ at their core.

The repertoires of ‘compliance’ and ‘collaboration’ which constitute a major part of this theme may represent two ends of a spectrum in terms of participants’
therapeutic relationship with patients. It is perhaps not surprising, as health professionals, that a repertoire of ‘care’ was also evident in which participants were positioned as “helping patients”, “listening to them” and “working with them” to achieve their goals. This repertoire of care was very closely related to that of collaboration.

As in the other themes in this study particular repertoires are not related exclusively to particular participants but are part of the discursive resources that are drawn upon by this professional group. Further research relating to this theme might include studies focussing on outcomes related to using reciprocal peer learning strategies with patients.

5.10 Theme 5 - Context of practice
Repertoires of “pressures in the workplace” and “multi-professional working” were evident in the way that physiotherapists constructed the context of their practice as patient educators.

The pressures in the workplace were predominantly related to time with many participants noting this as a barrier to patient education (section 4.2.5.1 - P12, 436; P13, 64; P15, 172; P8, 100; P2, 85) but others related to the structure of services and barriers because of the predominant culture in the practice setting. Overall, the community setting was seen to be much more conducive to patient education (“you get to spend lots of time with them so therefore you can make sure that they’re actually taking it on board as well.” P11, 170-172) than the acute sector. Lack of time for patient education in the latter setting, characterised by the use of the term “conveyor belt” (P9, 261) and need to “get patients “out of the door” (P11, 612), suggested a mechanical, dehumanising quality to the system of rapid discharge. Participants positioned themselves as active patient educators working at times against constraints inherent in the present workplace culture in acute settings. Shortage of time with patients may make more patient-centred approaches to patient education difficult to achieve. ‘Empowerment’ type approaches or the ‘mentor’
relationship promoted by Daloz (1999), and which was a predominant part of the discourse of P16, may not be achievable in therapeutic relationships involving limited contact between the physiotherapist and the patient. This will form an interesting avenue for further research.

In the ‘multi-professional working’ repertoire participants worked with, learned from or were supported by other health professions in their education of patients. Team working was evident in most interviews and references to it (most of them positive) were woven spontaneously and naturally through participants’ discourse. The multi-professional agenda has been a growing part of the healthcare culture for several decades. Originally introduced in the 1970’s, joint working has taken several decades to begin to be established as part of practice. In part this may be due to confusion over terminology, with words such as ‘inter-professional’ frequently used interchangeably with ‘multi-professional’. Barr (1994) has been influential in the development of “shared learning” and is president of the UK Centre for the Advancement of Inter-professional Education (CAIPE). CAIPE defined multi-professional education as “occasions when two or more professions learn side by side for whatever reason” and inter-professional education as “occasions when two or more professions learn from and about each other to improve collaboration and the quality of care” CAIPE (1997). The aim has been to encourage multi-professional working.

Participants in this study positioned themselves as part of multi-professional teams. Terms such as “key” (P15, 535), “very tight multidisciplinary team” (P6, 241), “working closely” (P12, 735) and “respect” (P11, 735) were used in this regard. One participant seemed to have concerns about the impact on patient education if a team did not work “cohesively” in that members might not be “giving the patients the same information” (P7, 598). This experienced physiotherapist was part of the sub-group who had not participated in an education module or course and drew on the “transmission” repertoire in expressing her concern.
Although the concept of multi-professional working was introduced earlier a government report in the mid 1990s (DoH 1996) explored the potential for enhancing the quality of patient care through multi-disciplinary working and co-operation. It encouraged partnership with patients and their carers, inter-professional collaboration and teamwork as well as inter-professional education. The intention of the drive for inter-professional education was that professions would work together more effectively for the benefit of the quality of patient care (Barr, 2002).

A succession of government white papers (for example DoH, 2000a; DoH, 2000b; DoH, 2004) have subsequently underlined inter-professional and inter-agency working as a priority. Meeting the Challenge (DoH, 2000c) specifically addressed the role of Allied Health Professions in this respect. Baxter and Brumfitt (2008) considered the changing working practices and blurring of professional boundaries resulting from these policies. They noted the differences in the “knowledge and skills; professional role and identity; and power and status” (Baxter and Brumfitt 2008, p.19) of individual professions which may impact on the way they work together. The discourse of participants in this study suggests that some embedding of the concept has taken place.

5.11 Discussion related to activity theory
I will now return to Engestrom’s activity theory as a basis for a summary of participants’ discourse in relation to the patient educator role. Figure 5.3 illustrates Engestrom’s (1987) model of an activity system which was introduced earlier (section 2.5.3) and is used to demonstrate the complexity of interacting forces relating to shared activity.

It is used to show how a wide range of factors, which were part of participants’ discursive construction of patient education, work together to impact an activity. The subject (in this case the physiotherapist) works as part of the community (perhaps the multi-professional team) to achieve the outcome (perhaps patient self-
Figure 5.2 to illustrate application of Engestrom’s activity theory to physiotherapist’s discursive construction of patient education
management) and this may involve division of labour (support workers and carers are part of this).

An outcome (patient self-management) is reached through the production of mediating artefacts (tools, computer web pages, patient leaflets or documents etc.). The choice of teaching methods (and ‘tools’) is based on physiotherapists’ concepts of teaching and the therapeutic relationship (in this study illustrated by compliance/collaboration) is also a factor. The activity is also mediated by an organization or community, these or other bodies may impose rules or standards (e.g. HPC SoPs) that impact on the activity.

The socio-cultural model above and its earlier consideration in the literature review, which have been used as a theoretical framework for patient education in the practice setting, are based on human development resulting from the dynamic interaction between a person and the surrounding social and cultural forces. As Wells (2009) has noted we cannot share or discuss our understanding of the world except through language and associated modalities. This again emphasises the importance of physiotherapists having access and exposure to the language of pedagogy within relevant communities of practice.

5.12 Contribution to knowledge
In research within an interpretative paradigm “researchers may accept that their findings are situated, partial and contingent but still suggest that they have implications for future practice” (Taylor, 2001, p.325). This study illustrates a range of (sometimes contradictory) discourses used by these participants, who represented a novice-to-expert spectrum of experience, which relate to patient education and which may reflect the wider physiotherapy culture.

This is the first study that I have identified which has addressed UK physiotherapists’ pedagogic discourse in relation to patient education. As such I have acknowledged my more relativist than realist, interpretive stance and suggest that this small-scale
case study provides new understanding of the construction of a patient educator role as an integral part of professional physiotherapy practice. This has not previously been recognised in a study involving UK physiotherapists.

Of central importance in this study is the identification of a range of ‘concepts of patient teaching’ in use within participants’ discourse. The concepts of ‘transmission’, ‘interpretation’, ‘facilitation’ and ‘empowerment’ have some resonance with the literature relating to ‘concepts of teaching’. I have argued that these concepts stem from previous educational experience as well as practice experience and theoretical preparation. I have also argued that the first two (transmission, interpretation) are more therapist-centred, while the last two (facilitation, empowerment) are more patient-centred. I have drawn parallels with the notions of teacher-centred and student-centred and also with their hierarchical nature.

The identification of an “interpreter” role, closely related but distinct from transmission is novel. The concepts constructed by physiotherapists may be associated with the adoption of particular teaching approaches or methods used in patient education. This in turn may have implications for the effectiveness of patient education.

In highlighting the possible association between certain discourses and therapist-centred (as opposed to patient-centred) care I have also noted associated differences between the approaches to teaching patients used in acute versus community settings. This has been linked to time pressures particularly within acute settings. Such time pressures may lead to an emphasis on transmissive, therapist-centred teaching and further research in this regard is necessary.

The findings of the study have also suggested a more extensive educational role for physiotherapists than has previously been reported. This has led me to suggest the notion of teaching patients “by proxy” when physiotherapists who have responsibility for patient care are also responsible for training support workers and carers to teach
or educate patients. It may be that physiotherapists are under-prepared for this responsibility and this requires further investigation.

In discussing aspects of the therapeutic relationship participants drew on discourses of compliance but also collaboration. The former does not sit comfortably with a health system which has patient-centred care at its core.

Patient education has been constructed by participants as being characterised by a wide range of activities including: health promotion, prevention, various forms of exercise, balance and walking re-education, pulmonary rehabilitation, post stroke exercise, exercise through play and explanation related to conditions or pathologies.

In the literature review I have identified that the definitions and language used in some Cochrane systematic reviews (e.g. McDonald, 2004; Engers, 2008; Haines 2009) in relation to patient education is variable and may not be reflected in the discourses of participants talking about patient education in this study. This presents the possibility of these systematic reviews reaching conclusions which are misleading. This may be in relation to the efficacy of patient education as an intervention or about another intervention when patient education is used as a control.

There is a lack of formal requirement from the regulatory body for preparation of physiotherapists in this aspect of practice. As a case study this aids understanding and suggests that further research on a larger scale is warranted. The study provides some initial evidence to suggest the need for the HPC to review its ‘Standards of Proficiency’ to include reference to physiotherapist’s educational role.

5.13 Limitations of the study
This was a small-scale qualitative study built on a purposive case study of physiotherapists associated with one Higher Education institution (HEI). It was based on a (more) relativist rather than realist ontology with constructionist epistemology
and the generalisability of findings often accepted from research carried out in a more positivist paradigm are not claimed. However it is now widely recognised that studies of this kind are more appropriate for the social sciences and ‘understanding’ rather than ‘explanation’ has been the goal. Nevertheless its qualitative, interpretative nature may be seen by some readers who subscribe to a more positivist philosophy as a limitation.

In association with the philosophy explained in detail earlier and outlined above in the interviews in this study, in common with other qualitative studies, the words used by participants may not represent reality and have not been interpreted in this way.

I have explained earlier my use of NVivo and noted that it could have been more sophisticated. I recognise that NVivo is a powerful and complex computer package for analysing qualitative data and that in the time available to me I was not able to use it optimally. It did however provide a useful way or harvesting and storing data in the free node and tree node facility.

I have acknowledged at length the shift in methodology which occurred during the research process. Whilst it may be seen as a limitation it has also resulted in a transformative learning experience.

5.14 Implications of the findings
There are implications for my own practice (post-registration teaching), for pre-registration physiotherapy courses in my own institution, for physiotherapy clinicians and for the regulatory body (HPC).

5.14.1 Implications for my own practice
For my own practice the implications include the need to review master’s level modules which I lead and teach on to include greater emphasis on the patient educator role. Enrichment of physiotherapists’ repertoires relating to pedagogy could have a beneficial impact on patient outcomes. I intend to achieve this through a
range of strategies. At present the major emphasis in these modules is on student learning during placements. In reviewing the current module outlines I will need to consider adaptation to include not only module participants’ experiences of patient education and current methods of teaching patients but also an exploration of the concepts which underpin those approaches. Patient-centred care and related approaches to patient education would also be included. Critical reflection on current practice using a recognised model of reflection as a basis for facilitated discussion will be central to this. Metaphor analysis linked to participants’ reflections might then form a basis for discussion of current and potential approaches to patient education. A more overt approach to metaphor analysis could also be used as in the example from a website in appendix 20.

I will also consider the development of a new module specifically designed for health professionals in their role as patient educators. This may incorporate the use of problem based learning philosophy in order to foster a more patient-centred approach to care.

5.14.2 Implications for pre-registration physiotherapy
For the pre-registration physiotherapy course teams in my own institution I will be recommending that patient education is included more explicitly as part of the curriculum in preparation for periodic review in 2012/13. This will include incorporation of reflection of practice during placements to explore patient education elements. Potential approaches to this aspect of practice which promote patient-centred care will be highlighted.

5.14.3 Implications for physiotherapy clinicians
For physiotherapy clinicians identification of patient education components in their practice may form the basis for reflection on the discourses embedded within their (verbal and written) language. Key concepts identified in this study such as patient teaching and the therapeutic relationship with patients may warrant particular attention. It also includes the need for physiotherapists to be alert to the possible
association between certain discourses and therapist-centred (as opposed to patient-centred) care. This reflective practice may then prompt the development of range of approaches to patient education supported by an understanding of their theoretical basis. Evidence-based practice with regard to the pedagogy of patient education is therefore an important consideration however; the current lack of specific research publications in this regard may mean that more generic educational literature has to guide practice until more evidence is generated.

I still chair the ACE steering group, but as mentioned earlier, ACE has now been incorporated fully into the Chartered Society of Physiotherapy (CSP) committee structures. I am now working with the core group who co-ordinate the four professional schemes based on ACE (College of Occupational Therapists, Society and College of Radiographers, and Society and College of Podiatrists) to discuss possible changes which include greater emphasis on the patient educator role of the health professionals involved.

There has been an emphasis in this thesis on the socio-cultural nature of knowledge and associated language use. The formation of a community of practice of patient educators for physiotherapists or health professionals generally might facilitate further development of patient educator practice. This could take a variety of forms but could be an on-line, virtual forum. The National Association of Educators in Practice (NAEP) which already exists but has its roots in student placement education could be a natural forum for such a development. I intend to explore this possibility through the current chair of NAEP.

5.14.4 Implications for the regulatory body
This study provides some initial evidence about the way that these physiotherapists construct their role in patient education. Further research is needed but the findings of this study may stimulate discussion which could eventually influence HPC ‘standards of proficiency’ documentation.
Chapter 6
Conclusions

6.1 Introduction

There is a paucity of information about physiotherapists’ role in patient education in the UK. This aspect of practice is not represented in regulatory body (HPC) standards of proficiency and little research has been identified which addresses pedagogic issues related to physiotherapists’ role in patient education.

The present study was generated because of my long-standing interest and experience in post-registration development of physiotherapists (and other health professionals) for a role in educating students during placements. This formed the focus for a study for an earlier phase of Doctorate in Education course. Comments made by participants in that study together with key related literature channelled the focus of this study.

Patient education has been identified as a social construction and is not clearly defined in the literature. I was interested in all aspects of physiotherapists’ pedagogic practice with patients. The definition which had most resonance with the intended wide focus was by Dreeben (2009):

\[ a \text{ planned systematic, sequential, and logical process of teaching and learning provided to patients and clients in all clinical settings (Dreeben, 2009, p.457).} \]

This definition was noted to incorporate health promotion, which in the WHO (2009b) definition subsumes health education.

The purpose of the study was to gain insight into physiotherapists’ perceptions and concepts of their role in patient education in order to “generate new perspectives” (Flyvbjerg, 2001, p.166). The formulation of the research questions and associated
methodology was a long and complex process which eventually resulted in the following questions:-
- How do physiotherapists articulate their perceptions of patient education?
- How do physiotherapists articulate their approach to teaching and learning in relation to patients?

I have acknowledged a relativist ontology and constructionist epistemology. A novice to expert case study of 16 physiotherapists in one HEI adopted an approach based on interpretative repertoire (a form of discourse analysis). Interviews were the major method used for data collection. A dual combination of thematic analysis and interpretative repertoire was chosen because this facilitated identification of different strands (themes) in the data gathered from what were wide-ranging interviews. Five themes were initially identified. Within each theme several interpretative repertoires were then identified. Metaphors were of particular interest in identifying the repertoires in use in participants' language. Similarities of the repertoires employed across participants and some variability and ‘tension’ within the discourse of individual participants is a feature of interpretative repertoires and has been acknowledged.

6.2 Conclusions linked to the research questions
I will now return to my two original research questions and briefly respond to each based on analysis of the findings and the subsequent discussion.

6.2.1 How do physiotherapists articulate their perceptions of patient education?

Five themes were identified from the participant interviews. These included:- concepts of patient teaching; the patient educator role; preparation for the role; the therapeutic relationship; the workplace context. Further analysis then took place to identify interpretative repertoires within each theme. The concepts of patient teaching theme will be considered below in relation to research question 2.
The language used by participants constructed physiotherapists as having an integral and also an extensive role in patient education. Metaphorical expressions such as “embedded”, “at the heart”, “enmeshed”, “part and parcel” were employed in relation to the role. Participants also positioned themselves as having responsibility for the training of carers, support workers and junior staff to treat but also to educate patients. This latter point introduces a form of ‘vicarious’ teaching or ‘teaching by proxy’ which has not previously been recognised in the literature and for which physiotherapists may not be adequately prepared.

The discourse of participants in relation to preparation for the role of patient educator was organised into three repertoires: ‘natural’; ‘experiential’ and ‘theoretical’. The potential for optimising experiential learning through critical reflection and new or existing communities of practice (CoPs) to share examples of practice as a patient educator has been discussed.

The repertoires of ‘compliance’ and ‘collaboration’ constituted a major part of the theme of the therapeutic relationship and seemed to represent two ends of a spectrum. A repertoire of ‘care’ was also evident. The compliance repertoire presented physiotherapists as experts who provided the means to achieve healing and expected patients to comply. Patients were placed in a passive role of unquestioning acceptance, respecting the superior position of the health professional. Despite moves to a less therapist-centred, paternalistic approach to patients the repertoire of compliance was still very much in evidence here. A more patient-centred collaboration repertoire was also evident which related to the reciprocal nature of the therapeutic relationship in which patients were partners in learning and in problem solving. Participants saw themselves as educators but also learners and in this repertoire there was a more equal power relationship.

In the final theme of ‘context of patient education’, ‘pressures in the workplace’ were predominantly related to the short time available with many participants and this was noted as a barrier to patient education. Overall, the community setting was seen to
be more conducive to patient education than acute settings. Shortage of time with patients may make more patient-centred approaches to patient education difficult to achieve. Participants in this study talked in enthusiastic terms about their part in multi-professional teams. This discourse suggests that some embedding of multi-professional working has now taken place.

6.2.2 How do physiotherapists articulate their approach to teaching and learning in relation to patients?

The 'concepts of patient teaching' theme was a major part of the study and explored participants' repertoires in relation to teaching and learning. Concepts of teaching have been identified through the literature as influencing practitioners’ ‘approach’ to teaching. Repertoires of ‘transmission’, ‘interpretation’, ‘facilitation’ and ‘empowerment’ identified in this study have been discussed.

In the transmission repertoire the language adopted placed physiotherapists in a position of expert or source of information with the patient the passive receiver or recipient. The interpretation repertoire was an associated but distinct repertoire related to the perceived need to help patients understand information available to them. In terms of previous concepts of teaching literature ‘interpretation’ is a novel title.

The facilitation repertoire was closely linked to empowerment but was distinct in terms of being limited to references to discussion in groups where its potential for development using peer-learning principles was evident. The empowerment repertoire seemed to have a dual function. On the one hand it served to position patients as being supported in taking responsibility for their own management which would be beneficial for them. In this context the repertoire was associated with terms such as “self management”, “independence” and “autonomy”. However, it was also associated with language that was critical of “passivity” on the part of patients, “getting them out of the door”, “treating themselves”, and “avoiding admission”.
For some participants (particularly in the novice group) there was a sense of a lack of availability or limitation of key metaphors and ways of talking about an educational role with patients. This is of particular concern as participants have talked of the ‘integral nature’ of education in the role of the physiotherapist. The use of metaphors involves not only linguistic expression but also are a reflection of conceptual mapping. Restriction in metaphorical expression in relation to teaching and learning may be reflected in limitations in the approaches adopted by physiotherapists in patient education. I have also argued that if the referent metaphors underpinning individuals’ concepts of the roles of teachers and learners are identified and these, and associated approaches to teaching, are changed or broadened, learning might be enhanced. This could have a beneficial impact on patient outcomes.

In this study a patient-centred approach has been linked to concepts in the upper part of the hierarchy of concepts of patient teaching and this in turn associated with more experienced participants.

A major barrier to potential development of the patient educator role in physiotherapy has been identified in that, although articulated as part of participants’ identity in this study, it is not explicit in HPC guidelines. This omission in the scope of practice for physiotherapists in the UK has obvious implications for standards of patient care and may limit the impact that physiotherapy as a profession can have in a time of changing emphasis in healthcare in the UK.

6.3 Conclusions based on the anticipated outcomes of the study (see 2.10)

6.3.1 Identification of repertoires in use within physiotherapists’ patient education discourse.

These are at the heart of the study and have been discussed in detail above.
6.3.2 Increased understanding of physiotherapists’ educational role with patients in contemporary practice in the UK
The repertoires which participants have employed have suggested that patient education is an integral and extensive aspect of their professional practice. Detailed analysis and discussion of the range of concepts of patient teaching and the therapeutic relationship have increased understanding of the ways in which physiotherapists position themselves in relation to patient education. The relationship of the varying repertoires with patient-centred care has also been discussed.

6.3.3 Enhanced awareness of physiotherapists’ learning needs, in preparation for their role in patient education.
This has been partially addressed in section 5.14.1. Carrying out this study has enhanced my own awareness of the importance of the patient educator role. Analysis of participants’ interviews suggested a range of constructions of teaching: “transmission”; “interpretation”; “facilitation”; “empowerment” which may have some association with approaches employed by physiotherapists to educate patients. Further research will be needed in this regard. The discussion has hypothesised links between certain constructs and the desirable aim of patient-centred care.

In relation to preparation for the role the following repertoires were identified: natural; experiential; theoretical. These repertoires have resonance with the literature on personal or tacit, professional craft and propositional knowledge and all of these sources of learning have value. Self-awareness of use of patient education discourses could form a basis for individuals to identify their own learning needs, these are likely to vary from person to person depending upon their previous experience.

The potential value of providing opportunities for physiotherapists to reflect upon, share and discuss their practice as patient educators has been discussed. The value of real or virtual communities of practice has
also been considered. Opportunities for participation in overt patient education activities is also needed as a basis for reflective learning, as opposed to non-reflective learning when new knowledge, skills and attitudes are accepted without question (Jarvis, 2006).

6.3.4 Insight into the theoretical underpinning required to support the practice of patient education in physiotherapy which will inform curriculum development.

This has been partially addressed in 5.14.1 and 5.14.2. There is also some overlap with 6.3.3. above.

Professional knowledge is constructed from personal or tacit, professional craft and propositional sources. The first two develop through previous experience and through working with more senior physiotherapists in practice settings. Propositional knowledge related to the patient educator role would be based on relevant educational theory and research based evidence. In order for propositional knowledge to have its place in physiotherapy pre-registration education Health Professions Council (HPC) and Chartered Society of Physiotherapy (CSP) guidelines, are the key drivers of the curriculum. HPC guidelines in particular have little emphasis on a need for preparation for the patient educator role. This omission is crucial.

This study (the combination of participant interviews and review of relevant literature) has led me to the conclusion that educating patients (and carers and support workers) is an integral part of physiotherapy practice. As such it should be core to the curriculum. It should also form part of the basis for recruitment to the profession; applicants should understand that part of their role will be as an educator.
6.3.5 Contribution to the literature in the field to inform debate and stimulate further research and discussion.

An abstract of this study has been accepted for a platform presentation at the next World Congress of Physical Therapy (WCPT) in Amsterdam in June 2011. I then propose to submit articles for publication in peer reviewed journals. Journals such as Physiotherapy theory and Practice, Physiotherapy, and Patient Education and Counselling may be appropriate.

6.4 Suggestions for future research

This research has provided a starting point for UK based studies of physiotherapists' role in patient education. There may also be parallels for other allied health professions (for example occupational therapy, osteopaths, podiatrists and others). Further research is needed which might include:

- Phenomenological studies of physiotherapists' and patients' experiences of patient education interactions.
- Ethnographic studies which includes interviews with physiotherapists and patients and observation of patient education episodes. This could take place in acute and/or community settings.
- Research with physiotherapists and other health professional groups to identify their use of metaphor in relation to their educator role with patients and other groups of learners, as in appendix 21.
- Comparison of repertoires of students graduating from 'traditional' pre-registration courses with those from problem-based learning courses.
- Comparison of repertoires of experienced staff who have undertaken post registration pedagogic development against those who have not.
- Comparison of repertoires between different health professions.
- Evaluation of the effectiveness of therapist-centred as opposed to patient-centred approaches to physiotherapy patient education.
• Confusion in the literature with regard to the definition of patient education in physiotherapy could be addressed by the development of a model through a grounded theory study.

6.5 Evaluation of the research
As noted earlier (section 3.10) Finlay and Ballinger (2006) identified the need for a researcher to evaluate their own research. She suggested the need for criteria selected “to be compatible with the special nature of the research in question” (Finlay and Ballinger, 2006, p. 319) and proposed a set of five criteria suitable for qualitative research. These were:- clarity, credibility, contribution, communicative resonance and caring. Each of these will now be briefly addressed.

Clarity – I have tried, and hope succeeded, to communicate all components of the research process clearly and systematically.

Credibility – I have opened up the findings and my interpretations to scrutiny by the reader through incorporating extensive data extracts into the thesis. Discussion based on these findings and the evidence base has been presented.

Contribution – The research addresses an area of physiotherapy practice which has received little attention. It generates new perspectives which may place patient education in the spotlight and trigger debate. It has also led to suggestions for future research (section 6.4). Contributions to knowledge have been discussed in section 5.12 and implications for practice in relation to various stakeholders in section 5.14.

Communicative resonance – I hope that the subject of the research, the findings and conclusions will resonate with readers’ experiences. In doing this it may also challenge an acceptance of patient education as an aspect of physiotherapy practice for which pedagogic preparation is unnecessary. My use of reflexive and reflective passages has I think added some interest and also made my own starting position and development during the research process transparent.

Caring – Throughout the research process and write-up I have attempted to show sensitivity and respect for my participants.
6.6 Reflections on the process of the thesis

My earlier narrow view of research has been completely revised. My quest for methodology and methods which would help me to generate new perspectives about patient education has been tortuous but has radically changed my engagement with educational and research literature and opened new horizons. Not only do I now realise that my MSc was heavily influenced by positivist thought but I see this influence throughout my professional training and career. Breaking free from these roots has been quite painful and protracted and I can’t be certain that the task is yet complete. At the same time I appreciate that research based on a spectrum of approaches may be valid and that intolerance between those stuck (either knowingly or naively) in opposing paradigms is unproductive.

The approach I used in the research with its emphasis on discourse and metaphor through a relativist and interpretive lens has affected everything I do. I can’t listen to a news bulletin or read a magazine article without thinking about the discourses which are represented, nor can I listen to committee discussion (particularly about teaching and learning) without noting metaphorical expressions and making assumptions about underlying concepts (transmission is rife!). In addition, thinking about ‘subject positions’ and the ‘function’ of language in everyday conversation has almost become a spectator sport for me.

I’m still in the maze which I referred to earlier in the thesis but now I’ve found a grassy knoll to rest upon and for the moment the sun is shining and I feel optimistic about my future research direction. This has been a major learning journey for me, the best of times and the worst of times, life changing and life enhancing. If only I could have travelled this path 20 years ago.
6.7 Summary

The education role of physiotherapists in the UK has been an under-researched area. Although there have been some studies and publications relating to their role with students, little has been written about an educational role with patients. Principles of discourse analysis have been applied in this study which has explored the way that a novice to expert group of physiotherapists associated with a postgraduate certificate course in one HEI in the UK talked about and positioned themselves in relation to patient education. The repertoires participants employed in relation to each of the five identified themes constructed patient education as an integral and extensive component of their practice. Concepts of patient teaching included transmission, interpretation, facilitation and empowerment. Conflicting repertoires of compliance and collaboration were identified in the therapeutic relationship theme. Participants’ discourse was set within a context of workplace pressures and multi-professional working. Parallels were drawn between teacher-centred and therapist-centred approaches to patient teaching, and student-centred and patient-centred approaches. The possible mismatch between transmission-based concepts of patient education and the goal of patient-centred care was highlighted, together with time pressures in acute as compared to community settings which might militate against the use of patient-centred approaches. The findings provide enhanced understanding of aspects of participants’ patient educator role and provide a springboard to further research. Suggestions have been made for changes to postgraduate modules which currently prepare physiotherapists for a clinical educator role (with students) to also encourage critical reflection on patient educator practice and the application of patient-centred and evidence-based strategies in their work with patients, their carers and support workers.

Recommendations have been made for further research which might include: national evaluation of physiotherapists’ involvement in patient education; discourse analytic research with other groups of physiotherapists and other health professionals; use of alternative methodologies in relation to physiotherapists’
education role with students and research into patient experiences of education during physiotherapy. The dual motivation of improved patient self-management and fulfilment of government initiatives underlines the need for physiotherapists to be well positioned and well prepared to be able to play their unique part in this key aspect of patient care.

We are not provided with wisdom, we must discover it for ourselves, after a journey through the wilderness which no one else can take for us, an effort which no one can spare us. - Marcel Proust.


Department of Health (2005b) *Supporting People with Long Term Conditions. An NHS and Social Care Model to support local innovation and integration.* 

Department of Health (2005c) *Self care - A real choice: Self care support - A practical option* 


Department of Health (2008a) *High quality Care for all, NHS next stage review, final report.* 

Department of Health (2008b) *Framing the contribution of allied health professionals – delivering high-quality Healthcare.*

Department of Health (2008c) Next Stage Review- Our vision for primary and community care.

Department of Health (2010), Equity and Excellence: Liberating the NHS.


Health Professions Council, (2010a), Accessed on 06/12/10 at http://www.hpc uk.org


Appendices
Appendix 1
Draft interview schedule

Research question 1
What is the perceived role of physiotherapists in patient education?
- What does the term patient education mean to you?
- How does it relate to physiotherapy practice in general?
- What (if any) role do physiotherapists’ have in educating patients?
- (How much of your time is spent educating patients?)
- (If they have a role) How would you describe physiotherapists’ role in educating patients?
- What are the general characteristics of successful patient education in physiotherapy practice?
- What phases are involved in successfully educating patients?

Research Question 2
How do physiotherapists approach teaching and learning in relation to patients?
- How do you feel about this aspect of practice?
  - (How confident do you feel?)
- Talk about experiences that have affected how you think about patient education*
  - (What about the most memorable experience of patient education
  - If it went well - why do you think it went well?
  - If it did not go well - why do you think it did not go well?)
- Do you subscribe to any specific theory or beliefs that guide your approach to patient education?* If so can you briefly describe?
Research question 3

What are their associated learning needs?

- What would help physiotherapists (you/others) to be more effective educators?
- What strategies do you use when educating patients?
  - (How have you developed this approach?)
  - How confident are you with this approach?
  - If lacking confidence - what additional skills do you feel you need to be effective?)
- (Do you think that your approach to patient education has changed over time?*
  If so, how? To what do you attribute these changes?)

Research question 4

How can these learning needs be addressed?

- (How do you feel your approach could be further developed?)
- What do you feel is the ideal preparation for a role in educating patients?
  - Can you explain why?

[Questions in *italics above* are adapted from questions used in Rindflesch (2009). Questions with asterisk (*) are adapted from questions used in Resnik and Jenssen (2003). Questions in brackets reserved for individual interviews].
Appendix 2

Revised interview schedule sent to participants in advance of interviews (later additions in italics).

What is the perceived role of physiotherapists in patient education?

Can you talk to me about your current role?

To what extent does it involve educating patients?

- What does the term patient education mean to you?
- How would you describe physiotherapists’ role in educating patients?
- What are the general characteristics of successful patient education in physiotherapy practice?
- What phases are involved in successfully educating patients?

How do physiotherapists approach teaching and learning in relation to patients?

- How do you feel about this aspect of practice?
- Experiences that have affected how you think about patient education
- What can physiotherapists do to help patients learn?

What are physiotherapists’ associated learning needs?

How do you feel about physiotherapists preparation for being an educator?

- What would help physiotherapists (you/others) to be more effective educators?
- What strategies do you use when educating patients?
- Do you think that your approach to patient education has changed over time?
  If so, how? To what do you attribute these changes?

How can these learning needs be addressed?

Can you talk to me about your preparation for being an educator?

- How do you feel your approach could be further developed?
- What do you feel is the ideal preparation for a role in educating patients?
Appendix 3

Ethics approval

Dear Lynne,

by email 15/10/09

I am pleased to confirm that following consideration by the FREGC your research proposal was approved subject to the recommendations outlined below.

(iii) School of Education FREGC/ES/30/09

The Committee received a research proposal, ‘Physiotherapists Role in Patient Education’.

The Committee considered the proposal and made the following recommendations:

- Principal Investigator and Research Supervisor to ensure that issues associated with ‘insider’ research and the potential conflict of interest arising from the investigator’s position as the Head of the School within which the study will be undertaken are adequately addressed in the research design and methodology;
- To ensure that it is clear in the research proposal that the aims of the research project relate to the learning needs of the physiotherapist and not the patient;
- To provide a rationale for the appropriateness of the projected interview sample size;
- To ensure that data collected is stored securely for a period of 10 years, in accordance with University policy relating to published or funded research;
- To nominate someone other than David Taylor, outside the research team, as the independent contact for participants and others in the event of concern, query or complaint related to the proposal;
- To clarify whether any contractual relationship between the School of Health Professions and the NHS will require that the research proposal be subject to NHS ethical approval.

Subject to appropriate revisions being made to the proposal in accordance with the recommendations outlined above, and subject to the formal approval of the Chair of FREGC, the Committee was pleased to grant ethical approval for the proposed research. It was confirmed that the principal investigator and supervisor would be contacted and informed of the decision of the Committee.

[Action: MW/LC/YH]

Please also note that there is a requirement that a final project report will be submitted to the Committee upon the conclusion of the research. You must also inform the FREGC if during the course of the research your methodology or approach changes substantially from that which was originally submitted to the FREGC. Below is the extract from the Faculty’s Research Protocol Submission Guidelines.

4. Final report
A brief final report (of less than a page) should be submitted to the FREGC within one year of the conclusion of the research. This is required for ALL approved projects, whether it is an NRES/LA project, PhD project or other type of project. In this report, the Committee should be informed about whether the study achieved its objectives, the main findings, a list of publications arising from the work, or arrangements for publication or dissemination of the research and any feedback to the participants. Any serious adverse events arising during the course of the study should also be reported to the FREGC.
I look forward to receiving your revised submission. Please do get in touch if you need to.

Kind regards,

Matthew Warne  
Quality Assurance Administrator  
Faculty of Education and Sport  

Subsequently approved 11/11/09.
Appendix 4

Copy of email inviting participation

Dear (pre registration cohort)

Lynne Caladine (Head of School) is currently carrying out research into physiotherapists’ role in patient education. For part of this project she would like to interview students approaching the end of their course about their perceptions and experiences of patient education whilst on placement.

If you would be prepared to be interviewed in the next few months (individual or paired interviews) please would you respond initially to me and I will direct positive replies to Lynne.

The information for participants and consent form are both attached for your information.

Yours sincerely

Nicky Pont

Administrative manager.
Appendix 5

Inclusion criteria
Participants will be drawn from a range of stakeholders who are associated with the PGC Clinical Education, School of Health Professions, University of Brighton, each group contributing to the case:

- Alumni or current PGC Clinical Education course participants
- Academic staff involved in teaching on the PGC
- Current students enrolled on M level courses who have not yet completed the PGC Clinical Education.
- Final year physiotherapy students on brink of qualification.

Inclusion /exclusion criteria
Participants will be physiotherapists associated with one HEI in the south of England. In addition they will belong to one of the groups (or cases) identified above.

- Alumni or current PGC Clinical Education course participants
  - Must be practicing physiotherapists
- Current students enrolled on M level courses other than the PGC Clinical Education
  - Must be practicing physiotherapists
  - Enrolled on modules within SHP other than ‘Health Professional as an Educator’ and PGC Clinical Education
- Academic staff
  - Must be registered as physiotherapists
  - Must be involved in teaching aspects on the PGC Clinical Education
- Final year physiotherapy students
  - must have completed most placements (at least 4 out of 5).
  - must be either BSc Hons Physiotherapy or MSc Rehabilitation Science students
Appendix 6

Information for participants

Project title - Physiotherapists’ Role in Patient Education.

Researcher- Lynne Caladine –School of Health Professions, University of Brighton.
Thank you in advance for considering participating in this study which is part of my doctoral studies.

Physiotherapists have a well established though under-researched role in educating students, peers and others. There is an increasing emphasis on physiotherapists’ (and other allied health professionals) educational role with patients. However :

- little is known about the specific nature of physiotherapists’ role in educating patients
- there is no specific requirement for physiotherapists to be prepared for an educational role
- little research has been carried out to ascertain their learning needs in order to be able to effectively carry out the role(s)

The aim of this study is to understand the role of physiotherapists in patient education, and their associated learning needs, as a basis for proposing appropriate, evidence-based, educational role development strategies.

It is often assumed that an educational role is one that qualified clinicians can take on without additional preparation. This study aims to explore health professionals’ experiences of educational professional development related to patients.

I have a long-standing interest and involvement in all aspects of practice education. I am involved in the delivery and assessment of the Health Professional as an
Educator Module and module two of the Postgraduate Certificate in Clinical Education.

The study involves either individual interviews or a focus group interview. Interviews will last approximately one hour. You will be interviewed in Robert Dodd Building, Eastbourne, face to face (or by telephone for individual interviews if more convenient) in relation to your role in educating patients. Travel costs will be reimbursed by the researcher if incurred. I will be the interviewer and the discussion will be recorded and then transcribed. I will then analyse the data. I may contact you once data analysis is completed and invite you to check the data relating to you.

I (and an academic colleague who will confirm the themes) will be the only people with access to the collected data. Your name will not be used in association with any of the data. The information gathered will be stored securely and treated with the strictest of confidence. The recordings will be deleted once the research is completed.

You are under no obligation to take part in the study, participation is entirely voluntary. If you wish to withdraw from the investigation, you may do so at any time and without giving a reason. Such a decision would not have any impact on you.

It is hoped that the results will inform future curriculum development and may form the basis of an article (s) which will be submitted for publication in professional journals and which could help to inform health professions’ professional development in the future. In the event of any complaint linked to this project you should contact Professor Jonathon Doust, Head of Chelsea School of Physical Education, Hillbrow, Denton Road, Eastbourne BN20 7SR. If you have any queries about any aspects of the project, please do not hesitate to ask me.

Thank you for your help and co-operation.
Lynne Caladine.
Appendix 7

Participant Consent form

UNIVERSITY OF BRIGHTON
Physiotherapists’ Role in Patient Education.

♦ I agree to take part in this research that will explore my perceptions of patient education.
♦ The researcher has explained to my satisfaction the purpose of the research and the possible risks involved.
♦ I have had the principles and the procedure explained to me and I have also read the information sheet. I understand the principles and procedures fully.
♦ I understand that interviews will be recorded and agree to this.
♦ I am aware that I will take part in an initial individual interview and may be invited to participate in a subsequent interview if the researcher requires clarification.
♦ I understand that any confidential information will be seen only by the researcher.
♦ I understand that I am free to withdraw from the research project at any time without giving reason and without incurring consequences from doing so.
♦ I agree that should I withdraw from the study, the data collected up to that point may be used by the researcher for the purposes described in the information sheet.

Name
(please print)......................................................................................................................

Signature............................................................................................................................

Date ....................................................................................................................................
Appendix 8

Focus group briefing 10/12/09

Outline of introduction (all participants known to each other and to the researcher).

Welcome and thanks for finding the time to be involved in this group discussion.

The topic for discussion today is physiotherapists’ role in patient education.

You were selected because you are physiotherapists and experienced in education. I’m starting off with you and hope that I might be able to return to you later in the study – almost like a reference group.

I’m going to use a series of questions to promote discussion. There will be no right or wrong answers, only differing points of view. You may also want to comment on my questions and I would welcome that at the end.

I’m tape recording, because I don’t want to miss any of your comments. People often say very helpful things in these discussions and I can’t write fast enough to get them all down. I’d ideally like only one person at a time to be talking but you may be in discussion with each other.

There are no wrong answers but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said. You don’t need to agree with others.

I hope the results will be used for reviewing pre and post registration curricula...and result in papers and conference presentations. We will of course use first names today but I won't use any names in any reports. You can be assured of complete confidentiality.

Would you turn off your phones.
My role as moderator will be to guide the discussion
Appendix 9

Reflections following focus group (experts) interview - December 2009

Reflected upon the interview and found that:-

- My questions began by an attempt to set them in context by stating the associated research question. This led to unwieldy questions and will be adapted for subsequent interviews.
- The interview was semi-structured and considered whether a more open style would be more suitable for individual interviews.
- Overuse of “OK” – adapt for future interviews.
- Use of clarification /reiteration/summary at the end of sections seemed to work well.
- Some individual questions need modification :-
  - “Do you think it might be possible to identify general characteristics of the process of successful patient education?” Needs red bit added.
  - “Alright. So the next question’s about what are physiotherapists’ associated learning needs in relation to this role? What do you think might help physiotherapists to be more effective educators?” This question was quite clumsy and ended up as two different questions. Need to find out what learning needs are but might get at these better by a more general question.
- Need for a more structured method to reflect upon interviews.
- The interview and initial analysis of the data coincided with reading Mellion and Torvin (2002), Grounded theory a qualitative research methodology for physical therapy. Physiotherapy Theory and Practice leads me to consider possible refinement of the fundamental research question to fit with a grounded theory approach.

(How are physiotherapists’ approaches to and perceptions of patient education related to (stage of) pedagogic professional development? A theory seeking case study in one HEI).
Appendix 10a

Blank Reflection sheet
(based on Miles and Huberman 1994, p.53).

Date of interview:  Recording number:  Location:
Participant(s):  Length:

1. Aims of interview

2. What were the main issues or themes that struck me?

3. Anything that struck me as particularly salient, interesting or important in this contact?

4. Feelings about the research now?

5. Any other observation.
Appendix 10b

Example Reflection sheet
(based on Miles and Huberman, 1994, p.53).

Date of interview: 10/12/09  Recording:01/01  Location: Aldro CRC
Participant(s):“Expert” group (P14-16)  Length: 1 hr 14mins

1. **Aims of interview**
   a. Identify key themes
   b. Inform future interview schedule

2. **What were the main issues or themes that struck me?**

   Focus on patients’ needs/ Patient-centred
   Emphasis on facilitatory approach. Education not training
   Integral /not an “add-on”/ parallel development practitioner and educator
   A partnership.

3. **Anything else that struck me as particularly salient, interesting or important in this contact?**
   a. Participants communicated easily and seemed comfortable discussing the topics. They fed off each other and often nodded in agreement with one another
   b. My questions began by an attempt to set them in context by stating the associated research question. This led to unwieldy questions and will be adapted for subsequent interviews.
   c. Some of the questions felt repetitive and will need further review prior to next interviews. Phrasing of some questions felt satisfactory at the time but showed hesitancy in the transcript
   d. Overuse of “OK”. Use of Clarification /reiteration/summary worked well
   e. The question “Do you think it might be possible to identify general characteristics of the process of successful patient education?” Needs red bit added.
   f. “Alright. So the next question’s about what are physiotherapists’ associated learning needs in relation to this role? What do you think might help physiotherapists to be more effective educators?” This was articulated as two different questions. I was aware that it may be difficult for the “experts” to directly answer this question intended to be about about learning needs. I do
want to find out what physiotherapists’ learning needs are but might get at these better by a more general question.

4. Feelings about the research now?
   a. Excited.
   b. Concerned about the analysis that I will eventually adopt and in the last few weeks have been reading widely. Although I had originally planned a phenomenological approach the revised intention has been to use a grounded theory approach however having initially reviewed the transcript I’m wondering whether the research questions needs some revision to fit with a GT approach. “How are physiotherapists’ approaches to and perceptions of their role in patient education related to pedagogic professional development?” This refinement was influenced by the views of the pedagogic experts with their emphasis on the need for inclusion in the curriculum. This wording also better facilitates a grounded theory approach but I do have some growing concern about whether my spectrum of participants will have the depth and breadth of experience of patient education on which to draw to be able to provide build theory and “explanations”. The same is true for IPA with its focus on experience and perception. The alternative is to use thematic analysis perhaps following Braun and Clarke and use elements of discourse analysis as the language (verbs, metaphors etc) being used by participants is fascinating me. NE suggested this as a possibility, and I am now deep into discourse analysis literature.

5. Any other observation?
   a. Strength of feeling of participants about importance of pedagogic preparation for all physiotherapists.
   b. Concern about state of learning culture in practice.
   c. View that the “best” physiotherapists are probably good educators.
## Appendix 11

**Structured review of key literature.**
Table headings adapted from those used by Thorpe et al., (2009).

<table>
<thead>
<tr>
<th>Author and date of study</th>
<th>Aim of study</th>
<th>Design and data collection methods</th>
<th>Participants</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chase et al., (1993)</td>
<td>To assess the perceptions of physical therapists about their involvement in patient education</td>
<td>Survey using questions based on interviews with 13 participants. Quantitative analysis.</td>
<td>200 physical therapists in the USA</td>
<td>Participants regarded patient education as a very important part of their practice. 87% reported that they had a teaching role with 80-100% of their patients. Authors note high level of agreement relating to methods and tools. Noted the need for more research to inform curriculum development.</td>
</tr>
<tr>
<td>Sotosky (1984)</td>
<td>To determine the attitude of physical therapists towards teaching patients as part of their role.</td>
<td>Questionnaire survey using “semantic differential scale”.</td>
<td>57 members of Pennsylvania physical therapy association.</td>
<td>Strongly positive attitude to teaching patients particularly from those employed in private sector. Strong feeling about being inadequately prepared and interest in learning more about teaching.</td>
</tr>
<tr>
<td>May (1983).</td>
<td>To determine the scope of clinical teaching activities and importance physical therapists</td>
<td>Questionnaires. One for clinicians, one for programme administrators</td>
<td>448 physical therapy clinicians. 95 education programme administrators.</td>
<td>Clinicians were involved in a wide range of teaching skills and believed it was an important</td>
</tr>
</tbody>
</table>
attribute to teaching skill s.

<table>
<thead>
<tr>
<th>Sluijs (1991)</th>
<th>To investigate physiotherapists’ methods of educating patients.</th>
<th>Quantitative analysis by using a checklist, containing five subjects: (1) teaching and informing the patients about their complaints or illness; (2) instructions for home exercises; (3) advice and information; (4) general health education; and (5) counselling on stress-related problems</th>
<th>227 recordings of physiotherapy treatments for 25 patients.</th>
<th>Most information was about the exercises and the least information concerned general health education. Most information was given in the first two sessions, number of exercise instructions declined during the course of treatments. Concluded that physiotherapists should programme patient education in all the sessions with the patient.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gahimer et al., (1996)</td>
<td>To investigate the amount and perceived effects of informal patient education in physical therapy practice.</td>
<td>Questionnaires – quantitative, inferential analysis of statements (and perceptions).</td>
<td>Thirty-seven physical therapists from nine outpatient orthopaedic physical therapy settings in Indiana, USA.</td>
<td>Therapists’ teaching behaviours rarely corresponded to their perceptions of their own teaching or to their patients’ or supervisors’ perceptions. Information, instruction and advice about current illness predominated and therapists were rarely “providing” information about general health and health promotion topics.</td>
</tr>
<tr>
<td>Kerssens et al., (1999)</td>
<td>To study (i) the effectiveness of a training program for the enhancement of patient education skills and (ii) “dosage” of educational activities.</td>
<td>Questionnaires for physiotherapists and their patients. Complex quantitative analysis.</td>
<td>19 physiotherapists and their patients. The physiotherapists had taken part in a training programme to improve their communication skills and the “transfer of adherence enhancing skills”.</td>
<td>The training program was not very effective. More effort identified as necessary to develop training programs aimed at promoting patients’ self-efficacy as well as measurement instruments to assess the effects of such programs.</td>
</tr>
<tr>
<td>Trede (2000)</td>
<td>A pilot study to explore physiotherapists’</td>
<td>Qualitative study using grounded theory approach.</td>
<td>8 physiotherapists (and one patient each) working in</td>
<td>Suggested that an experience–based model, perhaps</td>
</tr>
<tr>
<td>Authors</td>
<td>Year</td>
<td>Research Question</td>
<td>Methods</td>
<td>Findings</td>
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<tr>
<td>Friberg et al., (2005)</td>
<td></td>
<td>Aimed to generate hypotheses.</td>
<td>Private practice in Sydney, Australia.</td>
<td>Drawing on progressive learning theory might lead to greater patient independence and responsibility. More research needed “to ensure that physiotherapists become more informed educators and more effective healthcare practitioners”</td>
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<tr>
<td>Anderson et al., (2005)</td>
<td></td>
<td></td>
<td>Theoretical article.</td>
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<td>Danielson et al. (2007)</td>
<td></td>
<td>To describe registered nurses’ perceptions of preparation in nursing education for their professional work</td>
<td>Questionnaire analysed by descriptive statistics.</td>
<td>Concluded that nurses’ preparation for caring was good but roles such as informing and advising on health was inadequate.</td>
</tr>
<tr>
<td>Ivarsson et al., (2009)</td>
<td></td>
<td>To describe specific events when using pedagogical knowledge in clinical practice</td>
<td>Qualitative interviews based on critical incidents.</td>
<td>Most participants felt they had learnt more about communication, education and giving information through practice than their training. Pedagogic knowledge/training seen as insufficient but needed for high quality patient care.</td>
</tr>
<tr>
<td>Smith et al., (2007)</td>
<td></td>
<td>To review studies of patient-centred asthma teaching.</td>
<td>Literature review of studies on asthma including education studies and self management education</td>
<td>Noted little change in the way patients had been taught in the previous decade. Emphasised need for patient centred strategies and shared responsibility and decision making.</td>
</tr>
<tr>
<td>Smith et al., (2008)</td>
<td></td>
<td>To compare the effectiveness of patient-centred education (PCE) and standard</td>
<td>Randomised controlled trial at two Australian teaching hospitals’ emergency</td>
<td>Re-attendance in the emergency department decreased from 22% to 12% in the</td>
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<td>Source</td>
<td>Aim</td>
<td>Methodology</td>
<td>Findings/Comments</td>
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<tr>
<td><strong>Perreault (2008)</strong></td>
<td>To review literature “highlighting conceptual and practical links between physiotherapy and health promotion”, and provide recommendations to improve physiotherapists’ interventions with people with low back pain.</td>
<td>Review of publications in health promotion, public health, physiotherapy and rehabilitation</td>
<td>N/A Makes suggestions for possible improvement for physiotherapists working with people with low back pain. Noted that conceptualisation of “health” differs in physiotherapy and health promotion spheres. Greater emphasis on empowerment needed in physiotherapy practice with people with low back pain. Consideration of how physiotherapists see their role with people labelled as “patients” also suggested.</td>
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<tr>
<td><strong>Hult et al., (2009)</strong></td>
<td>Study aimed to describe the pedagogical discourse of participants (physicians, nurses and occupational therapists).</td>
<td>Qualitative study directed by grounded theory. Individual and group interviews.</td>
<td>6 individual interviewees (2 doctors, 2 nurses and 2 occupational therapists). 3 focus groups – one from each profession. In working with patients the focus is on care and treatment. Education and learning is often embedded within this. Results suggested that there is a strong need to support the development of pedagogic professional knowledge of healthcare professionals.</td>
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<td><strong>Harrington et al., (2010)</strong></td>
<td>To evaluate a community-based exercise and education scheme for stroke survivors</td>
<td>Randomised controlled trial. Descriptive and non parametric inferential statistical analysis.</td>
<td>243 participants. 5.4–17.1 months following stroke. Clinical and economic benefits were claimed. Small improvement in physical integration and psychological well-being. Costs of the scheme with volunteers in the</td>
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<td>Kell and Jones (2007)</td>
<td>To map physiotherapy placement educators’ perceived conceptions of teaching and teaching in practice.</td>
<td>Completion of two questionnaires. Lecturers’ Conception of Teaching and Learning and the Trainer Type Inventory</td>
<td>141 placement educators associated with one school of physiotherapy in Wales. Results showed a preponderance of a transmission (rather than facilitation) model of teaching. Authors concluded that when busy, inexperienced or poorly motivated clinical educators in the study had a tendency to fall back on approaches they experienced as students. These approaches may be at odds with the contemporary aims of the pre-registration curriculum which seeks to foster student responsibility for their own learning.</td>
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<tr>
<td>Dall’Alba (1991)</td>
<td>A pilot study into conceptions of teaching</td>
<td>Qualitative interviews, analysed thematically.</td>
<td>20 teachers participated. Teaching was represented as:- Presenting or transmitting Information, illustrating the Application of Theory to Practice, developing the capacity to be expert, exploring ways of understanding from particular perspectives, bringing about conceptual change.</td>
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<tr>
<td>Samuelowicz and Bain (1992)</td>
<td>To identify educational orientations</td>
<td>Qualitative, drawing on grounded theory. Based on interviews.</td>
<td>13 academics in science and social sciences. Australia and UK. Suggested that a hierarchy of concepts of teaching exists with characteristics present in lower categories being present in those above and talked of a continuum of concepts.</td>
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<td>Gow and Kember (1993)</td>
<td>To discover whether conceptions of teaching can be identified and, if so, whether they were related to student</td>
<td>Information from interviews was transformed into a questionnaire</td>
<td>Initially interviewed 39 polytechnic lecturers. Identified two main orientations to teaching — learning facilitation and knowledge transmission. Mean</td>
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<td>Included authors from 7 countries.</td>
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<td>Focused on conceptions of science teaching.</td>
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<td>Referred to a spectrum of concepts with two strongly contrasting sub-sets.</td>
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<td>A transmission and acquisition category and the second a conceptual change.</td>
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<td>Cooper et al., (2008)</td>
<td>To define patient-centredness from the patient's perspective in the context of physiotherapy for chronic low back pain</td>
<td>Qualitative study, semi-structured interviews, framework analysis.</td>
<td>25 people who had recently received physiotherapy for low back pain</td>
<td>Emphasised the importance of communication to patient centred care. Noted that this also underpinned the other 5 identified dimensions. Need for physiotherapists to have an understanding of all 6 dimensions. These were decision-making; information; the physiotherapist; and organisation of care.</td>
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<td>Mead and Bower (2000)</td>
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<td>Proposed five key dimensions of patient-centred approaches which related to doctors’ practice with patients: &quot;a Biopsychosocial perspective; 'Patient-as-person'; Sharing power and responsibility; The therapeutic alliance; The 'doctor-as-person'”</td>
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<td>Daykin and Richardson (2004)</td>
<td>To identify physiotherapist’s pain beliefs and the role these played in their management of chronic low back pain</td>
<td>Qualitative, grounded theory study. Interviews and observation.</td>
<td>6 physiotherapists with 12 patients in total (2 each).</td>
<td>Noted that the physiotherapists in the study adopted biomedical rather than biopsychosocial approaches with their patients and suggested that transition to such an approach would be beneficial for the patient, therapist and the NHS. Also concluded that physiotherapists need to be aware of the influence of their own pain beliefs on their management of patients.</td>
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<tr>
<td>Pelzang (2010)</td>
<td>To clarify the nature of patient centred care (PCC), and identify contributory factors, benefits and barriers.</td>
<td>Literature review</td>
<td>N/A</td>
<td>PCC is understood as a “healthcare system which considers patients as a whole person with biological, psychological and social needs”</td>
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<td>Appendix</td>
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<td>Noted need for more emphasis on PCC in education of healthcare professionals, better teamwork through greater coordination and collaboration and less reliance on biomedical model of health care.</td>
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Appendix 12
Initial Codes following focus group interview (expert group) 10/12/09.

Interpret information
Ownership/consequences
Reciprocal learning relationship
Shared goals and outcomes
Sharing information
Pressure for change
Two way feedback
Political pressures
Productivity
Help patients feel good about themselves
Emphasis on patient experience
Understand patients’ expectations
Enable patients
Help
Mentoring
Not an “add-on”
Good use of time
Most important bit
Part of therapeutic relationship
Trust
Negative learning culture
Priority or add on
Parallel development as practitioner/educator
Parallel development as practitioner/educator
Build in as part of the role
Reduced finance
Preference for hands on
Pressure from managers
Complex skills
Lack of preparation
Health and Safety
Every student learner and educator
18 week wait
Competency culture
Incorporate from student admission stage
Educator and learner at same time
Critical friendship (between physiotherapists)
PBL applied to patient education
Curriculum model (applied to patient education)
Be prepared to live with uncertainty
Culture of support (between physiotherapists)
Little statutory requirement
Time pressures/throughput
Patient experience now important
Environment (may help or hinder)
Assessing
Self management
Confidentiality
Evaluate information
Focus on patients needs
Autonomy
Feedback
Expectations of patient
Learning needs of patient
Core to curriculum
Education not training
Sharing information
Evaluating
Build in as part of role

Lynne Caladine 8/1/10.
Appendix 13

Possible Themes following Focus Group interview (expert group) 10/12/09.

1. **Patient-centred**
   - Self management
   - Focus on patients needs
   - Autonomy
   - Feedback
   - Expectations of patient
   - Learning needs of patient
   - Interpret information
   - Evaluate information
   - Ownership/consequences
   - Pressure for change
   - Help patients feel good about themselves
   - Emphasis on patient experience

2. **Facilitatory**
   - Education not training
   - Sharing information
   - Assessing learning
   - Evaluating
   - Understand patients’ expectations
   - Enable patients
   - Help
   - Mentoring

3. **Integral**
   - Not an “add-on”
   - Good use of time
   - Most important bit
   - Parallel development as practitioner/educator
   - Build in as part of the role
   - Incorporate from student admission stage
   - Educator and learner at same time
   - Part of therapeutic relationship

4. **Partnership**
   - Trust
   - Reciprocal learning relationship
   - Shared goals and outcomes
   - Sharing information
   - Two way feedback
Culture of support (between physiotherapists)

5. **Context**
   - Political pressures
   - Productivity
   - 18 week wait
   - Competency culture
   - Negative learning culture
   - Priority or add on
   - Reduced finance
   - Preference for hands on
   - Pressure from managers
   - Complex skills
   - Lack of preparation
   - Health and Safety
   - Confidentiality
   - Little statutory requirement
   - Time pressures/throughput
   - Patient experience now important
   - Environment (may help or hinder)

6. **Way forward**
   - Core to curriculum
   - Build in as part of role
   - Every student learner and educator
   - Parallel development as practitioner/educator
   - Critical friendship (between physiotherapists)
   - PBL applied to patient education
   - Curriculum model (applied to patient education)
   - Be prepared to live with uncertainty

**Lynne Caladine 15/1/10.**
Appendix 14

Possible themes and repertoires  22/5/10

**Pedagogic**
Transmission/delivery
Facilitatory /collaborative (patient-centred could be part of this)
Empowerment
Proxy or vicarious

**Preparation**
Natural
Experiential
Theoretical

**Practice**
Integral (or could be part of natural in preparation repertoire)
Learning culture
Inter-professional
Patient centred

**Political**
Time
18 weeks
Productivity
Finance
Appendix 15

N Vivo screen shot themes and repertoires 1

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Appendix 16

N Vivo screen shot themes and repertoires 2
Appendix 17

Emerging codes and themes (all interviews)

CoT = concepts of patient teaching.
Ther. Rel. = therapeutic relationship

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### Appendix 18

**Final codes and themes (all interviews) – 22/10/10**

CoT = concepts of teaching.  
Ther. Rel. = therapeutic relationship

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<td>advice</td>
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<td>Compliance</td>
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Frequency
Function
approach
relevance
aid understanding
powerpoint
going through
dependence
acute
explanation
ownership
readiness
phases
support workers
provision of knowl.
wide ranging
informal
assessment
helping patients
patients needs
pbl
problem solving
ebp
patients fears
getting it through
teaching children
empathy
help themselves
internet
caring
group
interpreter
telling
### Appendix 19 - Quotes from participants relating to specific patient education activity

<table>
<thead>
<tr>
<th>Participant</th>
<th>Patient education activity</th>
<th>Specific quote and location</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Exercise (older people)</td>
<td>why it’s important to exercise um… what exercise did for them, different ways to exercise. P1, 11.</td>
</tr>
<tr>
<td></td>
<td>Exercise (older people)</td>
<td>you’d sort of go through each exercise and… and explain to them what exactly um… it involved, what muscle groups they were doing, how… and then how that would help them in general life. P1,29-32.</td>
</tr>
<tr>
<td></td>
<td>Exercise and self-management (older people)</td>
<td>Then also a lot of them had … many conditions like arthritis, so it was sort of educating them how to manage that and how they could use exercise to manage that condition. P1,34-36.</td>
</tr>
<tr>
<td></td>
<td>Exercise (older people)</td>
<td>what I found quite helpful was actually showing them myself how to do it, um… and also showing them the wrong way to do it. P1, 95-96</td>
</tr>
<tr>
<td></td>
<td>Health promotion</td>
<td>educating them in a healthy lifestyle which P1, 117</td>
</tr>
<tr>
<td></td>
<td>Exercise (children)</td>
<td>it was more difficult because it was with children so... you are still educating them but you have to do it in a way that they don’t realise that you’re teaching them P1, 149-151</td>
</tr>
<tr>
<td>P2</td>
<td>Prevention</td>
<td>educating them about preventative care P2, 10.</td>
</tr>
<tr>
<td></td>
<td>Self management</td>
<td>Giving them the knowledge that they need for their care, P2, 20</td>
</tr>
<tr>
<td></td>
<td>Exercise</td>
<td>practically showing them exercises P2, 21</td>
</tr>
<tr>
<td></td>
<td>Exercise</td>
<td>first of all I’d talk over the exercises, what the point of them were, what um… what they were aiming to do and various prescriptions for it, and then I’d physically show him the exercises… P2, 64-67</td>
</tr>
<tr>
<td></td>
<td>Exercise</td>
<td>so giving them various exercises um… be it from different sit-to-stand techniques to emphasis strength on one side or um… various things for grip strength P2, 162-164</td>
</tr>
<tr>
<td></td>
<td>Exercise (post lower limb amputation)</td>
<td>we worked on his transfers quite a lot, um… and gave him a lot of advice about the correct techniques for his transfers at home um… from a wheelchair to his chair at home um… wheelchair to bed mainly P2, 185-188</td>
</tr>
<tr>
<td></td>
<td>Exercise (post lower limb fracture)</td>
<td>safe transfers to begin with… you’re looking at walking… walking correctly, using the correct equipment, making sure the correct technique P2, 228-230</td>
</tr>
<tr>
<td>P3</td>
<td>Exercise (respiratory)</td>
<td>I had to teach them, for example, ACB (active cycle of breathing) P3, 43-44</td>
</tr>
<tr>
<td></td>
<td>Exercise (neurology)</td>
<td>with neuro trying to teach people about their balance P3, 49</td>
</tr>
<tr>
<td></td>
<td>Walking re-education</td>
<td>I’ll have my hands on and I’m trying to teach them like to, you know, dorsiflex, at a certain time and</td>
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<tr>
<td>P4</td>
<td>Pulmonary rehabilitation</td>
<td>I was lucky enough to be involved in their pulmonary rehab programme so that also involved quite a bit of education. P4, 11-12</td>
</tr>
<tr>
<td></td>
<td>Exercise (groups)</td>
<td>exercise classes for specific problems P4, 16</td>
</tr>
<tr>
<td></td>
<td>Exercise and advice Palliative care</td>
<td>I think teaching... in... especially in the palliative setting um... helping people with um... breathlessness and anxiety surrounding breathlessness P4, 95-97</td>
</tr>
<tr>
<td>P5</td>
<td>Balance and walking (post-amputation)</td>
<td>I had an amputation patient recently and I had to teach him some exercises with regards to balance because he was still walking with a frame and we wanted to try and get him down to a walking stick or without P5, 80-83</td>
</tr>
<tr>
<td></td>
<td>Exercise (post respiratory surgery)</td>
<td>I explained to him how deep breathing exercise, and I'll use my hands as pictures and I'll explain to then say, for example, this is your lung and there's a sheet around your lung and there's a tube in between. And the more you breathe, the more your lung expands and pushes the fluid, pushes the air out of that tube P5, 156-160</td>
</tr>
<tr>
<td></td>
<td>Self management (respiratory)</td>
<td>so teaching them about their disease, teaching them about the different medicines and why they take different medicines, and instead of... instead of coming to hospital every time they feel ooh I’m short of breath, I can’t breathe, you teach them how to manage their own illness P5, 493-497</td>
</tr>
<tr>
<td>P6</td>
<td>Exercise (post stroke)</td>
<td>so I did quite a long intensive piece of work on trying to explain to her that... what had happened was that it was damage to her brain and the damage to her brain had made her arm now tight, etc P6, 51-53</td>
</tr>
<tr>
<td></td>
<td>Exercise (learning disability)</td>
<td>... I then need to teach them and show them their exercises P6, 69-70</td>
</tr>
<tr>
<td>P7</td>
<td>Pulmonary rehabilitation</td>
<td>pulmonary rehab, which may be a group setting, it may be one to one P7, 78-79</td>
</tr>
<tr>
<td></td>
<td>Pulmonary rehabilitation</td>
<td>as they're exercising staff will be talking to them one to one, they'll be advising them, based on how they're exercising, the reasons why, they'll be advising about their breathlessness P7, 382-384</td>
</tr>
<tr>
<td>P8</td>
<td>Self management (general)</td>
<td>I think it’s essential that the patients understand what... what their problem is. They understand the pathology, what's causing it, um... the structures that are causing it. I think they've got to understand the contributing factors as to why it's happened P8, 51-55</td>
</tr>
<tr>
<td></td>
<td>Self management (general)</td>
<td>they need to learn self-management, how they can avoid it recurring um… and also they need to know when to seek other help, when to self-manage and when perhaps to seek further help P8 55-57</td>
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<tr>
<td>P9</td>
<td>Self management (post surgery)</td>
<td>educating people about what they can do around their house, so that they are more independent P9, 88-89</td>
</tr>
<tr>
<td></td>
<td>Exercise (post surgery)</td>
<td>so we give two core stability exercises, that's it, and that's all we teach them and then they go home, P9 291-292</td>
</tr>
<tr>
<td>P10</td>
<td>Exercise (general)</td>
<td>you might be sort of teaching someone through hands on about movement, um… about exercises, you might be correcting exercises. P10, 48-50</td>
</tr>
<tr>
<td></td>
<td>Self management (Older people)</td>
<td>The demographic of the clientele that we work in, very vulnerable and at risk, so you might be educating about sort of safety within the home P10, 80-82</td>
</tr>
<tr>
<td></td>
<td>Exercise and advice (Neurology)</td>
<td>I’d taught them some exercises that I thought may be beneficial to them and I gave them some specific advice P10, 517-518</td>
</tr>
<tr>
<td></td>
<td>Exercise (general), health promotion.</td>
<td>the physiotherapy part of it is about movement, it's about exercises, you know, range of movement, maintaining, and all that sort of thing, the importance of keeping up and moving P10, 558-560</td>
</tr>
<tr>
<td>P11</td>
<td>Self management (Pulmonary rehabilitation)</td>
<td>I deliver patient education within a pulmonary rehab setting, so every session of rehabilitation, that's twice a week, patients get up to an hour of some kind of educational topic delivered through a variety of methods P11, 7-9.</td>
</tr>
<tr>
<td></td>
<td>Self management</td>
<td>and then also in a one to one in peoples’ homes doing education sessions with them, usually around self-management P11, 15-17</td>
</tr>
<tr>
<td></td>
<td>Exercise (pulmonary rehabilitation).</td>
<td>for example, when they’re exercising we’ll be reinforcing um… like breathing techniques and things that we might have done an education topic on the week before P11, 33-35</td>
</tr>
<tr>
<td></td>
<td>Equipment use (Pulmonary).</td>
<td>I reviewed his inhaler technique and then went through the correct technique with him and then got him to practise P11, 93-95</td>
</tr>
<tr>
<td></td>
<td>Exercise (pulmonary)</td>
<td>then I’ve gone through things like active cycle of breathing technique and I’ve talked about why... why it works and how it works, um… as well as how to actually do it P11, 97-99</td>
</tr>
<tr>
<td></td>
<td>Self management (Pulmonary)</td>
<td>I’ve talked about breathlessness management and again, not just showing the positions, but also talking about why they work, and what’s happening and why they’re getting breathless. P11, 100-103</td>
</tr>
<tr>
<td></td>
<td>Self management (pulmonary rehabilitation)</td>
<td>we had a session this week on coping strategies, so we got them into small groups and gave them some flipchart paper and got them to think about, for example, when they go to the shops what... what things will make it easier for them, how they can get round problems P11,301-305</td>
</tr>
<tr>
<td></td>
<td>Preventative education</td>
<td>whether it’s injury prevention in people in outpatients</td>
</tr>
<tr>
<td><strong>P12</strong></td>
<td><strong>Exercise (Children)</strong></td>
<td>We're also educating them how to carry out exercise programmes. P12, 31-32.</td>
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<tr>
<td><strong>Equipment use (Children)</strong></td>
<td>We're um... advising them and teaching them how to manage equipment, orthotics P12, 32-33.</td>
<td></td>
</tr>
<tr>
<td><strong>Exercise through play (Children).</strong></td>
<td>so I think our expertise certainly in paediatrics is... is trying to sneak in doing what you need to do to resolve the problem, of teaching them strategies where they can exercise through strengthening and stretching within normal activities of play P12, 96-99.</td>
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<tr>
<td><strong>P13</strong></td>
<td><strong>Self management</strong></td>
<td>to teach them about their own condition and disease, I feel that’s a vital part of our role as well P12, 58-59</td>
</tr>
<tr>
<td><strong>Prevention</strong></td>
<td>we need to educate um... clients thoroughly so they understand, make sure they do understand that if they do certain things they could accidentally dislocate their hip, P13, 102-104</td>
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<tr>
<td><strong>Exercise</strong></td>
<td>It could be like a home exercise programme for the back problems P13, 366-367.</td>
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<tr>
<td><strong>Prevention</strong></td>
<td>trying to prevent reoccurrences with the back problems P13, 367.</td>
<td></td>
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<tr>
<td><strong>P14</strong></td>
<td><strong>Health promotion</strong></td>
<td>so increasingly, you know, people working with childhood obesity, um... you know, schoolchildren, back pain clinics, all those sorts of things. P14, 123-125.</td>
</tr>
<tr>
<td><strong>P15</strong></td>
<td><strong>Exercise</strong></td>
<td>we had people who had chronic renal failure on dialysis and then we had the transplant patients as well and families came, so we had a gym full of activity occurring and a couple of the consultants joined in and so I had a whole exercise group going P15, 672-675.</td>
</tr>
<tr>
<td><strong>P16</strong></td>
<td><strong>Self management</strong></td>
<td>they’ve got to have an understanding of... often quite a detailed understanding of low back pain, um... not just as it affects them, but as it might affect other people P16, 46-48.</td>
</tr>
</tbody>
</table>
Appendix 20

Possible format for incorporation of metaphor analysis into classes.

What metaphor describes you as a teacher?

Air traffic controller

Explain how this metaphor characterizes you as a teacher.

I am constantly reacting, making decisions in a split second. There is no down time.

Provide an example from your teaching experience that illustrates your metaphor.

In 10 minutes, I collected papers, answered 7 different questions, talked to 8 different students, and never moved from one location in my room.

Do you think this metaphor influences or guides your teaching? If so, how?

It helps me remember how important this job is, and how difficult it is. It also reminds me that I'm not alone.

http://www.learner.org/workshops/nextmove/metaphor/metview.php3)
Appendix 21

Analysed transcript P10 March 2010