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**CONTINUING PROFESSIONAL DEVELOPMENT FOR  
PHYSIOTHERAPISTS: EXPLORING THEIR CHOICES IN  
CAREER LONG LEARNING**

**HELENA CLAIRE JOHNSON**

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**A thesis submitted in partial fulfilment of the requirements of  
the Degree of Doctor of Education**

**University of Durham**

**School of Education**



**September 2008**

**26 JAN 2009**

## - ABSTRACT -

Helena C Johnson

### **Continuing professional development for physiotherapists: exploring their choices in career long learning**

**Purpose.** The purpose of the thesis is to add to the body of knowledge of continuing professional development (CPD) for physiotherapists, by exploring the views of physiotherapists employed in NHS sites within one Strategic Health Authority.

**Relevance.** Increasingly physiotherapists are under pressure to demonstrate engagement in CPD in order to demonstrate their competence, with a statutory requirement (HPC, 2003) that requires practitioners to show evidence of having undertaken CPD and to have applied this to their practice.

**Research Methods.** The study used an interpretive approach and a sequential multi-method exploratory design involving 2 phases of data collection. **Participants:** Phase 1: 357 NHS physiotherapists; phase 2: 22 respondents from the survey. **Data Collection Tools:** Phase 1 used a four-page self-completion postal questionnaire. Phase 2 used semi-structured individual interviews. **Analysis:** The survey data from 140 completed questionnaires were analysed using SPSS. Principal Component Analysis (PCA) was used as a data reduction technique. The interview transcripts were analysed using NVivo 7.

**Findings.** 32 different CPD activities were identified. PCA revealed 3 components as reasons for engaging in CPD activities, and 4 components as barriers to CPD. Internal consistency using Cronbach's Alpha was acceptable to good (.653 to .891). A Friedman ranks test found that the rank order of these components was consistent across all subgroups and the significance was  $p < 0.05$ .

**Discussion.** The findings suggest that there should be a greater focus on the contribution that work-based and self-directed learning activities can have on the CPD of physiotherapists in the NHS, at a time when funding in CPD is limited, as informal learning in the workplace is not always acknowledged within current policies. Measuring the impact of CPD remains a challenge, as personal benefit and benefit to the service cannot be easily separated.

**Conclusion.** The findings indicate that the participants' decisions to engage in CPD were influenced more strongly by values related to improving clinical skills and patient care, than by the prospect of extrinsic rewards such as increase in pay and promotion. An increased understanding of the differences in CPD requirements of physiotherapists, at different stages in their careers, and practising in different clinical specialities, should enable appropriate CPD activities to be developed to ensure that they are appropriately supported in these roles.

**Key words:** continuing professional development, motivation, activities, barriers.

**Ethical approval:** XXXXXXXXXXXXXXXXXXXX LREC REC ref no: 04/Q1002/34.

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**- DECLARATION -**

I declare that this thesis represents my work, and the content has not been submitted to this, or any other institution, in application to a degree or any other award.

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## **ACKNOWLEDGEMENTS**

The completion of this thesis would not have been possible without the help and support from the following people:

**Professor Mike Byram:** Mike has been the perfect supervisor, offering expert guidance, consistently prompt and valuable feedback and support throughout the research process. Mike's complete professionalism, calmness and wisdom have been an inspiration, giving me the confidence to maintain my motivation to complete this thesis.

**My family:** My husband's domestic skills have improved dramatically over the last 4 years particularly in my writing-up stage. I know he will be more than happy to relinquish these new found skills. My children have helped to keep my feet firmly on the ground, by not being the least bit impressed by my Doctoral studies.

**My fellow cohort:** A wonderful group who brought the taught modules to life, and widened my views on so many aspects of education. To those who completed before me, many congratulations, and for those still on the road to success I wish them well. I am particularly grateful to Helen Smith for her constant encouragement and our joint reflections over tea and cake.

**The study participants:** without which this research could not have taken place.

## Chapter 1

### - INTRODUCTION -

This chapter begins by presenting a background to the study, and then provides a summary of the organisation and content of the thesis.

#### 1.1 BACKGROUND TO THE STUDY

A range of factors have placed increasing pressure on all physiotherapists to demonstrate that they have engaged in a process of continuing professional development (CPD) in order to demonstrate their competence to practise (Chartered Society of Physiotherapy, 2002a, 2003a; Department of Health, 1998, 1999a; 1999b; Health Professional Council, 2003). These include: an emphasis on the importance of use of evidence-based practice and the growing body of research knowledge; the need to demonstrate greater accountability through clinical governance; together with greater awareness of consumer needs.

The government requirement for all health professionals to be engaged in CPD stems from a desire to enhance the quality of health care to patients and clients; and the link between CPD and quality of service is made in a number of government documents (Department of Health, 1998; 1999a; 1999b; 2000; 2001a; 2001b). The *Health Act* (Department of Health, 2001b) and Health Professions Council (HPC) (HPC, 2003) require individual health care practitioners to show evidence of having undertaken learning and development and to have applied this to practice. Although the statutory body requirement (HPC, 2003) is relatively new, physiotherapists have always been required to engage in CPD, with the *Rules of Professional Conduct* specifying that no physiotherapist should be practising in an area in which they are not competent (Chartered Society of Physiotherapy, 2002a).

When applied to physiotherapists, their professional body, the Chartered Society of Physiotherapy (CSP), requires each individual physiotherapist to take responsibility for his/her own ongoing learning and to provide evidence that they are updating knowledge and skills in order to maintain their competence to practise (CSP, 2000; 2002a). However, despite this long-standing expectation, there is little research that



identifies the types of CPD activities which physiotherapists engage in, or explores physiotherapists' views of the value of continuing professional development, for themselves as individuals; for their professional practice in physiotherapy; or of the impact on patient care.

An important purpose of this thesis is therefore to fill a gap in knowledge by exploring the perceptions and beliefs of physiotherapists employed in National Health Service (NHS) sites within one Strategic Health Authority (SHA) on CPD. It is anticipated that findings from this study will increase understanding of the reasons why physiotherapists choose to engage in particular CPD activities, and assist in the development of appropriate post-registration provision for local physiotherapists in response to their perceived needs.

## **1.2 PHYSIOTHERAPY**

Physiotherapy is a healthcare profession concerned with human function and movement, and maximising potential, using physical approaches to promote, maintain and restore physical, psychological and social well-being (CSP 2008). Physiotherapists are autonomous professionals who treat a wide range of conditions, particularly those associated with the neurological, musculoskeletal, cardiovascular and respiratory systems, across the life span from children to care of the elderly (CSP 2002b). Physiotherapists practise in diverse environments including hospitals, GP practices and people's homes.

## **1.3 TERMINOLOGY**

To maintain clarity for the reader, the United Kingdom (UK) versions of some terms that vary across health professions, and across countries, will be maintained throughout the thesis. Physiotherapy and physiotherapists are the terms used in the UK, whereas in the United States of America (USA), Canada and Australia, physical therapists and physical therapy are more commonly used. Continuing professional development, or the acronym CPD, are used in the UK by physiotherapists, whereas continuing education, may be used by nurses, and continuing medical education (CME) is commonly used by doctors in this country and abroad.

## **1.4 OVERVIEW OF THE THESIS**

The thesis is organised to facilitate the reader's understanding of each stage of the research study. This section provides a summary of the content in the remaining chapters of the thesis.

### **1.4.1 Chapter 2: The Context**

This chapter provides the reader with the background to the importance of CPD for physiotherapists in the NHS, setting it within the international, national and health policies on lifelong learning and continuing professional development. The main purpose of this chapter will be to introduce the policies and the demands on individual health care staff as a consequence of changes in statutory body requirements (HPC, 2003).

### **1.4.2 Chapter 3: Critical Analysis of the Literature,**

This chapter identifies, critically analyses and summarises previous research in the field of continuing professional development in physiotherapy in the UK. A search of the literature revealed that there is a dearth of research on the subject of CPD in physiotherapy in the UK, and therefore comparisons are also drawn with research in physiotherapy in the USA and Canada; and in other health professions. Much of the existing research reviewed in this chapter focuses on formal CPD, with skill-based courses still appearing to dominate in the UK (Beeston et al, 1998; CSP, 2006). There is a paucity of research where the respondents identify the full range of CPD activities that they engage in, information on how often they engage in these activities, how they make the choice for one CPD activity rather than another, and what impact these activities may have on their practice. This chapter concludes by identifying the research question and research aims, which were developed to enable the research to contribute to the advancement of insight, knowledge and understanding in the field of continuing professional development in physiotherapy.

### **1.4.3 Chapter 4: Research Methodology**

This chapter justifies the research process followed in the study, which used an interpretive design and a sequential multi-method data collection. Phase 1 collected mainly quantitative data using a survey questionnaire sent to the physiotherapy

population in one Strategic Health Authority (SHA); and Phase 2 collected qualitative data from a stratified representative sample of the survey respondents using individual face-to-face interviews. This chapter discusses the procedures involved in implementing the research, including specific ethical considerations, sampling, pilot work, data collection and analysis. The application for ethical approval to access the sample, which followed the Department of Health's Research Governance Framework (Department of Health, 2003a), was rigorous and is described in section 4.5.

#### **1.4.4 Chapter 5: Research Findings**

The purpose of this chapter is to present the data, and the patterns and trends within the data from the analysis of both phases of the data collection; using quantitative data from the self-completion questionnaires and qualitative data from the individual interviews. The chapter begins with an overview of the sample including demographic information of the participants and comparison of the response rate and sample characteristics with other published studies. The main research findings from the survey are then presented, together with the main findings that emerged from the interview data. This allows the underlying thoughts from the participants that the questionnaires were unable to uncover to be highlighted, using verbatim quotes from the interviewees to illustrate key points.

#### **1.4.5 Chapter 6: Discussion of the Findings**

This chapter considers the implications of the findings and discusses their significance in relation to the existing literature. The discussion will focus on the type of CPD activities the physiotherapists participate in, and the reasons for those choices; the impact the outcomes of their CPD can have on patient care, the development of the individual physiotherapist, and the physiotherapy service. The difficulties in measuring the outcome of CPD are also raised.

#### **1.4.6 Chapter 7: Conclusion and Recommendations**

This chapter summarises the main findings of the research in relation to the research question and aims; discusses the implications of my findings for post-qualifying education for physiotherapists; and provides recommendations for future practice and

further research. The findings from my study have provided an increased understanding of the reasons why physiotherapists choose to participate in particular CPD activities, and assisted in the development of appropriate post registration provision for local physiotherapists in response to their perceived needs (University of Teesside, 2007). This chapter concludes with a reflective account of my learning and development throughout the research process.

#### **1.4.7 Appendices**

The *Appendices* are referred to at appropriate points in the main body of the thesis, include a range of supplementary background material, and are identified in the *Table of Contents*.

## Chapter 2

### - THE CONTEXT -

#### 2.1 INTRODUCTION

This chapter contextualises the main focus of the thesis and begins with a background to the discourse on the Lifelong Learning (LLL)/CPD agenda, which is driven by general international and national education policies, and by specific health policies. The chapter then focuses on the CPD of physiotherapists working in the NHS: the demands from society and introduction of clinical governance; and the role of the Health Professions Council in re-registration. The CSP uses LLL and CPD interchangeably throughout their documentation (CSP, 1999; 2000; 2003a; 2005a), describing CPD as the work-oriented aspect of their lifelong learning. CPD in the health professions can be viewed as only a narrow vocational focus of the LLL agenda, as there are other aspects of LLL, explained below, which it does not cover; such as post-retirement learning or leisure learning.

#### 2.2 INTERNATIONAL CONTEXT: LIFELONG LEARNING

LLL is an emergent discourse of the 20<sup>th</sup> and 21<sup>st</sup> centuries, which has been described as a lifelong journey of learning experiences that can take place from cradle to grave. LLL takes place in all areas of human experience and is inseparable from its contexts, whether at international, health policy, professional level or at the level of the individual. LLL has its origins in the way international bodies responded to the problems of globalisation and competitiveness. The Organisation for Economic Co-operation and Development (OECD, 1996, page 1) put 'learning' at the forefront of its ministerial meetings, stating: 'Lifelong learning will be essential for everyone as we move into the 21<sup>st</sup> century and has to be made accessible for all'. UNESCO denoted 1995-1998 as 'the years of sustainable human development (lifelong learning) and peace' (Delors et al. 1996). Other supporters, cited in Longworth and Davies (1996), are: the European Commission, who designated 1996 as the 'European Year of Lifelong Learning'; the G7 Nations, who called for 'the development of human potential through the creation of a culture of Lifetime Learning'; and the final report of the world's 'International Commission on Education for the 21<sup>st</sup> Century' who present LLL as a central unifying theme.

Two features of contemporary social and economic change in an international context are interrelated, as they underlie two equally important aims for LLL: promoting active citizenship and promoting employability (human capital). According to human capital theory individuals invest in themselves through education and training, and in activities that increase their earnings (Levin and Kelley, 1997); society in general then benefits from the increased productivity of those better educated individuals. As Europe moves towards a knowledge-based society and economy with access to up-to-date information and knowledge, individuals are expected to use these resources on their own behalf and for the benefit of the wider community. Calpin-Davies (1996) suggests CPD activities which increase knowledge, skills and productivity can represent an investment by individuals or employers. It could be suggested that some of the factors which are taken into account by individuals in deciding whether to invest in their education to join the labour market may be similar to those where physiotherapists determine whether or not to participate in specific CPD activities. This investment may be private (by an individual) with expectations of personal reward, through promotion and increase in salary; or 'social' where, for example, the NHS invests in the training of health care staff to improve patient care and benefit society as a whole.

However, some writers (Fevre, 1997; Coffield, 1999), have criticised the concept of 'human capital theory' as being inadequate in explaining the diverse motivations of individuals participating in CPD, arguing that work-related education and training have often been regarded as an obligation rather than as an investment by employees, who see employers rather than themselves as the principal 'users' of their training.

### **2.3 NATIONAL CONTEXT: THE NEED FOR LEARNING AND DEVELOPMENT**

Government policy has followed international thinking on promoting lifelong learning for all individuals (DfEE, 1998), with David Blunkett, the minister responsible for education and training at the time, describing learning as '... the key to prosperity - for each of us as individuals, as well as for the nation as a whole' in the *Learning Age* (Department for Education and Employment, 1998, page 1). The National Advisory Group for Continuing Education and Lifelong Learning (NAGCELL), in its first report for the Secretary of State for Education, explained lifelong learning as follows:

Lifelong learning should be for all aspects of life and meet a variety of needs and objectives. It should foster personal and collective development, stimulate achievement, encourage creativity, provide and enhance skills, contribute to the enlargement of knowledge itself, enhance cultural and leisure pursuits and underpin citizenship and independent living. This will require recognition of and support for a wide range of learning, undertaken in different locations, in various forms and through different routes. (NAGCELL, 1997: Par 5.12)

As noted above there are criticisms of some approaches to LLL as being misused by employers, in particular with regard to human capital theory, and this is evident on the national level too. Baptiste (1999) suggests that LLL is a governmental strategy to keep people in learning, and perhaps out of unemployment, and that the discourse on LLL centres around the 'human capital requirement' of the 'new economic order'. So dominant is this discourse that Coffield (1999) asks: 'How long before we see the official advertising slogan: You will learn and, what's more you will enjoy it?'

#### **2.4 HEALTH CONTEXT: CLINICAL GOVERNANCE**

Over the last decade there has been an increase in policy and legislation in the NHS, with an increase in accountability. *The New NHS: Modern, Dependable* (Department of Health, 1997), sees a clear relationship between LLL/CPD and improvements in quality with the introduction of clinical governance and quality assurance. Clinical Governance has been defined by the government as:

a framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care, by creating an environment in which excellence in clinical care will flourish

(DH, cited in *A First Class Service – Quality in the new NHS*, 1998, p33)

In the contemporary healthcare climate, and the scrutiny under which the National Health Service operates, the comprehensive understanding and implementation of good clinical governance has become an essential and obligatory requirement, and is at the centre of the NHS quality reforms. Clinical governance involves establishing clear lines of responsibility and accountability for quality in NHS organizations; putting a comprehensive programme of quality improvement activity in place; and having robust arrangements for identifying and remedying risks and poor performance. Clinical governance demands a major shift in the values, culture and leadership of the NHS, to place greater focus on the quality of clinical care and to

make it easier to bring about improvement and changes in clinical practice (Walshe et al, 2000).

Measures more stringent than those provided under the Professions Supplementary to Medicine Act 1960 were needed to protect the public (J M Consulting Ltd, 1996). The newly established Health Professions Council (HPC), which came into effect on 1<sup>st</sup> April 2002, replaced the Council for Professions Supplementary to Medicine (CPSM), which dated back to the 1960s. The HPC is a UK-wide, independent regulatory body that will maintain a register of qualified practitioners and is equipped with powers for the protection of the public and the tools to raise standards of all professions that it regulates (Chadda, 2002). The Health Act (Department of Health, 2001b) includes changes to the regulation of health care professionals, and is to be linked with evidence of CPD (NHS Executive, 2000) as a means of testing continuing competence. This requires each individual to take responsibility for their own ongoing learning and for being able to provide evidence that they are updating knowledge and skills in order to maintain competence to practise.

## **2.5 STATE CONTROL AND ACCOUNTABILITY**

There are mounting pressures on professionals to demonstrate their accountability to the public and prove the efficacy of their practice, while the concept of lifelong learning is gaining increasing currency. Despite the rhetoric of LLL, where CPD for physiotherapists had previously been seen as a professional issue and development of the individual, it now appears to have become a reason for accountability and an underlying agenda of state control, with Potter (2001) warning of the politicising of the regulatory process with the setting up of HPC, and the 'death' of 300 years of professional self-regulation. It is suggested that concern about how the medical profession is regulated followed high profile medical cases, over the previous decade, such as: the Bristol Royal Infirmary Inquiry (2001); Beverly Allitt, jailed in 1993 for killing young patients while a nurse (Clothier, 1991); and Harold Shipman, convicted in 2000 of the murder of 15 of his patients while he was a General Practitioner (Shipman Inquiry, 2005). This resulted in reform of the General Medical Council's regulatory process, and later resulted in tougher regulations for Allied Health Professions (AHPs). Although the professional body for physiotherapists in the UK, the Chartered Society of Physiotherapy, will continue to regulate its own

members, the right of an individual to be employed as a physiotherapist and to continue to practise, will be determined by the new body, the HPC, which could mean effective control by the Secretary of State. In effect, the results of these policies are that the public service ethic has become divorced from the idea of professionalism, and this has given way to bureaucratic accountability.

A range of factors have thus placed increasing pressure on all health professionals to demonstrate that they are engaged in a process of CPD in order to demonstrate their competence (CSP, 2000; Department of Health, 1999a, 1999b). These include: an emphasis on the importance of use of evidence-based practice and the growing body of research knowledge; the need to demonstrate accountability, particularly in response to recent high-profile cases in the media; greater consumer awareness; and clinical governance.

Eraut (1994) advises that qualification should not be an end point of the learning process, but rather the beginning of professional development. Longworth and Davies (1996) support this view pointing out that although LLL has a social, political, personal and an educational meaning it is the individual who makes the learning decisions. Teare et al, (1998) reinforce this point by describing LLL as a continuous development process which can be said to 'belong to an individual'. These authors support Potter's (2001) comment that here is a LLL concept which could have a liberal educational element and be of benefit to the individual and yet much of what is being done appears to be using LLL for political purposes, and in particular to control and defend the health system against public attack.

## **2.6 PROFESSIONAL AND REGULATORY BODIES**

### **2.6.1 The Chartered Society of Physiotherapy**

The Chartered Society of Physiotherapy is the professional, educational and trade union body for the country's 47,000 chartered physiotherapists, physiotherapy students and assistants. It aims to support its members and help them to provide the highest standards of patient care (CSP, 2008). Physiotherapy is a healthcare profession concerned with human function and movement and maximising potential: using physical approaches to promote, maintain and restore physical, psychological

and social well-being, taking account of variations in health status; it is science-based, committed to extending, applying, evaluating and reviewing the evidence that underpins and informs its practice and delivery; and involves the exercise of clinical judgement and informed interpretation is at its core (CSP, 2002b).

Physiotherapists work in a wide variety of health settings such as intensive care, mental illness, stroke recovery, occupational health, care of the elderly, and treating musculoskeletal conditions. Qualification as a physiotherapist is not the end of an educational process, but part of the continuum of learning and professional development (Gosling, 1999). Physiotherapists have been autonomous practitioners since 1978, taking responsibility for their own practice, post-qualifying education and development. An implication of this autonomy is the expectation that practitioners constantly update themselves by undertaking CPD activities (CSP, 2002a). The maintenance and enhancement of knowledge and skills through identifying and meeting personal needs is a key professional responsibility, and relates directly to the CSP's *Rule One of Professional Conduct* (CSP, 2002a), which identifies that no physiotherapist should be practising in an area in which they are not competent. Continued competence requires CPD, as Clyne (1995) suggests, that it is no longer possible for professionals to practise the same things in the same way for the whole of their working life. Haines (1997) also reminds us that professional competence is a perishable commodity suggesting it only lasts between 2 to 5 years.

As a qualified and registered member of one of the allied health professions, a physiotherapist has all the responsibilities expected of a professional (CSP, 2002a). CSP members are expected to undertake CPD through Standards of Physiotherapy Practice (CSP, 2005a) and Rules of Professional Conduct (CSP, 2002a). The benefits to the individual, team and service, as well as the patient, can be identified through enhancement of skills, knowledge and practice (CSP, 2003a). The CSP expects its members 'to maintain and develop their skills, knowledge and competence in order to provide safe and effective practice through CPD' (CSP, 2000, p. 3). The CSP goes on to acknowledge chartered physiotherapists' professional autonomy and capacity for self-regulation, expressed through monitoring of their own development and standards of practice. The CSP defines CPD in terms of what is relevant to the

professional development of individual therapists and recognises outcomes of CPD rather than its input or process (Gosling 2001).

However, the CSP argues that the pressures on staff in regard to CPD are complex (CSP, 2001), and impact on the individual, the team and the organisation. The individual will have individual learning needs in terms of their own practice or career plans. The team in which they work will have a plan for development. The overall organisation will have clear expectations of enhancing quality across the whole workforce in relation to clinical governance. CSP warns that members need to be prepared to respond to government initiatives around CPD (CSP, 2003a).

### **2.6.2 The Health Professions Council**

Physiotherapists and other AHPs now have to demonstrate to the HPC their ongoing eligibility to practise physiotherapy by producing a profile showing how they have been meeting the HPC Standards of Conduct during the previous 2 years in order to remain registered (HPC, 2003; 2006a; 2006b); this rule came into force in August 2006 and the audit process for physiotherapy will take place in 2010. Prior to this individual AHPs sign a form to say they have complied with the Standards of Conduct relating to CPD in order to remain on their professional register, but do not have to submit any evidence of this. At present there are 43,017 physiotherapists registered with the HPC (HPC, 2008). The standards of CPD are that a registrant must:

1. Maintain a continuous, up-to-date and accurate record of their CPD activities;
2. Demonstrate that their CPD activities are a mixture of learning activities relevant to current or future practice;
3. Seek to ensure that their CPD has contributed to the quality of their practice and service delivery;
4. Seek to ensure that their CPD benefits the service user; and
5. Present a written profile containing evidence of their CPD upon request.

(HPC, 2006b page 5)

## **2.7 RATIONALE FOR THE STUDY**

As I have shown, there are many expectations on physiotherapists and the question which arises is how they are responding to these. The *Health Act* (Department of Health, 2001b) and recently set up Health Professions Council (Health Professions Council, 2003) require individual health care practitioners to show evidence of having undertaken learning and development and to have applied this to practise. This requires each individual physiotherapist to take responsibility for his/her own ongoing learning and to provide evidence that they are updating knowledge and skills in order to maintain their competence to practise. However, to date, there is little research that identifies the types of CPD activities which chartered physiotherapists engage in or how individual physiotherapists perceive these activities influence their professional practice or patient care. O'Sullivan (2003) undertook a qualitative study to explore the barriers to undertaking CPD. The main issue to emerge was that individual physiotherapists were motivated and committed to CPD, but experienced guilt about taking time for it because they were working in demanding environments where the patient's needs are paramount and CPD was not necessarily integral to practice. She concluded that an increased awareness and understanding of CPD is required in order to enable physiotherapists to become independent learners. One important purpose of this thesis is therefore to fill a gap in knowledge, and provide a better basis for the development of new policy.

## **2.8 THE ROLE OF THE RESEARCHER AND THE LOCATION OF THE RESEARCH**

This may be an appropriate point to disclose my position as a researcher in order to describe the pragmatic issues which will be discussed in more detail in later parts of the thesis. Acknowledgement of the researcher's position can lead to a more critical appraisal of the research study than if this had not been made public.

In submission of this thesis I explore the perceived value that CPD activities have for physiotherapists employed in all NHS sites within one Strategic Health Authority. This study was undertaken as a component of a doctoral degree, an EdD, at the University of Durham. I am a Chartered Physiotherapist, and at the start of the study was employed as a Senior Lecturer in Physiotherapy in a university in the North of England, with a personal interest in, and the responsibility for, developing post-

registration CPD provision for physiotherapists and other allied health professional (AHPs). As I had worked in the NHS as a physiotherapist for over 20 years, I could be considered an 'insider', in the context of the research. This position provides me with knowledge of the practice of physiotherapy; the professional requirements of CPD; the local and national provision of post-registration CPD; and access to physiotherapists practising in the NHS.

It is anticipated that findings from this study will increase understanding of the reasons why physiotherapists choose to engage in particular CPD activities, and have a potential practical application in the development of appropriate post registration provision for local physiotherapists in response to their perceived needs. There is also however, the potential that this study may raise false expectations of local physiotherapists, as future development of postgraduate provision is dependent on funding provided by the local Strategic Health Authority (SHA).

At the outset of the study, and throughout both data collection phases, the participants were employed within one SHA in the North of England, which consisted of the Acute Hospital Trusts and Primary Care Trusts shown in Figure 2.1

**Table 2.1 Strategic Health Authority**

Sub Area	Acute Trusts	Primary Care Trust (PCT)
	NHS Trust 1 NHS Trust 2	PCT 1 PCT 2 PCT 3 PCT 4 PCT 5
	NHS Trust 3 NHS Trust 4 NHS Trust 5	PCT 5 PCT 6 PCT 7 PCT 8

## 2.9 SUMMARY

The main purpose of this chapter has been to introduce and analyse the policies, the demands on individuals as a consequence of changes in policies and the professional bodies which implement them, and the potential role of research. The following

chapter will critically review existing research literature, in order to develop appropriate research questions, which are addressed in the study.

## Chapter 3

### - CRITICAL ANALYSIS OF THE LITERATURE -

#### 3.1 INTRODUCTION

The previous two chapters provide an introduction to the thesis, and background information on lifelong learning and the context of continuing professional development of staff employed in the NHS and in particular, physiotherapists. Chapter 2 also suggested there is opportunity for research to find out how practitioners are responding to new demands. This chapter identifies, critically analyses and summarises previous research in the field of continuing professional development in physiotherapy in the UK. Comparisons are also drawn with research in physiotherapy in the USA and Canada; and in other health professions. A further review of the literature will be discussed in Chapter 6 together with the main findings of the research which are presented in Chapter 5.

#### 3.2 SEARCH STRATEGY FOR IDENTIFICATION OF LITERATURE

A search strategy was developed, identifying seventeen key words: continuing professional development, CPD, continuing professional education, continuing education, professional development, lifelong learning, motivation, views, opinions, perceptions, values, barriers, compliance, participation, engagement, physiotherapy, physical therapy. An extensive electronic search was conducted using the following databases: *CINHAL* (Cumulative Index to Nursing and Allied Health), *Medline*, *AMED* (Allied and Complementary Medicine Database), *PEDro* (Physiotherapy Evidence Database), *PsycINFO* (Psychology Information) and *ERIC* (Educational Resources and Information Centre), and the key words identified. Appendix II provides a summary of the search strategy and its results. In each database search the Boolean connectors, 'AND' and 'OR', were used to create a more complex search (Aveyard, 2007, p 65). The use of 'AND' between each of the key words ensured that articles would contain all of the key words, for example, continuing professional development and motivation and physiotherapy. The use of 'OR' between each of the alternative terms for facilitators and barriers, ensure that the articles containing one term or another was selected. A number of terms were truncated in the database searches, using the \$ facility such as: physiotherap\$, engag\$ and motivat\$, which

enabled identification of all possible variant spellings or word endings of the key words used.

Using the above search protocol, the key words were used in an advanced search of the databases, in different combinations, to get the maximum amount of results possible. In the initial search the key words were input into the 'all text' or 'keyword' field which produced 1056 articles, with a large number of articles that were unsuitable and not focused on the topic area. To focus the search more specifically the same key words were used to search in the 'title' and 'abstract' fields only, the total number of articles found in this way was reduced to 121, which included discussion papers, opinion papers, in addition to research studies relating specifically to physiotherapy. I assessed these for relevance to my study by reading the title and abstract of each article, this resulted in 32 articles. A further, third search, omitting 'physiotherapy' as a key word, and searching in 'title' only, produced 422 articles that related to CPD of other health professions. The following criteria were then applied:

**Inclusion criteria:**

- Published empirical research from a range of health professions during 1998 - 2008
- Specific to health professions in UK, Europe, USA, Australia and Canada
- Published systematic reviews
- Published research from the Chartered Society of Physiotherapy (CSP)

**Exclusion criteria:**

- Samples that included disciplines other than health professions
- Content relating to pre-registration programmes
- Content where continuing professional development was not the focus

Once duplicate articles were removed from the database searches described above, 9 articles remained. A search was also conducted using the Cochrane library, which produced one systematic review (O'Brien et al., 2001) that followed the strict protocol used by the Cochrane Collaboration (2008). The Chartered Society of Physiotherapy publications were searched using the CSP website (2008), which located a survey carried out by the CSP in 2005 (CSP, 2006).

Of these 11 published items, 9 were articles in peer reviewed journals, with 1 professional body report (CSP, 2006), and one Cochrane review. Eight were exclusive to physiotherapy (Austin and Graber, 2007; Beeston et al., 1998; Brennan et al., 2006; CSP, 2006; Landers et al., 2005; O'Sullivan, 2003; Rappolt and Tassone, 2002; Stathopoulos and Harrison, 2003). Four of these involved physiotherapists in the UK (Beeston et al., 1998; CSP, 2006; O'Sullivan, 2003; Stathopoulos and Harrison, 2003). Two articles involved more than one health profession (Dolcourt et al., 2006; O'Brien, 2001), and one involved occupational therapists (OTs) (Anderson, 2001).

### **3.3 FINDINGS OF THE CRITICAL ANALYSIS**

The critical analysis of the 11 published items is presented in four distinct sections, according to the methodologies employed: surveys (4), interviews (4), mixed method (2) and systematic reviews (1). Critical analysis is a structured way of showing a study's strengths and weaknesses and therefore how much weight it carries in answering the research question (Aveyard, 2007), as well as explaining where my study is located in respect to these.

The first group of studies used surveys and are summarised in table 3.1. The second group of studies used individual and focus group interviews and are summarised in Table 3.2. The third group used mixed methods of data collection and are summarised in Table 3.3. The fourth group of studies includes one systematic review, which is summarised in Table 3.4. No studies fitting the inclusion criteria were found that used randomised control trials (RCTs), although some RCTs are referred to in the systematic review (O'Brien, 2001).

### **3.4 STUDIES USING SURVEYS**

This group of literature used postal surveys as a means of collecting data. There were four studies that met the inclusion criteria; two were carried out in the UK (Beeston et al., 1998; Chartered Society of Physiotherapy, 2006) and two in USA (Anderson, 2001; Landers et al., 2005). Three of these studies involved physiotherapists (Beeston et al., 1998; Chartered Society of Physiotherapy, 2006; Landers et al., 2005), one surveyed occupational therapists (OTs) (Anderson, 2001).

**Table 3.1 Published research using postal surveys**

Author, year, country	Research focus	Participants (n =) Methodology	Main findings	Comments Study limitations
Anderson (2001) USA	Evaluate OT's perceptions of the impact of various CPD activities	n = 1,356 OTs. Survey using postal questionnaire Mean scores for each mandatory CPD activity compared with mean of voluntary activities. 5 point Likert scale used to indicate impact of CPD	391 returned questionnaires (from 1,356) giving a 28% response rate. Formal programmes or one or more day have significantly greater impact than informal programmes p= 0.000. Work based learning and mentorship had significantly greater impact than formal programmes less than 3 hours long.	Reliability of survey tool not determined. Low (28%) response rate and potential for nonresponse bias may have affected results. Limited range on Likert scale Small scale OT study in U.S. using self-rating to assess the impact of CPD on learning, knowledge and skills application and on practice. It highlights the equal value of some informal learning in comparison with formal courses above 1 day duration.
Beeston et al. (1998) UK	To explore perceptions which influence uptake of higher degrees	N = 213 physiotherapists: 45 managers; 168 clinicians. Survey questionnaire, using mainly closed questions.	Overall response rate 66.6%: 89% (40) for managers; 61% (102) for clinicians. Greatest barriers: lack of funding (30%), time (22%). Motivators: pay & promotion (79%). Courses rated most highly: academic with skills component (39%); skills based (36%); solely academic courses (2%).	Skills based components in courses continue to dominate. Possible tension for managers in indication that masters not viewed as valuable to career advancement. Opportunity sample, potential for bias, unclear if managers involved may have coerced clinicians they manage. Descriptive statistics only. No information on informed consent. Questionnaires unable to explore the potential for master's level study to enhance service provision, or patient care.
CSP (2006) UK	To identify CPD activities, time spent on activities, support for CPD, CSP resources.	n = 1700 physiotherapists, a random sample of 5% of membership of CSP. Survey, using a 13 page questionnaire, to collect quantitative and qualitative data.	890 returned questionnaires, giving an overall 49% response rate (46% response rate from England). The predominant learning activity was formal clinical courses (86.4%); reading literature relevant to clinical practice (85.2%) keeping portfolio of learning/development (83.4%). 91% undertook CPD to maintain professional competence, and improve patient care (87%).	Relatively large sample and covers all physiotherapists who are members of their professional body. However still potential bias, as not all practising physiotherapists are members of CSP. Long questionnaire may have reduced response rate. Results are presented with little analysis (at times only as numerical responses), and no comparison with any other published studies. Qualitative comments to open questions presented as direct quotes and no analysis of themes.
Landers et al. (2005) USA	Explore how physiotherapists pursue formal CPD	n = 3,000 physiotherapists. Survey, postal questionnaire. Data analysed using SPSS.	1,145 questionnaires returned, giving 38.2% response rate. Results suggest that most physiotherapists are intrinsically motivated to pursue formal CPD, by engaging in more CPD than their state required (p<.0005).	A low response rate means the results may not reliably reflect the entire population of physiotherapists, nor could the results be generalisable to the wider population. Only formal CPD activities were investigated.

### **3.4.1 Purpose of the research**

All studies using surveys stated a purpose to their research, although the clarity of these varied between studies. The purpose of Anderson's (2001) exploratory study conducted in USA, which was clearly stated, was to determine OTs' perceptions of the impact of various CPD activities on maintaining their competency, that is, which mandatory and which voluntary activities were perceived to affect competency. The null hypothesis was: there will be no significant difference between the level of perceived impact of specific mandatory and voluntary CPD activities on continuing competency of Florida-licensed OT practitioners. The aims of the Beeston et al. (1998) study were less clear, with some inconsistency in stating the specific aims of this UK study involving physiotherapists. At the beginning of the article the aims are stated as: to explore the perceived barriers to CPD in relation to uptake of higher degrees and to explore the value given to higher degrees in the workplace. However, in the methodology section the aim of the study was stated as: to explore the perceptions of two groups of physiotherapists in relation to the factors influencing the uptake of taught master's degrees within a particular geographical area. The purpose of the CSP's (2006) survey was to identify the types of CPD activities members engaged in, the time spent on activities, the support given for CPD, and respondents' views on available CSP resources, using both quantitative and qualitative data. The purpose of Landers et al.'s (2005) study was to explore the differences in how physiotherapists pursue formal CPD on the basis of state mandate, gender, years of experience, practice speciality, professional body membership, motivation, and perception of the benefits of CPD. The four research questions were: what is the difference in the amounts of formal CPD pursued by physiotherapists in states with and without mandatory CPD; are there any variables such as a person's gender, years of experience, practice speciality, that are associated with the amount of CPD undertaken; what are the motivators of CPD; do physiotherapist perceive that formal CPD has improved their practice?

### **3.4.2 Sample and demographical information of respondents**

The sample sizes were different in all four studies, ranging from 213 (Beeston at al., 1998) to 3,000 (Landers et al., 2005), with the CSP (2006) survey which involved 1,700 subjects having the largest UK sample of physiotherapists in any of the studies

analysed. Three of the surveys used random sampling. A systematic random sampling technique in Anderson's (2001) study used a postal code-ordered mailing list. The sample was 25% of OT practitioners in Florida ( $n = 1,356$ ), where state law requires CPD for re-licensure. In 1967 the USA began mandating CPD to ensure that health professionals were constantly maintaining and improving their professional education, which stipulated that all regulatory and professional associations should maintain competence in their individual professions. At the time of the Landers et al. (2005) study 20 states in USA did not mandate CPD for renewing physiotherapist licensure, because of difficulty in controlling and enforcing legislation, and the lack of guarantee of increased competence. Participation in their study was voluntary and responses anonymous. Follow-up postcards were sent 2 weeks after initial mailing.

The CSP (2006) survey recruited a random sample of 5% of qualified CSP membership, that is, 1700 physiotherapists. Demographic information from this survey had the most reported detail of those analysed. 69 % of respondents worked in the NHS, the remaining respondents worked in private practice (14.7%), independent hospitals (2.9%), HEIs (2.2%), social (0.3%), and voluntary (0.7%) sectors; with 87.6% of respondents were female, 11.8% male, and 0.6% did not indicate any gender. Of those working in the NHS, 35% worked in secondary care, 18.7% in primary care, 13.5% in the community, and 1.9% in mixed settings. Over 50% were employed full time, 33% were part-time and 2.1% were employed as locums. The primary role of respondents was identified as clinicians (78%) or managers (5%), with 4.8% having a mixed role. 35.5 % of those identifying their main role as a clinician were employed as senior clinicians, with 5.3% as clinical specialists, 1.7% as extended scope practitioners and 8.1% also having a managers or team leaders role.

Landers et al.'s (2005) survey covered 3,000 physiotherapists in seven western states in the USA. Mailing labels were obtained from each state licensure board, and systematic random sampling techniques (every 5th mailing label) were used to select all participants. 1,500 questionnaires were sent to randomly selected physiotherapists in 3 states without mandatory CPD, representing 21.3 % of licensed physiotherapists in those states. The remaining 1,500 questionnaires were sent to randomly selected

physiotherapists in 4 states with mandatory CPD, representing 34.5% of physiotherapists in those states.

The non-randomised sample of 213 physiotherapists in Beeston et al.'s (1998) study included 45 managers and 168 senior clinicians in the local area of the HEI where the authors worked. This was an opportunity, non-randomised sample, with a potential for bias, as the managers were first approached, and then asked to provide the names of senior physiotherapists to be included in the survey. It is therefore unclear if the 168 clinicians were all those employed in the sites or only those names chosen by their managers. In relation to academic qualifications, Beeston et al. (1998) reported that 17.5% (7) of the managers had a higher degree and 22.5% (9) were currently studying for one. Of the 102 clinicians that responded 64% (65) qualified with a diploma, 36% (37) with a degree, 6% (6) had a higher degree.

The CSP (2006) survey, which was published 8 years later showed an increase in those with postgraduate qualifications, with 23.7% of respondents reporting postgraduate qualifications: 7.3% had a PgC, 8.6% a PgD, 7.8% a Master's degree, and 0.6% had a Doctorate. Anderson (2001) gave no demographic information of the OTs that responded, in relation to gender, grade or clinical speciality or any differences in relation to these demographical variables. Landers et al. (2005) also gave little information on demographics apart from 70.3% of all respondents being women, which is lower than in the other studies.

### **3.4.3 Ethical considerations**

As we shall see later ethical approval for this thesis was a complex process; but reporting of ethical considerations and approval was variable across the surveys, as was information on informed consent and recruitment of respondents, although this does not imply that appropriate approval was not sought or given. Ethical approval in Anderson's (2001) study is not explicitly mentioned, but as the article was based on a project completed for a Doctorate in Education, it is assumed that the study will have had approval from the supervising HEI and the respondents' employers, as well as informed consent by those who responded. No information is given on if, or how, ethical approval was obtained in Beeston et al.'s (1998) study, but information in the

article suggests the study was part of a degree programme and would presumably have also gone to the supervising University Ethics Committee, and the student would have been appropriately supervised by an academic. There is also a question on the purpose of the survey, as the questionnaire seemed to include questions directly related to on-going evaluation of the master's programme, the results of which were not reported in the article. As the article was published in 1998, this was prior to the NHS Research Governance Framework (Department of Health, 2003a), which if it had taken place later would have required NHS Research Ethics Committee approval and approval of the Research and Development Committees in each NHS site that employed the physiotherapy managers and clinicians. As explained further in chapter 4 the Research Governance Framework requires researchers to gain ethical approval in order to access clinical staff in the NHS to act as participants. In the Professional Body survey (CSP, 2006), again there is no explicit indication of approval, but it is assumed that internal scrutiny mechanisms and quality control within this organisation would ensure appropriate approval processes were duly followed.

All questionnaires in my study were accompanied by a participant information letter, to explain the purpose of the survey, guarantee anonymity of responses and gain informed consent. As will be seen in Chapter 4, the issue of ethical approval was an important issue in my research.

#### **3.4.4 Data collection tool**

All the studies in this section identified using a postal questionnaire as an appropriate and inexpensive tool to gather quantitative data from a relatively large number of respondents in a relatively short period of time (Oppenheim, 1998). All reported pilot testing their instrument to improve validity, reliability and clarity of questions. The self-completion questionnaire in Anderson's (2001) study was pilot tested on 25 OT practitioners and their feedback used to clarify certain phrases. However the final questionnaire was not included in the article and no information was given as to its length. Questions were reported to include respondents' indications of the specific mandatory and voluntary CPD activities that they had engaged in, with the lists of activities taken from their Professional Associations and State CPD requirements. A 5-point Likert scale was used to indicate their perceptions of the

impact of these CPD activities on their learning, knowledge, and on application to practise.

The draft questionnaire in Beeston et al.'s (1998) study was piloted by 5 managers, which reportedly helped to remove ambiguous questions and improve format, although reliability was not specifically tested. The questionnaires were sent to the managers first, then amended slightly to re-order words to elicit views of those being managed rather than those doing the managing, and then sent to the 168 senior clinicians. Piloting with clinicians was not reported and no copy of the questionnaire was included in the published article, although it was stated that it used mainly closed questions, with a few open questions to further explore the closed responses. Topic areas for questions were identified as: what were considered to be the barriers to master's level study for physiotherapists; respondents' perceptions of the relevance of master's degrees to career progression; the perception of the relevance of master's degrees to clinical practice; and, their views on the subject matter and method of delivery of master's degrees offered by the particular HEI (the findings of which are not reported in their article).

The draft questionnaire in the CSP's (2006) survey was assessed by an internal scrutiny group and then piloted with members of the CSP CPD co-ordinators group, although no numbers are given on the latter or to the response rate from the pilot. This resulted in a 13-page questionnaire which was published in full in their report, and was the only questionnaire provided in any of the articles. In contrast the data collection tool in Landers et al.'s (2005) study was a one-page questionnaire consisting of 13 questions, which were drafted and reviewed by a panel of experts from their Professional Association, for validity and to determine whether the questions satisfied the purpose of the study. The test-retest reliability of the self-report questionnaire was obtained using 35 physiotherapists completing the questionnaire twice at 13 to 17 days apart, which indicated a high test-retest reliability,  $R = .973$  (95% confidence interval = .947 -.986). As described in Chapter 4 my study involved piloting of the questionnaire and the Alpha (Cronbach) model of internal consistency (Field, 2005) was used to determine the extent to which the items in my questionnaire were related to each other.

### 3.4.5 Response rate

Anderson's (2001) study had a return of 391 completed questionnaires (from 1,356), giving a 28.8% response rate. The response rate in Beeston et al.'s (1998) study was 89% from managers (40 from 45), and 61% of clinicians (102 from 168) giving an overall 66% response rate. The CSP Survey received 862 (from 1,700) completed questionnaires from practising physiotherapists, giving an overall 50.7% response rate. This varied across the countries, with Wales having the highest response rate at 60.3%, and England the lowest at 46.4%. The rather long 13-page questionnaire may have adversely affected the response rate. Although the CSP survey used a relatively large sample, and covered all physiotherapists who are members of their professional body, there was still potential for bias, as not all practising physiotherapists are members of the CSP.

Landers et al. (2005) had 1,145 completed questionnaires (from 3,000) returned from physiotherapists, giving a 38.2% response rate, of these responses 61.8% were from states with mandatory CPD and 38.2% from states without mandatory CPD requirements. The primary limitation was the 38.2% response rate, which means the results should be interpreted with some caution, as the low response rate could mean the responses do not reliably reflect the entire population of physiotherapists. It could also be suggested that non-respondents may have had different CPD attendance hours and their views on CPD could be different from those that responded to the questionnaire. Landers et al. (2005) suggest that the lower rate in states without a mandate may have been attributable to the therapists' reluctance to report something that may reflect negatively on them or their state or both. It is possible that some respondents were strongly motivated (or not) by the topic or questions and this may have skewed not only the responses but also response rates, in that physiotherapists who pursue CPD may be more likely to have responded to the questionnaire. Likewise those who were unhappy or disagreed with state CPD requirements may have been more likely to have answered the questionnaire. Other limitations include: the motivational questions were attitudinal in nature and represent only a point in time and therefore they could be subject to change; and only formal CPD was investigated, which is only one aspect of CPD. The experience in relation to response rate in my study is discussed in chapter 5.

### 3.4.6 CPD activities

In identifying CPD activities that OT's engage in, 95% of the respondents in Anderson's (2001) study indicated that they regularly read professional literature and 84% participated in mandatory formal courses of 1-2 days duration. The mean scores for each mandatory CPD activity were compared with the mean of each of the voluntary activities using a two tailed *t* test, to determine whether a significant difference existed. Formal programmes of one or more days in length were found to have a significantly greater perceived impact ( $p=0.000$ ) compared with all other voluntary activities, apart from being mentored. Informal activities of being mentored, and on-the-job training, were perceived as more effective than formal activities of less than 3 hours ( $p= 0.001$ , and  $0.003$  respectively).

Analysis in Beeston et al.'s (1998) study used a descriptive approach, as tests of significance were not felt appropriate due to the non-randomised sample and structure of the questionnaire. This survey found that skills-based courses continue to dominate. The type of CPD provision rated most highly were: academic courses with a skills component (39%); recognised skills-based courses (for example, Bobath, Maitland or respiratory) (36%); whereas pure academic courses were rated highly by only 2% of respondents. The potential for bias in this study has been raised earlier so that results should be viewed with caution.

In the CSP (2006) survey the predominant learning activity was identified by respondents as formal clinical courses (86.4%); with reading literature relevant to clinical practice (85.2%), and keeping a portfolio or record of learning and development (83.4%). 40% of respondents spent 1-4 hours per month on CPD, 33% spent 5-9 hours a month, with only 1.8% not engaging with any CPD. In regard to CPD in the workplace, line managers, peers and other colleagues were valued as the most important sources of support. Respondents in the CSP (2006) survey wanted protected CPD time and equity of CPD funding in relation to other health professions. The development of e-learning tools was seen as a priority by 37% of CSP members, with 52.3% interested in the development of online courses on portfolio building, 58.7% on reflective practice, 57.5% on advanced clinical reasoning, 54% on the use of outcome measures, and 50% on critical appraisal.

The data gathered in Landers et al.'s (2005) survey were analysed using SPSS, with relationships between categorical variables of 2 or more sets of responses being cross-tabulated and analysed with chi-square tests. Analysis found that physiotherapists in states with mandatory requirements averaged 33.8 hours of CPD per year, whereas those in states without a mandate averaged 28.3 hours per year. Independent-sample *t* tests demonstrated a significant difference of  $p=.048$  in mean CPD hours. When the data were cross tabulated and analysed with chi-square tests, the difference was statistically significant ( $p<.001$ ). There was also a significant difference in what the state mandated and what the respondents reported taking ( $p<.0005$ ), that is, respondents took more CPD than the state mandate required. This could suggest that physiotherapists are intrinsically motivated to pursue learning experiences, although it would also appear that having mandatory requirements also increases the amount of CPD that physiotherapists engage with. What is not reported is the outcomes of the CPD activities, whether on the individuals' learning, the effect on their practice or service improvement. No statistically significant relationships were observed between the amount of CPD taken and years experience, gender or practice speciality of respondents.

#### **3.4.7 Motivators for CPD**

The majority (91%) of respondents in the CSP (2006) survey reported undertaking CPD to maintain professional competence, and 87% to improve patient care; with 65% undertaking CPD to meet HPC statutory requirements. In Beeston et al.'s (1998) study although 79% (72) clinicians reported that they would study for a higher degree if they thought it would be recognised in terms of pay and promotion, and 73% (27) of managers viewed having staff with a higher degree as an advantage to the physiotherapy unit that employed them, only 2% of managers and 16% of clinicians would consider it an advantage for a candidate applying for a post to have a higher degree.

In order to examine the relationship between motivating factors and CPD attendance Landers et al. (2005) performed 3 separate linear regression analyses (overall sample, therapists in state with a mandate, therapists in states without mandate). Each of the regression analyses examined the relationship between the motivational variables and the number of CPD hours taken. For the overall sample, data for the 3 variables:

clinical competence, certification, and state mandate, correlated significantly with the numbers of CPD hours. ( $p < .005$ ,  $p = .011$ ,  $p < .0005$  respectively). The significant motivational variables that respondents noted for taking CPD were: state mandate, increased clinical competence, and certification. Overall 96.2% believed that CPD had a beneficial effect on their practice (95.6% from states with a mandate, 97.2% of therapists from non mandated states).

#### **3.4.8 Barriers to CPD**

In the CSP's (2006) survey, 88% of respondents identified the work pressures of high caseloads and staff shortages as the main barriers to CPD; and 78% identified social or domestic pressures as an issue, with only 23% reporting access to IT facilities as a barrier. 25% of respondents received employer funding for CPD courses required for their role, 31.6% had joint funding by their employers and themselves, and even for personal development 19.6% still received joint funding from their employer. In Beeston et al.'s (1998) study the greatest barriers to undertaking master's degrees were given as: lack of funding, by 30% of all respondents; lack of time, by 30%; and lack of study leave, by 12%. Very few respondents (10% of managers; 5% of clinicians) identified lack of personal motivation as a barrier, which suggests if the practical barriers were removed, more would take up the opportunity of higher education. However managers reported lack of staff to cover study leave as a greater barrier than did the clinicians, and 42% (15) of managers did not see it was their role to encourage staff to undertake master's degrees.

#### **3.4.9 Summary of the surveys**

As the focus of the research varied among all 4 studies commonalities are difficult to identify, and confidence in any comparison of the results is difficult. In summary, the above 4 studies all used self completion postal questionnaires that were designed by the authors. Although the use of questionnaires provides a large amount of data, questions can be open to different interpretation, as there is also the potential for respondents to give socially desirable answers and questionnaires do not allow the researcher to explore respondents' views, beliefs and perceptions. There was limited information of methods of analysis in two of the studies (Beeston et al., 1998; CSP, 2006), with both using only descriptive statistics of frequency and percentage.

Little or no information was given on pre-testing or piloting of the questionnaire in Anderson's (2001) study, and there was a lack of information to demonstrate internal consistency. Therefore the validity and reliability of a newly developed survey instrument, using self-rating to assess impact on learning, could be called into question. There were differences in the length of the questionnaires, with the CSP survey having a 13-page questionnaire and Landers et al. (2005) only 1-page in length. Although Edwards et al.'s (2002) systematic review suggests that the odds of response with a single page will be twice that with three pages, the CSP survey had a higher response rate at 50.7% than the 38.2% in Landers et al. (2005). The 28% response rate of Anderson's (2001) survey was too low to ensure that the sample was representative of the population under study, and therefore there was the potential for non response bias, which may have affected results. Bryman (2004) asserts that a low response rate means that it cannot be claimed that non-responders would have the same opinions as responders. Landers et al.'s (2005) survey had an average response rate of 38.2%, which means the results may not reliably reflect the entire population of physiotherapists in the sample, nor could the results be generalisable to the wider population. In the latter study only formal CPD activities, rather than work-based learning activities were investigated.

The CSP (2006) survey used a relatively large sample, achieving an average response rate for a postal questionnaire, and covered all physiotherapists who were members of their professional body. However there was still potential for bias, as not all practising physiotherapists are members of the CSP. All results in the CSP (2006) survey are presented with little analysis (mainly as frequency of response), and little or no discussion or comparison with any other published studies. Qualitative comments to open questions were presented as direct quotes with no analysis. This was a report published by the professional body that carried out the research, and although it will have gone through internal quality mechanisms and approval of CSP Council, there is no blind reviewing by independent reviewers, as in the case of the other articles which were published in peer reviewed journals.

### **3.5 STUDIES USING INTERVIEWS**

The second group of studies used individual and focus group interviews to collect qualitative data and are summarised in Table 3.2. This group includes four studies

**Table 3.2 Published research using individual and/or focus group interviews**

Author, year, country	Research focus	Participants (n = ), Profession Methodology	Main findings	Comments Study limitations
Austin and Graber (2007) USA	To examine perceptions of physiotherapists concerning facilitators and barriers to CPD	n = 23 physiotherapists Interviews. Also used document analysis, field journals of researcher. Thematic analysis.	4 themes emerged from data: managing variables associated with CPD; opportunities to meet CPD needs; elements that foster CPD; implications of mandating CPD	Not clear how participants were recruited, possible bias Does not explore the relationship between effects of CPD on patient outcomes.
O'Sullivan (2003) UK	To explore the barriers to undertaking CPD	n = 20 (from 45 invited to participate) physiotherapists Self-selecting, sample, 19 female, 1 male. Interviews: 10 face to face, 10 by telephone. Thematic content analysis, but no information given on how this method of analysis was used	Those who had undertaken postgraduate study saw this as an effective and valuable form of CPD activity that had improved their practice. Increased awareness and understanding of CPD is required in order to enable physiotherapists to become independent learners. Support required from professional body and employers	Small sample and as self-selecting could be biased to those with greater interest in topic. No direct quotes which raises issues of credibility of findings
Rappolt and Tassone (2002) Canada	Examines the CPD strategies used to gather new knowledge, evaluate its appropriateness to their clinical problems, and implement new learning into their practices.	n = 24 physiotherapists and occupational therapists Randomly selected sample. Interviews. Thematic comparative analysis.	Participants valued interactive and hands-on CPD. Most relied on work based learning from peers. 7 participants reported use of systematic methods to access, evaluate, and implement new knowledge, remaining 17 described more haphazard approaches to their learning. Participants identified economic, administrative, and interprofessional barriers to integration of new knowledge into their practices.	Provides useful information about most effective types of CPD, strategies for implementing new learning and barriers against this. Trials involving educationally influential therapists are indicated. Continuing education that facilitates therapists' critical evaluation and systematic implementation of new learning is needed. Small sample. Limited information on access to sample.

Author, year, country	Research focus	Participants (n = ), Profession Methodology	Main findings	Comments Study limitations
Stathopoulos & Harrison (2003) UK	Explore the impact of undertaking master's level study on practising physiotherapists, from the perspectives of the master's qualified physiotherapists themselves	n = 5 (from 7 invited to participate) physiotherapists using focus group interview. Group facilitated by an experienced moderator and an assistant moderator. Unclear if former was the academic supervisor for this study and the assistant moderator the student who completed this study as part of a master's programme.	Participants reported that undertaking study at master's level was 'life-changing', 'career-changing, enhanced specific skills such as evidence based practice	Not clear what the actual numbers were of physiotherapists who had completed a master's course 1996-2001, from which this sample was found. This could have produced a biased sample. Potential power relationship between academic moderating focus group and previous students from the programme, may have felt coerced to give certain answers.

(Austin and Graber, 2007; O'Sullivan, 2003; Rappolt and Tassone, 2002; Stathopoulos & Harrison, 2003), all of which involved physiotherapists, with Rappolt and Tassone's study involving physiotherapists and OTs. Two of the studies were carried out in the UK (O'Sullivan, 2003; Stathopoulos and Harrison, 2003); one in Canada (Rappolt and Tassone, 2002); and the other in the USA (Austin and Graber, 2007).

### **3.5.1 Purpose of the research**

The purpose of the research varied in all these 4 studies. The purpose of Austin and Graber's (2007) USA study was to examine the perceptions of physiotherapists (managers and clinicians) concerning the barriers to and facilitators of CPD, and to identify how physiotherapists perceive the role of their hospital department in the CPD process. This study followed the mandate of CPD for physiotherapists in Illinois in 2002. O'Sullivan's (2003) work-based study sought to identify appropriate strategies to assist physiotherapists to undertake effective CPD, and to inform and develop policy through which advice and guidance services from the CSP could be implemented. The author was an employee of the CSP and her study was closely linked to a project undertaken by the professional body on CPD and Lifelong Learning (CSP, 1999; CSP, 2000). This project aimed to develop a framework for CPD, the development of a CPD portfolio, core outcomes of CPD and the support members would require, with O'Sullivan's study focusing on the latter. Rappolt and Tassone's (2002) study examined the CPD strategies used by a sample of physiotherapists and occupational therapists in Canada to gather new knowledge, evaluate its appropriateness to their clinical problems, and implement new learning into their practices. Stathopoulos and Harrison's (2003) study set out to explore the impact of undertaking master's level study on practising physiotherapists, from the perspectives of the physiotherapists with Master's level awards.

### **3.5.2 Participants and demographical information**

Sample sizes ranged from 5 (from 7) (Stathopoulos and Harrison, 2003) to 20 (from 45), (O'Sullivan, 2003) in the UK studies. Numbers were slightly higher in the Canadian and USA studies: with 24 (from 82) in Rappolt and Tassone's (2002) study, and 23 physiotherapists in Austin and Graber's (2007) sample, which intended

to involve 3 clinicians and 1 manager from each of 6 different hospitals in the state. By selecting multiple therapists from each of 6 hospitals Austin and Graber (2007) were able to compare and contrast participants' responses, within the same organisation and among different organisations. The hospitals varied in size and location across urban to rural settings, with one of the smaller hospitals having only 3 physiotherapists, which reduced the total participants to 23. The manager in each site was approached to participate and provide staff members willing to participate. No information was given as to the total number of physiotherapists employed in all 6 hospitals so it is unclear how representative these 23 respondents were. Of these participants 20 (87%) were women. The participants had an average of 11.8 years physiotherapy experience (range 0.75-37), 16 (69.6%) were clinicians, with the remaining 7 (30.4%) being managers or team leaders. 47.6% were out-patient based, 42.9% in-patient based and the remaining 9.5% worked across both settings. In regards to academic qualifications 12 (52.2%) had a bachelor's degree, 10 (43.5%) a master's degree, and 1 (4.3%) had a PhD.

O'Sullivan (2003) selected 45 prospective subjects for her sample from contact details provided by 43% (n=1393) of respondents who completed questionnaires in the CSP project previously mentioned. Therefore the sample for interview was non-random and skewed to those who may have had a greater interest in the topic. Twenty self-selecting physiotherapists responded, 19 female and 1 male. Of these, 16 participants worked in the NHS, 2 in private practice, 1 in an independent hospital and 1 in occupational health, providing a range of working environments; 7 worked full-time, 11 part-time, 1 had a job share and 1 was taking a career break. Although the author reports that the sample was representative of the profession in terms of gender, job role, grade and work setting, no information was given in relation to clinical speciality or grade.

Rappolt and Tassone (2002) randomly selected 38 physiotherapists and 44 OTs using registration profiles from professional organisations. Their sample was limited to therapists treating individuals with a common condition, low back pain. This allowed for variability in demographic factors such as years of practice and practice contexts. Twenty four respondents agreed to be interviewed. Of these 24, 13 were

physiotherapists and 11 were OTs. All participants had mixed caseloads and their learning needs were not specific to treating patients with low back pain.

Stathopoulos and Harrison's (2003) stated that a list of all graduates from a physiotherapy-focused taught master's programme from a UK university, between 1996-2001, was obtained, and all graduates who lived within a 50-mile radius were contacted to participate in a focus group interview. However no number of the total population was given, only that seven graduates volunteered to participate, and from these only five actually attended the focus group interview. This is the minimum number that Kreuger (1994) recommends for a focus group interview. Lack of detail on how this sample was recruited could have produced a biased sample.

In my study, as described in Chapter 4, interviewees were selected as a stratified representative sample from the respondents in the survey, in relation to clinical speciality and grade, as shown in Table 5.6.

### **3.5.3 Ethical considerations**

Reporting of ethical considerations and approval was variable across the studies using interviews. Austin and Graber (2007) were employed as academic staff at the University of Illinois at the time of the study, and make clear that their study was approved by the University Institutional Board. O'Sullivan's (2003) study was a work-based project forming part of her MSc programme, so should have been approved through the HEI's Ethics Committee. Also as O'Sullivan is an employee of the CSP and it is assumed that as her study was part of a project by the professional body, the internal scrutiny mechanisms and quality control within this organisation would ensure that appropriate approval processes were followed. Rappolt and Tassone (2002) sent letters to the sample to describe the purpose of the study, although no explicit ethical approval is reported. The authors were both academics at a Canadian University and the research was funded by the University. It was unclear in Stathopoulos and Harrison's (2003) study if the moderator and assistant moderator of the focus group interview were the authors of the article. As one of the authors was an academic this could have produced a potential power relationship if the academic moderated the focus group and participants were previous students from

the programme. The latter may have felt obliged to give positive answers, in order to support the provision of academic programmes.

None of the authors, apart from Rappolt and Tassone (2002) give explicit information on how prospective respondents were given information about the purpose of their studies, informed consent, anonymity of the respondents, or how the interview data would be kept and disposed of following completion of the studies. However this is not to imply that these things did not happen.

#### **3.5.4 Data collection tools**

Three of the studies used individual interviews, and one (Stathopoulos and Harrison (2003) used a focus group interview. None of the studies, apart from Rappolt and Tassone (2002) provided an interview schedule, nor reported piloting the interview nor explained the method of analysis of the qualitative data collected. Austin and Graber (2007) reported using an open-ended interview with a pre-planned series of questions, including probes for follow-up questions, and that all interviews, which lasted between 35 to 90 minutes, were recorded on audiotape and transcribed in full. Austin and Graber (2007) addressed issues of trustworthiness of findings (Lincoln and Guba, 1985) in relation to credibility, by triangulation of data sources (transcripts and a field journal), and confirmability, by member checking, thereby increasing confidence that the conclusions drawn were true. O'Sullivan (2003) reported using individual interviews, 10 respondents were interviewed in person, and 10 by telephone. There was limited information on this process, and although the author reports using a consistent interview protocol with all participants, this was not provided in the published paper, nor was the length of time of the interviews given. It is unclear whether the interviews were transcribed verbatim. Rappolt and Tassone (2002) used an interview guide with open-ended questions and follow-up probes. The interview guide was provided in the article, and had been piloted with hospital and community physiotherapists and OTs, although no numbers were given. These interviews were tape recorded and transcribed verbatim.

Stathopoulos and Harrison's (2003) study, which used focus group interview technique (Kreuger, 1994; Vaughn et al., 1996), was facilitated by an experienced

moderator and an assistant moderator. It was unclear if these were the authors of the article, and it could be suggested that the moderator was the academic supervisor for this study and the assistant moderator was the Master's student who was completing the research as part of his Master's programme. The methodology is clearly described and well supported with appropriate references from research literature. The article reports that the study's trustworthiness was assessed against Lincoln and Guba's (1985) criteria, in terms of credibility, transferability, consistency and confirmability. Although details addressing credibility, consistency and confirmability are directly linked to their study, transferability is not addressed in the article.

### **3.5.5 Analysis of the data**

There were no common methods of analysis across all 4 studies. Austin and Graber (2007) reported using constant comparative methods of analysis of the qualitative data as proposed by Patton (2002). O'Sullivan (2003) gave no information on how the data from the interviews were analysed, or how the main findings emerged from the data. No direct quotes from the interview were given in the article, which could cast doubt on the authenticity of the findings. Rappolt and Tassone (2002) used the NUDIST 4 software package to facilitate the coding and retrieval of interview data, and the full process was clearly described in the article. Stathopoulos and Harrison (2003) reported using data analysis particular to focus groups as proposed by Vaughn et al. (1996) and Krueger (1994) and the stages of analysis used are clearly described in the article. The approach I had taken in analysis of the interview data using NVivo 7 is described in Chapter 4, Section 4.8.2.

### **3.5.6 CPD activities**

Not all of these studies set out to identify CPD activities. Austin and Graber's (2007) study did not set out to do this, but participants did highlight the need for a variety of CPD topics, with clinicians with several years of experience believing there was lack of advanced courses on specific topic areas; the more experienced clinicians becoming more discerning about how they spent their money and used their time, and some believed that course descriptions were sometimes insufficient or misleading. O'Sullivan (2003) identified that attending courses was the current

predominant learning activity for respondents in her study, with the majority reporting external courses as the main component of their CPD as they thought they would have more recognition than work-based learning. Respondents in her study felt that master's and doctorate level study provided academic recognition for formal CPD activity and together with the development of the research base and evidence-based practice, improves the profession's status. Respondents in O'Sullivan's (2003) study did not perceive audit and research as part of CPD, although they acknowledged their value in relation to evidence-based practice and clinical outcomes. The respondents in O'Sullivan's (2003) study also reported poor awareness of the contextual issues driving CPD at that time.

### **3.5.7 Motivators for CPD**

Austin and Graber (2007) found that the physiotherapy departments that fostered CPD had 3 common characteristics: regular discussion and planning of CPD activities; active involvement of the manager; and CPD was part of the annual appraisal system. O'Sullivan's (2003) study found that all respondents indicated a high level of motivation to undertake some type of CPD activity. These motives were identified as: to provide high quality services to patients, the desire to learn, pride, wanting to be a good role model, and to improve clinical performance. Motivation of the respondents in this study was linked to professional responsibility and most respondents believed that there should be a balance between their individual responsibility to maintain and develop their practice and the support they received from their employers.

The main findings from Stathopoulos and Harrison (2003) were reported as the experience of undertaking study at master's level was 'life-changing', 'career-changing', with this 'massive change' impacting positively on family and social life, as well as professional career and clinical practice, and giving a 'huge boost' on their confidence. These findings were illustrated with direct quotes from the focus group transcript, although these were minimal and could have been due to the word limitations from the publisher. Participants articulated being self motivated and self driven and developing expertise that was above the level of competence and proficiency of graduate physiotherapists, although this was not evidenced from the findings, and it was not clear if this could have been as a result of clinical experience

rather than purely academic learning. Participants in Stathopoulos and Harrison's (2003) reported their wish to stay in clinical practice, and expressed the desire to implement the changes that resulted from their learning during the master's programme and to develop practice on an individual and organisational level, within the clinical context.

### **3.5.8 Barriers to CPD**

O'Sullivan (2003) focused her findings around CPD within the context of governance and the role of the professional body in physiotherapy, which is perhaps not surprising as she is an employee of the latter. Respondents in her study indicated that the personal barriers that could affect their ability to commit to CPD related to lack of time, the cost of courses and a lack staff cover in the workplace. Respondents also reported a lack of personal effort and a lack of ability and skills particularly in research, critical appraisal of research, evaluation, and portfolio-keeping. Most respondents felt they did not have the skills and knowledge to undertake research and audit and although they recognised the need for evidence-based practice, activities involving research was often not seen as part of CPD. Some of her respondents felt that the newly qualified physiotherapists also had better critical appraisal and research skills than they did. Respondents working in small departments identified their colleagues' complacency and lack of interest as a barrier, as was a lack of learning resources such as library, internet access and relevant journals. Respondents in her study regarded patient treatment as their main priority and reported feelings of guilt about taking time out from patient care to spend time on CPD activities. However they reported that they felt able to justify this if they perceived the learning was relevant to patient care and would result in improved practice.

Participants in Stathopoulos and Harrison's (2003) study reported that studying for the postgraduate degree had given them enhanced specific skills, such as in evidence-based practice and clinical reasoning, and helped them to 'regain their faith in the clinical effectiveness of physiotherapy'. However the authors suggested that the workplace seemed to be inadequate in addressing the expectations and using the potential of physiotherapists at master's level; and that employers should use the

newly acquired skills or risk losing master's graduates to a more rewarding environment.

### **3.5.9 Summary of interviews**

Austin and Graber's (2007) study highlighted the need to identify the core set of variables associated with engaging in CPD and to promote the elements of employment environments that foster CPD. However their study does not explore or make explicit the relationship between the effects of CPD and the effect on outcomes of patient care, whereas O'Sullivan's (2003) study found that respondents were motivated and committed to CPD by a desire to provide high quality services to patients, the desire to learn, wanting to be a good role model and improve performance.

## **3.6 STUDIES USING MIXED METHODS**

The third group has one longitudinal study (Brennan et al., 2006) that used pre-and post-CPD course outcome measures from physiotherapists attending a 2-day CPD programme. The other study (Dolcourt et al., 2006) used a 2 phase method of data collection of interviews and a questionnaire survey which followed a CPD conference for a range of health professionals. Brennan et al.'s (2006) study involved 34 physiotherapists, and treatment outcomes from 1,365 patients. Dolcourt et al.'s (2006) study involved 14 doctors and 2 nurses in the interviews and 59 completed questionnaires. Although physiotherapists were attendees at the conference, the number of physiotherapists who had completed and returned the questionnaires was not given. Both studies were carried out in the USA, and are summarised in Table 3.3.

### **3.6.1 Longitudinal study**

Brennan et al.'s (2006) study appeared to follow a quasi-experimental design, although this was not explicitly stated. The two purposes of the research are clearly stated. Firstly to examine the impact of a CPD intervention provided to a group of physiotherapists on the treatment of patients with neck pain. Effectiveness of the intervention was based on the clinical outcomes of patients who were treated by physiotherapists before and after they attended a 2-day course compared with the

**Table 3.3 Published research using mixed methods**

Author, year, country	Research focus	Participants (n =) Profession Methodology	Main findings	Comments Study limitations
Brennan et al. (2006) USA	Explore effectiveness of CPD for improving health care outcomes following 2-day CPD programme	Longitudinal study, using pre-and post-CPD course outcome measures, from 2-day programme of manual therapy interventions n = 57 physiotherapists and 1,365 patients. Non-randomisation as to who attended the programme, or participated in Clinical Improvement Project (CIP)	Response rate 59.6% (34 of 57) physiotherapists participated in the study; 11 of these 34 (32.4%); or 19.3% of total sample) also participated in a CIP that used outcomes measures of clinical effectiveness in treatment of patients. No significant improvement in clinical outcomes for patients treated by course participants. Some improvement in outcomes for patients treated by physiotherapists who were part of CIP, though unclear whether it was CIP alone that produced the effect.	Lack of information on informed consent, and whether patients know they were part of a research study. There was no blinding of patients as to whether they were treated by a physiotherapist who had attended the CPD course or not, or whether they were part of the clinical improvement project or not. It was unclear if the same physiotherapists treated the same patients on every treatment occasion
Dolcourt et al. (2006) USA	To identify the motivators and barriers that influence learners attending a 'grand round' lecture series.	Two phases of data collection from health professionals, 1. n = 103 for interviews, 2. n = 506 for survey.	1. Interviews involved 16 (of 103) practitioners (14 doctors and 2 nurses) giving a 15.5% response rate 2. Survey responses from 59 attendees (of 506), giving an 11.7% response rate. No figures were given on response from physiotherapists.	Appears to be an opportunity survey linked to a post course evaluation questionnaire. Lack of information on informed consent. Low response rate, could give a biased response, and findings from both interviews and survey should be treated with caution.

clinical outcomes of patients who were treated by physiotherapists who did not attend the course. Secondly, they wanted to determine whether those who attended the course and participated in an on-going clinical improvement project after completion of the programme achieved more improvement in clinical outcome than therapists who attended the course but did not participate in the clinical improvement programme.

The 2-day course focused on manual therapy of the spine and exercise interventions; using lectures and hands-on practical sessions supported by evidence from the literature. Fifty seven physiotherapists from 13 clinics in Utah were invited to attend, 34 (59.6%) of which self-selected to attend. Characteristics of those attending the course were similar to those who did not, with a trend towards greater years in clinical practice (13.3years: 9.4years). Following the course a separate clinical improvement project was conducted, with 11 (32.4%) of the 34 therapists attending the course volunteering to take part in the project. Those involved in the clinical improvement project met once a month and reviewed the techniques taught on the course using facilitators and an instructional CD-ROM. Five months following the course they also participated in additional small group follow-up, a 4-hour 'hands-on' instruction session with one of the course tutors. No participants in the study sub-groups appear to have 'dropped out' of the study.

Outcome measures for the effectiveness of the course were the clinical outcomes of patients who were treated by the attending, or non-attending course participants during the year preceding the courses (pre-course period), compared to the outcomes in the year following the course (post-course period). There were no differences in the characteristics of the patients treated in the pre-and post-course periods. The clinical outcomes for the 1,365 patients whose data were included in the analysis did not show any significant improvements in clinical outcomes for patients treated by the course participants, p values and confidence levels were provided. The authors acknowledged that it was not clear whether the lack of effect of the course was due to: the inability of the course to change the participants' attitudes; poor adoption of the new knowledge into practice; or insufficient skill attainment.

However physiotherapists who attended the course and also participated in the Clinical Improvement Project showed some improvement in clinical outcomes ( $p=0.04$ ), which could suggest that it was the ongoing interaction and practice of techniques with feedback from peers and experienced facilitators, with application of new skills in their practice settings that helped to consolidate their learning. As treatments took place in a real-world context the authors accept that there will have been diversity of both physiotherapists and patients, and decisions on treatment intervention was left to the individual therapists, that is, there was no standardisation of treatment. It is unclear in the article whether there was 'blinding' of the patients as to which physiotherapists had attended the CPD programme, or whether they knew they were part of the Clinical Improvement Project. There was also a lack of information as to whether each patient was treated by the same physiotherapist on each occasion.

Other limitations include non-randomisation of physiotherapists who participated in the course. It appears that participants were self-selecting in their attendance on the course or not. There was a lack of information on whether the non-participating physiotherapists were already skilled in manual therapy techniques and may have attended similar CPD courses at a previous time. This could result in selection bias which may compromise the validity of the findings.

### **3.6.2 Interviews followed by a survey questionnaire**

Dolcourt et al.'s (2006) study using interviews and a questionnaire survey was carried out in Utah, USA, with a sample of 506 health staff who attended 'Paediatric Grand Rounds'. Although 'grand round' is not a term used in the UK, it is a common CPD activity for doctors in USA, Canada, Australia and New Zealand. The description from the Dolcourt et al.'s paper matches the conference format common in the UK, by including a series of lectures, presentations of research findings, updating attendees on diagnosis and treatment, and social interaction.

The focus of Dolcourt et al.'s (2006) study was to identify, from the learners' perspective, the motivators and barriers that influence learners' attendance at a series of lectures that took place in the USA during 2002. 506 attendees were recruited as an opportunity sample based on their attendance at one or more sessions, 299 (59%)

were doctors and the remaining 207 (41%) attendees were other health professionals. The study reported having ethical approval. The authors state that four groups of potential subjects, totalling 103 attendees, had representation from: retired doctors, most frequent attendees, least frequent attendees, and the most frequent non-doctor attendees, and members of these four groups were invited by letter to participate in a group interview; of the 16 who accepted the invitation, 14 were doctors and 2 were nurses. Each group interview involved 1-3 study subjects in face-to-face interviews or via a conference call, with 7 interviews in total. No information was given on why some were one-to-one interviews, and others in groups of 3, apart from the implication that interviews were arranged to accommodate the subjects' availability. Each group was asked to identify: their reasons for attending the conference sessions; what were the desirable features of the conference; factors motivating attendees; and how the conference series met their personal and professional CPD. Following the interviews the transcripts were returned for member checking for accuracy.

The authors identified 14 themes to emerge from the interview data, although no information was given on the method of analysis that was used. Of these themes the only topics that were discussed and included direct quotes related to: CPD credit for licence to practise; content of presentation; entertainment value; and convenience factors. These did not appear to demonstrate achievement of the study aims, which had been stated as: to identify motivators and barriers to attendance. Findings were limited by potential bias, as all volunteers for the interviews were reported as frequent attendees and therefore the views of these participants may not adequately represent the views of infrequent or non attendees.

The design of the survey instrument does not appear to have been thoroughly planned, nor was it pilot-tested. It consisted of an annual satisfaction questionnaire that had 2 extra pre-determined multiple choice questions attached for this study, in relation to 'what motivates', and 'what prevents' attendance. Only 59 questionnaires were returned (from a potential 506), giving a very low response rate of 11.7%. No information was given on the 'typical' response rate to the annual satisfaction survey, to know whether the addition of the study questions affected the response rate in any way. The main motivators identified by these respondents were: clinically useful topics (85%), credit towards CPD (46%), up to date research (27%), and networking

(22%). The main barriers were identified as: busy schedule (56%), non-relevant topics (44%). Response bias and poor response rate could have affected the validity of the results and prevents generalisation of findings, and the questionnaire could not be considered a valid or reliable tool.

### **3.6.3 Summary of mixed method studies**

The quality of both these studies appears poor, and results should be interpreted with caution. There is lack of information on ethical considerations in both studies, with no information in Brennan et al.'s (2006) study on informed consent and whether the patients knew they were part of a research study. The latter study appears to be an opportunity survey linked to a post course evaluation questionnaire, involving only 2 additional questions. The very low response rate, could give a biased response, and findings from both interviews and survey should be treated with caution. Dolcourt et al. (2006) did not report any 'blinding' of patients as to whether they were treated by a physiotherapist who had attended the CPD course or not, or whether they were part of the Clinical Improvement Project (CIP) or not. It was also unclear if the same physiotherapists treated the same patients on every treatment occasion. Interpretation of results should be done with caution as patient outcome measures appeared to demonstrate improvement if patients were treated by physiotherapists who had attended the 2-day CPD programme and were part of the CIP. As there was no significant improvement in patients treated by participants on the 2-day CPD programme (and not part of the CIP) it could be suggested that it was participation in the CIP alone that improved patient care.

### **3.7 SYSTEMATIC REVIEW**

The fourth group of studies identified one Cochrane Review from a number of health professions (O'Brien et al., 2001) which is summarised in Table 3.4. O'Brien et al.'s (2001) systematic review, carried out by a team of seven reviewers, included randomised control trials (RCTs); non-equivalent group designs (NEGDs), where there was a non-random process other than participant choice; and studies that evaluated the participation of qualified health professionals. The Cochrane Collaboration (2008) is an international organisation which provides independent systematically-produced reviews about the effectiveness of health care interventions.

**Table 3.4 Systematic review from the Cochrane collaboration**

<b>Author, year, country</b>	<b>Research focus</b>	<b>Profession Methodology</b>	<b>Main findings</b>	<b>Comments Study limitations</b>
O'Brien et al. (2001)	To assess the effects of educational meetings on professional practice and health care outcomes. R Q: Are educational meetings and workshops effective in improving professionals' practice or health care outcomes?	Systematic review of 32 studies, of randomised trials or well designed quasi-experimental studies examining the effect of continuing education meetings. Involved 13 to 411 health professionals (total n= 2995) Two reviewers independently applied inclusion criteria, assessed the quality of each study, and extracted study data.	Thirty-two studies were included with a total of 36 comparisons. The studies involved 2995 health professionals and were judged to be of moderate or high quality, although methods were generally poorly reported. Interactive workshops can result in moderately large changes in professional practice. Didactic sessions alone are unlikely to change professional practice.	Not updated since Nov. 2000, otherwise a high quality systematic review following Cochrane Review protocol.

A Cochrane Collaboration systematic review is generally accepted as the most robust form of evidence for health and social care professionals (Aveyard, 2007, p. 13). The protocol ensures that the review process undertaken is systematic by using explicit and rigorous methods to identify, critically appraise, and synthesise relevant studies in order to answer a predefined question. The review team do not regard the process complete until the search is exhausted, including retrieval of unpublished research or data.

Studies involving only undergraduate students were excluded from O'Brien et al.'s (2001) review. CPD activities included planned educational activities: meetings, conferences, didactic and interactive lectures, interactive workshops and seminars, symposia and courses away from the practice setting.

Only studies that reported outcome measures of health professional practice behaviour or patient outcomes were included. Two reviewers independently assessed the quality of each study, which was then assigned a quality rating (high, moderate, low protection against bias) based on the following 3 criteria: study design (RCT versus NEGD), blinded outcome assessment, and completeness of follow-up.

However, a limitation of systematic reviews is that studies they include are mainly published studies, and those studies where results show a clear benefit are more likely to be published. Geddes et al. (1998, p 69), make the point that there is likely to be publication bias; in that 'negative studies may be more likely to remain unpublished'. Stern and Simes' (1997) study confirms evidence of publication bias. Their study involving 748 Canadian studies from 1979-1988, examined the extent to which publication was influenced by study outcome, using time for publication as their outcome measure. There was a 70% response rate ( $n = 520$ ), and of the 218 studies analysed with test of significance, those with positive results of  $p < 0.05$ , were more likely to be published than those with negative results  $p \geq 0.10$ , with a significantly shorter time to publication (median of 4.8 years v 8.0 years). With respect to studies where the outcomes were related qualitatively, there was no clear evidence of publication bias.

O'Brien et al. (2001) found the methods used in the studies they reviewed to be generally poorly reported; with 7 of the 32 studies scoring high protection against bias, 24 only moderate. In 26 of the 30 trials, adequate concealment of allocation could not be determined in the published studies. There was adequate blinding of the outcome assessment and in the follow-up of health professionals in only half of the studies.

### **3.8 SUMMARY OF THE CRITICAL REVIEW**

This review has raised issues that have been shown to be researched insufficiently or not at all. Because there is little work which presents results closely related to the focus in this study, the review was structured in terms of the methods used, and in the next chapter, *Research Methodology*, the strengths and weaknesses identified in methodologies in the work reviewed here are taken into account as the research design was developed.

As few studies focused on similar areas of CPD to those involved in this thesis, this makes it difficult to make direct comparisons among the literature reviewed. Six studies included in this critical review were from outside the UK (Anderson, 2001; Austin and Graber, 2007; Brennan et al., 2006; Dolcourt, 2006; Landers, et al., 2005;

Rappolt and Tassone, 2002) and because there are significant differences in the health systems, CPD requirements, and postgraduate education systems between the UK and other countries, the relevance of these studies to physiotherapists in the UK is variable. However although not directly transferable there is some information in relation to motivators for, and barriers to different types of CPD, and the methods used to collect data, that can be extrapolated.

Existing research has identified a range of CPD activities and strategies that physiotherapist engage in, but has not explored how these may change at different stages in their careers, in different clinical specialities. The impact of CPD has been limited to specific CPD activities, such as masters level study on the individual (Stathopoulos and Harrison, 2003), or a 2-day course on patient outcomes (Brennan et al., 2006). Motivators of, and barriers to, CPD have been identified using postal questionnaires, but not followed up in in-depth interviews to explore in more detail the views of individual practitioners.

Although Beeston et al. (1998) found skills-based courses to be more relevant to clinical practice this was not found in Stathopoulos and Harrison's (2003) study whose respondents in a focus group expressed preference for courses with a broader educational purpose, believing skills-based courses to be too restrictive and narrow. Those who had undertaken postgraduate study at diploma, master's and doctorate levels saw this as an effective and valuable form of CPD activity that had improved their practice. The growth of study at master's level enables physiotherapists to be independent learners, lead changes in practice, and develop the research base of the profession (Beeston et al., 1998; Stathopoulos, and Harrison, 2003). Whereas Stathopoulos and Harrison's participants viewed master's level study positively, Beeston et al. (1998) suggested it was an advantage to the unit master's graduates worked in, but not necessarily an advantage to the individual. Motivators for CPD include maintenance of professional competence, and improving patient care. The main barriers are identified as lack of time and funding.

### **3.9 IMPLICATIONS FOR RESEARCH**

From this review there are a number of implications for research into physiotherapy CPD. Much of the existing research in this review focuses on formal CPD, with skill-

based courses still appearing to dominate in the UK (Beeston et al., 1998; CSP, 2006). There is a paucity of research where the respondents identify the full range of CPD activities that they engage in, information on how often they engage in these activities, how they make the choice for one CPD activity rather than another, and what impact these activities may have on practice.

A variety of methods have been used to collect quantitative and qualitative data, with almost half of the studies using postal questionnaires and almost another half using individual or focus group interviews. Details of the questions asked have been very limited in the published articles. The samples in the studies have varied from 5 (Stathopoulos and Harrison, 2003), to 3,000 (Landers et al., 2005). Details on sampling and recruitment of participants in the interviews are patchy. Sample numbers and response rates in the postal surveys were more transparent than the studies using interviews, with response rates ranging from 11.7% to 66%, with an average of 38%. This raises the potential for non-response bias. A number of issues have been identified around ethical considerations such as informed consent, and lack of reporting of ethical approval for studies. Generally the methods used were poorly reported in the published articles.

As we saw in Chapter 2, UK health policy requires physiotherapists to engage in CPD, with the *Rules of Professional Conduct* identifying that no physiotherapist should be practising in an area in which they are not competent (Chartered Society of Physiotherapy, 2002b). The *Health Act* (Department of Health, 2001b) and Health Professions Council (HPC, 2003) require individual health care practitioners to show evidence of having undertaken learning and development and to have applied this to practice. This requires each individual physiotherapist to take responsibility for his/her own ongoing learning and to provide evidence that they are updating knowledge and skills in order to maintain their competence to practice. However, to date, research in the UK has been patchy. Research on CPD and physiotherapy has taken place in other countries, as critically reviewed earlier in this chapter, but the relevance of these studies to physiotherapy in the UK is minimal, because of differences in the health systems, physiotherapy education, and physiotherapy practice. Reviewing the literature not only provided important insights, but also helped to identify gaps in research. To date there is little research that identifies the

types of CPD activities which physiotherapists engage in or how individual physiotherapists perceive these activities influence their professional practice or patient care. One important purpose of this thesis is therefore to fill a gap in knowledge, and provide a better basis for developing appropriate post-registration provision.

In order to do so the following question was formulated as an approach to the issues which have been raised in this and the previous chapters:

### **3.10 RESEARCH QUESTION**

What is the perceived value of continuing professional development for the physiotherapists employed in NHS sites within one Strategic Health Authority?

#### **3.10.1 Research Aims**

In order to answer the research question the following aims were identified:

1. To identify the types of CPD activities that physiotherapists engage in, and discover if there are any differences dependent on factors such as: qualifications; location; clinical speciality.
2. To explore the reasons individuals give for why they engage in certain CPD activities, and the choices that they make.
3. To analyse perceptions and beliefs about CPD, personal development, professional practice and patient care.

The intended impact of the research question and aims was to use the findings from this study to assist in the planning of post registration provision of CPD in order to meet the perceived needs of local physiotherapists.

## Chapter 4

### - RESEARCH METHODOLOGY -

#### 4.1 INTRODUCTION

In this chapter I discuss the methodological procedures involved in implementing an exploratory research study using an interpretive approach with a sequential mixed-method design; including sampling, ethical considerations, pilot work, data collection tools and methods of analysis, and issues of validity, reliability and trustworthiness. Although these are presented in apparently successive steps, in practice changes and adjustments were necessary as 'real-life' had an impact in many stages of the research process as the study evolved. Phase 1 of the study used a questionnaire survey, and phase 2 used individual interviews with a stratified representative sample of participants from the survey respondents. The two phases of the study were interdependent and together provide a more comprehensive picture than either would alone (Tashakkori and Teddle, 2003), with analysis of Phase 1 informing the semi-structured interview schedule of phase 2, and the data from Phase 2 being analysed to give more depth to the findings from the questionnaire. By using a variety of research methods to collect and analyse the data, this triangulation increased the validity of findings (Flick, 2004). Due to the importance of ethical considerations of research involving staff employed in the NHS, this is discussed in detail in section 4.5.2: Research Governance. The reader is also reminded of the research question and aims stated in 3.9 at the end of Chapter 3, Critical Analysis of the Literature.

#### 4.2 AN INTERPRETIVE APPROACH

Denzin and Lincoln (2003) remind us that underlying all approaches to research is a paradigm, a philosophical position as a means of generating knowledge, which directs the methods used to collect and analyse the data. Holloway and Wheeler (1996) identify two main philosophical positions, positivism and interpretivism, that underpin social research. Traditionally the dominant approach in much of the research in physiotherapy has followed the medical field, where research has taken a positivist position that involves the testing of a hypothesis and finding causal relationships. Parry (1997) suggests research based on positivism has held the scientific community together for centuries, with Silverman (1993) also suggesting it

has been viewed as having a higher academic status than interpretivism, because of the scientific 'facts' it seeks to prove. However the interpretivist approach is more appropriate to answer my research question and achieve my research objectives in this study as I believe that it is important to explore the views and opinions of the participants (Streubert and Carpenter, 1995, p 12) as users of CPD and to focus on finding the answers to questions that centre on their individual experience.

Robson (2002) advises that the development of a framework for interpretive research which is designed to understand a topic not previously well studied is more difficult and less comprehensive than in positivism which follows a theoretical framework. The planned methodology as suggested by Sandelowski (1986) is neither prescriptive nor exhaustive but was used as a guide while the researcher remained flexible and open to themes that may have emerged from on-going data collection and analysis.

#### **4.2.1 Characteristics of interpretivism**

The generation of knowledge within the interpretive paradigm has much of its theoretical support from the interpretivist approach to the understanding of human events (Holmes, 1990). Where positivism sees knowledge as 'objective facts', the interpretivist approach perceives knowledge as the constructions arising from the minds of knowing, conscious and feeling beings. The interpretivist approach allows rich descriptive data to be produced and an understanding to be gained from the subjective perceptions of the participants, which Higgs and Titchen (1995) believe is generated through a search for meaning, beliefs and values. The interpretive paradigm identifies with the subjects' own meanings by the researcher sharing interpretations with the subjects themselves. Research within the interpretive paradigm, as used in this study, involves the study of CPD from the perspective of the participants under investigation using both qualitative and quantitative methods of data collection which provide data that adds to the depth, richness, and complexity inherent in topic under study (Burns and Grove, 1997). These methods are described in section 4.7.

Interpretivism accepts that knowledge of the social world must be achieved by immersion in some part of it in order to learn the 'local' language, meanings and

rules. There is then the choice of epistemological position as an insider or an outsider. Interpretivism involves taking the position of being an insider. Huberman and Miles (2002) believe that researchers are an integral part of the research, rather than being detached, bringing their own personalities, values and life experience. Rubin and Rubin (2005) suggest this subjectivity is a valuable analytical tool which assists the researcher to achieve thick and rich description through development of empathy and rapport with participants. Silverman (2001, p18) believes this close relationship helps the researcher to engage in the unique experiences of their participants, by allowing flexibility and a deeper understanding than quantitative approaches can achieve. In this study I believe that it is an advantage for the researcher to have an inside view in order to share the frame of reference of the participants in order to understand the individual's interpretations of their world. 'The qualitative researcher needs to think through critically the dynamic interaction between self and the data occurring during the analysis' (Burns and Grove, 1997, p 567). During this process of reflexivity the researcher explores personal feelings and experiences that may influence the study and integrates this understanding into the study (section 4.11). This critical thinking can help the researcher avoid misinterpreting the phenomenon as it is being experienced by the individual. I believe my experience as acting as a facilitator of learning in an HEI will assist in this.

As I have insider knowledge of working as a physiotherapist in the NHS for over 20 years and being involved in CPD activities, together with knowledge of terminology used by the participants to express their reality, this insider knowledge could have been an advantage in understanding the context from the participants' points of view. A disadvantage is that I could have subconsciously imposed my views on the participants, or encouraged them to provide the answers they think I may want to hear. However, the participants should not be considered a vulnerable group, rather a group of adults who act autonomously in their professional roles, so it would be unlikely that they could have been unknowingly coerced into giving anything other than their own opinions and views.

This research study was carried out within one Workforce Development Confederation (WDC) which has contractual arrangements with one HEI. My role

as the researcher within this context was as a senior lecturer in physiotherapy responsible for developing CPD; and also as HEI representative of the CPD and Postgraduate Education Network of the Chartered Society of Physiotherapy. This position provides the researcher with knowledge of the post-registration CPD requirements of physiotherapists with the Health Professions Council, the organisation of postgraduate provision in HEIs, and access to a sample of physiotherapists in the NHS.

#### **4.2.2 Critiques of interpretivism**

However, interpretivism is not without its critics, some from within the same paradigm. Giddens (cited in Blaikie, 1993, p 110) argues that the central concepts of interpretivism: 'intention' 'reason' and 'motives', where only the participants can know the 'truth', are potentially misleading in that they imply that social actors engage in continuous monitoring of their actions and are aware of the consequences of their actions. This means the participants would have conscious knowledge of their reasons or motives for choosing the CPD activities they engaged in and that they thought about (and reflected) on these prior to being involved in them, whereas Giddens argues that it is only when their actions are queried that they will reflect on that action. My approach to gathering retrospective data does this. It will encourage participants to reflect on their past actions, and particularly in the interviews to explore participants' motives relating to their CPD.

A second point is made by Rex (cited in Blaikie, 1993, p111) who argues that social scientists should be able 'to give a different and competing account of social actors' actions from the actors' own accounts', whereas classic interpretivism says that only the participants can know the 'truth'. In my research my analysis of the findings and subsequent further literature review may provide alternative explanations of the motives behind the accounts of CPD given by the participants. This means the events themselves are not changed but the intentions or motives of the participants may be interpreted as different to the reasons that the participants give. Issues of trustworthiness (Koch, 1994; Krefting, 1991; Guba and Lincoln, 1989) are discussed in section 4.9.2.

Whereas an interpretive approach allows exploration of developing and emerging themes from participant accounts and perspectives, it can be criticised as lacking in potential for generalisation, as it is susceptible to researcher (mis-)interpretation, and creating a research effect which may impact on the 'reality' being studied. However an approach that uses a representation of the population under study may allow generalization of interpretivist data, if views are received from a wide range of participants, who are representative of those in different grades, clinical specialties and work settings.

Different types of exploratory design are selected to achieve different outcomes and the design strategies and tactics selected depend upon the types of questions asked (Robson, 2002). In this study the purpose of the enquiry is exploratory, to add knowledge to a previously poorly researched topic, requiring only a small sample, and methods for data collection that describe and express the thoughts, perceptions and feelings of participants. The quantitative data will provide demographic information of the local population and the trends in their thinking about CPD, and the qualitative data will allow rich descriptive data to be produced and a deeper understanding to be gained from the subjective perceptions of the participants to complement the trends identified in the quantitative data.

### **4.3 RESEARCH DESIGN**

As appropriateness of methodology is one of the key criteria for good research a thorough consideration of the choices of methods in the initial stages of research is imperative. A range of methods for the collection of data, including: participant observation; analysis of documents such as of CPD portfolios or Professional Development Reviews, questionnaires, interviews, and a combination of some of these methods were all considered. A longitudinal study of all UK physiotherapists over perhaps a 10 year period would have been ideal, as would following a small representative group of physiotherapists through 1-3 years of their careers. However, for a single researcher working full time while studying part-time for a doctoral thesis, such studies which would require data collection over several years would not have been feasible. Different types of research design are selected to achieve different outcomes and the design strategies and tactics selected depend

upon the types of questions asked (Robson, 2002). Given the exploratory nature of the research and complex issues under investigation I adopted a sequential mixed-method research design (Creswell, 2003) on the basis of gathering retrospective data from the population of physiotherapists from one Strategic Health Authority (see Table 4.3: Sample) using a combination of two methods of data collection: questionnaires (Section 4.7.1) and interviews (Section 4.7.2). My decision trail taken throughout the research process is illustrated in Table 4.1.

**Table 4.1 Decision Trail in the Research Process**

<b>Identify problem area</b>	Frame the research question (Section 3.9) Develop a Plan of Work (Appendix I)
<b>Literature search</b>	Develop literature search strategy (Appendix II) Critical appraisal of relevant literature (Chapter 3)
<b>Develop proposal</b>	Focus area of study (Chapter 1), and explore context (Chapter 2) Select design and methodology (Chapter 4)
<b>Ethical Considerations</b>	Ethical Approval: University of Durham (Appendix III) University in Northern England (Appendix IV) NHS LRECs (Appendix V) NHS R&D Committees Permission from physiotherapy managers Participant Information Letter (Appendix VI) Informed Consent Form for Interview (Appendix IX)
<b>Develop methods</b>	Design using a sequential mixed-method (Section 4.3) Sample (Section 4.4) Develop data collection instruments: 1. draft survey questionnaire (Section 4.7.1) 2. individual interview (Section 4.7.2)
<b>Pilot study</b>	Re-design questionnaire (Appendix VII) Feedback from pilot interview (example in Appendix X) Re-structure interview schedule
<b>Begin data collection</b>	Survey (Questionnaire: Appendix VII) Interviews (Interview schedule: Appendix XI) Validate transcripts with participants
<b>Analyse data</b>	Analysis of quantitative data using SPSS v14 (Section 4.8.1); (Findings: Chapter 5; Appendices XII-XV) Analysis of qualitative data using NVivo 7 (Section 4.8.2; Table 4.6); (Findings: Chapter 5; Appendices XVII & XVIII)
<b>Further literature review</b>	Interpretation of findings and discussion with previous published literature (Chapter 6)
<b>Make recommendations</b>	Suggestions to inform CPD policy & practice, and develop appropriate postgraduate provision (Chapter 7)
<b>Disseminate findings</b>	Conference presentations (Johnson, 2007; 2008a; 2008b; 2008c) Publish research (Johnson, 2008d)

The first phase of the study involved a survey, using a self-completion questionnaire to collect quantitative data to address the first two research aims (Section 3.10.1). The second phase involved individual semi-structured interviews to collect qualitative data by exploring the participants' personal views and experiences of CPD. This enabled a deeper understanding to be gained from the perceptions of the participants by collecting qualitative data to address the remaining research aim. By choosing to explore perceptions of individual physiotherapists I have made explicit my belief that these participants and their opinions are important to the outcomes of the study. The quality of my study therefore depends on two things: my competence as a researcher in analysing quantitative data from the survey, and in conducting interviews to elicit rich data and then analyse the interview transcripts; and the participants' capacity to remember, then reflect on and talk about events and thoughts which possibly date back several years.

#### **4.4 SAMPLE**

The purpose of this research was to understand the value of CPD to physiotherapists, and as these views will not be evenly distributed in the population a purposive sample of all 357 physiotherapists employed in NHS sites within one Strategic Health Authority at the time of the study was identified (Wilson, 2004). Table 4.2 identifies the Acute and Primary Care Trusts (PCTs) in the Strategic Health Authority (SHA), and numbers of physiotherapists employed by each Trust at the time of the survey. Table 4.3 shows the grade and clinical specialty of the population as provided by the physiotherapy managers.

The purposive sampling method is one in which the participants have specific characteristics and knowledge that would add to the researcher's understanding (Burns and Grove, 1997). This technique of sampling may be criticised by positivist researchers as the non-random nature of subject selection limits generalisation (LoBiondo-Wood and Haber, 1998). However, the purpose of interpretive research is to discover meaning, not to measure distribution (Morse, 1991), and Patton (2002) suggests that the quality and depth of information obtained by purposive sampling is more important than the size of the sample. In my interviews I used a purposive sample that was proportionally representative of the respondents in my

survey in relation to clinical specialities and grade of employment (Table 5.6); and also had representation across gender, professional education, hours worked, work settings, years in clinical specialty and years in present grade (Table 5.7).

**Table 4.2 Physiotherapists employed by SHA (Wilson, 2004)**

Sub Area	Acute Trusts	Primary Care Trust (PCT)	Number of physiotherapists
	NHS Acute Trust 1	PCT 1 PCT2 PCT 5	71
	NHS Acute Trust 2		14
		PCT 3	55
	NHS Acute Trust 3	PCT 4 PCT 6 PCT 9	90
	NHS Acute Trust 4		70
		PCT 7	14
		PCT 8	28
	NHS Acute Trust 5		15
<b>Total</b>			<b>357</b>

**Table 4.3 Physiotherapy population: Grading of post and clinical specialty**

	Total number	Percentage of total
<b>Employment grade</b>		
Junior clinician	90	25.2%
Senior clinician	218	61.1%
Team leader/manager	49	13.7%
<b>Total</b>	<b>357</b>	
<b>Clinical specialty</b>		
Musculoskeletal	166	46.7%
Neurological rehabilitation	60	16.9%
Care of the elderly	39	10.9%
Cardiovascular respiratory	35	9.4%
Other	57	15.9%
<b>Total</b>	<b>357</b>	

For the follow up in-depth interviews participants were chosen from participants who return the completed questionnaire from the survey in Phase1, and volunteered to be contacted for interview. From the 57 volunteers a stratified representative sample of 22 participants was chosen, to be representative of grade, clinical speciality and work setting (Tables 5.2 and 5.6). This number was manageable for a single researcher who is also employed full-time.

#### **4.5 ETHICAL CONSIDERATIONS AND APPROVAL**

Inherent in all research is the demand for the protection of the rights and welfare of human subjects (Currier, 1990; LoBiondo-Wood and Haber, 1998). Research requires honesty and all disciplines have a responsibility to protect the integrity of scientific knowledge (Burns and Grove, 1997). This study was conducted ethically from a professional, academic and moral standpoint. The researcher followed the *Rules of Professional Conduct* of the Chartered Society of Physiotherapy and advice on the ethical and legal considerations involved when research is undertaken (CSP, 2002a) and the requirements of the University of Durham on its research students.

##### **4.5.1 Ethical issues**

A basic ethical principle governing data collection is that no harm should come to the respondents as a result of their participation in the research (Oppenheim, 1998). The principles which underpin the ethical code for this study include full disclosure of the purpose of the study; restricted access of any data collected during the study; the right to volunteer to participate or not, without any reward or penalty; the right to withdraw from the study at any time; the right of privacy for individuals or organisations in the writing up of the thesis (Appendices VI & IX). The right of privacy includes anonymity and protection of identity, but the right of confidentiality cannot be guaranteed as by its very essence qualitative methods require the use of verbatim passages from interview transcripts to verify the findings. Anonymity of respondents and confidentiality of information was respected with access to the audio taped interviews, complete interview transcripts and field notes being limited to the author and academic supervisor (Table 4.4). All data collected were documented, stored on computer disc, kept confidential and in a secure place. Audio

tapes, computer files, interview transcripts and field notes were destroyed on successful completion of the thesis.

Although this study did not involve patients, research governance (Department of Health, 2001a; 2003a) required gaining the necessary approval in order to access physiotherapy staff to act as participants. My study required MREC approval for NHS Acute & Primary Care Trusts covered by the local Strategic Health Authority (SHA) from 3 Local Research Ethics Committees (LRECs) (Appendix Vc); ethical approval from the University of Durham (Appendix III), as I was a student on an EdD programme; from my employer (Appendix IV); and approval from the Research & Development Committees for 5 NHS Acute Trusts and 7 PCTS that employed physiotherapists. The latter involved separate ethical approval forms, many required setting up honorary contracts (examples in Appendix Vd), a number of which required completing medical assessments.

#### **4.5.2 Research Governance and the ethical approval process**

From 1 April 2002, research governance (Department of Health, 2001a; 2003a) has required that all research that involves NHS staff must have LREC (Local Research Ethics Committee) at each NHS Trust or PCT. The Central Organisation Research Ethics Committees (COREC) require all applications to be made on a common electronic form (Appendix Va). As my study (LREC REC ref no: 04/Q10002/34) took place in more than one research site within one domain (a 'domain' is an area covered by one SHA) I applied directly to the main LREC, in June 2004. Part C: Site-Specific Assessment, of the COREC form (Appendix Va), was sent to the other 2 LRECs in the SHA. Approval was also required by the Research and Development Approval Committees in each Trust and PCT in the SHA (Appendix Vd); and permission from physiotherapy managers in each NHS site (Appendix Ve) before research could begin.

One of the most common reasons for rejection of REC applications is failure to complete documentation correctly and the content of the participant information letter (Central Office for Research Ethics Committees, 2003). In my study I paid particular attention to completing the COREC form correctly and appending a Protocol (Appendix Va) Participant Information letter (Appendix VI) and

Questionnaire (Appendix VII). Although the COREC form overcomes the problems of inconsistencies required by different LRECs, it was lengthy and time-consuming to complete. In total the whole ethical approval procedure from beginning the application to final approval from all committees took six months, and this was despite the fact that I did not need to make any changes (Appendices Vb).

Jamrozik (2004) raises concern that the new research ethics paperwork in the form of a nationally standardised application form to local research ethics committees seems likely to make ethical approval less efficient and more time consuming for researchers and ethics committees, suggesting it seems 'we have lost the plot'. He also suggests the new form was ill suited to some common types of investigation such as analyses of commonly collected data, and qualitative studies using in-depth interviews, as in my study. More recently, both Tysome (2007) and Dingwall (2008) warn of the effect of excess regulation, with Tysome (2007) suggesting 'Red tape is tying up health service studies' (p 6) and cites Sofaer-Bennett (p.7) who informs us that a recent submission had involved '250 hours of work, 56 people and 900 sheets of paper'. Dingwall (2008) advises that that the ethical regulation in the biomedical sciences has become a major threat to research in the humanities and social sciences, suggesting that the damage it can do to a democratic society far exceeds any harm that research in humanities and social sciences is capable of causing to individuals.

While I totally accept the principle underlying ethical approval and informed consent to prevent the consequences of unregulated scientific activity I also believe that completing all the necessary documentation for the type of research I conducted did seem excessive, as shown in Table 4.4 and changes have been made since that time to streamline ethical approval (NRES, 2007). Part C of the REC application form has been merged with the national R&D application form. The new form, known as the Site-Specific Information (SSI) form, went live on the REC form system in January 2007. It will now be used both for applying to local RECs for site-specific assessment (SSA) where required, and for applying to NHS R&D offices in England, Wales and Scotland. In March 2007 the National Research Ethics Service (NRES) was launched. The change in name symbolises the change to a more responsive and

Table 4.4 Procedures to gain ethical approval and access sample

Approval Procedures	Date of application	Conditions	Date of approval
1 Approval from University of Durham Research Ethics Advisory Committee, (Appendix III).	22 May 2004	None. Can start after LREC approval	1 June 2004
2 As a member of academic staff at a Northern University I was required to gain approval from the School of XXXXXXXXXXXX Research Ethics Committee before beginning my research (Appendix IV).	5 July 2004	None. Wants copy of LREC approval letter	28 July 2004
3 New operational procedures for NHS research ethics committees (Central Office for Research Ethics Committees (2004) required all applications to be made on a common electronic application form. As the study took place in more than one research site within one domain (a domain is defined as the area covered by a Strategic Health Authority) I needed to apply (Appendix Va) directly to : 1. Local Research Ethics Committee (LREC) 1 2. LREC 2 3. LREC 3	10 June 2004	29 June: Approved in principal: issues of recruitment and anonymity raised Letter of response sent 20 August 04	29 Sept 2004: Approval main LREC 1 Oct 2004: approval all sites
4 Research and Development Committee permission was required at each site before the research could begin. Approval required completing 6 different Project Registration Forms, some 7 pages long (examples in Appendix Vd). Only one R&D department accepted part D of the COREC form, all the other 5 wanted full copies of the original COREC application.	10 June 2004	All required issue of an honorary contract, one site required completion of a 54 page medical form, which did not take into account the type of research that I was proposing.	9 July – 1 Oct 2004
5 Permission to access physiotherapy staff was required from Physiotherapy Managers in each site .	10 June 2004	Subject to LREC approval	14 June -30 Aug 04

robust research ethics review process, and makes a shift away from the concept of a system composed of only Research Ethics Committees (RECs) to one of a service that will provide robust ethical review to protect the safety, dignity and well being of research participants as well as ensuring through the delivery of a professional service that it is also able to promote and facilitate ethical research within the NHS.

The Follet Report, which was set up following the Alder Hey Hospital tragedy, to examine University and NHS responsibilities, recommends that honorary contracts are set up for University staff carrying out research in NHS premises. Department of Health research governance framework (Department of Health, 2003a) has a requirement for honorary contracts in that researchers who do not have a paid contract with the NHS but whose research involves NHS staff or patients, must have an honorary contract with NHS.

This can be beneficial so that researchers with honorary contracts are protected by NHS indemnity (HSG (96) 48). The NHS ensures that all researchers working on its premises with staff, patients or data, are contractually bound to take proper account of the NHS duty of care. Only NHS organisations can issue honorary contracts, but if university researchers work across NHS organisations there is no NHS wide honorary contract. To avoid the problem of having to obtain many contracts the researcher may obtain an honorary contract from the main NHS organisation they are working with and then other NHS organisations can be given a copy of that contract and ask to send a letter to indicate that they will accept the term of the contract. This would have been helpful as systems and procedures to comply with the research governance framework at the time of my study varied from Trust to Trust; with four Acute NHS Trusts requiring me to sign their own honorary contracts, and one honorary contract was accepted across all PCTs (examples are provided in Appendix Vd).

## **4.6 RECRUITMENT OF PARTICIPANTS**

### **4.6.1 Recruitment for survey**

All participants in the main study were provided with a Participant Information letter (Appendix VI), attached to the Questionnaire (Appendix VII). I gave these to the Physiotherapy manager in each site for distribution to each individual

physiotherapist employed there. Respondents were given 4 weeks in which to complete and return the questionnaire to the internal post drop box in each staff room.

#### **4.6.2 Recruitment for interviews**

Participants from phase 1 were invited to volunteer for the individual semi-structured interviews by completing a Contact Details form (Appendix VIII), sent with the questionnaire. This included their personal contact details and was returned to the researcher via the drop-box, in a separate envelope to their questionnaire, in order to maintain anonymity of their questionnaire responses. A quota non-probability sampling strategy was used for the interviews where I identified the various strata of the survey respondents from the demographical information from the survey, and ensured that all these strata were proportionately represented within the sample to increase its representativeness (see Figures 5.2 and 5.6). This was an advantage in that specific sub-groups are represented in proportion to their appearance in the participant population, for example in relation to clinical speciality and grade. However, the disadvantage is that the procedure is more complex than simple random sampling and requires a greater effort in defining strata and identifying population components of each (Black, 1999).

This phase involved 22 participants, which figure was considered feasible in the time available for an individual researcher, following a part-time course, while working full-time. Participants were requested to read and sign the Consent Form for Interview (Appendix IX) prior to their individual interview. Participants in the interviews were willing volunteers who could choose the time and place of their interview.

#### **4.7 DATA COLLECTION INSTRUMENTS**

Designing the instruments of data collection was assisted by pilot work which allowed me to identify problems in the procedure for collecting, recording and analysing the data. Pilot work is crucial to the smooth running of a research study (Domholdt, 1993), with Oppenheim (1998) suggesting that nothing should be taken for granted, for anything that can go wrong 'will go wrong'.

#### **4.7.1 Phase 1. Survey: self-completion questionnaire**

Following approval the draft questionnaire was piloted with 10 academic colleagues who were qualified physiotherapists and also had research experience; they had all practised as physiotherapists in the NHS; 3 of them were working in the NHS within the previous 12 months. The questionnaire (Appendix VII) was developed in line with the suggestions advocated by Edwards et al (2002), Inglesias et al (2002) and Oppenheim (1998). Piloting and feedback enabled me to make necessary changes to improve the questionnaire design and clarity of instruction prior to the main survey. The four-page length, exclusive of Participant Information Letter (Appendix VI) and Contact Details sheet (VIII) for interviews in phase 2, was considered appropriate to provide information to meet the outcomes of the study, whilst not being so long that it would prevent respondents from completing it. It was found to take the respondents in the pilot no longer than 15 minutes to complete.

Self completion questionnaires allow participants to be honest in their answers by feeling confident in their anonymity (Bryman, 2004), although the question of social desirability raised in Chapter 3 has still to be borne in mind and answers may be limited by the choice of available responses or by the offered space for additional information. The final version of the questionnaire consisted of a series of closed questions with a choice of predetermined answers, including 'other, please state' to capture alternative views. The questionnaire (Appendix VII) had 4 sections: the first part of the questionnaire was constructed to collect biographical data, including length of time as a physiotherapist, work setting, present grade, academic qualifications; the second section collected information on the type of CPD activities that the person engaged in and the amount of engagement in the previous month; the third section consisted of 2 item pools of individual statements, using 2 separate 5-point Likert response format questions, where the participants were asked to indicate the extent to which they agreed or disagreed with 13 items relating to reasons for engaging with CPD activities; and 14 items, relating to barriers to CPD, where SD = strongly disagree, D = disagree, N/O = no opinion, A = agree, and A = strongly agree (scores are summed to give a composite measure of attitudes); and the fourth section had open questions relating to prioritising the participant's CPD activities and

offering the opportunity for additional comments. All comments were transcribed verbatim and reviewed to identify themes and sub themes.

Postal questionnaires are widely used as a relatively inexpensive method to collect data in health research (Bryman, 2004). However non-response reduces the effective sample size (Inglesias and Torgeson, 2000; Jacoby, 1990; Nakai et al, 1995) and can introduce bias, where a low response rate means that it cannot be claimed that non-responders would have the same opinions as responders. Lee (2007) also suggests the minimum response rate of a survey acceptable for publication is 65%. The results of Edwards et al.'s (2002) systematic review aimed to identify effective strategies to increase response rates to postal questionnaires. 372 trials were evaluated and 98 different ways of increasing response rates to postal questionnaires were found, with response rate reduced when participants are offered the opportunity to opt out of the study. Their review found several ways to increase response rates which involve: contacting the respondents before sending the questionnaire; sending questionnaire by first class post or recorded delivery; providing a stamped addressed envelope; questionnaires and letters should be made personal, and kept short; incentives should be offered (suggesting a small amount of money was the preferable option); and one or more reminders should be sent with a copy of the questionnaire to those who do not reply.

However due to research governance, views from members of Local Research Ethics Committees and managing an unfunded project, many of these suggestions were impossible. Participants must be allowed to opt out of research; I only had indirect access to the sample through managers; and postal costs had to be kept to a minimum. Nevertheless, although response rates are important, the quality of the responses is also important in that returned questionnaires with answers to some questions missing or incorrectly filled in, can have the same effect as a poor response rate. Inglesias et al (2002) suggest that attention should be given to factors that improve the quality of responses which were in the survey design and content of questionnaire and piloting.

#### 4.7.1.1 Survey procedure

Questionnaires (Appendix VII) and explanatory Participant Information letters (Appendix VI) were distributed via physiotherapy managers in all sites in the SHA that employed physiotherapists. The managers were requested to arrange for the questionnaires to be forwarded to the individual physiotherapists in the workplace. Following anonymous completion the questionnaires were to be placed in sealed envelopes and 'posted' in a drop-box located in the staff room of each site, which I then collected three weeks later. Contact details (Appendix VIII) for those volunteering to be interviewed were to be placed in sealed envelopes separate to their completed questionnaire to maintain anonymity of their responses.

#### 4.7.2 Phase 2. Semi-structured interview

In order to generate meaning using an interpretive method a data collection process which facilitates participant accounts of the topic is necessary. Interviews are a common form of data collection in an interpretive approach, and allow an in-depth exploration of feelings, beliefs and values (Holloway and Wheeler, 1996). According to a positivist approach, interview data gives us access to facts, the primary issue is to generate data which are valid and reliable, through random selection of interview sample and administration of standard questions with multiple choice answers that can be readily tabulated. Structured interviews are used in this approach. On the other hand, an exploratory approach views interviewees as experiencing subjects who actively construct their social worlds (Silverman 1993, p 90). The primary issue is to generate data which give an authentic insight into people's experiences. The main ways to achieve this are semi-structured, open-ended interviews usually based on prior observation.

##### 4.7.2.1 Interview procedure

Interviews were conducted between June and September 2004, in the participants' or researcher's workplace. The use of different types of questions helped to gain access to different types of knowledge and perspectives. A number of strategies, including summarising responses and initial interpretation, fulfilled the function of a "within-method-triangulation" (Flick 2004, p.179).

The questions of the interview guide itself focused on several main topic areas. The semi-structured interview guide was piloted in 2 interviews with physiotherapists, and the functioning of recording equipment checked. Feedback from the pilot interview (Appendix X) was used to refine the interview schedule. Only minimal changes were necessary in that the order of introducing topic areas changed to encourage the respondents to describe their CPD as a journey throughout their careers from first employment to present day (Appendix XI). Questions then followed on from the interviewee's response to the initial question in each topic area, which guaranteed a subject-oriented procedure. Marshall and Rossman (1999, p110) advise that 'Interviewers should have superb listening skills and be skilful at personal interaction, question framing and gentle probing for elaboration.' I was able to further develop these skills from my experience in clinical practice and as a senior lecturer. All interviews took place in a quiet room and were recorded using a portable audio cassette recorder with built-in microphone. The average length of the interviews was approximately 60 minutes. The participants generally provided me with open and detailed information in response to my questions, fully describing their memories of their CPD experiences and present views about CPD.

Table 4.5 shows the audit trail (Koch, 1994) of tools used in the collection and analysis of interview data, which allows others to follow and audit the process of gathering qualitative material within a study and the researcher's thinking and conclusions about the data. After recording, copies of the tapes were made and stored separately from the originals. Only I had access to the tapes and they were destroyed on completion of the study. Full transcripts of the audio tapes were made and again stored securely. Following each interview I also wrote down my overall impression of the interview and noted any external influences that may have had an impact.

**Table 4.5: Audit Trail of Interview Data**

<b>Tools</b>	<b>Process</b>
Pilot	Audio tape recording of interview, transcripts & field notes
Interviews	Audio tape recordings of full interviews Copies of tapes made, to be wiped clean at end of study. In order to protect the anonymity of participants all contact details are for the eyes of the researcher only
Audio Tapes	As described in Consent Form for Interview (Appendix IX), these were for the ears of the researcher only and will be destroyed following successful completion of the thesis.
Interview transcripts & field notes	In order to protect the anonymity of participants these are for the eyes of the researcher and academic supervisor only, and will be destroyed on successful completion of the thesis.
Initial analysis	Coding qualitative data involves identifying recurrent words, concepts or themes, using Nvivo 7. Rough analysis to be destroyed
Sorting	Sub-categories $\Rightarrow$ categories $\Rightarrow$ main themes (Appendix XIX)
Publication of findings	In the writing of the thesis, verbatim quotes will be used from transcripts but will be written so as not to indicate the identity of participants or their NHS organisation.

## 4.8 DATA ANALYSIS

### 4.8.1 Analysis of quantitative data from the survey

The data were analysed using the computer software Statistical Package for the Social Sciences (SPSS) Version 14 for Windows, a comprehensive tool for managing, analysing and displaying data (Bryman and Cramer, 2005; Coakes and Steed, 2006; Colman, 2006; Field, 2005; Green et al, 2003; Muijs, 2004). Descriptive statistics and cross tabulation were used to identify the type and frequency of CPD activities. Frequency distributions were reported in percentages with the differences between groups studied by means of non-parametric tests. Chi-squared test were used to examine the association between the groups of nominal data. The level of significance was set at 5% and confidence intervals at 95%. Factor analysis was carried out to examine the Likert scale responses for separate dimensions, using the Principal Component method with Varimax rotation (Field, 2005; Green et al, 2003).

Principal Component Analysis is a method of factor analysis used as a data-reduction technique which examines data to try to identify clusters of related variables (Muijs, 2004). Each such cluster, or component, consists of variables that correlate more highly among themselves than they do with variables outside the cluster, the extent of this clustering is measured by an index called an eigenvalue (Field, 2005). The purpose of the Principal Component Analysis in this study was to discover if there was a single dimension or multiple dimensions underlying the 15 items relating to reasons for engaging with CPD, and the 14 items relating to barriers to CPD.

Eigenvalues were used in deciding how many factors should be used in analysis. One criterion in factor analysis is to retain all factors that have eigenvalues greater than 1; this criterion is the default option in SPSS, but it may not always yield accurate results. Another criterion is to examine the plot of the eigenvalues, also known as the scree plot test (Appendix XV), and to retain all factors with eigenvalues in the sharp descent part of the plot before the eigenvalues start to level off. This criterion yields accurate results more frequently than the eigenvalue-greater-than-1 criterion (Green et al, 2003). The proportion of variance accounted for by each of the rotated factors indicated the relative importance of each component (Tables 5.10 and 5.15). SPSS reports these statistics in 'Total Variance Explained'

A Friedman ranks test for nonparametric data was used to test for differences in ranking of Principal Components across all respondents, and between respondents from different clinical specialties, grades, work settings, gender, and educational qualifications.

Reliability analysis of the two Likert scales was carried out using the Cronbach's Alpha test to assess the internal consistency of the scales (Field, 2005). I was not able to do a test-retest of the questionnaire by resending to the questionnaire to the same respondents at a later date to check the reliability of the questionnaire.

#### **4.8.2 Analysis of qualitative data from the interviews**

Within the survey in phase 1 of the study, it was easy to lose detailed meaning when asking participants to convert their responses into ordinal and nominal data.

However the in-depth interviews allowed me to collect data in the form of the participants' own words, and the intent of analysis was to organise the data into meaningful interpretations that identify patterns or commonalities by inference from the examination of specific instances or events (Streubert and Carpenter, 1995). The interviews focused on the subjective experience of the participants studied (Robson, 2002, page 195), and it was important to find out how they describe their experience of CPD, how they understand and describe what has happened to them from their own point of view. All interviews were transcribed verbatim.

Collecting and analyzing this unstructured information can be messy and time consuming to handle using manual methods, while finding themes and extracting meaning can be a daunting task. There are many approaches to analysing qualitative data. Tesch (1990) produced a typology of 26 approaches, and a number of frameworks for analysing data from interviews, such as thematic content analysis (Burnard, 1991;1994), or matrix-based 'analysis method framework' (Ritchie and Spencer, 2002), which classifies and organises data according to key themes, concepts and emergent categories that emerge from the data.

I had previously been comfortable in analysing other qualitative data, using my skills of thematic content analysis (Burnard, 1991; 1994). However the most I had previously handled was 6 individual interviews in one study, and 3 focus group interviews in another. NVivo software enabled me to manage, shape and make sense of this information, relatively quickly and easily (Richards, 2005). I was also keen to be challenged in my doctoral studies and to learn new approaches to analysis, so enrolled on an NVivo workshop and set about using this package to manage the data from 22 interview transcripts and field notes.

The interview transcripts in this study were therefore analysed using QSR International's NVivo qualitative data analysis software, version 7 (QSR International, 2006). Although NVivo 7 software helped to manage, shape and make sense of unstructured information, it is not capable of doing the process of interpretation for the user. With purpose built tools for classifying, sorting and arranging information, qualitative research software can give the researcher more time to interpret their data and discover patterns, identify themes, glean insight and

develop meaningful conclusions, that otherwise could have become overwhelming employing previously used 'cut and paste' methods. The advantages of using NVivo were that it reduces problems in managing large amounts of paper produced by alternative 'cut and paste' methods, it is relatively easy to code and re-code the data; and it keeps a track of the stages in the analysis process of the interview transcripts (Table 4.6).

**Table 4.6 The process of analysing the interview transcripts**

Stage	Analysis using NVivo 7,
1	Field notes during and immediately following interviews, plus researchers initial ideas about possible emerging categories.
2	<b>Project set up in NVivo 7</b> Set up participant <i>Attributes</i> and <i>attribute values</i> eg <b>gender</b> : male, female; <b>clinical speciality</b> : musculoskeletal, neurorehabilitation, respiratory, care of the elderly.
3	<b>Import Sources</b> Under <i>Sources</i> , created a document folder called <i>Interviews</i> and imported verbatim interview transcripts into this folder. On import, enabled NVivo to automatically create a <i>Case</i> for each transcript. <i>Case properties</i> given in relation to <i>attribute values</i>
4	<b>Code transcripts</b> Read and reflect on interview transcripts. Create and code at nodes as themes emerge. For example create <i>tree nodes</i> , to gather participant's perceptions of CPD, reasons they give for engaging with their choice of CPD activities; and create <i>free nodes</i> for emerging themes (Appendix XIX).
5	<b>Explore nodes</b> Open nodes to read and reflect on all the material gathered there. Create new nodes and 'code on' to capture ideas that arose from the data.
6	<b>Writing up of findings</b> Select verbatim examples of data that are saved under main categories which offer a commentary that links the examples together, and uses the participants own words to illustrate their meaning (Chapter 5). There is constant referral to the original transcripts to maintain the original meaning and context.

However this does not eliminate the process of interpretation; and the researcher classifies and organises data according to key themes, concepts and categories that emerge from the data coding. These evolve and are refined through familiarisation with the raw data and coding at nodes (Appendix XIX).

Coding is a way of expressing interpretation, and in order to facilitate this, I needed to develop insights into the current views of practitioners of CPD, by exploring the reasons participants engaged in particular CPD activities, the barriers and the extent to which these activities would have an impact on the individual, the service and the patient. An initial coding frame of main code headings was drawn up based on the

main findings from survey. Following initial coding of the 22 transcripts 29 free nodes were produced; 9 parent tree nodes, with 77 child nodes, and 3 grandchildren. The nodes were reduced mainly by 'merging' free nodes with tree nodes of same/similar name. Further tree nodes were reduced where content was similar and had been coded at more than one node (Appendix XIX).

#### **4.9 MAINTAINING QUALITY AND ACCURACY OF DATA**

When undertaking research it is important to assess the quality of one's own study, which can be assessed throughout the research process in relation to the appropriateness, justification and transparency of the procedures which have been followed. By carrying out a study based on the collection of retrospective data the quality of my study depended on both the respondents' capacity to remember, reflect on and talk about events and thoughts, sometimes dating back to over 30 years, in addition to the researcher's competence in conducting interviews and eliciting data, and in analysing both quantitative and qualitative data. The next section describes validity and reliability of the questionnaire data and trustworthiness of the interview data.

##### **4.9.1 Determining validity and reliability of the quantitative data**

In research terms, validity refers to the accuracy and truth of the data and findings that are produced. It refers to the concepts that are being investigated; the people or objects that are being studied; the methods by which data are collected; and the findings that are produced. In designing the questionnaire a number of tasks were required, in order to control extraneous variables, throughout the development, administration and data recording stages of the design (Black, 1999). The rigorous ethical approval process, including independent evaluation from experts from the various Research and Development Committees which evaluated the scientific quality of the study, helped ensure the face validity of the questionnaire, that is, the extent to which the questionnaire appeared to others to be measuring what it claims to measure. Content validity is similar to face validity except that the researcher deliberately targets individuals acknowledged to be experts in the topic area to give their views on the validity of the measure. Principal Component Analysis technique was used as a statistical validation tool to precisely reduce the number of

variables by detecting structure in relationships between variables and therefore classifying a number of variables by a single factor. Piloting the questionnaire with a group representative of the population under study ensured the questions were interpreted by the participants as the researcher intended, and therefore also contributed to content validity. Also by using a variety of research methods to collect and analyse the data, this triangulation increased the validity of findings (Flick, 2004).

External validity refers to the degree to which the findings of a study are generalisable beyond the immediate study sample and setting to similar samples and settings elsewhere. My study involved collecting the views from a wide range of physiotherapists in different grades, clinical specialties and work settings in the NHS, who are representative of the population under study, that is, the Trusts described in my account of the sampling procedure. In another research project investigating physiotherapists in England (CSP, 2006), the population sampled had a make-up very similar to mine, (these similarities are discussed further in Chapter 6) and this suggests that the Trusts I sampled are representative of others in England. Therefore there is the potential that my findings can represent the views of physiotherapists in other SHAs across the country. There may be reservations in generalising to SHAs in Scotland, Wales and Northern Ireland as their health and education policies are different to those in England. Caution would also be necessary in applying findings to physiotherapists employed in the non-NHS environments, such as independent, social services, and voluntary sectors, as they may have different CPD needs and requirements.

Reliability is concerned with the consistency and dependability of a measuring instrument, that is, it is an indication of the degree to which it gives the same answers over time, across similar groups and irrespective of who administers it. A reliable measuring instrument will always give the same result on different occasions assuming that what is being measured has not changed during the intervening period. A number of techniques can be used to ensure the reliability of a measuring instrument such as an attitude questionnaire; these include test-retest, split-half and alternate forms. There are also statistical tests that can be used to assess reliability such as Cronbach Alpha test, a commonly used measure of scale reliability, based on

inter-item correlation, which also provides information about the relationships between individual items in the scale.

Following identification of factors through Principal Component Analysis I used the Cronbach Alpha test to determine the extent to which the items in my Likert response-format questions were related to each other, which gave an overall index of the repeatability or internal consistency of the scale as a whole, and enabled me to identify problem items that should be excluded from the scale.

#### **4.9.2 Determining trustworthiness of the qualitative data**

A major debate hinges on the issues of validity in qualitative research (Angen, 2000). The demonstration of trustworthiness of one's research is an aim of all studies. Reaching this goal can become problematic due to the debate about what it means to do valid research in the fields of qualitative inquiry. Leininger (1992) argues that qualitative methods are often only accepted as an exploratory approach prior to validation by quantitative methods.

To establish 'trustworthiness' in qualitative inquiry Lincoln and Guba (1985) propose alternative criteria to internal validity, external validity, reliability and objectivity, and suggest they are replaced by credibility, transferability, dependability and confirmability. Koch (1994) also uses these four criteria and argues that 'trustworthiness' can be established if the reader is able to audit the researcher's actions throughout the study. Credibility and confirmability can be verified when the reader recognises the situation described by a study as being closely related to their own experience; in this case through member checking of transcripts. Bloor and Taraborrelli (1994) also believe member checking is valuable for guarding against researcher bias.

My study achieved dependability by providing a clear account of the research process (Table 4.1) to allow others to follow my thinking, an audit trail of interview data (Table 4.5) and the stages involved in analysing the interview transcripts (Table 4.6); and thus demonstrate whether the findings are dependable. Transferability, which is equivalent to external validity is achieved if the findings 'fit' contexts beyond the immediate study situation. In order to transfer the findings elsewhere,

readers need sufficient information to be able to assess the extent to which a specific research setting is similar to other settings. This is achieved here by having a stratified representative sample of interviewees across employment grade and clinical specialty.

In order to increase trustworthiness (Guba and Lincoln, 1989; Koch, 1994; Krefting, 1991) and give the reader confidence in the findings I confirmed with participants that the interview transcripts were a true record of the individual interviews; and also verified the emerging themes by the use of verbatim quotations from the interview transcripts in order to maintain context.

#### **4.10 Limitations of the study**

It is possible that some respondents were strongly motivated (or not) by the topic or questions and this may have skewed not only the responses but also response rates. Physiotherapists who pursue CPD may be more likely to have responded to the questionnaire. Likewise those who were unhappy or disagreed with CPD requirements may have been more likely to have answered the questionnaire. Finally, the motivational questions were attitudinal in nature and represent only a point in time, and therefore they could be subject to change.

The survey achieved an average response rate for a postal questionnaire, and there is no reason to believe that this population differs significantly from other regions in the UK, as seen when compared with the CSP (2006) survey. However it cannot be claimed that non-responders would have had the same opinions as responders (Bryman, 2004). An alternative method of sampling would have been to write to each NHS Trust asking for names and addresses of every physiotherapist it employed. However it was anticipated that not every Trust would have complied, creating sampling error that would be difficult to interpret.

Another limitation was use of mainly closed questions which may have led to differing interpretations by the respondents, or required them to pick only one of the answers offered. In regard to the Likert scales and the interval graduations used, the categories presented may not have been representative of their desired response so that they had to choose the closest approximation (Brunier and Graydon, 1996).

Also the reliability of the questionnaire was not tested for test-retest reliability, only for internal consistency.

Finally, it is important to explore the ways in which I may have influenced or had an effect throughout the research process, and an acknowledgment of the impossibility of remaining detached from the subject matter while conducting research. Reflexivity allows me to acknowledge my role and the situated nature of my research, providing greater transparency and quality in research (Finlay and Gough, 2003). I acknowledge that all social research involves social interaction, including my interaction with the participants. This will have included my setting the questions in the survey, the participants' responses in completing the questionnaire, my questions in the interview, the interviewees' answers, and my follow-up questions to explore their responses. In framing the questions in both the survey and the interviewees I may have unconsciously 'expected' a certain answer. The participants in both phases of the research may also have given what they thought to be 'socially' or 'professionally desirable' answers, particularly as they knew from the Participant Information Letter (Appendix VI) that their responses were being returned to me to read. Even though the majority did not know me personally or professionally they were aware that I was also a physiotherapist.

I cannot be sure that the respondents in the survey would have completed the questionnaire with the same answers at a different moment in time. In social research there will also be differences with the same researcher on different occasions and with different participants. I cannot be sure that on a different occasion with the same interviewees I would have asked exactly the same questions in the same way and used the same follow-up questions to elicit the same responses in the same participants. Although I returned the interview transcripts to the participants for verification, there is the possibility that some information could have been lost in the transcription process, and although the tapes were thoroughly checked against the interview transcripts there were times when the audio recorder did not pick up all the words spoken by the interviewee, which may have been important to the topic area. In analysing the transcripts there is the potential that I could have coded the same data under different headings on a different occasions. Likewise different coders could have coded the data in different ways. Also because of the length of time

between initial data collection and completion of both phases of analysis I was not able to contact all the participants to verify the main research findings.

## Chapter 5

### - RESEARCH FINDINGS -

#### 5.1 INTRODUCTION

My study used an exploratory sequential mixed-method design, and the data collection tools and methods of analysis have been described in Chapter 4. This chapter presents the results of the analysis of both phases of the data collection; using quantitative data from the self-completion questionnaires and qualitative data from the individual interviews. The main themes to emerge from the analysis are summarised in Figure 5.1. The chapter begins with an overview of the sample including demographic information of the participants and comparison of the response rate and sample characteristics with other published studies. The main research findings from the survey are then presented; which are critically discussed in chapter 6 together with existing published literature. In presenting the main findings that emerged from the interview data, this allows the underlying thoughts from the participants that the questionnaires were unable to uncover to be highlighted, using verbatim quotes from the interviewees to illustrate key points.

**Figure 5.1 Summary of main findings**

- Participants views on CPD
- Priorities in CPD
- Frequency of participation in CPD activities
- Reasons for engaging in CPD
  - Personal values related to improving patient care
  - Development of self through professional practice
  - Academic development
  - Pay and promotion
- Barriers to CPD
  - Poor recognition and reward
  - Inadequate support systems
  - Personal apathy
  - Perceived lack of ability
  - Self doubt v reassurance
- CPD choices
  - Work based learning v external activities
  - Self directed activities v postgraduate study
  - Experiential learning v clinical courses
  - Personal desire v service need
- Outcomes of CPD
  - Improved patient care and service delivery
  - Development of self v benefit to self
  - Resentment from colleagues v sharing knowledge with others

## 5.2 OVERVIEW OF THE SURVEY

The questionnaire was designed with two objectives in mind. Firstly, to identify the types of CPD activities that physiotherapists engage in, and discover if there were differences dependent on: length of time as a physiotherapist, present clinical speciality, length of time in that clinical speciality, present employment grade, length of time in that employment grade, academic qualifications, clinical setting and gender. Secondly, to identify the reasons individuals give for why they participate in certain CPD activities, and the choices that they make. These findings were then further explored in the individual interviews to identify individuals' decisions in relation to their CPD activities and the value these activities had on their practice.

The data were analysed using SPSS v 14, a comprehensive tool for managing, analysing and displaying data. Descriptive statistics and cross tabulations were used to identify demographics of the sample, the type of CPD activities the respondents engaged in and their levels of participation. The first step involved exploring the characteristics of the data, and data files were carefully checked for errors in data entry: missing data; out of range values were checked using 'Frequencies'; and the variables checked for normal distributions.

Factor analysis was carried out on answers to the two Likert response questions to examine the scales for separate dimensions using the Principal Component method with Varimax rotation. Reliability analysis of the two Likert scales was carried out using the Cronbach's Alpha test, to assess the internal consistency of the scales. Analysis of the 13 items relating to reasons for engaging with CPD, and the 14 items relating to barriers to CPD revealed three components with eigenvalues exceeding unity, in relation to reasons for CPD, and four components in relation to barriers to CPD.

As many of the data were ordinal and were not normally distributed or nominal, non-parametric tests were carried out. A Friedman ranks test was used to determine whether a significant difference existed in the rank order of the Principal Components across all respondents; and between respondents from different sub-groups: clinical specialties, grades, work settings, gender, and educational qualifications. Although the chi-square test can be carried out on non-parametric

data, analysis using SPSS reported that the expected frequencies were less than 5, due to the relatively small numbers in each sub-grouping. This would have resulted in a loss of statistical power, meaning the test may fail to detect a genuine effect, and therefore these data are not reported.

### 5.3 RESPONSE FROM THE SAMPLE

The questionnaires were distributed to the population of 357 physiotherapists employed in the Strategic Health Authority in November 2004. 140 questionnaires were completed and returned via the internal post within each Acute Hospital Trust or Primary Care Trust site that employed physiotherapists, giving a 39% response rate. The response rate varied across the different Trusts as shown in Table 5.1, ranging from 25.7% - 78.6%. 71 questionnaires were returned undelivered due to illness, maternity leave, annual leave, and in the case of one hospital, failure to collect.

**Table 5.1 Response rate to questionnaire by Trust**

Trusts	Number (%) of respondents
NHS Trust 1 PCT 1 PCT 5	35/71 (49.3%)
NHS Trust 2	11/14 (78.6%)
PCT 1	21/55 (38.2%)
NHS Trust 3 PCT 6 PCT 9	29/90 (32.2%)
NHS Trust 4	18/70 (25.7%)
PCT 8	9/28 (32%)
PCT 7	5/14 (35.7%)
NHS Trust 5	9/15 (60%)
Total	140/357 (39.2%)

As was pointed out in the discussion of questionnaires and response rates in general in Chapter 4, it is possible that in this particular case, some respondents were strongly motivated (or not) by the topic or questions and this may have skewed not only the responses but also response rates. Physiotherapists who have an active interest in CPD may be more likely to have responded to the questionnaire. Likewise those who were unhappy or disagreed with CPD requirements may have been more likely to have answered the questionnaire to get their point of view across. Also the

motivational questions were attitudinal in nature and represent only one point in time; therefore they could be subject to change.

### 5.3.1 Respondent characteristics

The number of years respondents had worked as a physiotherapist varied from 1 month to 33 years, with a mean of 12.4 years [standard deviation (SD) 9.4]; 33.6% had worked for 5 years or less, 28.6% for 6-15 years and 37.9% for 16 years or more. In identifying the present clinical specialty of respondents, 18 clinical specialties were reported, and these were reduced to 5 categories for analysis: musculoskeletal, neurological rehabilitation, care of the older person, cardiovascular respiratory and other specialties. The first 4 categories were each used to represent similar specialties within physiotherapy practice, the remaining category included all of the remaining reported specialties that were not appropriate to be included in the previous named categories (Appendix XII). Table 5.2 shows response by clinical specialty and grade of post, with participants having worked in their present specialty for between 1 month to 30 years (mean of 7.8 years), with 48% for 5 years or less, 36% for 6-15 years and 16% for 16 years or more.

**Table 5.2 Respondents by clinical specialty and grading of post**

*The percentages in colour are linked to Table 5.6 to demonstrate the stratified representative sample for the interviews.*

Clinical specialty	Grading of post			Total (%) of total
	Number (%) within clinical specialty			
	Practitioner	Senior practitioner	Manager	
Musculoskeletal	19 (30%)	39 (61.9%)	5 (7.9%)	63 (45%)
Neurological rehabilitation	6 (31.6%)	10 (52.6%)	3 (15.7%)	19 (13.6%)
Care of the older people	6 (40%)	7 (46.7%)	2 (13.3%)	15 (10.7%)
Cardiovascular respiratory	5 (45.5%)	5 (45.5%)	1 (9.1%)	11 (7.9%)
Other specialties	5 (15.6%)	22 (68.7%)	5 (15.6%)	32 (22.9%)
Total	41 (29.3%)	83 (59.3%)	16 (11.4%)	140 (100%)

The majority of respondents, 63 (45%), worked in musculoskeletal services, 19 (13.6%) in neurological rehabilitation, 15 (10.7%) in care of older people, 11 (7.9%) in the smallest group, 11 (7.9%), worked in cardiovascular respiratory services, with

32 (22.9%) working in the remaining specialties, such as paediatrics, women's health, burns and plastics, hand therapy.

The 11 recorded grades of post included Junior, Senior II, Senior I, Clinical Specialist, Extended Scope Practitioner (ESP), Superintendent III, Superintendent II, Superintendent I, District Superintendent and NHS Trust grades<sup>1</sup>. These grades were reduced to 3 categories for analysis (Appendix XIII). Clinician category included junior clinicians and senior clinicians working in rotational posts; senior clinician, included those senior clinicians, clinical specialists and extended scope practitioners (ESP) employed in a particular clinical speciality; and manager, including team leaders at Superintendent III grading or above, and physiotherapy managers.

The distribution of employment grades of the participants in this study was 41 clinicians (29.3%), 83 senior clinicians (59.3%), and 16 managers (11.4%); and the length of time employed at that grade ranged between 1 month to 20 years, (mean of 4.9 years), with 96 (68.6%) at that grade for 5 years or less, 38 (27.1%) between 6-15 years and 6 (4.3%) for 16 years or more. 98 (70%) of the respondents were employed full time, 40 (29%) part-time, and 2 (1%) were employed as locums.

**5.3.2 Comparison of respondents with population of physiotherapists in the SHA**  
Percentages within each clinical speciality and grade in my sample (Table 5.2) are comparable to the overall local population of physiotherapists employed in the SHA at the time of the study, as shown in Table 4.3 in Chapter 4. Table 4.3 which shows the grade and clinical specialty of the physiotherapy population under study as provided by the local physiotherapy managers: with clinicians at 25.2% (compared to 29.3% in my sample), senior clinicians at 61.1% (59.3% in my sample), and managers at 13.7% (11.4% in my sample); those working in musculoskeletal at 46.7% (45% in my sample), neurological rehabilitation at 16.9% (13.6% in my sample), care of older people at 10.9% (10.7% in my sample), cardiovascular

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<sup>1</sup> Agenda for Change grades and post assimilation had not been implemented in the Strategic Health Authority at the time of data collection

respiratory at 9.4% (7.9% in my sample) and other specialities at 15.9% (22.9% in my sample).

120 (85.7%) of the respondents were female, 20 (14.3%) male, and the distribution of gender in relation to clinical speciality is shown in Table 5.3. The greatest percentage of male respondents were working in musculoskeletal services (20.6%), followed closely by Care of Older People (20%), and the fewest males were working in Neurological Rehabilitation (5.3%) and other specialities (3.1%).

**Table 5.3 Distribution of respondents by gender within each clinical speciality**

Clinical speciality	Gender		Total
	Number (%) within clinical speciality		
	male	Female	
Musculoskeletal	13 (20.6%)	50 (79.4%)	63 (45%)
Neurological Rehabilitation	1 (5.3%)	18 (94.7%)	19 (13.6%)
Care of older people	3 (20%)	12 (80%)	15 (10.7%)
Cardiovascular respiratory	2 (18.2%)	9 (81.8%)	11 (7.9%)
Other specialities	1 (3.1%)	31 (96.9%)	32 (22.9%)
Total	20 (14.3%)	120 (85.7%)	140 (100%)

Table 5.4 shows the distribution of respondents in the survey in relation to clinical speciality and work setting, with 15 (10.7%) respondents employed in primary care settings, 75 (53.6%) in secondary care; 35 (25%) in the community; and 15 (10.7%) worked across more than one setting.

**Table 5.4 Distribution of respondents by clinical speciality and work setting**

Clinical speciality	Work setting Number (% in relation to setting)			
	primary care	secondary care	Community	mixed settings
Musculoskeletal	14 (93.3%)	43 (57.3%)	3 (8.6%)	3 (20%)
Neurological rehabilitation	0	13 (17.3%)	6 (17.1%)	0
Care of older people	0	5 (6.7%)	5 (14.3%)	5 (33.3%)
Cardiovascular respiratory	0	9 (12.0%)	0	2 (13.3%)
other specialities	1 (6.7%)	5 (6.7%)	21 (60%)	5 (33.3%)
Total	15 (10.7%)	75 (53.6%)	35 (25%)	15 (10.7%)

### 5.3.3 Comparison with samples in other surveys

Although the 39.2% response rate from the sample in my study was not high, it was typical of a postal survey (Edwards et al., 2002), and the demographics were similar to the respondents in a larger UK survey carried out by the Chartered Society of

Physiotherapy (CSP, 2006) which used a random sample of 5% of their total membership. The CSP Survey received 862 (from 1,700) completed questionnaires from practising physiotherapists, giving an overall 50.7% response rate, although this varied across the countries, with England the lowest at 46.4%. Table 5.5 compares the demographic information of my sample to those of the other surveys critically analysed in Chapter 3: Critical Analysis of the Literature. Another survey of UK physiotherapists by Beeston et al. (1998) which set out to explore the perceived barriers to CPD in relation to uptake of higher degrees using a sample of 213 physiotherapy managers and clinicians, had a better response rate of 66% (142 from 213). However as discussed in Chapter 3 there was a potential for bias in this study, with sample skewed towards managers and to a lesser extent senior clinicians.

**Table 5.5 Comparison of demographic information of samples in surveys**

Demographics	My study	CSP (2006)	Beeston et al (1998)
Sample (n)	357	1700	213
Response rate	140 39.2%	862 46.4% (in England)	142 66%
Male	14%	12%	No information given
Female	86%	88%	No information given
Diploma	49.3%	No information given	No information given
BSc (Hons)	45%	No information given	36% (of clinicians)
Physiotherapy			No information given on managers
Masters degree	5.7%	7.8%	9.2% (17.5% of managers; 6% of senior clinicians)
Studying for Masters	6.4%	8%	22.5% of managers No information on clinicians
Holds or studying for Doctorate	0.7%	0.6%	No information given
Full-time employment	70%	50%	No information given
Part-time	29%	33%	No information given
Locum	1%	2%	No information given
Clinician	29.3%	24.6%	Excluded from sample
Senior clinician	59.3%	42.2%	71.8%
Team leader/manager	11.4%	8.1%	28.2%
Primary care settings	10.7%	18.7%	No information given
Secondary care	53.6%	35%	No information given
Community	25%	12.4%	No information given
Mixed setting	10.7%	1.9%	No information given
Non NHS settings	0	21.5%	0

In the CSP (2006) survey 88% were female, 12% male; this was similar to the gender of the respondents in my survey where 86% (120) were female and 14% (20) male. 50% of their respondents were employed full time in the NHS, 33% part-time and 2.1% as locums; in my survey 70% were employed full time, 29% part-time and 2% as locums. In the CSP survey 24.6% were junior or Senior II clinicians, 42.2% were senior clinicians clinical specialists or extended scope practitioners and 8.1% team leaders or managers; 29.3% of respondents in my survey were employed as junior or Senior II clinicians, 59.3% as senior clinicians clinical specialists or extended scope practitioners and 11.4% as team leaders or managers. In Beeston et al.'s (1998) survey 71.8% of respondents were senior clinicians, 28.2% were managers, and lower grades of physiotherapists were excluded from the sample. 18.7% of respondents in the CSP survey were employed in primary care settings, 35% in secondary care, 12.4% in community and 1.9% in mixed settings; in my survey 10.7% were employed in primary care settings, 53.6% in secondary care, 25% in community and 10.7% in mixed settings. No information was given as to the clinical specialities of the respondents in the CSP (2006) survey or in the Beeston et al. (1998) study; neither did the latter study give any information on gender, hours worked or employment settings.

In relation to highest academic qualifications, 69 (49.3%) respondents in my survey had a Diploma, having qualified before physiotherapy education became degree level qualification in 1992, 63 (45%) had an Honours degree, 8 (5.7%) respondents held a Masters degree, 9 (6.4%) were in the process of completing a Masters degree, 3 were considering beginning a Masters degree in the next 12 months, and 1 participant (0.7%) was registered on a Doctorate programme. In the CSP (2006) survey 7.8% of respondents had a Masters degree and 0.6% had a Doctorate. In Beeston et al.'s (1998) survey 9.2% of respondents had a higher degree.

This demonstrates how comparable my sample is to the samples in other published surveys in the UK involving physiotherapists. The samples were very similar in relation to gender and academic qualifications. In regard to grade, hours worked and work setting although the recorded percentages differed in that my study had a higher percentage of senior clinicians, a higher percentage working in full-time employment, and a higher percentage of respondents working in secondary care

settings, than the CSP survey, the samples were comparable in that each had the highest percentage of respondents as senior clinicians, followed by clinicians and the lowest percentage in the manager grade. This order was repeated in relation to hours worked where both surveys had the highest percentage of respondents employed in full time posts, followed by part-time posts and the least as locums; and in work settings, were both surveys had the highest percentage of respondents working in secondary care settings, followed by primary care, followed by community, and the lowest percentage working in mixed settings.

Some of the differences in respondent characteristics between these studies and mine could be due to the CSP (2006) survey involving all CSP members (including those overseas), whereas my sample only involved physiotherapists employed in the NHS. Respondents in the CSP survey include those working in independent, social services and voluntary sectors, in addition to those working in the NHS; and as only percentages were reported rather than actual numbers this prevents exact comparison in percentages of NHS physiotherapists in their study to those percentages in mine, which may account for some of the apparent differences. Similarly physiotherapists in the CSP survey who were self-employed in private practice and in the independent sector where employment grades differ from those in the NHS may have recorded themselves as clinicians which may account for the difference in percentages at senior clinician grade.

#### **5.4 SAMPLE FOR THE INTERVIEWS**

Table 5.6 shows the sample of 22 participants involved in the interviews in relation to their clinical speciality and grading. 9 (41%) worked in a musculoskeletal specialty, 3 (13.6%) in neurological rehabilitation, 2 (9%) in care of older people, 3 (13.6%) in cardiovascular respiratory and 5 (23%) in other specialties. 5 (23%) of interviewees in my study were employed as junior or Senior II clinicians, 13 (59%) as senior clinicians clinical specialists or extended scope practitioners and 4 (18%) as team leaders or managers. Table 5.7 provides detail of the demographical information of the interviewees. The length of time they had been employed as physiotherapists ranged from 1 month to 32 years, 6 (27%) for 5 years or less, 5 (23%) for 6-15 years and 11 (50%) for 16 or more years. 4 (18%) had a Master's degree, 2 (9%) were on a Master's programme and one (4.55%) was registered on a

PhD (Interviewee H). 14 interviewees (63.6%) were employed in secondary care settings, 3 (13.6%) in primary care, 3 (13.65) in mixed and 2 (9.1%) in community settings.

**Table 5.6 Stratified representative sample of interviewees in relation to their clinical speciality and grade**

*The %s in colour are linked to Table 5. 2 to demonstrate stratified representative sample for the interviews*

Clinical speciality	Rotational junior/ Sen II	Grading of post Sen I/clinical specialist	Team leader/ Manager	Total
Musculoskeletal	Interviewee D Interviewee Q	Interviewee A Interviewee E Interviewee H Interviewee J Interviewee T Interviewee V	Interviewee S	9 (41%)
Neurological rehabilitation	Interviewee F	Interviewee G	Interviewee I	3 (13.6%)
Care of elderly		Interviewee K Interviewee U		2 (9%)
Cardiovascular respiratory	Interviewee B	Interviewee C	Interviewee L	3 (13.6%)
Other speciality	Interviewee N	Interviewee O Interviewee P Interviewee R	Interviewee M	5 (23%)
<b>Total (%)</b>	<b>5 (23%)</b>	<b>13 (59%)</b>	<b>4 (18%)</b>	<b>22 (100%)</b>

**Table 5.7 Demographical information of the interviewees**

Interviewee	Years in physio.	gender	education	Hrs employed	Work setting	Years in specialty	Years in grade
A	8	male	Degree	full time	Secondary care	4	3
B	7	female	Degree	locum	Secondary care	5	5
C	23	female	diploma	full time	Secondary care	14	14
D	5	female	Degree	full time	Secondary care	3	3
E	5	female	Degree	full time	Secondary care	3	2
F	3	female	Degree	full time	mixed	<1	3
G	32	female	diploma	full time	Secondary care	12	2
H	10	female	Degree	part time	Secondary care	7	4
I	21	female	Masters	full time	Secondary care	17	3
J	26	female	diploma	part time	Secondary care	22	3
K	16	female	diploma	full time	community	5	5
L	5	male	Degree	full time	Secondary care	4	1
M	26	female	diploma	full time	community	21	11
N	<1	female	Degree	full time	mixed	<1	<1
O	17	female	diploma	full time	Secondary care	15	7
P	26	female	Masters	full time	primary care	22	10
Q	3	female	Degree	full time	mixed	2	1
R	25	female	diploma	full time	Secondary care	9	4
S	12	female	Masters	full time	Secondary care	9	5
T	14	female	diploma	full time	primary care	9	4
U	30	female	diploma	full time	primary care	10	10
V	29	female	Masters	full time	Secondary care	16	5

#### **5.4.1 Comparison with samples in other studies using interviews**

In relation to sample size, two other UK studies using interviews with physiotherapists were smaller and ranged from 5 in a focus group (Stathopoulos and Harrison, 2003) to 20 in individual interviews (O'Sullivan, 2003). In O'Sullivan's study involving 20 participants: 19 (90%) were female (90.9% of the interviewees in my study were female); 33.3% worked full-time (73% in my study) and 52% (9% in my study) worked part-time in the NHS. As in the CSP study, O'Sullivan's sample also involved practitioners working outside the NHS so it is difficult to make direct comparison of percentages in relation to hours worked. In the O'Sullivan study no information was given on clinical speciality, grade, work setting or the academic qualification of her interviewees. It is difficult to make further comparisons in relation to Stathopoulos and Harrison's (2003) study as no information was given on the sample characteristics in their study apart from indicating that the whole sample had a Master's degree (18% of interviewees in my study).

#### **5.4.2 Comparison of sample for interviews with the respondents in the survey**

When Table 5.2 and Table 5.6 are compared this shows how the interviewees were a stratified representative sample of the participants who responded in the survey, in relation to clinical specialty and grade. Both tables show the response by clinical specialty and grade with the percentages highlighted using correspondingly coloured font. Table 5.6 shows that 41% of interviewees were working in a musculoskeletal specialty (compared with 45% of the survey respondents); 13.6% in neurological rehabilitation (the same as in the survey); 9% in care of older people (10.7% in the survey); 13.6% in cardiovascular respiratory (7.9% in the survey); and 23% in other specialties (22.9% in the survey). In relation to grade: 23% of the interviewees were employed as clinicians (compared to 29.3% of the respondents in the survey); 59% were senior clinicians (59.3% in the survey); and 18% were team leaders of managers (11.4% in the survey).

### **5.5 PARTICIPANTS VIEWS ON CPD**

The opinions given by the participants in the interviews on the meaning of CPD had some common themes and phrases, relating to, for instance, '.... anything that enables you to do your job better' or 'something that you have personal interest in' (Interviewee B). Interviewees described how they viewed CPD as a way in which

they ensured that their practice remains up to date: by reading and using evidence that other people produce, by looking at best practice within their own area of specialty, to ensure that what they deliver is effective for their patients/clients; and to meet the standards that the Chartered Society of Physiotherapy, and their patients and colleagues would expect. Meeting standards of practice was frequently mentioned, although more often in relation to the professional body's Standards of Professional Practice (CSP, 2005a), rather than those of the regulatory body (HPC, 2003). Many acknowledged the change in emphasis on CPD, such as:

I think that it is over perhaps the last 15 years that we *have become more aware* of CPD. (Interviewee G)

and

I think as a term it is new to us – even though I think it is something we have always done, but it has become much *more formalised* in the last few years. (Interviewee U)

Key words and phrases in quotations that are related to the issues raised through the analysis are emphasised by using italics, as seen above and throughout this chapter.

The history of the physiotherapy profession and its CPD focus of wanting to improve care for patients was strong throughout the responses in the survey and in all the interviews, as explained by a team leader working in community services who had 26 years experience as a physiotherapist, who also describes the change in emphasis of CPD over recent times:

CPD is very patient orientated, it is very clinical based. It was always about being *the best physiotherapist you could be for your client*, and that was something that was strong in our training and something we still strive to be. Now the *onus has changed* that everybody else wants to see that we have done it. (Interviewee M)

Engaging with CPD and evidencing the learning from CPD activities was said by most participants to be a necessity, otherwise some participants believed that physiotherapy as a profession would no longer have credibility with service users or other health colleagues, with one male interviewee from an Acute Trust with 5 years experience suggesting:

The profession would probably become extinct if we did not keep up our CPD, because we would not have *up to date skills*, we would not

be able to provide *up to date treatments* and that would mean we would not be providing reasonable patient care. (Interviewee L)

This was supported by another interviewee who had worked in primary care for 10 years, saying:

We work in a field that is ever changing, there is new research coming out all the time, if we don't continually *update* our professional development we could be working with techniques that are no longer applicable or have been proved not to be effective. So we need to keep *up to date* with things that are changing. (Interviewee P)

However Interviewee M also suggested that physiotherapists should not always be striving for change unless it is better than what they already have:

CPD is not always about finding the *new*; it might be about finding that there is *nothing* new. (Interviewee M)

The following quote is a good illustration of how the term 'CPD' was described by most interviewees, particularly in the early part of their careers; that suggested incorporating work based learning activities and also stressed the importance of sharing knowledge in order to develop learning in others:

It (CPD) is everything that you learn throughout your career. It can be *subconscious learning, your day to day experiences* that build up over time; or you consciously making the decision to going on more formal courses; or *spending time with other people*, where you want to learn aspects of physiotherapy that you don't know so well. You would consciously spend time doing those particular tasks or skill. It is not only about gaining new knowledge; it is also about taking on more responsibility and developing your self. You also have the opportunity to *pass this knowledge on to those more junior to you*. (Interviewee A)

Many interviewees viewed the present guidelines from the Health Professions Council and Chartered Society of Physiotherapy as lacking clarity and detail, and that information on how to provide evidence of CPD was still missing, as exemplified by:

We still need information on a structure of what the HPC wants us to submit. They need, a way of defining development, and also structuring development, and I need to know how that can help me in my role. The CSP should provide more guidance for the membership and provide a better link between the HPC requirements, KSF (Knowledge and skills framework) and Agenda for Change.

(Interviewee C)

After this initial representation of the concepts of CPD and its new emphasis, we can now proceed to the analysis of the questionnaire data to see the range and priorities reported.

## **5.6 CPD ACTIVITIES**

The types of CPD activities reported in the questionnaire and identified by interviewees were varied and diverse. CPD activities of physiotherapists can encompass a range of ongoing learning opportunities including formal and informal learning (CSP, 2002a; HPC, 2003). Formal learning can include individual study days or longer programmes of study that may lead to an academic award. Informal learning can involve discussion at journal clubs, maintaining a CPD Portfolio, or work-based learning (WBL) through clinical practice.

### **5.6.1 Prioritising CPD activities**

In an open question in the survey, respondents were asked to prioritise their main CPD activity and 32 different activities were identified (Appendix XIII), which were reduced into 4 main categories: work based learning (WBL) activities; self-directed learning activities; attendance at courses or conferences; and research or audit activities.

It was the response to the open question to prioritise CPD activities and discussion with the interviewees that showed the term 'clinical supervision' may have had different meanings for different respondents and may account for all 100% of the respondents reporting participation as shown in Table 5.8. Some respondents appear to have used the term to provide, or receive, mentorship within their team, and others to describe supervision of physiotherapy students on practice placements. It is also possible that students from the local HEI provider of two pre-registration physiotherapy programmes may have been on practice placement the previous month, which could account for the reported high percentage of 'clinical supervision'.

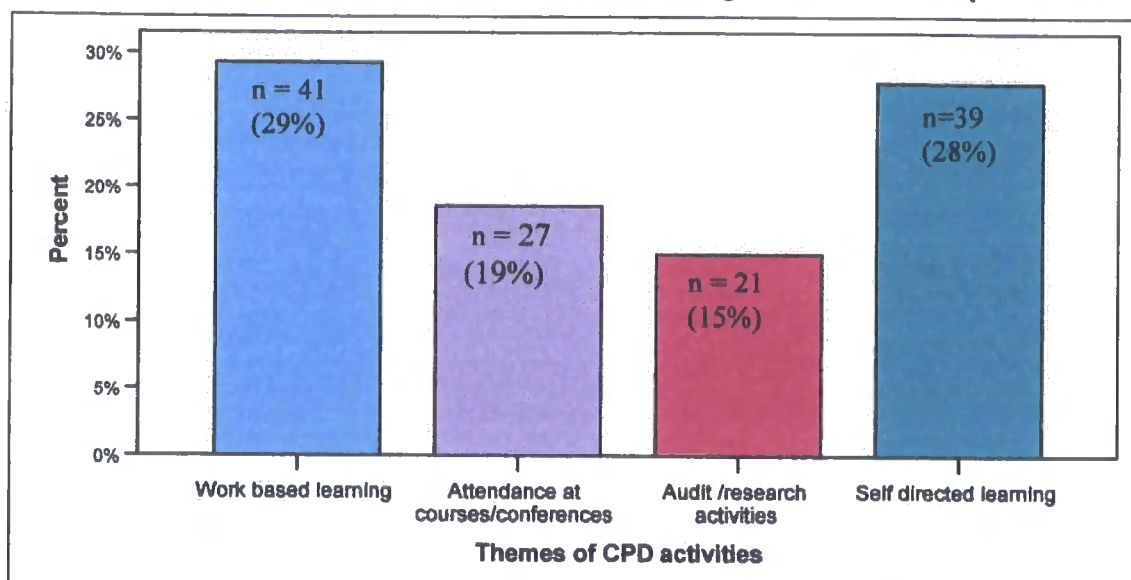
**Figure 5.2 Bar chart to illustrate respondents' prioritising their own CPD requirements**

Figure 5.2 uses a bar chart to illustrate the respondents' prioritising of their own CPD requirements in relation to activities in these categories. In relation to the views of all the respondents WBL activities were viewed as the most important (29%) followed by self directed study (28%), attendance at courses or conferences (19%) and audit or research activities (15%), although some respondents did not prioritise any particular CPD activity. Section 5.6.3 provides a bar chart that illustrates how respondents prioritised their CPD in relation to clinical specialty sub-groupings of the respondents in the survey (Figure 5.3); section 5.6.4 in relation to the grading of the post (Figure 5.4); and section 5.6.5 in relation to work setting (Figure 5.5).

### 5.6.2 Participation in CPD activities

In response to the CPD activities identified in the questionnaire Table 5.8 illustrates the level of participation from all the respondents in relation to CPD activities in the previous year, and month. However where respondents recorded activities that had taken place in the previous month these results and their interpretation should be treated with caution. For instance, as in-service CPD sessions tend to run on a monthly basis it is not surprising that there was a reported high level of participation, whereas external programmes, such as conferences, clinical courses, postgraduate modules, or practice educator courses may only run once or twice a year.

**Table 5.8 Respondents' participation in CPD activities in the previous year and month Highest % emboldened**

CPD activity	Participation of all respondents in previous: Year	Participation of all respondents in previous: Month
Clinical supervision	100	100
Reading eg books/articles/journals	92	90
In-service, in clinical speciality	86	74
Mandatory Trust/PCT training	79	36
In-service, general to all staff	76	56
On-line searches	74	65
Own Portfolio-keeping	69	51
Reflective practice	67	60
Work-based learning	54	47
Mentoring others	49	41
Clinical course/workshop eg CIG	44	16
Attendance at conference/s	41	22
Project work eg Audit/Research	39	25
Specialist clinical course/s	31	12
Member of clinical interest group	29	16
Shadowing others	29	17
Journal Club	29	16
Clinical educator course	24	5
CSP activities	12	8
Presentation at conference/s	11	6
Postgraduate programme eg MSc	10	6
Postgraduate module/s	9	4
Secondment/s	8	4
Writing articles/books	6	5

For some of the activities there were similar levels of participation reported across all different clinical speciality sub-groups, such as clinical supervision; and reading research articles, journals or books, where 90% of all respondents had engaged in reading in the previous month, and 92% in the previous year, with 100% participation by physiotherapists working in care of older people, those working in mixed settings, males and locums.

Responses in relation to sub-groups are reported separately: section 5.6.3 provides a table that illustrates how respondents prioritised their CPD in relation to clinical specialty sub-groupings of the respondents in the survey (Table 5.9); and section 5.6.4 in relation to the grading of the post (Table 5.10). Tables showing the frequencies of participation in CPD activities from all respondent subgroups

including: years in present speciality and grading, work setting, academic qualification, gender, and hours worked, are provided in Appendix XIV.

### 5.6.3 CPD activities in relation to clinical speciality

#### 5.6.3.1 Prioritising CPD activities in relation to clinical speciality

**Figure 5.3 Bar chart prioritising CPD activity in relation to clinical speciality**

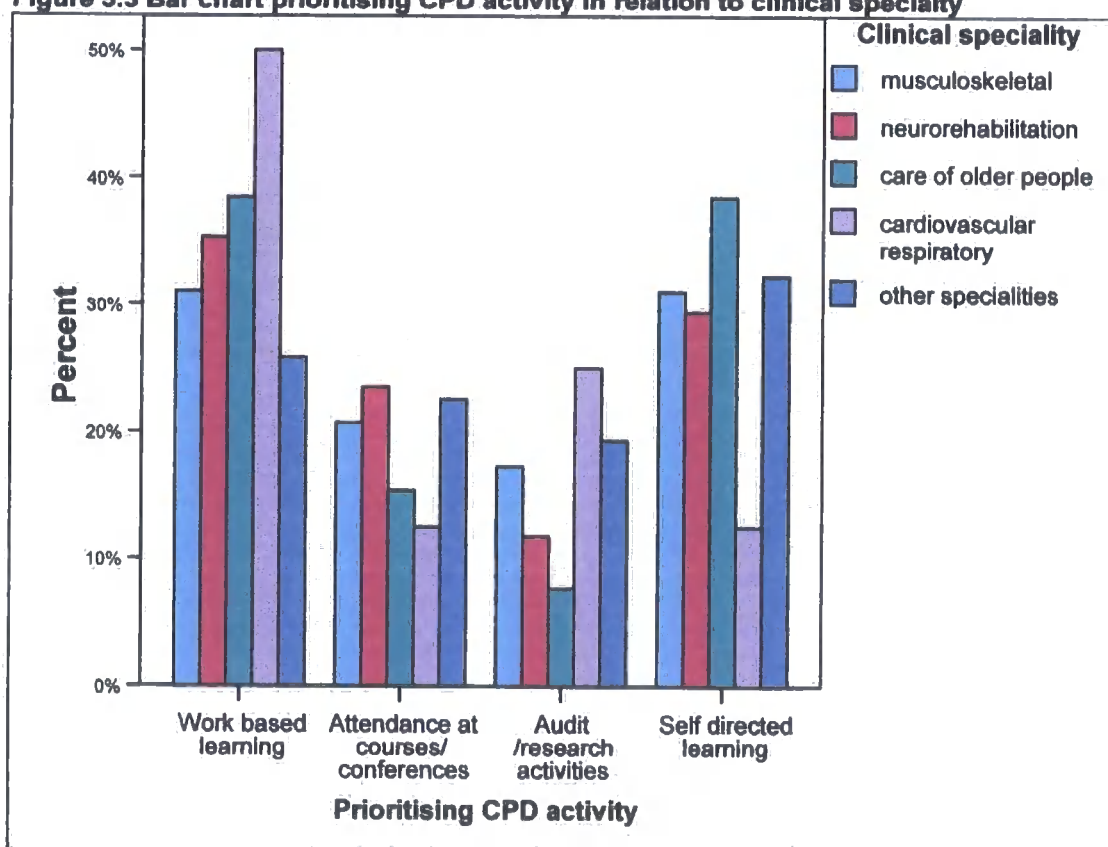


Figure 5.3 shows that respondents working in musculoskeletal services reported WBL activities (30%) to be as important as self directed learning activities (30%), as did those working in care of older people, both at 38%. In contrast 50% of those working in cardiovascular respiratory services reported WBL as the most important to them and only 12% preferred self-directed activities, with 24% of respondents reporting audit and research activities seen as important. 35% of respondents working in neuro-rehabilitation reported WBL activities the most important to them, followed closely by self-directed learning activities (30%), then attendance at courses and conferences (23%) with audit and research activities as the least priority at 12%.

## 5.6.3.2 Participation in CPD activities in relation to clinical speciality

Participation levels in the previous year in some CPD activities varied across different clinical speciality sub-groups, as shown in Table 5.9; for example, although 86% of all respondents had participated in some form of in-service CPD in their clinical speciality in the previous year, a greater percentage (100%) of those working in cardiovascular-respiratory physiotherapy had been involved, compared to only 73% working in care of older people. Respondents working in care of older people also reported the lowest participation in on-line searches, at 47% compared to 74% of all respondents, 82% of those with a postgraduate qualification, 84% of those in other specialities, and 100% of those employed as locums.

**Table 5.9 Respondents' participation in CPD activities in the previous year in relation to their present clinical speciality. Highest % emboldened**

CPD activity	Participation of all respondents in previous: Year n=140	Clinical speciality of respondents % within speciality				
		Musculo skeletal n = 63 (45%)	Neuro rehab- itation n=15 (13.6%)	Care of older people n =15 (10.7%)	Cardio-vascular- respiratory n =11 (7.9%)	Other n = 32 (22.9%)
Clinical supervision	100	100	100	100	100	100
Reading eg books/articles/journals	92	91	95	<b>100</b>	82	<b>94</b>
In-service, in clinical speciality	86	89	90	73	<b>100</b>	81
Mandatory Trust/PCT training	79	78	68	<b>87</b>	73	84
In-service, general to all staff	76	73	68	<b>93</b>	91	72
On-line searches	74	73	74	47	82	<b>84</b>
Own Portfolio-keeping	69	67	68	<b>73</b>	<b>73</b>	72
Reflective practice	67	64	<b>84</b>	60	55	72
Work-based learning	54	52	<b>68</b>	60	55	47
Mentoring others	49	48	<b>58</b>	47	46	50
Clinical course/workshop eg CIG	44	35	42	53	36	<b>59</b>
Attendance at conference/s	41	32	<b>58</b>	33	46	50
Project work eg Audit/Research	39	37	<b>53</b>	40	46	34
Specialist clinical course/s	31	43	26	0	18	31
Member of clinical interest group	29	14	32	33	18	<b>59</b>
Shadowing others	29	27	26	<b>40</b>	36	25
Journal Club	29	29	16	<b>33</b>	27	19
Clinical educator course	24	21	26	<b>40</b>	27	3
CSP activities	12	11	<b>21</b>	13	0	13
Presentation at conference/s	11	6	16	20	<b>27</b>	9
Postgraduate programme eg MSc	10	11	11	7	<b>27</b>	3
Postgraduate module/s	9	6	16	7	<b>18</b>	9
Secondment/s	8	<b>10</b>	5	7	9	6
Writing articles/books	6	6	11	0	<b>27</b>	0

Respondents working in care of older people reported higher participation in general in-service CPD at 93% compared to an overall 76% participation, and in portfolio keeping at 73%, compared to an overall 69%. Those working in mixed settings had high participation rates in general in-service activities (80%); with respondents working in care of older people having the highest participation in general in-service CPD at 93%.

Mandatory training, often with legal requirements where all staff are expected to attend, such as fire talks, hygiene, manual handling, cardiopulmonary resuscitation, generally takes place on site and is provided at no cost by their employer; participation was reported by 79% of the respondents, with the highest participation from those working in care of older people at 87%.

Physiotherapists in most clinical specialities apart from care of older people, reported higher participation in clinical specialty in-service sessions than in general in-service, although it was not clear if the provision of speciality in-service for care of older people was less than in the other specialities, and therefore reducing availability and consequently participation..

Participation in portfolio-keeping was highest at 87% among those working in mixed settings, and, among those respondents employed as clinicians (83%), and the least at 50%, among managers. Participation in reflective practice was reported by 84% of respondents with a postgraduate qualification, however only 59% of those with a diploma reported participation in the previous year. 31% of respondents reported attending a specialist external clinical course in the previous year, with the highest at 43%, working in musculoskeletal services, and no participation (0%) in these types of courses from respondents in care of older people. A greater number of all respondents (44%) attended a clinical course or workshop run by a CSP clinical interest group, the least (35%) from musculoskeletal services and the most from other specialities.

There was a low percentage (10%) of respondents who reported attendance on a postgraduate programme, despite the growth of Master's provision for physiotherapists (Beeston et al, 1998; Gosling, 1999). There was slightly higher

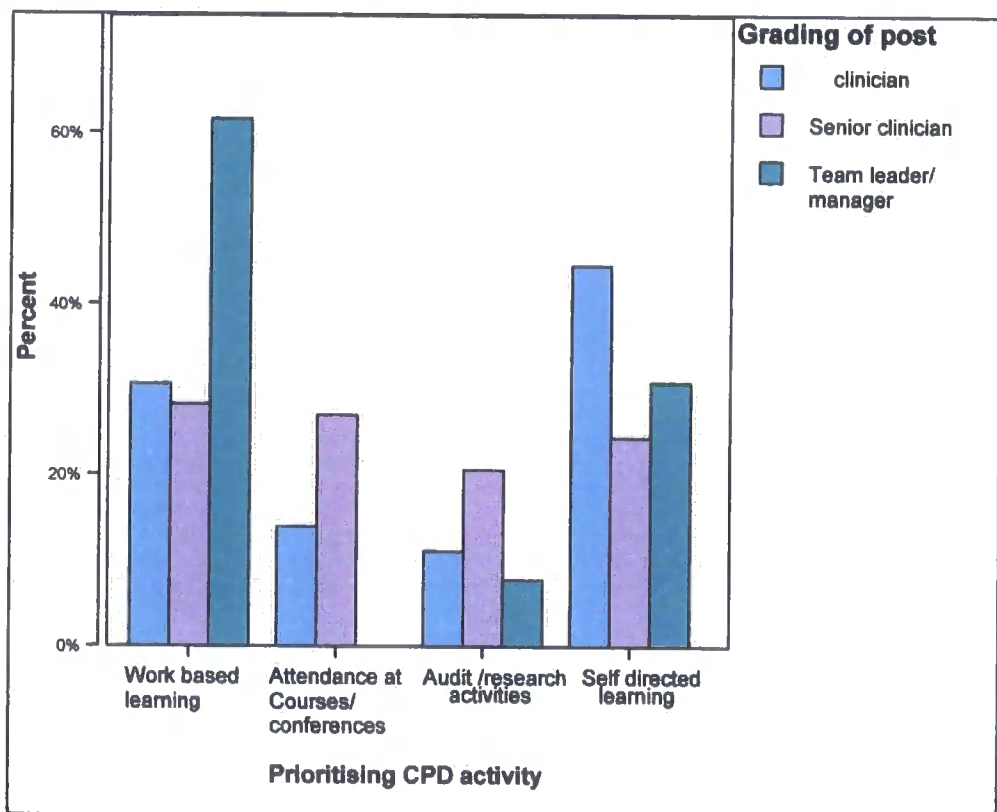
participation from team leaders and managers at 19%, and males at 20%, however no managers with 16 or more years in that grade reported attending any postgraduate level modules in the previous year. There was also a low participation reported in relation to attendance at a practice educator course with 24% of respondents overall and only 5% in the previous month; the greatest attendance was from those in care of older people at 40% and the least in those working in musculoskeletal speciality (21%), managers (13%) males (5%) and locums (0%).

### 5.6.4 CPD activities in relation to grading

#### 5.6.4.1 Prioritising CPD activity in relation to grading

Figure 5.4 shows that 62% of team leaders and managers reported WBL activities to be their most important CPD activity, with self directed learning activities at 30%, research and audit at 8% and no-one reporting courses and conferences as a priority.

**Figure 5.4 Bar chart prioritising CPD activity in relation to present grading of post**



In contrast 46% of junior clinicians reported self directed activities as the most important to them, WBL (32%), courses and conferences (12%), and research and audit (10%). The spread for senior clinicians was less with 30% of respondents at

this grade reporting WBL as having the most priority, 26% prioritised courses and conferences, self directed (24%) and the least important was research and audit at 20%.

#### 5.6.4.2 Participation in CPD activities in relation to grading

Table 5.10 shows how participation levels in the previous year in some CPD

**Table 5.10 Participation (%) of respondents in CPD activities in the previous year in relation to present grading** Highest % emboldened

CPD activity	Participation of all respondents in previous year n=140	Grading of respondents (number) % within grading of role grouping		
		Junior clinician /rotational post n=41 (29.3%)	Senior/ specialist clinician n=83 (59.3%)	Team leader manager n=16 (11.4%)
Clinical supervision	100	100	100	100
Reading eg books/articles/journals	92	93	<b>94</b>	81
In-service, in clinical speciality	86	<b>95</b>	82	<b>88</b>
Mandatory Trust/PCT training	79	73	<b>81</b>	<b>81</b>
In-service, general to all staff	76	<b>83</b>	74	69
On-line searches	74	<b>76</b>	71	75
Own Portfolio-keeping	69	<b>83</b>	66	50
Reflective practice	67	<b>73</b>	66	69
Work-based learning	54	<b>59</b>	58	25
Mentoring others	49	42	48	<b>75</b>
Clinical course/workshop	44	44	<b>45</b>	38
Attendance at conference/s	41	39	39	<b>56</b>
Project work eg Audit/Research	39	37	39	<b>50</b>
Specialist clinical course	31	34	<b>36</b>	0
Member of clinical interest group	29	15	35	<b>38</b>
Shadowing others	29	<b>54</b>	19	13
Journal Club	29	29	<b>30</b>	19
Clinical educator course	24	20	<b>28</b>	13
CSP activities	12	5	<b>16</b>	13
Presentation at conference/s	11	7	13	13
Postgraduate programme eg MSc	10	5	11	<b>19</b>
Postgraduate module/s	9	7	<b>11</b>	6
Secondment/s	8	<b>10</b>	8	0
Writing articles/books	6	2	6	19

activities varied across different grading sub-groups; for example, 95% of respondents working at junior clinician grade had participated in some form of in-service CPD, compared to only 82% of senior clinicians. 83% of clinicians engaged in portfolio keeping, compared to 50% of managers.

Junior clinicians also had the highest participation (73%) in reflective practice, compared to 66% of senior clinicians. The least participation in mandatory training, at 73%, was from clinicians, who tend to have the least experience and therefore are perhaps the most in need of this type of update. This was also reflected by those qualified less than 5 years (Appendix XVd). 54% of junior clinicians had attended specialist clinical courses in the previous year compared to 36% of senior clinicians and no team leaders or managers. Contrary to this 38% of team leaders and managers were members of specialist clinical interest groups whereas only 15% of junior clinicians were. Despite no team leaders or managers reporting courses and conferences as a priority for their CPD (Figure 5.4), 56% had attended courses and conferences in the previous year, with only 13% attending as presenters. Team leaders and managers had the highest participation in postgraduate programmes in the previous year at 19% with only 5% of junior clinicians having done so.

Interviewees in team leader or management posts identified the need for leadership type courses:

I realized that really what I wanted to do was manage, then I started *to do more managerial and leadership type of courses*, some were internal some were external. Some were sourced through the NHS, but they were specific for managers and leaders in the NHS.

(Interviewee I)

Sometimes you do things if you know your job is going in that direction and that sort of guides you to certain courses, and I must admit the *Leadership Development programme* which wasn't a clinical programme, *I got a lot out of that*.

(Interviewee S)

Most of my development that I do now is looking at some of the broader issues in terms of physiotherapy and looking at some of the strategies and policies, looking at the policies of the NHS. I had a 360 degree evaluation under LEA (Leadership Effectiveness Analysis) tool and that had highlighted some strengths and weaknesses. So I was able to use a lot of *the skills I had gained from my Masters* to actually help me to work through those.

(Interviewee I)

This was an issue which had not otherwise appeared in the questionnaire data, and one which needs further reflection.

### 5.7 REASONS FOR ENGAGING WITH CPD ACTIVITIES

When completing the questionnaire the respondents were asked to indicate the degree to which they agreed/disagreed with 15 items, as reasons for engaging with CPD activities, shown in Figure 5.5. Table 5.11 summarises respondents' opinions on these items.

**Figure 5.5 Items for engaging with CPD activities to which participants agreed/disagreed.**

- |                                     |   |
|-------------------------------------|---|
| 1. improve personal development     | 9. improve management skills                |
| 2. improve professional development | 10. increase chance of promotion            |
| 3. improve clinical skills          | 11. increase pay                            |
| 4. improve patient care             | 12. increase job satisfaction               |
| 5. gain academic credit             | 13. keep up to date                         |
| 6. gain postgraduate                | 14. use evidence based practice             |
| 7. gain Masters degree              | 15. demonstrate professional responsibility |
| 8. gain Doctoral degree             |   |

Table 5.11 showed that 99.2% (combining Strongly agree and Agree) of respondents reported strong support for engaging in CPD to improve patient care; 98.6% to improve clinical skills; 98.6% to keep up to date; 97.8% to improve their personal development; 97.1% to improve professional development. The first 8 items in Table 5.11 show agreement from over 80% of respondents, then there is a reduction from this point. The results from Table 5.11 are now discussed in more detail.

#### 5.7.1 Improve patient care

Table 5.11 showed that 99.2% of respondents reported strong support for engaging in CPD to improve patient care, with 100% of those working in neuro-rehabilitation, care of older people, cardiovascular respiratory and other specialities. Although the questionnaire responses provided me with descriptive statistics they did not allow me to explore the underlying thoughts of the participants.



**Table 5.11 Summary of respondents' clinical groupings on their opinions on reasons for engaging in CPD** (MSK= Musculoskeletal, NR = neurological rehabilitation, CoE = Care of older people, CVR = Cardiovascular respiratory)  
SA = Strongly agree A = Agree NO = no opinion D = disagree SD = strongly disagree

Reasons	Response	MSK	NR	CoE	CVR	Other	ALL
improve patient care	SA	39 (61.9%)	14 (73.7%)	8 (53.3%)	7 (63.6%)	19 (59.4%)	87 (62.1%)
	A	23 (36.5%)	5 (26.3%)	7 (46.7%)	4 (36.4%)	13 (40.6%)	52 (37.1%)
	NO	1 (1.6%)	0	0	0	0	1 (7%)
improve clinical skills	SA	46 (73%)	14 (73.7%)	8 (53.3%)	8 (73.7%)	18 (56.3%)	94 (67.1%)
	A	17 (27%)	5 (26.3%)	6 (40%)	3 (26.3%)	13 (40.6%)	44 (31.4%)
	NO	0	0	0	0	1 (3.1%)	1 (7%)
	D	0	0	1 (6.7%)	0	0	1 (7%)
Keep up to date	SA	42 (66.7%)	13 (68.4%)	7 (46.7%)	6 (54.5%)	19 (59.4%)	87 (62.1%)
	A	20 (31.7%)	6 (31.6%)	7 (46.7%)	5 (45.5%)	13 (40.6%)	51 (36.4%)
	NO	1 (1.6%)	0	1 (6.7%)	0	0	2 (1.4%)
improve personal development	SA	33 (52.4%)	12 (63.2%)	5 (33.3%)	5 (45.5%)	17 (51.3%)	72 (51.4%)
	A	29 (46%)	7 (36.8%)	10 (66.7%)	5 (45.5%)	14 (43.8%)	65 (46.4%)
	NO	0	0	0	1 (9.1%)	0	1 (7%)
	D	1 (1.6%)	0	0	0	1 (3.1%)	2 (1.4%)
improve professional development	SA	44 (69.8%)	16 (84.2%)	7 (46.7%)	8 (72.7%)	17 (53.1%)	92 (65.7%)
	A	19 (30.2%)	3 (15.8%)	8 (53.3%)	2 (18.2%)	12 (37.5%)	44 (31.4%)
	NO	0	0	0	1 (9.1%)	3 (9.4%)	4 (2.9%)
Use evidence based practice	SA	29 (46%)	9 (47.4%)	7 (46.7%)	6 (54.5%)	15 (46.9%)	66 (47.1%)
	A	32 (50.8%)	9 (47.4%)	7 (46.7%)	4 (36.4%)	14 (43.8%)	66 (47.1%)
	NO	1 (1.6%)	1 (5.3%)	0	1 (9.1%)	2 (6.3%)	5 (3.6%)
	D	1 (1.6%)	0	1 (6.7%)	0	1 (3.1%)	3 (2.1%)
Increase job satisfaction	SA	33 (52.4%)	11 (57.9%)	5 (33.3%)	4 (36.4%)	11 (34.4%)	64 (45.7%)
	A	25 (39.7%)	6 (31.6%)	10 (66.7%)	5 (45.5%)	19 (59.4%)	65 (46.4%)
	NO	2 (3.2%)	0	0	1 (9.1%)	0	3 (2.1%)
	D	2 (3.2%)	2 (10.5%)	0	1 (9.1%)	2 (6.3%)	7 (5%)
	SD	1 (1.6%)	0	0	0	0	1 (7%)
Demonstrate professional responsibility	SA	25 (39.7%)	6 (31.6%)	7 (46.7%)	6 (54.5%)	16 (50%)	60 (42.9%)
	A	33 (52.4%)	9 (47.4%)	7 (46.7%)	3 (27.3%)	16 (50%)	68 (48.6%)
	NO	3 (4.8%)	1 (5.3%)	0	1 (9.1%)	0	5 (3.6%)
	D	1 (1.6%)	3 (15.8%)	1 (6.7%)	1 (9.1%)	0	6 (4.3%)
	SD	1 (1.6%)	0	0	0	0	1 (7%)
Gain Masters degree	SA	4 (6.3%)	2 (10.5%)	0	2 (18.2%)	1 (3.1%)	9 (6.4%)
	A	12 (19%)	3 (15.8%)	0	1 (9.1%)	2 (6.3%)	18 (12.9%)
	NO	14 (22.2%)	5 (26.3%)	4 (26.7%)	4 (36.4%)	4 (12.5%)	31 (22.1%)
	D	25 (39.7%)	9 (47.4%)	9 (60%)	4 (36.4%)	20 (62.5%)	67 (47.9%)
	SD	8 (12.7%)	0	2 (13.3%)	0	5 (15.6%)	15 (10.7%)
Gain postgraduate certificate	SA	7 (11.1%)	1 (5.3%)	0	2 (18.2%)	1 (3.1%)	11 (7.9%)
	A	14 (22.2%)	5 (26.3%)	3 (20%)	2 (18.2%)	6 (18.8%)	30 (21.4%)
	NO	15 (23.8%)	5 (26.3%)	2 (13.3%)	4 (36.4%)	4 (12.5%)	30 (21.4%)
	D	22 (34.9%)	8 (42.1%)	8 (53.3%)	3 (27.3%)	20 (62.5%)	61 (43.6%)
	SD	5 (7.9%)	0	2 (13.3%)	0	1 (3.1%)	8 (5.7%)
Gain Doctorate	SA	2 (3.2%)	0	0	0	0	2 (1.4%)
	A	2 (3.2%)	2 (10.5%)	0	1 (9.1%)	2 (6.3%)	7 (5%)
	NO	21 (33.3%)	8 (42.1%)	4 (26.7%)	5 (45.5%)	4 (12.5%)	42 (30%)
	D	28 (44.4%)	9 (47.4%)	9 (60%)	5 (45.5%)	19 (59.4%)	70 (50%)
	SD	10 (15.9%)	0	2 (13.3%)	0	7 (21.9%)	19 (13.6%)
Gain academic credit	SA	7 (11.1%)	2 (10.5%)	1 (6.7%)	1 (9.1%)	2 (6.3%)	13 (9.3%)
	A	25 (39.7%)	8 (42.1%)	5 (33.3%)	6 (54.5%)	11 (34.4%)	55 (39.3%)
	NO	8 (12.7%)	2 (10.5%)	1 (6.7%)	1 (9.1%)	3 (9.4%)	15 (10.7%)
	D	20 (31.7%)	7 (36.8%)	8 (53.3%)	3 (27.3%)	15 (46.9%)	53 (37.9%)
	SD	3 (4.8%)	0	0	0	1 (3.1%)	4 (2.9%)
Increase chance of promotion	SA	10 (15.9%)	1 (5.3%)	2 (13.3%)	3 (27.3%)	4 (12.5%)	20 (14.3%)
	A	25 (39.7%)	9 (47.4%)	4 (26.7%)	6 (54.5%)	8 (25%)	52 (37.1%)
	NO	4 (6.3%)	2 (10.5%)	3 (20%)	1 (9.1%)	4 (12.5%)	14 (10%)
	D	21 (33.3%)	7 (36.8%)	6 (40%)	1 (9.1%)	14 (43.8%)	49 (35%)
	SD	3 (4.8%)	0	0	0	2 (6.3%)	5 (3.6%)
Increase pay	SA	11 (17.5%)	2 (10.5%)	1 (6.7%)	5 (45.5%)	5 (15.6%)	24 (17.1%)
	A	19 (30.2%)	6 (31.6%)	4 (26.7%)	3 (27.3%)	7 (21.9%)	39 (27.9%)
	NO	9 (14.3%)	2 (10.5%)	4 (26.7%)	1 (9.1%)	2 (6.3%)	18 (12.9%)
	D	21 (33.3%)	9 (47.4%)	6 (40%)	2 (18.2%)	17 (53.1%)	55 (39.3%)
	SD	3 (4.8%)	0	0	0	1 (3.1%)	4 (2.9%)
improve management skills	SA	6 (9.5%)	3 (15.8%)	1 (6.7%)	1 (9.1%)	3 (9.4%)	14 (10%)
	A	28 (44.4%)	11 (57.9%)	9 (60%)	7 (63.6%)	16 (50%)	71 (50.7%)
	NO	9 (14.3%)	1 (5.3%)	3 (20%)	2 (18.2%)	4 (12.5%)	19 (13.6%)
	D	15 (23.8%)	4 (21.1%)	2 (13.3%)	1 (9.1%)	6 (18.8%)	28 (20%)
	SD	5 (7.9%)	0	0	0	3 (9.4%)	8 (5.7%)



However the interviews did, and I found this view was also strongly supported by the interviewees, as illustrated by the following comments:

CPD is about delivering the best possible care, wanting to do *the best for the patients*, which is what I think it should be about.

(Interviewee L)

I feel quite passionate *that patients with disability should get just as good a service* as anyone else. I think we are doing CPD to make a difference.

(Interviewee P)

CPD was always about being *the best physiotherapist for your clients* and that was something we have strived to be. I will do anything that will make life better for the children I treat.

(Interviewee M)

I think my main driver, and I know I'm being idealistic, I'm doing CPD *for the good of the patients*. I often think people in care professions, perhaps we need to be needed, in that there is nothing better than the sense of satisfaction you get when you have helped a patient to achieve something.

(Interviewee P)

One participant voiced concern that the culture in physiotherapy was changing and that some practitioners were more concerned about how they could benefit from CPD activities rather than how their CPD can benefit the patient.

*We have to put CPD back into patient care*. It has become a 'me' not 'us' culture. 'What can I get out of it?' It should be 'how can we improve?', and then 'how can this help to improve the patient?' Some can lose sight of the end product.

(Interviewee J)

The changing focus on more involvement from service users was also raised, for instance:

I'm involved in special interest groups, and there are a lot of these groups that involve patients. In my early CPD when the CIGs (clinical interest groups) involved patients they were only there to be observed and practiced on, whereas now *these groups are much more around involving patients* in terms of what sort of services they want, what they expect from health professionals, and what helps them – what worked for them. This has slightly *changed the emphasis on where we place the patients* in modern health care.

(Interviewee I)

These two quotations suggest that it would be worth pursuing this issue further to see how widespread this feeling is and whether it has implications for the organisation of CPD.

### 5.7.2 Academic development

Although academic development was ranked lowest (Table 5.16) a number of interviewees had strong opinions on how studying for a Masters degree had improved their critical thinking skills

It (a Master's programme) helped me to *view things differently, to question my practice*. And, when you question yourself that is when you really find out what you do know and what you don't know; and want you do or don't want to learn more about. The Master's changed me, it made me think differently. (Interviewee A)

Doing the MSc has *improved my clinical reasoning* without me really realising it. It has improved and speeded up my thought processes. (Interviewee S)

and helped them to develop themselves

I learnt a lot about myself, and because I did it (MSc) as part of a multidisciplinary group. I got a wider perspective than perhaps I would have done had I done something very specific in physiotherapy. It *gave me a huge amount of confidence*, that I could do it, that I could write academically, I could source information, I could critically evaluate that information, I could put a piece of work together. (Interviewee I)

through being more critical about their practice:

So before I started my PhD I would have said I was reflective, but now *I question a lot more*, I really question everything. It has totally changed my whole practice, totally .....its seems to be since I got into this research culture that I am *questioning* everything. (Interviewee H)

I've never been a big fan of doing reflection – but having had to do it as part of a postgraduate module, by *including the reflective aspect* into that, because you've got focus because you're doing it on a case study I think that's made a difference without really knowing it until you come to write it, then I think that was quite useful *to ask 'should I have done that or not?'* and I think it that then got me into it in that I have been trying to encourage other people in the department that this is what we should be doing. (Interviewee E)

In these cases what is noticeable is the idea that people are changed by their involvement in postgraduate study, reporting 'it made me think differently' and 'gave me a huge amount of confidence'; by referring to the importance of questioning and being critical and being able to 'find out' and 'source' knowledge or information.

However others made negative comments about colleagues doing a postgraduate programme suggesting they may only want to study a Master's in order to progress in their careers and leave direct patient care, as illustrated by the following comment:

But a lot (of physiotherapists) want *to fast track, make short cuts*, thinking 'I want to get to the top as quickly as possible. I haven't got time to hang around. I'm going to do a Master's and get to the top, and move out of treating patients'. They can be '*what am I going to get? Rather than what am I going to give?*'

(Interviewee J)

While acknowledging that most physiotherapists value patient care, and would frequently avoid any CPD activity that took them away from direct patient care, there was often a lack of understanding as to the value of following any postgraduate level study, seeing it only for personal reward, which is illustrated by the following comment:

*What benefit would it be to me? I'm not going to benefit from it. If I'm not treating people..... unless you are going to go into private practice which is a different matter and you are looking to gain for yourself, but as a physiotherapist working in the NHS and solely working in the NHS and never likely to do anything else, I would not gain anything from it.*

(Interviewee K)

This latter quote contrasts with the earlier views of those above who saw the personal benefit in terms of change in themselves, in abilities to question, to discover, to be critical. In the case of Interviewee K the benefit is expected to be in a 'gain' which is implicitly financial. There appears to be a difference in understanding of the benefit from postgraduate study between some interviewees who have been involved in postgraduate programmes, who see the benefit in terms of personal development, and some interviewees who have not; who view any benefit in terms of finance, and this has implications for how postgraduate study is presented and understood.

### 5.7.3 Pay and promotion

Although potential increase in pay and promotion were only ranked as 11 and 10 (respectively) out of 15 items, as reasons for engaging in CPD (Table 5.15), more than half of the respondents agreed that lack of pay (57.8%) and lack of promotion (67.2%) were barriers to their CPD (Table 5.16). These findings are supported by the

following comments from interviewees, although there is an air of regret in the second remark which might be aligned to earlier comments on how the need to demonstrate as well as do has become important:

CPD for me personally, it is doing something appropriate to progressing my career. (Interviewee L)

Sometimes you do things if you know your job is going in that direction, and that sort of *guides you to do certain courses*. If you put down on your CV that you have been on a weekend course, people will pick on that and think you have done a lot. It is sad really because it doesn't mean to say that you have any extra knowledge from going on the course. (Interviewee S)

If you can say you have got an MSc it could *open more doors* to you. (Interviewee T)

One interviewee who was studying for a Master's degree believed this would lead to job promotion.

Agenda for Change has promised more chances to *get promotion* into a higher banding, and that this would reward people who had a Master's. In writing the job descriptions for Band 7 they were writing in that those types of jobs were going to include study to Master's level. So I just thought 'start now and get a lot of the work out of the way'. (Interviewee E)

Other interviewees agreed believing physiotherapists would need a Master's degree if they wanted to achieve promotion to a senior or specialist post, but also that it is important for the profession:

I think they (consultants) should at least have a Master's. I've seen situations where people have these senior posts through being in a situation when no-one else has applied, and they have just filled the post, and I think that is a mistake. It leaves the opportunity for over promotion and *then the service, or the profession, can get criticised because mistakes can be made*, and it is a less quality service. (Interviewee A)

Take consultant physio(therapist)s, they *almost need to be functioning at that (Doctorate) level*, they have to be up there with the rest of them, and you would be expecting people beyond Masters level, and really even having a Masters is not really enough for being a consultant. You almost have to look towards the people that are doing Doctorates and PhDs, to have that *credibility and standing within the wider community*. (Interviewee I)

The findings from the survey are supported with the findings from the interviews where interviewees reported strong support for CPD activities to maintain or

improve clinical skills, competence, and patient care, which have been described earlier in this chapter. Some reported that they would study for a higher degree if they thought it would be recognised in terms of pay and promotion:

I think physiotherapists have not been hugely driven by money perhaps in the past, but I think *you do want to be rewarded for what you have done*, and if you have put a lot of effort and time into a course, and improved your practice, then you would like to be rewarded for it. (Interviewee V)

Whereas:

I want to learn, I want *to improve my practice*, I want to *develop my practice* (Interviewee H)

Here interviewee H refers to improvement of practice, whereas Interviewee V is more concerned with learning or the change in them selves.

#### 5.7.4 Principal components as reasons for engaging with CPD

In relation to reasons for engaging in CPD from the survey, the error bar graph in Figure 5.6 shows a clear grouping of items into 3 separate clusters. This was further explored by carrying out a Factor Analysis using the Principal Component method, based on a scree plot test (Appendix XVII) (Green et al, 2003) which produced three components and confirmed there was a pattern in the reasons the respondents gave for engaging with CPD.

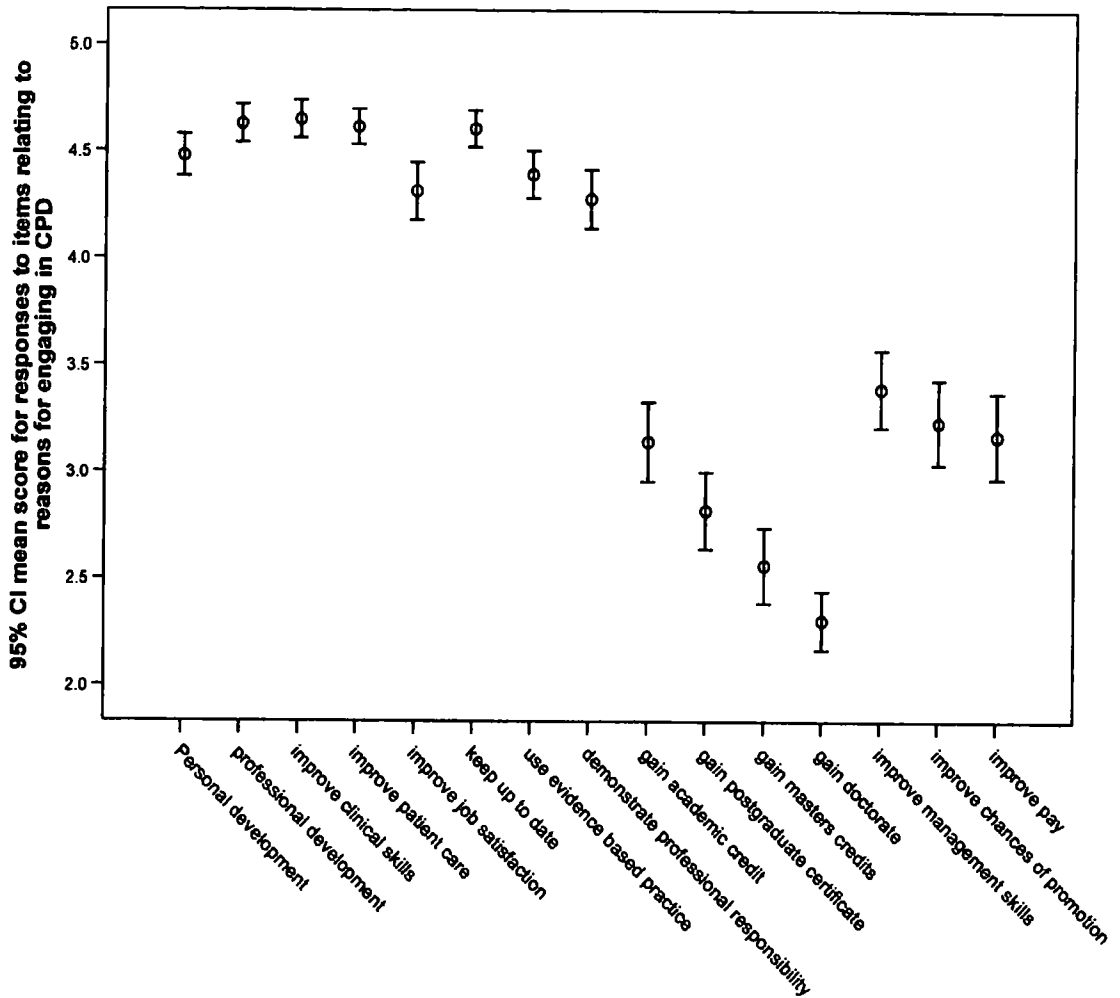
The proportion of variance accounted for by each of the rotated factors indicated the relative importance of each component. SPSS reports these statistics in 'Total Variance Explained' shown in Table 5.12.

**Table 5.12 Total Variance Explained: Reasons for engaging with CPD**

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.632	35.628	35.628	3.487	26.822	26.822
2	2.529	19.456	55.085	2.776	21.353	48.176
3	1.166	8.970	64.054	2.064	15.879	64.054

Extraction Method: Principal Component Analysis.

Figure 5.6 Error bar graph showing items as reasons for engaging in CPD



The rotated factor matrix shown in Table 5.13 gives factor loadings, which are the correlations between each of the variables and the factors for a Varimax rotation. The components were interpreted by naming them based on the size of the loadings and the items they relate to. On the basis of the content of these three sets of items, it is suggested that these components correspond to the concepts of: Development of self through professional practice, Academic development, and Pay and promotion. Items 1, 2, 3, 4, 12, 13, 14, and 15 (Figure 5.5) are associated most with Development of self through professional practice; items 5, 6, 7, and 9 are associated most with Academic development; and items 8, 10 and 11 are associated most with Pay and promotion.

**Table 5.13: Factor loadings for the three-component solution for the 15-item Likert-response question relating to reasons for engaging in CPD (Rotated component matrix)**

Items as reasons for engaging with CPD	Component		
	1 Development of self through professional practice	2 Academic development	3 Pay and promotion
Improve patient care	.822		
Improve clinical skills	.774		
Keep up to date	.768		
Professional development	.747		
Personal development	.738		
Use evidence based practice	.634		
Increase job satisfaction	.530		
Demonstrate professional responsibility	.486		
Gain Doctoral degree		.856	
Gain Masters degree		.839	
Gain postgraduate certificate		.753	
Gain academic credit		.676	
Improve pay			.896
Improve chance of promotion			.843
Improve management skills			.389
% of variance explained	26.8%	21.4%	15.9%
Cummulative % of variance	26.8%	48.2%	64.1%
Cronbach's Alpha	.847	.845	.824

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization

a Rotation converged in 5 iterations.

The eigenvalues ( $\lambda$ ) and proportions of variance these components accounted for were as follows: Development of self through professional practice,  $\lambda = 3.5$ , and accounted for 26.8%; Academic development,  $\lambda = 2.8$ , and accounted for 21.4% of the total variance; and Pay and promotion,  $\lambda = 2.1$ , and accounted for 15.9% of the total variance. In total the three principal components account for 64.1% of the variable variance. The 15-item three-component solution fitted the data very well. The Cronbach's Alpha ( $\alpha$ ) values relating to reasons for engaging in CPD were reported as good (.824 to .847) for internal reliability of the scale (Field, 2005).

A Friedman ranks test on data from all respondents found that Development of Self within Professional Practice was ranked highest, followed by Pay and Promotion, which ranked above Academic Development, with  $p < 0.001$ . When each sub-

grouping was analysed independently the rank order was consistent across all variables of: clinical speciality, years in present clinical speciality, grade, years in present grade, work settings and gender, with  $p < 0.01$  across all groupings, apart from employment grouping (locum category  $p = .368$ ), and these results are summarised in Table 5.14. Thus there is 95% confidence that respondents in each subgroup, apart from Locums, would rank Development of self highest, followed by Pay and promotion, then Academic development, as reasons for CPD.

**Table 5.14 Friedman's rank test on results of components identified as reasons for CPD**

	Ranks			Friedman test statistics			
	1	2	3	N	Chi-Square	df	Significance at $p < 0.05$
	Dev. self / prof. prac.	Pay and promotion	Academic development				
<b>All respondents</b>	2.90	1.85	1.25	140	204.25*	2	.000
<b>Years qualified</b>							
0-5 years	2.87	1.19	1.94	47	68.50*	2	.000
6-15 years	2.88	2.88	1.84	40	54.72*	2	.000
Over 16 years	2.95	2.95	1.78	53	82.02*	2	.000
<b>Clinical speciality</b>							
Musculoskeletal	2.87	1.89	1.24	63	88.16*	2	.000
Neuro. Rehabil.	2.95	1.66	1.39	19	27.32*	2	.000
Care of elderly	2.93	1.93	1.13	15	25.24*	2	.000
Cardiovasc. respir.	2.77	2.00	1.23	11	13.76*	2	.001
Other	2.97	1.80	1.23	32	52.15*	2	.000
<b>Years in speciality</b>							
0-5 years	2.87	1.90	1.23	67	93.93*	2	.000
6-15 years	2.92	1.83	1.25	51	76.42*	2	.000
Over 16 years	2.98	1.73	1.30	22	34.75*	2	.000
<b>Grade</b>							
Junior	2.90	1.16	1.94	41	64.14*	2	.000
Senior	2.90	1.30	1.80	83	117.60*	2	.000
Manager	2.91	1.22	1.88	16	23.52*	2	.000
<b>Year in grade</b>							
0-5 years	2.88	1.87	1.25	96	133.84*	2	.000
6-15 years	2.95	1.84	1.21	38	62.00*	2	.000
Over 16 years	3.00	1.58	1.42	6	9.48*	2	.009
<b>Employment</b>							
Full time	2.88	1.21	1.91	98	141.12*	2	.000
Part-time	2.99	1.33	1.69	40	63.94*	2	.000
Locum	2.5	1.25	2.25	2	2.00	2	Not significant
<b>Work setting</b>							
Primary care	2.83	1.27	1.90	15	18.95*	2	.000
Secondary care	2.90	1.23	1.87	75	110.21*	2	.000
Community	2.93	1.33	1.74	35	50.06*	2	.000
Mixed	2.93	1.10	1.97	15	26.56*	2	.000
<b>Academic qualifications</b>							
Diploma	2.97	1.73	1.29	58	92.14*	2	.000
Degree	2.85	1.95	1.20	63	88.51*	2	.000
Masters	2.87	1.87	1.26	19	26.00*	2	.000
<b>Gender</b>							
Female	2.93	1.24	1.83	120	183.37*	2	.000
Male	2.75	1.28	1.98	20	22.05*	2	.000

\* significant below  $p < 0.05$

In relation to prioritising respondents' reasons for engaging in CPD activities the mean scores of each of the survey items were calculated and rank ordered; the outcome is illustrated in Table 5.15, and also shows the associated principal component that the item was linked to.

**Table 5.15** Rank ordering of items given as reasons for engaging in CPD based on mean scores

Rank Position	Items	Associated principal component	Mean rank score
1.	Improve clinical skills	Development of self through professional practice	4.65
2.	Professional development	Development of self through professional practice	4.63
3.	Improve patient care	Development of self through professional practice	4.61
4.	Keep up to date	Development of self through professional practice	4.61
5.	Personal development	Development of self through professional practice	4.48
6.	Use evidence based practice	Development of self through professional practice	4.39
7.	Improve job satisfaction	Development of self through professional practice	4.31
8.	Demonstrate professional responsibility	Development of self through professional practice	4.28
9.	Improve management skills	Pay & promotion	3.39
10.	Improve chance of promotion	Pay & promotion	3.24
11.	Improve pay	Pay & promotion	3.17
12.	Gain academic credit	Academic development	3.14
13.	Gain postgraduate certificate	Academic development	2.82
14.	Gain Masters credits	Academic development	2.56
15.	Gain Doctorate	Academic development	2.31

### 5. 8 BARRIERS TO ENGAGING WITH CPD ACTIVITIES

Attitudes towards barriers to engaging with CPD activities were measured in the questionnaire using a 14-item scale comprising statements to which participants agreed or disagreed, shown in Figure 5.7. Table 5.16 summarises respondents' opinions on these items. The mean scores of each of these survey items were calculated and rank ordered; the outcome is illustrated in Table 5.20.

**Figure 5.7** Items as barriers to participation in CPD activities to which respondents agreed /disagreed

1. lack of support from management	8. lack of personal reward
2. lack of support from my peers	9. lack of professional reward
3. lack of support from other colleagues	10. lack of academic reward
4. lack of time	11. lack of financial reward
5. lack of funding from my employer	12. personal lack of appraisal skills
6. no interest in academic qualifications	13. personal lack of research skills
7. no interest in personal development	14. no interest in professional development

**Table 5.16 Summary of respondents' opinions on barriers to engaging in CPD relating to clinical speciality groupings**

SA = Strongly agree A = Agree NO = no opinion D = disagree SD = strongly disagree

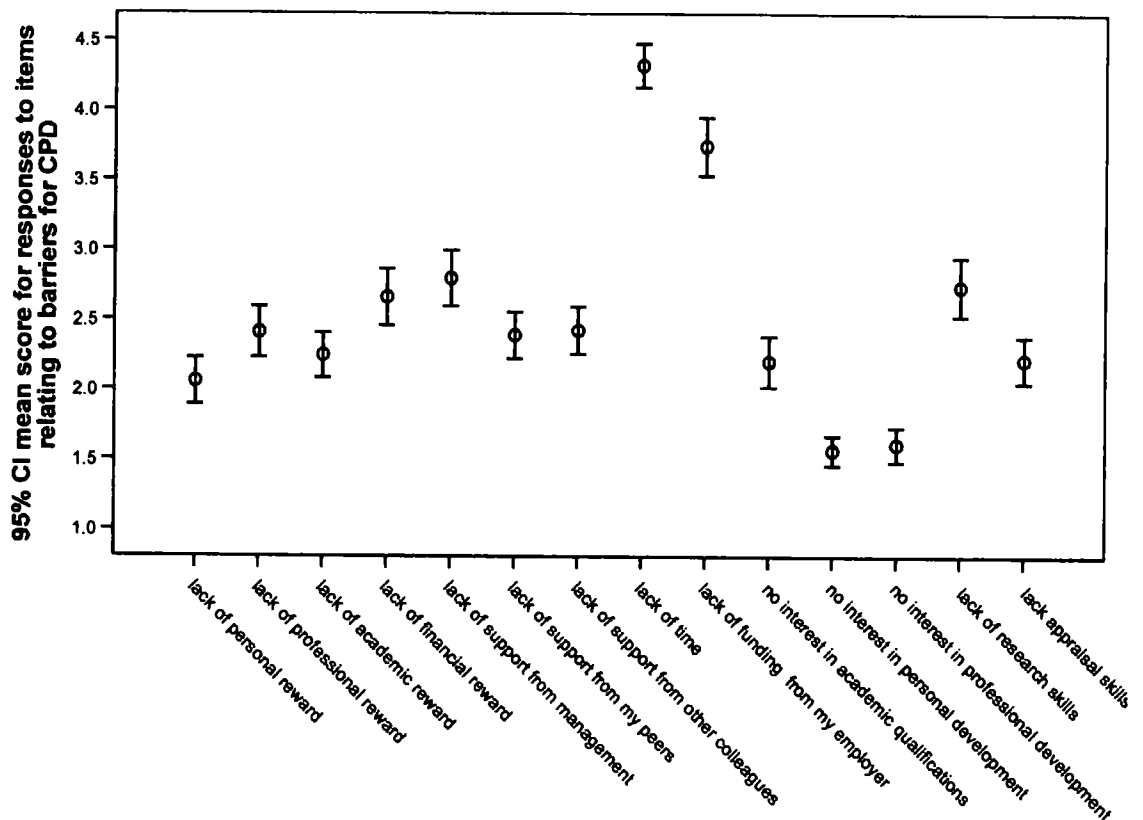
Barriers	Response	MSK	NR	CoE	CVR	Other	ALL
Lack of time	SA	26 (41.3%)	10 (53.6%)	9 (60%)	6 (54.5%)	21 (65.6%)	72 (51.4%)
	A	28 (44.4%)	9 (47.4%)	5 (33.3%)	4 (36.4%)	9 (28.1%)	55 (39.3%)
	NO	1 (1.6%)	0	0	0	1 (3.1%)	2 (1.4%)
	D	5 (7.9%)	0	1 (6.7%)	1 (9.1%)	1 (3.1%)	8 (5.7%)
	SD	3 (4.8%)	0	0	0	0	3 (2.1%)
Lack of funding from my employer	SA	25 (39.7%)	7 (36.8%)	6 (40%)	6 (54.5%)	5 (15.6%)	49 (35%)
	A	18 (28.6%)	7 (36.8%)	8 (53.3%)	2 (18.2%)	13 (40.6%)	48 (34.3%)
	NO	2 (3.2%)	0	1 (6.7%)	1 (9.1%)	1 (3.1%)	5 (3.6%)
	D	15 (23.8%)	5 (26.3%)	0	1 (9.1%)	13 (40.6%)	34 (24.35)
	SD	3 (4.8%)	0	0	1 (9.1%)	0	4 (2.9%)
Lack of support from management	SA	8 (12.7%)	3 (15.8%)	1 (6.7%)	1 (9.1%)	1 (3.1%)	14 (10%)
	A	16 (25.4%)	6 (31.6%)	4 (26.7%)	4 (36.4%)	5 (15.6%)	35 (25%)
	NO	5 (7.9%)	0	0	2 (18.2%)	3 (9.4%)	10 (7.1%)
	D	27 (42.9%)	8 (42.1%)	10 (66.7%)	3 (27.3%)	22 (66.8%)	70 (50%)
	SD	7 (11.1%)	2 (10.5%)	0	1 (9.1%)	1 (3.1%)	11 (7.9%)
Personal lack of research skills	SA	5 (7.9%)	0	2 (13.3%)	1 (9.1%)	1 (3.1%)	9 (6.4%)
	A	18 (28.6%)	5 (26.3%)	8 (53.3%)	2 (18.2%)	13 (40.6%)	46 (32.9%)
	NO	3 (4.8%)	0	0	1 (9.1%)	3 (9.4%)	7 (5%)
	D	24 (38.1%)	10 (53.6%)	5 (33.3%)	6 (54.5%)	10 (31.3%)	55 (39.3%)
	SD	13 (20.6%)	4 (21.1%)	0	1 (9.1%)	5 (15.6%)	23 (16.4%)
Lack of financial reward	SA	3 (4.8%)	1 (5.3%)	0	2 (18.2%)	1 (3.1%)	7 (5%)
	A	20 (31.7%)	5 (26.3%)	5 (33.3%)	4 (36.4%)	8 (25%)	42 (30%)
	NO	5 (7.9%)	0	0	1 (9.1%)	4 (12.5%)	10 (7.1%)
	D	22 (34.9%)	12 (63.2%)	7 (46.7%)	4 (36.4%)	13 (40.6%)	58 (41.4%)
	SD	13 (20.6%)	1 (5.3%)	3 (20%)	0	6 (18.8%)	23 (16.4%)
Lack of support from other colleagues	SA	2 (3.2%)	1 (5.3%)	0	1 (9.1%)	0	4 (2.9%)
	A	11 (17.5%)	4 (21.1%)	3 (20%)	1 (9.1%)	7 (21.9%)	26 (18.6%)
	NO	3 (4.8%)	0	0	1 (9.1%)	7 (21.9%)	11 (7.9%)
	D	35 (55.6%)	12 (63.2%)	12 (80%)	7 (63.6%)	17 (53.1%)	83 (59.3%)
	SD	12 (19%)	2 (10.5%)	0	1 (9.1%)	1 (3.1%)	16 (11.4%)
Lack of professional reward	SA	0	0	0	1 (9.1%)	0	1 (0.7%)
	A	15 (23.8%)	6 (31.6%)	3 (20%)	3 (27.3%)	9 (28.1%)	36 (25.7%)
	NO	3 (4.8%)	0	1 (6.7%)	1 (9.1%)	4 (12.5%)	9 (6.4%)
	D	30 (47.6%)	11 (57.9%)	8 (53.3%)	5 (45.5%)	13 (40.6%)	67 (47.9%)
	SD	15 (23.8%)	2 (10.5%)	3 (20%)	1 (9.1%)	6 (18.8%)	27 (19.3%)
Lack of support from my peers	SA	1 (1.6%)	1 (5.3%)	0	0	0	2 (1.4%)
	A	11 (17.5%)	5 (26.3%)	2 (13.3%)	0	10 (31.3%)	28 (20%)
	NO	6 (9.5%)	0	0	1 (9.1%)	3 (9.4%)	10 (7.1%)
	D	31 (49.2%)	11 (57.9%)	13 (86.7%)	9 (81.8%)	18 (56.3%)	82 (58.6%)
	SD	14 (22%)	2 (10.5%)	0	1 (9.1%)	1 (3.1%)	18 (12.9%)
Lack of academic reward	A	9 (14.3%)	4 (21.1%)	3 (20%)	2 (18.2%)	6 (18.8%)	24 (17.1%)
	NO	6 (9.5%)	1 (5.3%)	0	2 (18.2%)	5 (15.6%)	14 (10%)
	D	31 (49.2%)	12 (63.2%)	9 (60%)	7 (63.6%)	15 (46.9%)	74 (52.9%)
	SD	17 (27%)	2 (10.5%)	3 (20%)	0	6 (18.8%)	28 (20%)
	SA	3 (4.8%)	0	0	1 (9.1%)	0	4 (2.9%)
Personal lack of appraisal skills	A	5 (7.9%)	0	4 (26.7%)	2 (18.2%)	7 (21.9%)	18 (12.9%)
	NO	5 (7.9%)	0	1 (6.7%)	0	2 (6.3%)	8 (5.7%)
	D	35 (55.8%)	15 (78.9%)	9 (60%)	6 (54.5%)	19 (59.4%)	84 (60%)
	SD	15 (23.8%)	4 (21.1%)	1 (6.7%)	2 (18.2%)	4 (12.5%)	26 (18.6%)
	No interest in academic qualifications	SA	1 (1.6%)	0	0	0	2 (6.3%)
A		13 (20.6%)	0	5 (33.3%)	0	6 (18.8%)	24 (17.1%)
NO		3 (4.8%)	0	2 (13.3%)	3 (27.3%)	1 (3.1%)	9 (6.4%)
D		25 (39.7%)	13 (68.4%)	8 (53.3%)	5 (45.5%)	15 (46.9%)	66 (47.1%)
SD		21 (33.3%)	6 (31.6%)	0	3 (27.3%)	8	38 (27.1%)
Lack of personal reward	A	7 (11.1%)	3 (15.8%)	3 (20%)	4 (36.4%)	5 (15.6%)	22 (15.7%)
	NO	3 (4.8%)	0	0	1 (9.1%)	3 (9.4%)	7 (5%)
	D	27 (42.9%)	11 (57.9%)	9 (60%)	5 (45.5%)	16 (50%)	68 (48.6%)
	SD	26 (41.3%)	5 (26.3%)	3 (20%)	11 (9.1%)	8 (25%)	43 (30.7%)
	SA	1 (1.6%)	0	0	0	0	1 (0.7%)
No interest in professional development	A	0	1 (5.3%)	0	2 (18.2%)	1 (3.1%)	2 (1.4%)
	NO	6 (9.5%)	0	0	4 (36.4%)	0	8 (5.7%)
	D	18 (28.6%)	12 (63.2%)	10 (66.7%)	5 (45.5%)	16 (50%)	60 (42.9%)
	SD	38 (60.3%)	6 (31.6%)	5 (33.3%)	0	15 (46.9%)	69 (49.3%)
	A	1 (1.6%)	0	0	0	1 (3.1%)	2 (1.4%)
No interest in personal development	NO	2 (3.2%)	0	1 (6.7%)	2 (18.2%)	0	5 (3.6%)
	D	24 (38.1%)	12 (63.2%)	9 (60%)	3 (27.3%)	15 (46.9%)	63 (45%)
	SD	36 (57.1%)	7 (36.8%)	5 (33.3%)	6 (54.5%)	16 (50%)	70 (50%)

Table 5.16 showed that 90.7% (combining Strongly agree and Agree) of all respondents strongly supported the view that lack of time was a major barrier to engaging with CPD activities, and 100% of those working in neurological rehabilitation, with only 7.8% of all respondents disagreeing with this item. Lack of funding appeared to be another major barrier with 69.3% of all respondents reporting funding as a barrier, although 93.3% of physiotherapists working in care of older people agreed it was a barrier to their CPD, the least support from those working in Other specialties at 56.2%. Support from their manager was reported as less of a barrier than funding from their employer; with 35% of respondents agreed that lack of support from their managers was a barrier to their CPD. The interviews provided the opportunity to explore the issues of time and funding in more depth and the responses from the interviewees are presented in section 5.8.1.

### 5.8.1 Principal components as barriers to engaging in CPD

In relation to barriers to engaging in CPD, the error bar graph in Figure 5.8 shows an apparent grouping of items into 4 separate clusters, although this is less clear than in Figure 5.7 when looking at the reasons for engaging in CPD.

Figure 5.8 Error bar graph showing items as barriers to CPD



This was further explored by carrying out a Factor Analysis using the Principal Component method, based on a scree plot test (Appendix XVII) (Green et al, 2003) which produced four components and confirmed there was a pattern in the response from participants in the survey to barriers to their CPD.

Table 5.17 reports the total variance explained and Table 5.18, the rotated factor matrix, which displays the results of the Principal Component Analysis, revealing 4 components as barriers to engaging in CPD activities, and the factor loadings for each item. The components were interpreted by naming them based on the size of the loadings and the items they relate to. On the basis of the content of these four sets of items, it is suggested that these components correspond to the concepts of: Poor recognition and reward, Inadequate support systems, Personal apathy, and Perceived lack of ability. Items 8, 9, 10 and 11 from Figure 5.7 are most associated with Poor recognition and reward; items 1, 2, 3, 4 and 5 are associated most with Inadequate support systems; items 6, 7, and 14 are most associated with Personal apathy, and items 12 and 13 are most associated with Perceived lack of ability.

**Table 5.17 Total Variance Explained**  
Extraction Method: Principal Component Analysis.

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.786	27.044	27.044	2.932	20.945	20.945
2	2.497	17.837	44.881	2.573	18.379	39.325
3	1.623	11.592	56.473	1.860	13.287	52.611
4	1.309	9.347	65.820	1.849	13.209	65.820

The eigenvalues ( $\lambda$ ) and proportions of variance for these components accounted for were as follows: Poor recognition and reward,  $\lambda=2.9$ , and accounted for 20.9% of the total variance; Inadequate support systems,  $\lambda=2.6$ , and accounted for 18.4% of the total variance; Personal apathy,  $\lambda=1.9$ , and accounted for 13.3% of the total variance; and Perceived lack of ability,  $\lambda=1.8$ , and accounted for 13.2% of the total variance. In total, the four components account for 64.3% of the variable variance. Internal consistency of Likert scales using Cronbach's Alpha was acceptable to good (.653 to .891).

**Table 5.18 Primary Factor loadings for the four-component solution for the 14-item Likert-response question relating to barriers to engaging in CPD (Rotated component matrix)**

Items as barriers to engaging with CPD	Components			
	1 Poor recognition & reward	2 Inadequate support systems	3 Personal Apathy	4 Perceived lack of ability
Lack of professional reward	.859			
Lack of academic reward	.835			
Lack of personal reward	.767			
Lack of financial reward	.767			
Lack of support from my peers		.825		
Lack of support from other colleagues		.807		
Lack of support from management		.712		
Lack of funding from my employer		.584		
Lack of time		.579		
No interest in personal development			.795	
No interest in professional development			.669	
No interest in academic qualifications			.486	
Personal lack of research skills				.873
Personal lack of appraisal skills				.756
% of variance explained	20.9%	18.4%	13.3%	13.2%
Cumulative % of variance	20.9%	39.3%	52.6%	65.8%
Cronbach's Alpha	.841	.891	.653	.725

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 7 iterations.

A Friedman ranks test on data from all respondents found that Poor recognition and reward ranked highest, followed by Inadequate support systems, then Personal apathy, which ranked above Perceived lack of ability, as barriers to CPD, with  $p < 0.001$ . When each sub-grouping was analysed independently the rank order was consistent across all variables of: clinical speciality, years in present clinical specialty, grade, years in present grade, work settings and gender, with  $p < 0.01$  across all groupings, apart from years in grade grouping (16 years and over category  $p=0.15$ ), and employment grouping (locum  $p=0.392$ ), and these results are summarised in Table 5.18. Thus there is 95% confidence that respondents in each subgroup, apart from Locums, would rank Poor recognition and reward highest, followed by Inadequate support systems, then Personal apathy, which ranked above Perceived lack of ability, as barriers to CPD.

**Table 5.19 Friedman's rank test on results of components identified as barriers to engaging with CPD**

All respondents	Ranks				Friedman test statistics			
	1 Poor recognition and reward	2 Inadequate support systems	3 Personal apathy	4 Perceived lack of ability	N	Chi-Square	df	Sig. at p<.05
	3.39	2.43	1.59	2.59	140	154.26*	3	.000
<b>Years qualified</b>								
0-5 years	3.65	2.53	1.60	2.22	47	74.14*	3	.000
6-15 years	3.28	2.53	1.54	2.66	40	42.50*	3	.000
Over 16 years	3.24	2.27	1.63	2.86	53	50.93*	3	.000
<b>Clinical specialty</b>								
MSK	3.36	2.44	1.61	2.59	63	66.85*	3	.000
Neurorehabilitat	3.68	2.53	1.55	2.24	19	32.69*	3	.000
Care of elderly	3.30	1.97	1.73	3.00	15	16.87*	3	.001
Cardiovascresp	3.18	2.95	1.36	2.50	11	14.25*	3	.003
Other	3.38	2.39	1.59	2.64	32	34.29*	3	.000
<b>Years in specialty</b>								
0-5 years	3.51	2.57	1.59	2.33	67	88.52*	3	.000
6-15 years	3.17	2.33	1.58	2.92	51	51.54*	3	.000
Over 16 years	3.50	2.25	1.64	2.61	22	25.80*	3	.000
<b>Grade</b>								
Junior	3.56	2.52	1.59	2.33	41	58.57*	3	.000
Senior	3.36	2.39	1.58	2.68	83	88.96*	3	.000
Manager	3.09	2.44	1.69	2.78	16	12.38*	3	.006
<b>Year in grade</b>								
0-5 years	3.43	2.42	1.60	2.55	96	112.10*	3	.000
6-15 years	3.25	2.57	1.59	2.59	38	35.56*	3	.000
Over 16 years	3.50	1.83	1.50	3.17	6	10.40*	3	.015
<b>Employment</b>								
Full time	3.40	2.54	1.64	2.42	98	103.37*	3	.000
Part-time	3.41	2.14	1.46	2.99	40	60.41*	3	.000
Locum	2.25	3.25	1.75	2.75	2	3.00	3	Not significant
<b>Work setting</b>								
Primary care	3.27	2.50	1.60	2.63	15	14.05*	3	.003
2ndary care	3.42	2.45	1.63	2.51	75	86.36*	3	.000
Community	3.40	2.26	1.54	2.80	35	41.51*	3	.000
Mixed	3.30	2.70	1.53	2.47	15	15.92*	3	.001
<b>Academic qualifications</b>								
Diploma	3.23	2.26	1.64	2.87	58	56.42*	3	.000
Degree	3.50	2.59	1.56	2.36	63	85.62*	3	.000
Masters	3.47	2.45	1.58	2.50	19	22.53*	3	.000
Doctorate	3.23	2.26	1.64	2.87	58	56.42*	3	.000
<b>Gender</b>								
Female	3.20	2.45	1.70	2.65	20	16.50*	3	.001
Male	3.42	2.43	1.58	2.58	120	138.24*	3	.000

\* significant below p&lt;0.05

In relation to items that respondents reported as barriers to preventing them from engaging in CPD activities the mean scores of each of the survey items were calculated and rank ordered; the outcome is illustrated in Table 5.20, and also shows the associated principal component that the item was linked to.

**Table 5.20 Rank ordering of Items perceived as barriers to CPD based on mean scores**

Position	Item	Associated principal component	Mean rank scores
1.	lack of time	Inadequate support systems	4.32
2.	lack of funding from my employer	Inadequate support systems	3.74
3.	lack of support from management	Inadequate support systems	2.79
4.	personal lack of research skills	Perceived lack of ability	2.74
5.	lack of financial reward	Poor recognition & reward	2.66
6.	lack of support from other colleagues	Inadequate support systems	2.42
7.	lack of professional reward	Poor recognition & reward	2.41
8.	lack of support from my peers	Inadequate support systems	2.39
9.	lack of academic reward	Poor recognition & reward	2.24
10.	personal lack of appraisal skills	Perceived lack of ability	2.21
11.	no interest in academic qualifications	Personal apathy	2.20
12.	lack of personal reward	Personal apathy	2.06
13.	no interest in professional development	Personal apathy	1.61
14.	no interest in personal development	Personal apathy	1.56

### 5.8.2 Lack of support

As indicated in Table 5.16, 90.7% of respondents indicated that time is a factor and the following comment from an interviewee gives more detail on this, relating time to workload in critical care as a special problem:

The difficulty is for the more experienced physio(therapist) and how they allocate CPD time within a very, very, *heavy workload* and schedule. Particularly if you are looking at *critical care*, you cannot just walk away from patient care, there has to be someone here, or on call, 24 hours. (Interviewee C)

Lack of funding was also seen as a barrier by 69.3% of all respondents, and by 93.3% of those working in care of older people (Table 5.16), in some cases this leads to people paying for themselves:

*But for me it was probably the Bobath course I paid for it myself, and I enjoyed the child protection course, but that is because I have a personal interest in the area for a future job and hopefully by the time I get my paediatric rotation I will be able to use it.* (Interviewee N)

In other cases the decisions are made at the last minute when some funding can be found even though it could be considered it is a relatively small amount:

I think as far as funding goes, we are still well under-funded, for the necessary courses – I've just completed one which *cost about £600* – that is part of the National Falls work and needs to be put into action in this area, and yet we didn't have the funding to do the course. Then *at the last minute* whoever the Falls co-ordinator was they found a pocket of funding. It's a six day course and it's an evidence based national qualification for anyone working with Falls patients to try and lessen the effects of the falls, where it's been proven that this is the most effective way to do so. (Interviewee U)

The comments above raises the contrast between the possibility of personal gain of some kind, and what might be the idealism of wanting to be a better physiotherapist and improve care to patients to the contrast to the barrier of lack of support from their employer, when 'reality hits':

Reality hits and you think, 'what am I personally getting from this?' and *if I don't get the time off I simply don't go.* (Interviewee K)

Some respondents had suggested under *further comments* in the questionnaire (Appendix XVI) that there was inequity of CPD support in relation to hours employed. This was also supported by some interviewees, in that part-time and particularly locum staff do not get the same CPD support as full-time physiotherapists as described by Interviewee B, a locum working in respiratory care for the previous 5 years

There is definitely *inequity between permanent staff and locums* in support for CPD. But I suppose that is 'power for the cause'. You get paid more money (as a locum) and a lot of the time you are there to fill a gap. They don't look that closely at they can develop you as an individual. (Interviewee B)

This appeared to be a barrier to her future CPD aspirations in terms of funding and time, as she explains:

For instance, I did a week-long external course on CBT (Cognitive behavioural therapy) where *I had to take unpaid leave* to attend and pay all the fees. My patients have benefited from that because they are end-stage COPD (Chronic obstructive pulmonary disease) and they have anxiety on top of the physical symptoms. I would really like to do the Diploma in CBT but that means I would need to take up a full time post, as it is day release over a year. It will be run at a local hospital, so I would like to that if I get the chance. *But the thing with being a locum is, you are financing everything yourself*, the fees, and any time you take off, you are financing that too. I get paid more as a locum, but

I don't get holiday pay, sick pay or funding for CPD. I get away with attending clinical supervision each week because that is about patients off the ward that are being discussed, so that is seen as part of my workload. I suppose it is cost effective as I can see more patients in less time, and *I don't take time out of my working hours to go on courses*. And I suppose through the in-service sessions I'm passing on my expertise to junior staff. (Interviewee B)

A number of interviewees believed that in the existing culture within physiotherapy support for CPD was not seen as important compared to other professions, and while physiotherapists themselves always prioritise patient care above their own CPD needs this will remain a barrier, as described here, where everything else is contrasted with the priority of patient treatment:

Well other professions are given study time, but in physio(therapy) you have your in service CPD time, and mandatory courses that you have to go on, and then the meetings you need to attend. This is all out of clinical time. *So when do you get time to treat your patients?*

(Interviewee C)

Table 5.16 shows that approximately a third of respondents (35%) saw lack of support from management as a problem and this has been illustrated in the previous quotations, but only one interviewee commended the support from her managers and employers and gave us some insight into the thinking of the other two thirds:

The managers, their bosses, the directorate, have been really positive and encouraging, and *say this is really good to have a clinician doing research*. It is good for the Trust, it is great for them at the end to be able to turn round and say one of our physio(therapists) has just done a Doctorate. (Interviewee H)

It is notable that the emphasis here is on the status of Doctorate and research which this interviewee's managers saw as important.

### 5.8.3 Self doubt v reassurance

Although as Table 5.16 shows, the questionnaire asked respondents about aspects of self-development – and their interest or lack of interest in this in terms of skills, the interviews also brought out the issue of confidence, which had not been explicitly anticipated in the questionnaire. The self-confidence is linked to other factors mentioned earlier – keeping up to date and learning and questioning, and in that sense seems to be a consequence of other reasons:

*CPD makes you more confident* in your job and you are able to give the care that you want to give because you know you are doing the best for the patients, if you're *up to date* with your CPD and if you're not, you know there are times when you have got to *step back and do a bit of learning yourself* again to make sure you are up to date with your practice. (Interviewee L)

Some interviewees reported lack of confidence in their own ability with regard to attending courses with assessed components, with some believing Master's level study was beyond their capability, particularly if they had qualified as a physiotherapist at diploma level, including one who was employed as a clinical specialist. The reasoning can be based on comparison with peers:

I feel I have got to do a lot more things before I would feel confident enough to do postgraduate study. *I am very hard on myself*, and I suppose I am comparing myself to my peers. (Interviewee J)

or a matter of anxiety about theory or academic work despite much practical experience:

I actually qualified with a graduate diploma and had never topped up to a degree. So *I went into the Master's with some trepidation* and they agreed that I could do my first year and see how I got on, because obviously, although I had a lot of *practice experience* and had done a lot of courses, it wasn't formally evaluated academic work. So I did the first year and survived reasonably unscathed, and went on to finish my Masters. (Interviewee I)

Whereas others comment on how postgraduate study has increased their confidence and self esteem:

So that (MSc) has been helpful to me, and the service. Again, you are *confident you are giving the best treatment*, and the best treatment at the right time. (Interviewee L)

and in self-esteem the comparison with peers and their views is important:

In terms of my own self esteem it (MSc) has been good, but I think in terms of the way I am *viewed by others* that has altered too. (Interviewee P)

Some interviewees preferred external courses or conferences in order to 'learn from the experts', although often this appeared to be for reassurance that what the 'experts' were doing was in fact no improvement than their own practice, which in turn gives confidence.

CPD helps me to know that I am up to date, I haven't been left behind, I haven't got complacent. I would find a great deal of benefit in going to listen to what are deemed 'the experts', which you find in the CF meetings. *Listening to them and then thinking 'I do that anyway'*. (Interviewee C)

## 5.9 CPD CHOICES

We saw in Section 5.6, that there were differences in priority of activities from the survey responses in relation to the types of activities and choices made by those working in different specialities (Figure 5.3) and at different stages in their careers (Figure 5.4). In Section 5.7, the reasons for engaging with CPD were explored from the questionnaire data. The interview data brought out another set of dimensions in the thinking of participants, with respect to for example types of CPD and the value and interpretation put on them

### 5.9.1 Informal CPD and the value of experience v postgraduate programmes

Informal learning activities can include: work based learning activities, such as, in-service CPD sessions, mandatory activities, mentoring and shadowing more experienced staff; and self directed learning such as reading, reflective practice and portfolio keeping. Overall 79% of respondents had been involved in mandatory CPD with 100% of those working in mixed settings. There was some disagreement among the interviewees on whether mandatory training, such as health and safety and manual handling updates should be classed as CPD, with the majority viewing mandatory training as keeping up to date and revising basic standards, whereas CPD had an emphasis on development of the individual, as shown here:

CPD is time to develop. I would say that *mandatory training is not development*, it is making sure that you are up to date and able to re-visit issues, such as hand washing, fire safety talks, that sort of thing. It is *not development*, you are not learning anything new, you are just re-visiting what you already knew. I would not count that as CPD.

(Interviewee K)

Shadowing more experienced physiotherapists was viewed as a valuable experience particularly by junior physiotherapists in the early part of their careers. 29% of all respondents had participated in shadowing others in clinical practice in the previous year, with the highest participation from junior clinicians (54%). This is illustrated by the following comments, where the emphasis is on learning from others' experience:

In the areas where you have a lot of senior support, where you have on the job learning, MSK, spinal injuries, neuro, that is where you will get the on the job training, *because you have the experienced staff there with you*

(Interviewee F)

And this is contrasted explicitly with external courses:

My initial post as a junior (physiotherapist) was very much learning clinically from my senior more experienced physio(therapist)s – *not necessarily going on external courses, but more recognising the fact that they had a lot more experience than you and things like: questioning, and shadowing and having the opportunity to try techniques under their supervision and gaining in confidence from that sort of thing.* (Interviewee U)

On one of my rotations I got a lot of training, because I did manual handling training to staff in the hospital. It isn't something you would normally be involved in as a junior, and I was only working with one person, so *I did quite a lot of shadowing. I didn't do a lot of external courses* as a junior. (Interviewee S)

The importance of experienced staff becomes all the more evident when they are not available, but in this case even minimal experience is seen as valuable:

The medical rehabilitation rotation was probably one of the worst rotations, because *there wasn't a senior to shadow* and probably being truthful I learned a lot from the therapy assistants that were there, because they had been there for years. They were working with me and I learned as much from them as from anybody.

(Interviewee F)

Furthermore experience is not unitary. People with experience are varied and it is this variety which is contrasted with other kinds of CPD:

The fact that people have different styles of sharing that knowledge with you helps you too, because you *get exposed to different people* who will make different demands on you as a junior. So I think I probably *learnt more from experience* of working, and from my senior clinicians, *than I probably did from attending any other sort of CPD activity.* (Interviewee I)

However work based learning activities and experiential learning did not appear to be enough for some interviewees who had a post-registration Master's degree or were attending postgraduate programmes or modules. They did not believe that experiential learning was as efficient as the critical thinking that is encouraged on Master's level programmes, and the following comments are indicative of their views:

You do learn through experience *but you learn a lot quicker and a lot deeper* if you have the skills to analyse and challenge what you read or what you hear. The Masters changed me, it made me think differently. (Interviewee A)

Now that I have a Masters *I can appreciate that your thinking moves up to a higher level.* It gave me a huge amount of confidence as well, that I could do it, that I could write academically, I could source information, I could critically evaluate that information, and I could put a piece of work together. (Interviewee I)

This was contradicted by others who did not have any experience of Master's level study and challenged these views, believing in one case that:

..... you can be a very good clinician, and work in whatever field you want to work in, without going on a Master's programme. (Interviewee I)

In another case the point was made that the experience and study are complementary and there is still a tendency to give more emphasis to experience

Every patient that you see is different and *you can apply what you have learned* on a course, but it is also important to remember that you need the experience to know how to deal with a range of patients, and that *comes with experience, not from a course.* (Interviewee G)

In other cases the objections were to the ways in which academic courses are seen as important for careers and as we have seen earlier some people are critical of career-orientation and the impact of new policies:

Not everyone wants to go on to do a Master's programme. I think that if you want to go on to specialised post and the powers that be say you must have a Masters in a particular field I don't know how that would affect the profession to be honest. *I think this is one of the big problems that's come up with the Agenda for Change* that anything that you've done, unless you have a Masters, just doesn't count, which I think is extremely narrow minded. (Interviewee U)

Another aspect is the sense of lost opportunities and the resentment this causes towards younger people:

I think people qualifying now-a-days, there is almost an expectation that in a few years time that (get a Master's) is exactly what they will do. People are now doing their PhDs and their Doctorates, these were not things that were not options when I was more junior, and I think there is *some resentment sometimes from people that feel those options weren't open to them,* at the same level. (Interviewee I)

This contrasts with the idea that courses are only undertaken for personal reward through promotion or increase in pay, which was discussed in section 5.7.3. Some physiotherapists warn that there needs to be a balance between experience in the work place and formal courses:

Some physio(therapist)s haven't had the experiential learning, so their delivery to the patient isn't good. They become a bit like an automaton, *they are talking in 'text book terms', instead of relating it to 'patient terms'*. So they are not able to apply it appropriately in order for the patient to benefit. (Interviewee J)

And we come back to the contrast between experience and 'the course':

*Every patient is different* you see, and you can apply what you have learned on *the course* but you also need the experience to know how to deal with this patient. (Interviewee G)

#### 5.9.1.1 Self-directed learning v formal courses

Participation in self-directed learning activities was reported as a high priority by 28% of respondents (Figure 5.2), with 69% participating in portfolio keeping, and 67% in reflection on practice, in the previous year. Interviewees explain how reflective practice and the recording of this in a professional CPD portfolio can benefit the individual physiotherapist and the service who employs them:

I have *always kept a reflective diary*, so if I'd had a complex patient or if I'd had a really good result with a treatment, *I would write up what I had done*, then reflect back on it and say '*this is a good way to treat this and it has potential for other patients*', or '*never use that technique again* as it didn't have a good result'.

(Interviewee H)

I keep my own portfolio. Basically I used what we had at university, if there has been a critical incident *I put down what the incident was, how it affected me, and how it would change my practice*. And since graduating I have just carried on doing that. When I was a junior *I reflected and wrote it up when I learnt a new skill*. (Interviewee F)

As mentioned in section 5.8.2 lack of time was reported as a major barrier to engaging in CPD activities. Here one interviewee explains how he overcame this in his first junior post by utilising any spare moment to learn; taking the opportunity to read books whenever the opportunity arose, for instance if a patient cancelled an appointment which left a slot of time in his working day:

I thought 'I am going to use the time I've got to go and read a book'. So if a patient didn't turn up I would have a book on my desk, any book off the shelf that was related to that area I was in. So I decided to use that time to read a particular thing, not the whole lot, but I would think about what I didn't know and then read up about that.  
(Interviewee A)

### 5.9.1.2 Reading v critical appraisal

As shown in Table 5.9 92% of all respondents reported reading as one of their self-directed CPD activities in the previous year, 74% reported participating in on-line searches, and in Table 5.11 94.2% agreed that the use of evidence based practice was a reason for engaging in CPD. However only 29% of respondents had participated in journal clubs (Table 5.9), which would have given them the opportunity for critical appraisal and discussion on the content of that reading. Despite this lack of participation in journal clubs a number of interviewees extolled the benefits, both as a facilitators in setting up and running a journal club (Interviewees I and V) and as participant (Interviewee E):

I picked a paper that was quite easy to read, that had strengths and limitations in its methodology, and everyone had that paper for at least 2 weeks, and they knew that *they were going to be questioned about it when they came to the next in-service*. So *everyone read it* which was good and then we went through each section, the title, the abstract, the methodology etc., we basically *picked the paper to pieces*, but it actually gave them the idea of what *they needed to look for in appraisal*.  
(Interviewee I)

I was involved in *setting up a journal club* because there is an emphasis on *evidence based practice*, which we weren't really addressing properly. By setting up a journal club it was *useful to other members of the team*.  
(Interviewee V)

I don't think I realised how much the *critical appraisal* of research papers helps when you are doing project work, that you are able to *search through the literature* and pull it all together, the way you can accept *certain bits of evidence* and not others- I think it (the *journal club*) has made a big difference to me and others.  
(Interviewee E)

However some interviewees came across apathy from their colleagues with Interviewee H raises the point that having participation in an activity does not necessarily mean that they will learn anything from that activity or that will lead to an improvement in their practise, and a high participation in reading may not mean critical analysis of what is being read:

Everybody would be given a paper they would go away and read it and then everybody would come back and discuss it and though *half the people never bothered reading it* and those of us that did read it didn't really get much from it because all you were doing was reading, *not critically appraising* what they read, *we didn't change practice* in any way. (Interviewee H)

For many challenging practice was a key outcome of critical appraisal, with some interviewees describing how CPD had helped them to challenge their own practice and to challenge existing research. Some interviewees believed it was having the skills in critical thinking, critical reflection and critical appraisal of the literature, that came with postgraduate study had the most value for the individual physiotherapist and as a consequence, the greatest impact on patient care by assisting them to be able inform their future practice:

Now I've done a Masters module on *critical appraisal of the evidence* I now wonder how I got my first degree. Previously I'd read an article, well kind of read the summary and the conclusion, whereas now it's totally different. I think *I do read it properly now because I understand it*, whereas I don't think I did before, and I think that's what's made a big difference. (Interviewee E)

Prior to that [an MSc programme] I would read the abstracts of a paper in the journals and I'd think that was all it was, and that was when I actually started to look at '*well what does this mean?*' and '*how can we learn from it?*' (Interviewee H)

### 5.9.2 Experiential learning v clinical courses

The most popular types of CPD reported by the respondents in the survey and the interviewees were clinical skills courses, with 44% of all respondents having been on a clinical course run by a clinical interest group, and 31% had been on a specialist course (Table 5.9), such as those delivered by nation and internationally recognised courses from the Bobath Centre, Society of Orthopaedic Medicine (SOM), or Manipulation Association of Chartered Physiotherapists, in the previous year. Other courses named by interviewees included: Acupuncture, Muscle imbalance, and Kinetic Control. Table 5.11 reports that 98.5% of respondents agreed that they engaged in CPD to improve their clinical skills. This was strongly supported by the interviewees in explaining the type of CPD they preferred, for example:

I was looking for something that would *develop my clinical skills*. (Interviewee J)

I was still *improving my clinical skills* and consolidating them. I'm more interested in remaining a competent clinician than I am becoming any sort of a manager. (Interviewee K)

I wanted to go on courses that would *improve my clinical skills* and help me in my role. (Interviewee V)

When asking interviewees how they decided which course to attend, they said their decisions were mainly based on recommendations from other colleagues, and to a lesser extent from Frontline (the CSP fortnightly magazine), where they would look to see if the course was being run by a nationally recognised organisation or individual, such as:

I had some friends who worked at [another hospital] who had gone on these courses, *kinetic control* and muscle imbalance, who just said they were *really, really brilliant*. People had *raved and raved* about them so it was really *friends' recommendations* that I went on.

(Interviewee E)

Some interviewees spoke about how they valued clinical courses in their speciality, and by many these were seen as more important than academic programmes, as described here:

I think it is still more the *clinical courses that are important rather than academic courses*, certainly if you are working with inpatients (musculoskeletal).

(Interviewee B)

Two interviewees however explain that for clinical skills courses to be of value they also needed to be able to practice these new skills in the work place:

Your *handling skills would improve* by doing the Bobath course, your handling skills would certainly improve and you also *learn when you apply the skills* through your professional practice. Because most individuals have to *finance themselves* they would only attend courses like that if they knew it was *going to be really useful to them*.

(Interviewee G)

Here this interviewee gives more details about why clinical skills courses are of value in using a problem solving approach to produce more effective treatment:

The Bobath course focused me much more on *problem solving* and actually trying to get the root of the problem, rather than managing how the problem would manifest. I became much *more focused on making sure my treatments were effective*. What was important was what benefit you could demonstrate from your treatment and what carry over it had.

(Interviewee I)

And also those that were based on evidence based practice through research:

That was a *lower limb rehab(ilitation) course* for treatment of common injuries, it was run by an Australian physio(therapist) *who had done research*, and worked with sports teams, so that was really good. I was able to use things from that, that *I could use in out-patients*.

(Interviewee Q)

Other interviewees spoke about the importance clinical skills courses to keep practitioners up to date with technology and the use of equipment, as explained by this senior clinician who worked in respiratory care on an intensive care unit (ITU):

Those courses that specialise in respiratory care made it much easier to work on ITU; I have more background *knowledge of equipment*, of ventilators, so that *makes me feel more confident, comfortable in that I'm doing what I should be doing*.

(Interviewee B)

As seen above Interviewee G also emphasised the views from other respondents in the survey and interviewees that often due to poor funding from their employer (Table 5.16) they had to fund themselves on external courses and that they would only do this if they believed the course was of value.

Some interviewees expressed opposing views that experiential working in practice is a more valuable way of learning than attending clinical courses, as exemplified by:

And being a person who likes to provide a good service, I believe what you *learn from doing your job* is more important than any course you could possibly go on.

(Interviewee K)

This interviewee was more opposed to academic, theory-based courses than skills based courses, believing that it was the practical components that were the most important content for physiotherapists:

Courses, I find are good for broadening the knowledge base, or broadening outlook on how something's done but I think in a *profession like ours* where there is so much one to one and we touch – *we learn a lot through our hands and our eyes*, so you can't learn from someone speaking to you or from watching a film – it's just a very personal observation that I think *we learn that way*.

(Interviewee U)

In looking at the outcomes of CPD some interviewees were able to give examples of CPD activity and explain that the direct impact on the individual practitioner, the patient, and the service. Here interviewees give examples of the outcome of their CPD following clinical courses they had attended, one on Wheelchair Prescription,

two on Acupuncture, and one on neurological rehabilitation, all commenting on the benefits of reduced waiting or treatment times, increased treatment options and pain relief:

I have been on a *wheelchair accreditation course* which was something I couldn't do in house, but it has been very useful because *now I can prescribe wheelchairs for patients* on my other rotations. I think it has had an *impact on the service and on patient care*, as patients can be *discharged quicker* because they don't have to wait for an appointment to go to a separate clinic to be assessed for a wheelchair. (Interviewee N)

The *acupuncture course was really beneficial* as I use it for the *treatment of pain*, which has *reduced treatment times* by using a different method of pain relief. (Interviewee F)

I learned *acupuncture* quite early on so I could offer patients *acupuncture as an option*, you do learn new techniques, and new ways of doing things and you can offer more options. (Interviewee I)

With *neuro(logical rehabilitation) techniques*, if by using a different technique we are having an *improved effect on tone*, for instance, we are *not having to splint* the patient. I did a *basic course in neuro*, then I did the advanced course I also did various short courses: treatment to the hand, and the motor relearning course. I did them because I wanted to *increase my knowledge* for my own sake, and also for the sake of the patients of course. (Interviewee F)

Even interviewees with many years experience in practice and having attended many CPD activities throughout that time thought it was still important to keep up to date with new skills:

You can *change how you actually do something over time* and I think it is sometimes good to *go back and refresh on what you are actually doing day to day*. In the recent (acupuncture) course I did, the needles were pushed much further in to the tissues and I started using that (technique) and I think with good effect. (Interviewee V)

The value of respiratory skills courses, in particular Preparation for on-call respiratory care courses for newly qualified physiotherapists, was raised by most of the interviewees, as all graduates in their first post have to pass locally agreed competencies in respiratory before they can go on the on-call rota for out of hours respiratory care. These programmes involved theoretical and practice components followed up with practice in the work place in order for clinicians to demonstrate the competencies, which supports the view that courses with clinical skills components that can then be practiced back in the work place are important:

You have to *pass all the competencies* before you can go on the *on-call list*. You do a 3-day preparation course run at [another hospital], but you still *have to go back on the wards* and pass all the competencies or you don't get on to the on-call list. (Interviewee B)

One interviewee who is registered on a PhD emphasised the change in the type of CPD she would choose now, as opposed to when she was working purely as a clinician and prior to registering on her PhD studies. She now viewed conferences which presented the most up to date research as the most important to her:

I would be much more tempted now to *go to a conference*, even if it were in connection with my clinical work, *than just to go on a clinical course*. I'm not saying I don't think you should develop your clinical skills at all, that's not what I'm getting at. But for me, because I think I *need to get evidence to support what I am doing for my PhD research*, I think that is where the conference side of things come in, because that makes you actually think about your clinical practice, because you are already at that level. (Interview H)

### 5.9.3 Personal desire v service need

There appeared to be a tension between what individuals wanted to do in terms of their own learning needs (Figure 5.2; Table 5.11) and what the service actually required, and therefore what employers were prepared to support in terms of funding and time away from the workplace to attend courses. One interviewee who was a physiotherapy manager in a large Acute Trust explained how managers would want to know what the impact of a course would have on the service, rather than the individual practitioner, in order to support staff attending courses:

As the managers of the service we were beginning to think '*well what's in this for physiotherapy?*' We could see what is in it for individuals in terms of advancement of their career, and all the things you get out of doing the Masters, but *what difference is it actually going to make to practice if people do it?* (Interviewee I)

This manager also highlights staff interest in popular clinical courses such as Acupuncture, and raises concern that the staff interest may be in excess of what the service requires:

We have *lots and lots of people, lots of juniors who want to do acupuncture* so we are a little bit cautious about *spending a lot of money* for a lot of people to do acupuncture, that they may or may not be able to use. When we looked at how many people were actually using acupuncture on a regular basis it was about 4 people. So in relative terms *we don't need 30 people that can be trained to do it*. (Interviewee I)

Interviewee V raises similar issues in relation to injection courses as well as acupuncture, where individual interest may be greater than service need:

*'Should we send ten people off on the same course, or should we get people to specialise more in particular areas?' It may be that a service might need someone to be able to give injections, but you don't need 5 people in a small service to be able to inject. Whereas where we had all done the acupuncture course we did not have a real specialist in acupuncture. So it might be that the organisation may want to look at limiting who is specialised in different things.*

(Interviewee V)

The following interviewee was also concerned about sending too many physiotherapists on courses that they may not be ready for, resulting in them being over-confident, which could have a negative effect on patient care:

*I think the patient can suffer as well because there is a barrage of education, so they [the junior staff] are hit with everything, and then they think they are experts, because people label them as experts, because they have been on a few courses. But really they haven't had the experiential learning, so their delivery to the patient isn't good. They become a bit like an automaton, they communicate with 'talking text book terms', instead of relating it to 'patient terms'. So they are not able to apply it so that the patients' benefit.*

(Interviewee J)

## 5.10 OUTCOMES OF CPD

All interviewees believed the various CPD activities they had engaged in over their career had had a positive outcome on improving the service they delivered to patients (section 5.10.1); and they also described the impact CPD had on their own self development (section 5.10.2) and how their new knowledge and skills could be shared with other colleagues (5.10.3). It was however noticed that although most interviewees identified certain CPD activities that had a positive impact on patient care when this was explored further in the interviews some interviewees had difficulty in verbalising how specific activities produced specific outcomes that had a direct impact on patient care. Those best able to articulate positive outcomes were interviewees who were involved in or had already completed postgraduate study.

### 5.10.1 The impact of CPD on patient care and service improvement

As raised in section 5.7.1 improving patient care was strongly supported by 99.3% of respondents as a reason for engaging in CPD (Table 5.11) Even when asked how

each of the interviewees as individuals had benefitted from different types of CPD activity, the interviewees responses were overwhelmingly based on wanting to improve patient care.

I could work more autonomously and more confidently as a practitioner in terms of the *skills I could offer patients*, the way I could communicate with them, and involve them. (Interviewee I)

Even if only a limited number of practitioners were supported to go on an external CPD event, they would expect to share that new knowledge and skills with the team on their return:

I think our CPD at present is very much what *benefit would it be to the service, and therefore our clients*, 'Are you going to go and therefore teach us it so we are up to date'. (Interviewee M)

One interviewee has published a paper based on his research as a result of his MSc that would allow physiotherapists and other health professions working in respiratory care to improve their practice and benefit patients on intensive care units, through presentation of his research at conferences:

I had a *paper published* about 18 months ago in Connect, which is the journal for the World Confederation of Critical Care Nurses. I also *presented different stages of my research* to different conferences. (Interviewee L)

Courses can offer the opportunity of getting a wider perspective on the care of patients in their specialty, and explained here by a senior clinician working in respiratory care, who wanted to find a more holistic way to care for her patients who have cancer, rather than only looking at physiotherapy treatments:

I have gone out on a tangent slightly at times, *for my own information and understanding* perhaps. I have looked at *learning more about cancer*, and the treatment of cancer, *chemotherapy and the effects it has on the patient*. Because I am treating patients with that disease then I would want to learn about that disease and the treatment for that disease, to *help me have a greater understanding of what is happening with the patient*. So it isn't just the physiotherapy respiratory care, it is also *getting the broader perspective* on the medical condition. (Interviewee C)

Some interviewees believed physiotherapists can learn from taking a wider view of physiotherapy by looking at policy decisions around health economics, rather than just learning new or advanced clinical skills, and that this can improve their practice,

by improving the quality of the time spent with patients, as explained by a clinical specialist in musculoskeletal services, who is studying an MSc programme:

I have seen the value in than sort of course [an MSc programme], it helped me to look at the *politics of the service* rather than just the nuts and bolts of which patients you are going to treat. It *helped me to view things differently*, helped me to *question my practice*. Now clinically I *see patients far less* than I ever did, but I *treat them far more effectively*. (Interviewee A)

Interviewee V explains how she believed that her MSc not only was of personal benefit, but would also benefit the service that employed her, by being able to use her new knowledge to facilitate others to improve the service, saying:

I would like to *develop others*, you know, to *improve the service*. I don't think I could have just done it and then not used it. It has opened my eyes to lots of ways that you could *improve what we are doing as a result of the knowledge* I have gained. (Interviewee V)

She goes on to promote the use of evidence based practice and how knowledge of health economics can improve practice:

There is also an emphasis on *evidence based medicine*, which we weren't really addressing properly, I became more conscious of the fact that I *could be wasting a huge amount of money* and I think that as physiotherapists we can do, because we keep going thinking we are trying to get somebody better. Whereas it might be more appropriate, to refer them on to someone else, who is more appropriate. The MSc made me look at a *wider perspective including health economics*.

(Interviewee V)

The following interviewee has similar views to Interviewee V, in wanting to promote the use of evidence based practice:

You have always got to *prove what you are doing is best for the patients*, best for the service, and that you have the evidence to *prove that what you are doing is the right thing*. We need to be able to *demonstrate that we are achieving what we want to achieve*. This is why we need to look at audit and that the outcome measures we use measure what we set out to measure. (Interviewee F)

Although 94.2% of respondents viewed the use of evidence based practice as a reason for engaging in CPD, only 39% had been involved in research or audit activities in the previous year.

One interviewee who is registered on a PhD and presently only working clinically one day a week, felt the staff working in musculoskeletal services were also

benefitting from her research, through her development of clinical guidelines and encouragement to become more critical of their practice:

They are *reaping the benefits of my research*, because I am able to feed things back in, such as *clinical guidelines*. My own research project had already raised questions within my peer group who practice with musculoskeletal. I feel that I am having quite a *big influence in musculoskeletal team* on how we take things forward with the effective practice part of CPD. So I have already got them *looking critically at their own practice*. (Interviewee H)

Other interviewees also supported the view of utilising research and its impact on practice:

The *research project* that I set up actually looked at exploring the differences between 2 types of approaches to treatment, so *I can use that evidence and feed it back into practice*. (Interviewee O)

Another described how another member of staff had completed a postgraduate module that involved writing a business case, and this work resulted in the development of a new physiotherapy service:

We had somebody who did a piece of work for a module they were doing *on a Masters*, and we were able to use it to *support a business case*. That was of value to the service because we had this *brilliant piece of work* that was detailed and in depth and critical and very valid. Had that not been done [as part of a Masters] *we would have had to produce that supporting evidence ourselves*. So it was a *direct demonstration of how someone's CPD has helped develop a new service*. (Interviewee I)

Next an interviewee describes how a clinical conference on the management of patients with Cystic Fibrosis had changed her practice, by incorporating the use of postural exercises rather than just respiratory care interventions. This change of practice also resulted in increased collaboration between respiratory care physiotherapists and those working in musculoskeletal services:

There was a CF (*Cystic Fibrosis*) day last year, I went to London and *one of the lectures was fabulous*, it was *about posture*, and that *changed our practice*. So we will *totally change practice as a result of CPD if we learn of something new that will benefit our client group*. We are now encouraging teenagers to do more upper body work, but *we have had to incorporate the musculoskeletal physiotherapists* to help us in this, so that has been interesting working with them. (Interviewee C)

It has already been highlighted in section 5.8.3 that some participants lacked self-confidence, and Table 5.16 shows that 39.3% of respondents had reported a lack of research skills. Here an interviewee describes how she overcame her lack of confidence to become involved in a research project that resulted in setting up a new physiotherapy service in a health centre:

*I was persuaded to do a research project, and I didn't think I could do a big piece of work like that. And I got my arm twisted by my manager saying 'of course you can'. The direct effect was that evening clinics got set up at [a health centre] and that is how the first physiotherapy service was set up in [a health centre]. I think of it as a forerunner to patients having direct access to physio(therapy) through their GP. That was confidence building to produce a piece of work at the end of the day that actually changed practice.* (Interviewee P)

### 5.10.2 Development of self v benefit to self

As reported as a factor in the principal component analysis of the questionnaire responses development of self was an important factor as a reason for engaging in CPD (Figure 5.13); with interviewees wanting to remain motivated to learn, to increase their knowledge and improve practice, as reported below:

*I think I would get bored if I thought I wasn't going to learn any more in my career.* (Interviewee B)

*I did a Masters, not necessarily to become the best clinician, it was to make the best of myself. I'm not saying that I'm better than anyone else, but if I'm going to do something I want to feel satisfied from what I've done.* (Interviewee A)

*I do CPD for myself to advance my knowledge not merely for my employers, my knowledge will also benefit my patients.* (Interview F)

*I think in terms of achievement it has to be finishing, actually achieving my Masters. I think what it did make me do was reflect on how far I had actually come from when I first started my Masters, it is really helpful to be able to reflect back and ask myself: 'would I have done the things the same way had I not been doing the course?'* (Interviewee I)

One interviewee could see a change of career following her recent academic development and the motivation to become involved in research and want to contribute to the body of knowledge of physiotherapy:

Now I want to move into research from clinical practice because I think I can make more of a difference in research. I want to be given the opportunity to contribute to the body of knowledge. (Interview H)

45% of participants reported that they would study for a higher degree if they thought it would be recognised in terms of pay and 51.4% in terms of promotion (Table 5.11). Section 5.8.3 showed us that some interviewees who were studying for a Master's degree believed this would lead to job promotion. One interviewee appeared to agree although here the key words they use are 'effort' leading to 'improve and 'reward' and the idea that the improvement should be recognised by a financial reward, which may not have happened in the past. For this interviewee it appears that it is not just effort which should lead to financial reward but improvement as a consequence of that effort:

I think physiotherapists have not been hugely driven by money in the past, but I think you do want to be *rewarded* for what you have done, and if you have put a lot of *effort* and time into a course, and *improved your practice*, then you would like to be *rewarded* for it.

(Interviewee V)

Whereas others appear to want to do CPD purely to improve their own practice:

*I want to learn, I want to improve my practice, I want to develop my practice.*

(Interviewee H)

Although it is hard work it kind of makes you *want to learn* more.

(Interviewee E)

### 5.10.3 Resentment from colleagues v sharing knowledge with others

There was some inconsistency in the type and amount of support individuals received from their peers and other colleagues. The survey results suggest support from peers and colleagues was not an issue, with 79.5% of respondents disagreeing that lack of support from peers was a barrier to their CPD and 77% disagreeing that lack of support from other colleagues was a barrier. However this issue was raised in the interviews. Many interviewees accepted that in the past studying for a Master's was quite rare, as this is now becoming more popular they had experienced occasionally resentment from people who may not have had the same opportunities earlier in their careers. It was suggested by some who had completed a Master's degree that peers they worked with did not always have an appreciation that there is any difference between having years of experience and doing a postgraduate

programme of study, and that they would therefore question why they were left to 'do the work', while others were attending academic courses:

So I think there is still *some resentment*, around the fact that some people are here *working all the time*, and other people are doing a Master's and having *an afternoon a week off*, 'thanks very much, and I am having to do their work while they are not here!' (Interviewee I)

This was supported by another interviewee who had recently completed an MSc, who was irritated that although her peers had complained that they were covering for her, they had not been prepared to take up the same opportunity to do an MSc as she had:

I got quite a lot of *negative vibes* from peers, which annoyed me, because *none of these people wanted to do it* (an MSc programme) themselves, but *nor did they think that I should*. (Interviewee V)

They just *take the 'mickey' out of me* all the time, because I'm always saying 'why are you doing that?' or 'where is the evidence to say that works?' They say 'will you give it a rest' kind of thing and '*just let us get on with the work*'. (Interviewee H)

Despite this perceived resentment many interviewees who had studied at postgraduate level wanted to share their new skills in research with their colleagues so that they and the service could benefit:

In terms of research, because I have done some research as part of my course, nothing overly great, but at least I *have the experience of managing a research project*, going through ethics, and conducting it, it is really *helpful in encouraging staff* to do that. You know the realities of how much time it takes, how these things are never quick, and you never quite get what you think you are going to get out of it. And you have to be able to respond to that. And I think it is valuable for me to be able to have that experience, to be *able to help and facilitate other people* to do that. (Interviewee I)

The following quotes are examples of how interviewees have used their own CPD experiences to develop skills and learning in their peers and other less experienced physiotherapists, through setting up in-service programmes in a musculoskeletal service:

I set a *training programme for the juniors* (physiotherapists); a lot of it was taken from what I did in my Masters. It is a *really thorough programme* and it has taken us about 18 months to get through and we have only covered the lumbar spine, right through lower limb and we have just done cervical spine, with the upper limb left to do.

(Interviewee S)

This view is supported by another interviewee who also views CPD as taking on extra responsibility as well as gaining new knowledge:

As a Senior II professional development is *not only about gaining knowledge* about things you don't know, about catching up, if you like. It's also about *taking on more responsibility*, taking a broader development, so *rather than just observing the in-service session, you may be involved in setting the agenda* or theme, for in-service programmes, taking more responsibility as a senior II, and slowly to do more through the management perspective, you have the opportunity to *pass on something you have learnt* as a senior II, to some of the junior staff or assistants. Professional development also involves *passing on knowledge* and that passing on of knowledge actually supports you in terms of your teaching development.

(Interviewee A)

That changed when you became a senior 2 and then *it was up to us to organise it*. When I was at xxxxxx we organised – there were I think eight or nine musculoskeletal senior 2's - there were two of us who were probably *organised and co-ordinated*. So *every six months we would run it* and at the beginning of every six months we would choose which topics we wanted to do.

(Interviewee D)

### 5.11 Conclusion

The purpose of this chapter has been to present the data, and the patterns and trends within the data, which can be determined by statistical means and by thematic analysis. I have shown that statistically there are seven major factors identified through principal component analysis; 3 factors as reasons for CPD: Development of Self Through Professional Practice, Academic Development and Pay and Promotion; and 4 factors as barriers to CPD: Poor Recognition and Reward, Inadequate Support Systems, Personal Apathy, and Perceived Lack of a Ability; and I have shown that the thematic analysis has provided some further insight into these. Other additional factors which have appeared from the thematic analysis are: personal values related to improving clinical skills and patient care; the significance of self-confidence as a consequence of CPD; the issue of how some colleagues can be resentful and denigrating of CPD; and that personal benefit and benefit to the service cannot be easily separated and that there are indirect consequences of people being involved in particularly academic CPD, which should not be ignored. In the next chapter I will consider the implications of the data analysis and the factors identified, through discussion of their significance.

## Chapter 6

### **- DISCUSSION OF THE RESEARCH FINDINGS -**

#### **6.1 INTRODUCTION**

The previous chapter presented the research findings from the two phases of data collection and discussed the response rate to the questionnaire and characteristics of the participants in both phases of the research (Section 5.3). This chapter now considers the implications of these findings and discuss their significance in relation to the existing literature. The discussion will focus on the type of CPD activities the physiotherapists participate in (Section 6.3) and the reasons for those choices (Section 6.4); the impact the outcomes of their CPD (Section 6.5) can have on patient care (Section 6.5.1), the development of the individual physiotherapist (Section 6.5.2), and the physiotherapy service (Section 6.5.3), but as mentioned in Chapter 5 the difficulty can be in trying to separate these from each other. The difficulties in measuring the outcome of CPD are also raised (Section 6.6).

#### **6.2 PARTICIPANTS VIEWS ON CPD**

As presented in the previous chapter the participants in the interviews described how they viewed CPD as a way in which they ensured that their practice remained up to date to ensure that the interventions they deliver are effective for their patients/clients. They also see CPD as the way to meet Standards of Professional Practice of their professional body (CSP, 2005a) and those of the regulatory body, with many acknowledging the change in emphasis on CPD, with the introduction of the HPC requirements (HPC, 2003). Due to the latter, in order to remain registered, physiotherapists along with other AHPs have to demonstrate to the HPC their ongoing eligibility to practise physiotherapy, by producing a profile of evidence showing how they have been meeting the HPC Standards of Conduct during the previous 2 years. Many interviewees viewed the present guidelines from the HPC as lacking clarity and detail, and that information on how to provide evidence of CPD was still missing.

As a profession, physiotherapy has always been required to engage in CPD and LLL. The Rules of Professional Conduct (CSP, 2002b) clearly state that no physiotherapist should be practising in an area in which they are not competent, and implicit in this is the assumption that physiotherapists will maintain competence through CPD, and that this will continue throughout their career. However, it is now no longer simply the case that physiotherapists should only undertake CPD; they are now required by the HPC to be able to show evidence of having undertaken learning and development and how they have applied it to their practice. The HPC (2008) define CPD as:

a range of learning activities through which health professionals maintain and develop throughout their career to ensure that they retain their capacity to practice safely, effectively and legally within their evolving scope of practice. (Health Professions Council, 2008)

It was expected that the HPC Standard of Professional Conduct relating to CPD would come into force in April 2005 with the HPC auditing a random sample of registrants. However, at the time of my data collection, despite extensive consultation by the HPC in 2004, there remained a lack of clarity on the detail of how monitoring of this would take place. In 2005 the HPC had still to produce guidance on how physiotherapists should record and submit evidence of their CPD and the timescale was put back until August 2006. At the time the Head of CPD for the CSP stated:

We are pleased the timescale has been put back - we have repeatedly expressed concerns that this detail was missing from the regulator's proposals. We welcome that they have recognised the need to provide a lot more guidance around evidence and assessment.

(O'Sullivan, 2005, page 1).

The first random audit of AHPs, involving Podiatrists, was carried out in 2008 and the audit process for physiotherapists will now begin in 2010. Presently physiotherapists simply sign to say they have met the HPC Standards for CPD; in April 2010 the first random sample will take place when 5% of physiotherapists will be asked to complete a CPD profile with details of the CPD they have undertaken over the previous 2 years.

A key development in ensuring that health professionals maintain their competence is the move among the regulatory bodies to develop CPD strategies for the revalidation/re-certification of their members. To meet HPC standards, physiotherapists need to make their own professional decisions about the kinds of CPD activity they need to undertake to develop and improve their skills and knowledge (HPC, 2006b). As we have seen in Chapter 5, support in the NHS for CPD activities is variable and is often determined through appraisal with a personal development plan agreed between the individual health professional and their manager with the commitment of the necessary time and resources.

### **6.3 PARTICIPATION IN CPD ACTIVITIES**

As identified in the previous chapter the CPD activities for physiotherapists can encompass a range of ongoing education including formal learning involving attendance at external programmes and informal learning through work-based practice. Informal learning can involve work-based activities such as: ad hoc and structured in-service events, mandatory training, clinical supervision, shadowing others, mentoring, and discussion at journal clubs; and self directed learning activities such as reading, engaging in reflective practice and maintaining a CPD Portfolio (CSP, 2002b). Formal learning activities can include conferences; individual study days or longer programmes of a study that may lead to an academic award (CSP, 2006; HPC, 2006a).

The types of CPD activities identified in my study were varied and diverse (section 5.6.2) and included all of the activities mentioned above; with respondents identifying 4 main categories of CPD activity, which were presented in order of importance as: WBL activities; self-directed learning activities; attendance at courses or conferences; and research or audit activities. When looking at clinical specialty sub-groupings there were similarities from respondents in musculoskeletal services, neuro-rehabilitation and care of the older person, all reporting WBL activities as having the highest priority, followed closely by self-directed learning activities; apart from those working in cardiovascular-respiratory. Only those working in cardio-vascular-respiratory reported research and audit as a greater priority above self-directed learning; and all other sub-groups reported

research and audit activities as their lowest priority. Figure 5.3 showed that respondents working in musculoskeletal services reported WBL activities (30%) to be as important as self directed learning activities (30%), as did those working in care of older people, both at 38%. In contrast 50% of those working in cardiovascular respiratory services reported WBL as the most important to them and only 12% preferred self-directed activities, with 24% of respondents reporting audit and research activities seen as important. 35% of respondents working in neuro-rehabilitation reported WBL activities the most important to them, followed closely by self-directed learning activities (30%), then attendance at courses and conferences (23%) with audit and research activities as the least priority at 12%.

There was no information from the interviews that explained these differences from the survey findings, nor was anything found in the literature that could explain the differences. The research presented in chapter 3 did not include any studies that had findings that related to any clinical specialities in physiotherapy and no other published literature was found in relation to clinical specialities. Respondents in O'Sullivan's (2003) study, which did not provide demographic information in relation to clinical speciality of the interviewees in her study, acknowledged the value of audit and research, but did not perceive these two activities to be part of CPD.

Figure 5.4 showed that 62% of team leaders and managers reported WBL activities to be their most important CPD activity, with self directed learning activities at 30%, research and audit at 8% and no-one reporting courses as conferences as a priority. In contrast 46% of junior clinicians reported self directed CPD activities as being the greatest priority to them, WBL (32%), courses and conferences (12%), and research and audit (10%). The spread for senior clinicians was less with 30% of respondents at this grade reporting WBL as having the most priority, 26% prioritised courses and conferences, self directed (24%) and the least important was research and audit at 20%. Again there was no published research relating specifically to employment grades of physiotherapists and their CPD, although as previously discussed in chapter 3 (section 3.

4) in Beeston et al.'s (1998) study looking at factors relating to the uptake of Master's programmes, the sample was senior physiotherapists and physiotherapy managers.

### **6.3.1 Work based learning activities**

The work based learning activities that were identified as important to respondents included: clinical supervision, mentoring, shadowing more experienced staff, in-service CPD sessions, and mandatory activities (Figure 5.2; Table 5.8; Appendix XV).

#### **6.3.1.1 Clinical supervision**

It was noted in chapter 5 (section 5.6.2) that there appeared to be a lack of agreement on the term 'clinical supervision', with some respondents relating it to the clinical supervision of patients, students, junior staff, peers, or other colleagues; with learning happening whether they were being supervised or were the supervisor. Some described mentorship, again relating learning to being a mentee or a mentor; and others reported supervision as education of physiotherapy students on practice placements (where clinicians were called clinical supervisors). The latter terminology of clinical supervision and clinical supervisor appears to be still in common usage in physiotherapy when referring to pre-registration student on practice placements, despite Cross (1994) pointing out the change to clinical education and clinical educator in the 1990s. Clinical supervision as used by other health and social care professions, described below, has also become a CPD activity for physiotherapists (CSP, 2003b); although the CSP (2006) survey found only 41.6% of respondents had engaged in clinical supervision in the previous year.

Early descriptions of clinical supervision appear divided between those of clinical proficiency (UKCC, 1996) and those of professional development (NHS Management Executive, 1993). The UKCC (1996) gives a comprehensive definition of clinical supervision:

Clinical supervision is a process based on a clinically-focussed professional relationship between the practitioner engaged in clinical practice and the clinical supervisor ... This relationship will, therefore,

enable practitioners to establish, maintain and improve clinical standards. (UKCC, 1996, Appendix A)

However others see clinical supervision as a way of developing the individual practitioner and ultimately the profession:

It (clinical supervision) is central to the process of learning and to the expansion of the scope of practice and should be seen as a means of encouraging self-assessment and analytical and reflective skills.

(NHS Management Executive, 1993, Clause 3.27)

Clinical supervision can establish a place of safety where disappointment or failure in practice can be examined honestly, prejudices challenged constructively, and success and good work owned and applauded, and sharing of experience can allow previously private knowledge to become knowledge that is accessible to others (Fleming, 1994). According to Butterworth (1997) clinical supervision is an exchange between practising professionals to enable the development of professional skills and that developing professional practice is at the centre of clinical supervision. They also use the term clinical supervision to encompass the three terms -supervision, mentorship and preceptorship – that Quinn (1995) suggests are used in nursing to describe practice placement support systems for students. Only the terms supervision and mentorship are in common usage in physiotherapy and were reported in my study.

Despite the difficulties of definition, clinical supervision is an established part of practice for many health professionals, with highly skilled and educationally sound supervision being recognised as one of the main ways of pursuing excellence in health care practice which is demanded by both government and the professional bodies (Fish and Twinn, 1997). This is particularly important as there have been a number of inquiries which have revealed a serious failure of professional effectiveness, where lack of supervision and adequate support for clinicians have been highlighted as factors (Clothier, 1991; Shipman Inquiry, 2005).

Sellars' (2004) findings from an exploratory study of clinical supervision found there was a dearth of literature relating to clinical supervision in physiotherapy. Her findings suggested that clinical supervision is not widespread in physiotherapy and where it has

been implemented it is difficult to sustain. As in my study, her findings also suggest there were different views on the meaning of clinical supervision, depending on individual needs; supervision was used for different purposes and on different occasions.

Comparing my findings with other health professions, nursing uses clinical supervision to refer to both the professional gate-keeping role played by the supervisor during pre- and post-registration programmes, as well as to the supervision of the professional development of qualified practitioners. In midwifery supervision and the role of the supervisor is formalised in a specific way with clinical supervision being a statutory function of the supervisor of midwives (UKCC, 1996). Swain (1995) promotes the practice of supervision in nursing and health visiting as having value in helping to ensure safe and competent practice, and in developing the knowledge, skills, and attitudes in those professions.

Due to the lack of consistency in terminology between the different health professions there is clearly a need for clarification on the meaning of clinical supervision for physiotherapists, and the data I have collected would need to be followed up with more discussion with physiotherapists on their understanding and use of clinical supervision as a CPD activity. As explained earlier there may also have been a lack of clarity between clinical supervision and mentorship from the responses in the survey. Although reported as a CPD activity by responses to my questionnaire, only one interviewee raised mentoring in the interviews and that was in relation to recent mentoring courses she had attended. Again mentoring needs to be better understood in the future to be seen as part of CPD and also to be differentiated from clinical supervision.

#### 6.3.1.2 Shadowing

Shadowing more experienced physiotherapists was viewed as a valuable experience particularly by junior physiotherapists in the early part of their careers; with 29% of all respondents having participated in shadowing others in clinical practice in the previous year, with the highest participation from clinicians in junior or rotational senior posts, who valued observation of expert practice from a variety of experienced seniors

specialising in a particular clinical specialty, and the discussion that resulted as a consequence of the observation. Learning could result from shadowing not only other physiotherapists but also other health care professionals who may be involved in a patient care pathway. There is little published research that focuses on the participation in, or value of, shadowing, although respondents in the CSP (2006) survey, believed line managers, physiotherapists and other colleagues were valued as the most important sources of support for learning in the workplace. Shadowing peers and those with more experience could be further explored as it is an important activity that could also be seen by managers and employers as cost-effective.

#### 6.3.1.3 In-service learning activities

Participation levels in the previous year in some CPD activities varied across different clinical speciality sub-groups, as shown in Table 5.9. Respondents in my study reported differences in participation between general in-service and clinical specialty in-service activities. Physiotherapists in most clinical specialities, apart from care of older people, reported higher participation in clinical specialty in-service sessions than in general in-service; where 93% of respondents working in care of older people reported participation in general in-service CPD compared to 76% participation from all respondents. Although 86% of all respondents had participated in some form of in-service CPD in their clinical speciality in the previous year, a greater percentage (100%) of those working in cardiovascular-respiratory physiotherapy reported participation, compared to only 73% working in care of older people. It was not clear if the provision of speciality in-service for those working in care of older people was less than in the other specialties, and therefore reducing availability and consequently participation. As mentioned no other research has looked at differences in CPD for those in different clinical specialties, so is an issue for further consideration when CPD providers are planning their programmes.

In regard to in-service CPD activities and participation from those in different employment grades, I did find a high level of participation across all respondents in my study, however I also found differences between grading sub-groups, for example, 95%

of respondents working at clinician grade had participated in some form of in-service CPD in the previous year, compared to 88 % of managers and 82% of senior clinicians (Table 5.10). The CSP (2006) survey also reported a high level of support from all respondents, where 80.4% had reported in-service learning activities as important to their CPD; however there was no statistics in relation to any clinical specialty. No other research was found that related to in-service CPD activities and the grade or role of physiotherapists that could be compared to the findings in my study. More work could be done to explore why it appears that one grade of physiotherapists is more engaged in in-service than another and whether changes need to be made in the content or delivery of in-service CPD to match the needs of particular groups.

#### 6.3.1.4 Mandatory activities

Mandatory training often includes legal requirements and all staff are expected to attend; and includes activities such as health and safety legislation, fire safety talks, hygiene and prevention of cross infection, manual handling, and basic life support. These usually take place on site and are provided by the respondents' employers at no cost to the participants. Although 79% of respondents in my study reported involvement in mandatory activities in the previous year, no information of the number of days involved was recorded, and the normal frequency in the UK would be an hour per month, or less. The least participation in mandatory training was from clinicians (Table 5.10), who tend to have the least experience and therefore are perhaps those most in need of this type of update. This was also reflected by lower participation from those qualified less than 5 years (Appendix XVd).

Discussion in the literature on mandatory training includes research in the USA but the literature shows there are differences between the UK and the USA, as the latter has seen many states introduce mandatory training over the last 20 years, and is now mandated in 31 states (cited in French and Dowds, 2008, p 190). This means that it is difficult to compare studies from USA as their mandatory requirements differ from those in UK, but with that caveat in mind we have seen in the critical review of Landers et al (2005) that some states in USA mandate what CPD physiotherapists should engage

in. Physiotherapists in those states with a mandate did engage in more CPD per year than physiotherapists in those states without a mandate, with 5.9% participating in no CPD activity at all, and 10.8% spending 2 or fewer hours CPD in the previous 5 years.

Other studies have questioned the need for mandatory CPD. McCormick and Marshall (1994) and Little (1993) found there was no guarantee of increased competence from following mandated CPD; and Merriam and Cunningham (1989) go further by suggesting that mandatory CPD is unnecessary, because 75% of those affected were already engaging in such activities beyond the requirement, which suggests most physiotherapists will engage in CPD without having to have it built into their employment.

### **6.3.2 Self directed activities**

Participation in self-directed learning activities was reported as a high priority by 28% of respondents in my study (Figure 5.2), with high participation in reading, reflective practice and portfolio keeping in the previous year. Interviewees had explained how reflective practice and the recording of this in a professional CPD portfolio can benefit the individual physiotherapist and the service that employs them.

#### **6.3.2.1 Reading, critical appraisal and evidence based practice**

As shown in Table 5.9 92% of all respondents in my survey reported reading as one of their self-directed CPD activities in the previous year, 74% reported participating in on-line searches, and Table 5.11 showed that 94.2% agreed that the use of evidence based practice was a reason for engaging in CPD. The CSP (2006) survey also found that reading literature relevant to clinical practice was a major CPD activity for 85.2% of respondents in their survey. However although a high percentage of respondents in my study had recorded reading as an important CPD activity only 29% of these respondents had participated in journal clubs in the previous year (Table 5.9).

In a survey by Turner and Mjølne (2001)<sup>2</sup> questionnaires were sent to 150 physiotherapy departments in England and Australia, and the results found that journal clubs existed in 42% of responding facilities in England and 18% of those surveyed in Australia. Turner and Mjølne (2001) found that although previous studies had evaluated the impact of journal clubs in medical and nursing departments, there was little information concerning journal clubs or journal provision in physiotherapy departments. Their survey aimed to determine the type and extent of journal provision, and prevalence and attributes of journal clubs in physiotherapy departments. They found that the provision of journals in physiotherapy departments was limited, and alternative access to physiotherapy journals was generally poor; although some departments were innovative in providing additional journal literature for physiotherapy staff. They found relatively few journal clubs that utilised a 'problem-based' format, which fosters the teaching of critical appraisal skills. Although there was evidence of enthusiasm in some departments, a degree of apathy was also revealed in others. The study recommended that physiotherapy and HEIs should agree a strategy to both promote evidence-based journal clubs and to facilitate journal provision within physiotherapy departments. If these suggestions were to be implemented then it would be necessary to carry out a further survey to see if they had effect on participation and satisfaction rates.

For many, challenging practice was a key outcome of critical appraisal, with some interviewees describing how CPD had helped them to challenge their own practice and to challenge existing research. Some interviewees believed it was having the skills in critical thinking, critical reflection and critical appraisal of the literature, that came with postgraduate study, that had the most value for the individual physiotherapist and as a consequence, the greatest impact on patient care by assisting them to be able to inform their future practice. There was strong support from interviewees on how following a Master's programme had helped them to develop their critical thinking and critical appraisal skills.

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<sup>2</sup>This paper appears to present the same research that was published by Turner and Whitfield (1996)

Comparing to other health professions, Buck and Newton (2002)'s study of dental practitioners identified the extent to which dental practitioners undertook three CPD activities: reading professional journals; attending courses; and undertaking retraining courses. They found 87% read professional journals at least once per month; but as in my study there was no evidence of learning having taken place. Anderson's (2001) study of identifying CPD activities that OT's engage in, found 95% of the respondents in their survey indicated that they regularly read professional literature, although again no information was given on the outcome of that reading or the impact on practice.

Although 94.2% of respondents in my survey viewed the use of evidence based practice as a reason for engaging in CPD (Table 5.8), only 39% had been involved in research or audit activities in the previous year. Almost 40% of respondents agreed with the item relating to personal lack of research skills (Table 5.13), although only 16% agreed with the item relating to lack of critical appraisal skills. This was more so from respondents who had qualified with a diploma from a pre-1992 physiotherapy course, before physiotherapy became an all-graduate profession, as they perceived the more recently qualified physiotherapists to have better critical appraisal skills and a better understanding of research. Interviewees in O'Sullivan's (2003) study also reported poor skills development in research and critical appraisal, as barriers to their CPD. In Dolan's (1998) survey of 326 physiotherapists in the UK 56% of respondents had participated in short courses in clinical audit and research for an average 5.2 days in the previous year; and although 73% of respondents thought knowledge of statistics was important, many could not recognise basic statistical terms nor was there a demand for courses in statistics. Dolan (1998) reported that 81% of respondents said that they would consider distance learning courses on developing research and audit skills.

A survey by Metcalfe et al (2001) of 715 practitioners from 4 AHPs - dieticians, occupational therapists, physiotherapists, speech and language therapists - in the Northern and Yorkshire region of England, resulted in a 80% response rate (572 returned questionnaires). 97% of Metcalfe et al.'s respondents agreed that research findings are important for the development of professional practice and only 5%

reported no interest in reading research findings. The main institutional barriers to reading research findings included insufficient time (66%); and 80% of respondents reported an inability to understand statistical analyses. This was similar to my findings and suggests a need to provide access to CPD activities on basic research methods that also include how to critically appraise published research. This was also identified in the CSP (2006) survey where CSP members showed interest in the development of e-learning tools on critical appraisal.

It is only in relatively recent times that clinical physiotherapists have started to undertake and publish research, and this was reflected in the findings of my study with only 6% of respondents in the survey having published in journals or books in the previous 12 months and 11% having presented at a conference. However this is changing as more clinicians undertake higher degrees with Murray and Newton (2008) suggesting that in order to develop physiotherapy practice and interventions it is essential that service development and research is brought into the public domain.

There seems therefore to be a need to make a distinction between those who gain awareness of new knowledge and research through reading, and those who can critically appraise what they read which could be those who facilitate Journal Clubs or are involved in the delivery of in-service activities following attendance at courses with an evidence based approach and research conferences. The first group we might call users of knowledge and the second group sharers of knowledge. There are also creators of knowledge, that is, those who are actively involved in research; and finally disseminators of knowledge who publish their findings in journals and present at conferences. The first 2 categories should include all practitioners, although from my findings it would appear that the critical appraisal element of reading is missing from a large number of respondents. This is therefore an important issue for the physiotherapy profession if present and future physiotherapy practice is to be underpinned by evidence based practice; and that this needs to be addressed through a choice of approaches to CPD and delivery formats. Many HEIs already provide postgraduate modules on evidence based practice and critical appraisal. Frequently these are funded by their local

SHA through their commissioning contract. More work needs to be done to offer alternative delivery formats of campus based, NHS site based, distance learning, e-learning and blended learning opportunities

### 6.3.2.2 Reflective practice

The notion of reflective practice in the health professions started in the 1980s following the work of Schön (1983;1987; 1999), and in physiotherapy a decade later (Shepard and Jenson, 1990) which resulted in reflective practice becoming integral to professional practice and became part of the undergraduate curriculum (CSP, 2002b) and the CPD framework (CSP, 2005b) .

67% of all respondents in my study had participated in reflective practice during the previous year; clinicians had the highest participation at 73%, compared to 69% of managers and 66% of senior clinicians. Reflective practice is defined by the Chartered Society of Physiotherapy (2005c, page 13) as: 'A process of reviewing an episode of practice to describe, analyse, evaluate and inform learning about practice'. Benett (1993) also reminds us that a description of an experience alone is not reflection. Schön (1983; 1987; 1999) and Boud et al. (1985) have explored how professionals learn and the processes involved in professional decision making. There are a number of models of reflection used in healthcare, such as Johns (2002) and frameworks promoted in physiotherapy (Cross et al., 2004; Donaghy and Morss, 2000). In this way, new learning can modify previous perceptions and understanding, and the application of learning to clinical practice can influence treatment approaches and clinical outcomes. By using clinical supervision and mentorship to encourage reflection on practice issues, the physiotherapist's skills, knowledge and professional values will be enhanced and career development and lifelong learning promoted.

In the light of these definitions and discussions we should expect that reflective practice enables the development of an effective physiotherapist by enabling them to learn from experience and internalise that knowledge. Reflective thinking can lead to self-discovery and to learning and personal growth, by allowing new experience to be integrated with

past experience (Burnard, 1991). Reflection can help to review experience from practice in order to clarify perceptions and reduce inconsistencies by helping to increase understanding, confidence and control over events, as well as contributing to professional development generally. Reflection can also be linked to experiential learning through clinical supervision by the analysis of critical incidents (Smith and Russell, 1993) and reviewing past performance and planning for the future.

Although a large number of respondents frequently engage in reflective practice there was no evidence in my study that there were any outcomes of this reflection on their practice. This could lead the profession and employers to wonder if this is time well spent, although there are a number of studies in physiotherapy that support reflective practice as an effective approach in CPD (Clouder, 2000; Cole, 2000); including promotion of self-awareness by critically reviewing practice and personal decision-making; identifying gaps in knowledge or skills; managing negative experiences in a constructive way; recognising transferrable skills; and manage change in practice. What is not clear is the evidence that shows the outcomes of reflection, and therefore if this is time well spent. The responses from participants in my study seem to show their support for reflective practice, what appears to be more of a challenge is recording this reflection in a professional portfolio (CSP, 2001), which can then be assessed by external HPC scrutineers. This was particularly an issue for physiotherapists whose pre-qualifying physiotherapy education did not include reflective practice.

Participation in reflective practice was reported by 84% of respondents with a postgraduate qualification, however only 59% of those with a diploma reported participation in the previous year. 83% of clinicians engaged in portfolio keeping, compared to 66% of senior clinicians and 50% of managers. Respondents working in care of older people reported higher participation in portfolio keeping at 73%, compared to an overall 69%. Whereas 69% of respondents in my survey had engaged in portfolio keeping in the previous year, 83.4% of respondents in the CSP (2006) survey had. This increase in participation could be due to when the data were collected; in 2004 in my

study when HPC requirements were being to be introduced and 2005 in the CSP survey, following a year of increased information about re-registration requirements

### 6.3.3 Formal programmes of learning

#### 6.3.3.1 Clinical skills courses

Table 5.11 reported that over 98% of respondents agreed that they engaged in CPD to improve their clinical skills. The most popular types of CPD reported by the respondents in my study were clinical skills courses, with 44% of all respondents having been on a clinical course run by a CSP clinical interest group (Table 5.9), and 31% had been on a specialist clinical course, such as those delivered by nationally and internationally recognised courses<sup>3</sup>. My findings are similar to other studies (Beeston et al.'s, 1998; CSP, 2006; O'Sullivan, 2003) which found that skills-based courses had continued to dominate physiotherapists' CPD. In the CSP survey (2006) 86.4% of respondents selected formal clinical courses as a key CPD activity undertaken during the previous 12 months, with 66% of individuals undertaking formal clinical courses every three to six months. When looking at sub-groups 54% of clinicians in my study had attended specialist clinical courses in the previous year compared to 36% of senior clinicians and no team leaders or managers (Appendix XV, Table XVc). This was despite 38% of team leaders and managers being members of CSP clinical interest groups, whereas only 15% of junior clinicians were. This low take up from juniors is not surprising as at that grade they would not have specialised in a particular clinical field.

As seen in Chapter 5, some interviewees in my study were more supportive of clinical skills based courses as opposed to academic, theory-based courses, believing that it was the practical components of a skills-based programme that had the most important content for physiotherapists. Interviewees spoke about how they valued clinical courses in their speciality, and these were seen by many as more important than academic programmes. One interviewee also raises her concerns about junior physiotherapists, believing they are often enticed on clinical skills courses through marketing before they

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<sup>3</sup> Such as Bobath, Cyriax, Kinetic Control Maitland, MACP (Manipulation Association of Chartered Physiotherapists, Muscle Imbalance, SOM (Society of Orthopaedic Medicine)

have the underpinning knowledge and experience to apply the new clinical skills effectively; with others reinforcing their view that for clinical skills courses to be of value participants also needed to be able to practise these new skills in the work place, to apply their learning.

The value of respiratory skills courses, in particular preparation for on-call respiratory care courses for newly qualified physiotherapists, was raised by most of the interviewees, as all graduates in their first post have to pass locally agreed competencies in respiratory physiotherapy before they can go on the on-call rota for out of hours respiratory care. These programmes involved theoretical and practice components followed up with practise in the work place in order for clinicians to demonstrate the competencies. This, as mentioned earlier, supports the view that courses with clinical skills components that can then be practised back in the work place are important.

Beeston et al.'s (1998) survey also found that skills-based courses continue to dominate CPD for physiotherapists, and is supported by Dolcourt et al. (2006) who identified clinically useful topics as the main motivator for CPD for 85% of respondents. The type of CPD provision rated most highly in Beeston et al.'s (1998) study were: academic courses with a skills component (39%); recognised skills-based courses<sup>5</sup> (36%); whereas pure academic courses were rated highly by only 2% of respondents. O'Sullivan's (2003) findings support this view, with the majority reporting external courses as the main component of CPD as they felt they had more professional recognition than work-based learning.

Austin and Graber's (2007) study did not set out to identify CPD activities, but participants did highlight the need for a variety of CPD topics, where clinicians with several years of experience believed there was a lack of advanced clinical courses on specific topic areas; the more experienced clinicians became more discerning about how they spent their money and used their time, and some believed that course descriptions were sometimes insufficient or misleading. This could be an important point as support through funding is reduced.

### 6.3.3.2 Postgraduate programmes

O'Sullivan (2003) suggests that the growth of Masters degrees for physiotherapists has changed the focus to the 'why' rather than the 'how' of physiotherapy (Salter, 1997; Beeston et al., 1998; Gosling, 1999) and is resulting in changes in practice, developing the research base of the profession and enabling Master's graduates to be independent learners and agents of change. Despite the growth of Master's provision for physiotherapists (Beeston et al., 1998; Gosling, 1999), there was a low percentage (10%) of respondents in my study who reported attendance on a postgraduate programme. There was slightly higher participation from team leaders and managers at 19%, with only 5% of junior clinicians having done so. However no managers with 16 or more years in that grade reported attending any postgraduate level modules in the previous year.

Although as mentioned earlier Beeston et al. (1998) found skills-based courses to be more relevant to clinical practice this was not found in Stathopoulos and Harrison's (2003) study whose respondents expressed preference for courses with a broader educational purpose, believing skills-based courses to be too restrictive and narrow. Those who had undertaken postgraduate study at Master's and Doctorate levels saw this as an effective and valuable form of CPD activity that had improved their practice. Beeston et al., (1998) and Stathopoulos and Harrison (2003) believed that study at Master's level enables physiotherapists to be independent learners, lead changes in practice, and develop the research base of the profession.

However, Stathopoulos and Harrison (2003)'s study found that undertaking Master's level study had an immense impact on the participants in their study, and on aspects of the participant's personal lives. The authors attributed this enhancement to the acquisition of higher skills and knowledge. Stathopoulos and Harrison (2003) also found that there were barriers to those participants who returned to the workplace with higher ability and expectations and this affected the individual's professional development by under-use of their potential, an unrewarding career structure, the resistance to change in the workplace and negative attitudes of some professional groups

towards' Master's qualified physiotherapists. This latter comment was also reflected by some interviewees in my study who spoke of negative comments from peers and other colleagues, in relation to their M level study.

### 6.3.3.3 Leadership courses

Although improving management (or leadership) skills was not raised as a priority by respondents, some interviewees in my study, identified the need for courses to improve their leadership skills. This was an issue which had not otherwise appeared in the questionnaire data and one which needs further discussion. The differences between the survey responses and interviewee responses could be due to there being 12 months between each phase of data collection, and a delay in policy being cascaded down the hierarchy within the NHS, and also in my use of 'management skills' in the questionnaire; where the use of 'leadership skills' may have elicited a different response.

Leadership has previously been identified as central to the modernisation agenda with the need for effective leadership at all levels of the organisation. 'Anyone working in the NHS, regardless of their position, grade, qualification or place of work, may be a leader or agent of change and improvement' (Department of Health, 2008b, page 52). Other policy documents such as the *NHS Plan* (Department of Health, 2000), *Meeting the Challenge* (Department of Health, 2000), *Making the Change* (Department of Health, 2001d), the *NHS Leadership Qualities Framework* (Leadership Centre for Health, 2002), *Managing for Excellence* (NHS Executive 2002), and *A Career Framework for the NHS* (Department of Health, 2004; 2008b) have proposed the need for visionary leadership and the development of leaders who have self-awareness and can empower others to lead change and improve the service to patients/service users.

The Knowledge and Skills Framework (Department of Health, 2004c) suggests that particular attention will be paid to ensuring that clinicians can progress quickly into advanced practice and develop leadership capabilities required to transform a service. This point can be picked up in relation to the Darzi Review (Department of Health,

2008a) which has a focus on clinical leadership and new services. Lord Darzi's review of the NHS places a new emphasis on enabling NHS staff to lead and manage the organisations in which they work. There will be investment in new programmes of clinical leadership, with clinicians encouraged to be practitioners, partners and leaders in the NHS. All organisations that do business as part of, or with, the NHS will be challenged to give clinicians more control over budgets and HR decisions. This supports the *Modernising AHP Careers Framework* which also promotes leadership skills in AHPs:

We will pay particular attention to ensuring that clinicians can progress quickly into advanced practice and/or extended practice roles, and to developing the leadership capabilities required to transform the service. Whilst a partial equality impact assessment on the competence-based career framework and associated tools has been completed'

Department of Health (2008b, page 19)

So it would appear that despite an apparent low level of interest and participation in management or leadership skills there would now appear a need to include these in CPD activities.

## **6.4 REASONS FOR PARTICIPATION IN CPD ACTIVITIES**

### **6.4.1 Improve patient care**

As previously mentioned almost all respondents reported strong support for engaging in CPD to improve patient care, primarily through the development of improved clinical skills, and this was strongly supported with comments from the interviewees. In prioritizing reasons to engage in CPD respondents in my study ranked improved patient care and improve clinical skills in the top 3 items. These findings are similar to previous research which also identified activities that maintain or improve clinical skills, competence, and patient care as reasons for doing CPD activities (CSP, 2006; O'Sullivan, 2003). The majority (91%) of respondents in the CSP (2006) survey reported undertaking CPD to maintain professional competence, and to improve patient care (87%). O'Sullivan's (2003) study found that respondents were motivated and committed to CPD by a desire to provide high quality services to patients.

Of the items relating to pay and promotion, improve chances of promotion ranked 10<sup>th</sup> and improve pay ranked 11<sup>th</sup>. Of the items relating to Academic Development, to gain academic credit ranked 12<sup>th</sup>, followed in order of award from gain a PgC, to a Masters to a Doctorate, with gaining a Doctorate being ranked the lowest priority by the respondents. When looking at the positive comments by all participants who had been involved in M level study and all the negative comments from those who have not had that experience, there appears to be a need to further explore the latter group's reasons for their lack of interest in academic development.

In my study participants regarded patient care as their main priority and expressed feelings of guilt in spending time on CPD, and also criticised others who took time away from direct patient care to attend postgraduate programmes. Although participants in O'Sullivan's (2003) study also reported feelings of guilt about taking time out from patient care, they did report being able to justify this if they perceived the learning was relevant to patient care and would result in improved practice. However although this may seem professional dedication if physiotherapists continue to always prioritise practice above their own CPD this will remain a barrier.

#### **6.4.2 Improve self through professional practice**

A desire to improve both personally and professionally was reported by almost all respondents in my study (97.1% and 97.8% respectively). This was also reinforced through my interviews and the findings of other studies. Landers et al (2005) suggested that the reasons for CPD are both a personal decision and a professional decision, and their results supports the view that physiotherapists are internally motivated to decide what CPD activities they engage in. Longworth and Davies (1996) also point out that although CPD has a social, political, personal and educational meaning it is the individual who makes the learning decisions, and personal motivation is necessary to access learning opportunities. Teare et al., (1998) also reinforce this point by describing CPD as a continuous development process which can be said to 'belong to an individual'. The common features and apparent overlap in some findings relating to CPD, personal and professional development and CPD requirements may be explained

by the complex characteristics of professional practice, professionalism, and competency. Dolcourt et al. (2006) concur suggesting that development of self in professional practice, includes competency in striving to be the best, willingness to respond to change and willingness to respond to clinical problems.

#### **6.4.3 Recognition and reward**

Although academic development was ranked lowest (Table 5.16) a number of interviewees had strong opinions on how studying for a Master's degree had improved their critical thinking skills and helped them to develop themselves, through being more critical about their practice. This was also supported by findings from Stathopoulos and Harrison's (2003) which found that undertaking Master's level study had a number of rewards for the participants: enhanced career progression, development of clinical practice, and a wider enhancement on aspects of the participant's personal lives. The authors attributed this enhancement to an increase in confidence, adopting positive attitudes to change, and providing potential career opportunities.

Most of these effects were also reported in my study by participants who had participated in M level study. However there appeared to be a variation in understanding as to the value of following any postgraduate level study, seeing it only for personal reward. There appeared to be a difference in understanding of the benefit from postgraduate study between some interviewees who have been involved in postgraduate programmes, who see the benefit in terms of personal development, and some interviewees who have not; who view any benefit in terms of finance, and this has implications for how postgraduate study is presented and understood.

Recognition and reward can be great motivators, and most people want some acknowledgement of their personal investment in learning (Longworth and Davies, 1996, p 67) and personal achievement (Stathopoulos and Harrison, 2003). Although potential increase in pay and promotion were only ranked as 11 and 10 (respectively) out of 15 items by respondents in my study, as reasons for engaging in CPD (Table 5.13), more than half of the respondents agreed that lack of pay (57.8%) and lack of

promotion (67.2%) were barriers to their CPD (Table 5.16). These findings were also supported by the comments from interviewees and in Beeston et al.'s (1998) study 79% of clinicians reported that they would study for a higher degree if they thought it would be recognised in terms of pay and promotion.

Gosling (1999) found that respondents had a perception that those who had gained a Master's degree already had a 'market advantage' over colleagues in terms of career progression, even if there were not any actual financial rewards. This is also supported by Dowswell et al.'s (2000) findings which suggest that for many health care staff CPD is less to do with developing skills and increasing productivity and more to do with gaining academic credit; with some individuals participating in CPD to gain promotion in their existing sphere of work. For some individuals CPD was an 'investment' or recognition of 'economic' incentives (Green 1993). Although there is evidence that increased participation increases chances of promotion at the individual level, Dowswell et al. (2000) are doubtful that this produces results in greater efficacy and efficiency in the delivery of health services is at present unknown.

Some of the comments from my interviewees raised the contrast between the possibility of personal gain of some kind, and what might be the idealism of wanting to be a better physiotherapist and improve care to patients in contrast to the barrier of lack of support from their employer, when some interviewees would not be allowed to go on a course. This needs to be placed in the wider context of the rhetoric of 2004 with Agenda for Change which did not achieve what it promised.

In England Scotland and Wales Senior I physiotherapists had a 50:50 chance of being matched to band 7, whereas northern Ireland, who only completed transferring staff onto AfC pay rates in June 2008, only a tiny minority (no actual figure was given) of senior Is and no senior IIs had been matched to experienced band 7 level (Hunt, 2008a). Agenda for Change was a new NHS pay and grading structure, based on a job evaluation system, that was introduced in 2004, and was the biggest shake-up in pay structure since the NHS was founded in 1948 (Finch, 2004). Up until then many

physiotherapists had believed that having a Master's degree would enhance where they would appear on one of the 8 AfC salary bands. However the assimilation to the new bands evaluated posts not people, so that if a Master's was not required in a job description then it could not be counted in the job evaluation that took place prior to matching grades. The Knowledge and Skills Framework (KSF) is a nationally agreed understanding of the knowledge and skills that could reasonably be expected from NHS staff at various stages of their career. AfC also promised to place 'learning and personal development at the heart of the relationship between the NHS and its employees', and it provides a clear link between an individual's pay progression and their performance (Bromley, 2004). Many interviewees in my study felt this promise was not fulfilled as the initial expectation that evidence of increased learning and personal development that could be demonstrated through postgraduate study did not materialise into a move up the salary bands and an increase in pay. So that physiotherapists who had been interested to do a Master's in the expectation that this would assist their pay and progression, now no longer felt they would be rewarded.

### **6.5 BARRIERS TO PARTICIPATION IN CPD ACTIVITIES**

Individual factors constraining or encouraging participation in CPD may be matters of personal choice, however lack of support systems in the workplace, was raised an issue for respondents in my study. The reader is reminded of Table 5.20 which reported the rank ordering of responses on the importance of items relating to barriers to CPD; with lack of time, lack of funding and lack of support being ranked the top 3 barriers Table 5.17). These findings are also mirrored in the studies by Beeston et al. (1998), O'Sullivan (2003) and CSP (2006). Lack of financial reward and lack of professional reward were ranked 5<sup>th</sup> and 7<sup>th</sup> respectively; personal lack of research skills and personal lack of appraisal skills were ranked 4<sup>th</sup> and 10<sup>th</sup> respectively. Some respondents had also suggested there was inequity of CPD support in relation to hours employed, which was supported by some interviewees, in that part-time and particularly locum staff do not get the same CPD support as full-time physiotherapists; and in relation to other health professions.

## **6.5.1 Inadequate support systems**

### **6.5.1.1 Lack of time**

As indicated in Table 5.16, 90.7% of all respondents strongly supported the view that lack of time was a major barrier to engaging with CPD activities with only 7.8% of all respondents disagreeing with this item. Many of the interviewees also agreed and related lack of time due to their high workload and not wanting to impact on patient care. This was particularly so for those working in acute settings and critical care practice, when patients could not be cancelled in order for staff to attend CPD activities. Whereas, it may be easier to manage in an out-patient department where it was simpler to block out appointments ahead of time. Respondents in O'Sullivan's (2003) study also reported that lack of time and the lack staff cover in the workplace, could be inhibitory to engaging with CPD. In the CSP's (2006) survey, 88% of respondents identified the work pressures of high caseloads and staff shortages as the main barriers to CPD.

### **6.5.1.2 Lack of funding**

Lack of funding was also seen as a major barrier by respondents in my study, with many participants reporting they had to fund themselves on external courses. These findings are supported by Beeston et al. (1998) where respondents in their study reported the greatest barriers to undertaking Master's degrees were lack of funding, lack of time, and lack of study leave. Respondents in O'Sullivan's (2003) study also reported that the cost of courses could be a barrier to CPD.

### **6.5.1.3 Support in the workplace**

In my study respondents reported support from their manager as less of a barrier than funding from their employer. However there was only one interviewee who commended the support she had received from her manager, where it appeared that the status of her Doctorate and research was what this interviewee's managers saw as important. Employers providing protected CPD time would comply with the government's drive for Trusts to become learning organisations (Department of Health, 2000; 2004b), and meet professional body recommendations (CSP, 2003a). This should also be made more explicit to their employees, in that CPD activities that are linked to the employer's

service objectives are more likely to be supported with time and funding than if the activity were pursued for personal interest. The NHS invests major resources into continuing professional development with little evidence of cost-effectiveness.

There was also some inconsistency in the type and amount of support individuals received from their peers and other colleagues. The survey results suggest lack of support from peers and colleagues was not an issue, however this was raised in the interviews. Many interviewees accepted that in the past studying for a Master's degree was quite rare, however as this is now becoming more popular they had occasionally experienced resentment from people who may not have had the same opportunities earlier in their careers. It was suggested by all interviewees who had completed a Master's degree that peers they worked with did not always have an appreciation that there is any difference between having years of experience and studying at postgraduate level, which resulted in colleagues complaining that they were left to 'do the work', while others were on study leave. This was also found by Gosling (1999) who suggested that 'unhelpful dynamics' could be created when some other members held a Master's degree and others did not; and by Stathopoulos and Harrison (2003), who found that participants in their focus group identified negative attitudes towards Master's qualified physiotherapists, although these were reported to be from other professional groups, rather than from peers, as in my study. A general negativity can affect an individual's participation, as O'Sullivan (2003) found that respondents who worked in small physiotherapy departments identified their colleagues' complacency and lack of interest as a barrier to their own CPD.

#### 6.5.1.4 Inequity of support

Participants in both the survey and the interviewees in my study reported a perceived inequity in support for CPD, between full-time, and part-time and locum staff, and there was also perception that other health professionals received more support in terms of funding and paid leave than physiotherapists. This confirmed the findings of Roskell and Cross's (2000) study that compared educational and formal CPD in relation to 2

professional groups; respiratory physiotherapists and respiratory nurses. Both groups reported lack of time and funding as barriers to CPD; and that there were differences in funding of CPD between the 2 professions, with nurses reporting significantly more full funding than physiotherapists. This suggests the power of different professions in the NHS. My study did not find any expressed inequity relating to gender, although other studies did (Davies, 1990; Dowswell et al., 2000; Jackson, 1994; Jones, 1994).

### **6.5.2 Perceived lack of ability**

The interviews brought out the issue of confidence or lack of confidence as a potential barrier to CPD, which had not been explicitly anticipated in the questionnaire, and could be explored further. Some interviewees reported lack of confidence in their own ability with regard to attending courses with assessed components, with some believing Master's level study was beyond their capability, particularly if they had qualified as a physiotherapist at diploma level. Their reasoning could be based on comparison with peers, or be a matter of anxiety about theory based content or academic work not previously covered. All interviewees who had studied at Master's level commented positively on how postgraduate study has increased their confidence and self esteem, particularly when it was linked to CPD activities that promoted self-esteem in comparison with peers; and critical thinking that was often linked to postgraduate study. Some interviewees preferred external courses or conferences in order to 'learn from the experts', although often this appeared to be for reassurance that what the 'experts' were doing was in fact no improvement than their own practice, which in turn gives confidence.

### **6.6 OUTCOMES OF CPD**

All interviewees believed the various CPD activities they had engaged in over their careers had produced positive outcomes on improving the service they delivered to patients (section 5.10.1). They also described the impact CPD had on their own self development (section 5.10.2) and how their new knowledge and skills could be shared with colleagues (5.10.3). It was however noticed that although most participants

believed certain CPD activities had a positive impact on patient care, when this was explored further in the interviews some interviewees had difficulty in verbalising how they had applied their learning into changing their practice, and have a direct impact on patient care. Those best able to articulate positive outcomes were interviewees who were involved in or had already completed postgraduate study.

The inability of some to articulate how they had applied that learning to their practice, is perhaps why there was anxiety surrounding the need to present evidence of CPD to the regulatory body (HPC, 2006b). This was more evident with those who had qualified as physiotherapists with a diploma rather than it was with physiotherapists with degrees, and even less so with those with or studying for a Master's degree. It seemed that those with experience of reflective practice, and particularly those who have had their reflective practice assessed in some way in order to receive feedback, were the most confident in relating the outcomes of their CPD to professional practice, and were perhaps less anxious about what they would need to submit to HPC for re-registration. This raises the issue that some physiotherapists may need more support to provide the evidence that their CPD activities have had an impact on their practice to meet HPC requirements (HPC, 2006a; 2006b).

### **6.6.1 The challenge of measuring the outcomes of CPD**

Almost a decade ago Gosling (1999) identified the challenge posed by trying to demonstrate the benefits of M level learning. Respondents to a discussion paper on postgraduate study sent out 2 years earlier to members of the CSP identified that tangible links between higher level study and enhanced patient care were difficult to identify and demonstrate. Although it was suggested that benefits should include: improved patient care through clinical audit increased research activity, increased job satisfaction, increased self-esteem, enhanced career opportunities and improvements in in-service education; no evidence was found to prove that these benefits did emerge.

There is a range of literature on the types of tools that have been used to measure the outcomes of CPD, such as: CSP Outcomes Model (CSP, 2001a), performance appraisal,

mentoring, CPD portfolio and learning contracts (IFAC, 2008), postgraduate study, work-based learning (Alsop, 2000; CSP, 1999; CSP, 2002b; Cole, 2000; Gosling, 1999; Walker, 1999) and formal courses (Brennan et al. 2006; Hardwick and Jordan, 2002). We will see that other health professions focus more on counting the input of CPD events attended rather than on the outcomes of those activities.

### 6.6.2 Input models v outcome models of CPD

The requirements by the Health Professions Council for all physiotherapists to demonstrate evidence of CPD has been discussed in Chapter 2 and as shown in the previous chapter, interviewees in my study reported that there was still a lack of clarity of what the statutory body requires of the individual physiotherapist. O'Sullivan (2003) suggests that despite considerable resources provided by the CSP, some members are not fully aware of these and physiotherapists require support from their professional body and employers to enable individual physiotherapists them to integrate their CPD with their practice, and an increased awareness and understanding of CPD is required to enable them to become independent learners.

Comparisons can also be drawn with CPD of other health professionals, such as nursing medicine and occupational therapy. To ensure that registered nurses engage in CPD, national guidelines were introduced a decade ago prescribing a minimum of 5 study days in every 3-year period in order for nursing and midwifery staff to maintain their registration (UKCC, 1999). These requirements provide an important link between each professional's personal responsibility to ensure 'fitness to practise' and the principle of 'self-validation', where each registrant undertakes relevant study in respect of his or her professional practice area.

In looking at the difference between nursing and physiotherapy, it could be speculated that there are a number of reasons for this. Firstly, there is almost a 10 year gap between Govier's (1999) study and mine, and as raised in the previous chapter, there had been major changes in the NHS throughout this time, particularly in relation to CPD and financial constraints. Therefore there may not have been the same restrictions on CPD for nurses and midwives in the 1990s, as there were for physiotherapists in 2004-5.

Secondly, there are different CPD requirements between the health professions as they are regulated by different statutory bodies (HPC and UKCC<sup>4</sup>). Nursing as in medicine and dentistry used an input CPD model (for example, 5 days of CPD every 3 years in nursing), and credit accumulation in medicine (for example, a one-hour lecture = 1 credit); whereas physiotherapy uses an outcomes model (CSP, 2001a; Gosling, 2001).

McKay (2000) explains how the Royal Colleges chose to use the "points" system of CME (continuing medical education), and almost 70% of surgeons returned their annual CME forms and almost all met the agreed minimum points total. The GMC (2004) advises that every doctor will be required to undergo a process of appraisal that will lead to revalidation, to allow the doctor to remain on the national register.

Brigley et al. (1997) examined the question of evaluation of CPD which has been largely neglected in the credit-based systems of continuing medical education adopted by the Medical Royal Colleges. They suggest the low educational value of much continuing medical education and the failure to change professional practice has led to criticism of its emphasis on formal, didactic teaching and academic knowledge; and the suggestion that a more systematic and coherent approach to continuing education was required. The move to the concept of continuing professional development (as different from education), which Brigley et al. (1997) suggest draws on learning by reflective practice and emphasises self-directed learning, professional self-awareness, and learning developed in context, is more similar to the view of CPD in physiotherapy.

By contrast, the CSP developed a Draft Outcomes Model of CPD (CSP, 2005b; Gosling, 2001) where CPD was seen as a systematic structured process of maintaining professional development by promoting reflective activity and promoting a wide variety of learning opportunities to assess learning needs and evaluate learning outcomes. Whereas the medical model emphasises attendance at CPD events, the outcomes model emphasises how individual learning. The emphasis in the outcomes model tends to be on how individual learning can enhance patient care in relation to increased efficiency and

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<sup>4</sup> The statutory body for nursing and midwifery is now the NMC (Nursing and Midwifery Council)

effectiveness, as well as sharing knowledge with colleagues. However there is less emphasis on the benefit to the individual such as personal knowledge and skills and any increase in job satisfaction.

In my study participants reported confusion and lack of clarity in what they needed to collect and potentially submit to the HPC; and similar issues were raised when PREP was first introduced in nursing. Govier's (1999) study also found confusion and ambiguity regarding the interpretation of the process surrounding 'PREP' and re-registration, when he investigated what understanding nurses had of PREP and whether they were prepared to meet the requirements set out by the nursing regulatory body, the UKCC (1996).

## **6.7 CPD AND NHS POLICY**

Participants in my study raised the need to meet standards of practice was frequently mentioned, although more often in relation to the professional body's Standards of Professional Practice (CSP, 2005a), and those of the regulatory body (HPC, 2003); and 98.5% reported that they participated in CPD to keep up to date (Table 5.11). As we have seen there have been mounting pressures on all health professionals working in the NHS to demonstrate their accountability to the public and prove the efficacy of their practice, and on-going professional development is seen as central to the quality of practice and clinical governance (Department of Health, 1999a;) including changes to the regulation of health care professionals that are linked to evidence of CPD (NHS Executive, 2000), through the assessment of competency to practice (HPC, 2003; 2006a; 2006b). I now provide a summary of some recent NHS policies that may have an impact on physiotherapy and CPD in the future.

### **6.7.1 AHP Careers Framework<sup>5</sup>**

In the last decade we have seen a shift in the emphasis from employer support to more responsibility on the individual for their CPD, as a decade ago *Continuing Professional Development: Quality in the New NHS* (1999b) stated that:

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<sup>5</sup> Modernising Allied Health Professions Careers: A Competence Based Career Framework (Department of Health., 2008b)

CPD should be a partnership between the individual and the organisation, its focus should be on the delivery of high quality NHS services as well as meeting individual career aspirations and learning needs.

And

Employers should value CPD as an integral part of quality improvement. (Department of Health, 1999b, p 4)

Whereas now the AHP Career Framework (Department of Health, 2008b) which was launched in July 2008 to help clinicians to plan their CPD and career progression, states:

It is the responsibility of every allied health professional to ensure that they maintain and update their knowledge and skills as part of their continuing professional development.

(Department of Health, 2008b, page 5)

By focussing on the individual responsibility it avoids the responsibility of the employer to support the individual in maintaining and updating their knowledge and skills. Also by narrowing learning activities to competences and professions to competences this could limit development of individual professions who are working to develop their body of professional knowledge through research. Reducing professional knowledge to a list of competencies omits the critical thinking and clinical reasoning that underpins professional knowledge and skills and is so much of postgraduate learning. This also creates a tension with the Government's previous rhetoric of advanced practitioners (Department of Health, 2003b; Modernisation Agency 2004). There danger is that physiotherapy, as with other health professions, will return 'technicians' of the pre-1970's where skills are carried out without the underlying clinical reasoning of why some particular interventions are best suited to one patient rather than another intervention.

While this framework was being developed the CSP had raised concerns with Skills for Health and the Department of Health's Chief Health Professions Officer (O'Sullivan, 2007) that the framework did not represent what physiotherapists do. The framework does not detail specific competencies for physiotherapy and Limb (2008) advises that the CSP is presently looking at how the framework might be used to make the case for new roles and promoting physiotherapy services to commissioners.

There is also a recent move towards looking at team competencies rather than professional competencies, with the rhetoric that this can assist service providers to deliver services more effectively. However by fragmenting interventions to a list of competencies that anyone in the team can be trained to do, risks losing the integrated care underpinned by evidence based practice that experienced practitioners can provide through their ability to critically appraise the literature and use their advanced clinical reasoning skills.

At a time when there is a change of focus on more involvement from service users, it could be suggested that service users would rather have a critically thinking health professional who can manage their condition in an holistic way, rather than a series of individuals who can each perform a series of competencies but who do not have the underpinning evidence base of what they are doing or the ability to adequately evaluate the outcomes of the competency they can perform nor be able to respond with alternative interventions when required.

### 6.7.2 Knowledge and Skills Framework (KSF)<sup>6</sup>

As mentioned in 6.4.3 The KSF was linked to *Agenda for Change* (Department of Health, 2004a; CSP, 2004) and had the expectation that formal academic achievements such as a Master's degree would lead to an increase in pay and promotion. Skills for Health (Department of Health, 2008b) advises that commissioners of education use competences, and associated knowledge and skills to develop specifications for the outcomes of training programmes and a checklist to assess the robustness of a programme of learning. A full assessment of the use of this tool will be published on 7<sup>th</sup> November 2008. At present the framework is not mandatory, but is being promoted to service managers, at a time when physiotherapy services are increasingly being managed by individuals who have not had a background in physiotherapy. Again using the language of 'training' could takes us back decades to a technician model of

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<sup>6</sup> The NHS Knowledge and Skills Framework (NHS KSF) and the Development Review Process. (Department of Health., 2004c)

physiotherapy, when physiotherapy was prescribed by doctors, and a programme of 'treatment' was administered to a patient, based on another professionals choice of intervention; whether the physiotherapist believed this was the most appropriate intervention for an individual patient or not.

### **6.7.3 High Quality Care for All - NHS Next Stage Review<sup>7</sup>**

Now that practice-based commissioning groups have 10 clinical pathways as proposed by Lord Darzi's report of the health service plan for the next 10 years (Department of Health, 2008a; 2008b), Hunt (2008b) suggests that physiotherapists should be encouraged to be more engaged in implementing more physiotherapy-led services, to match these clinical pathways. Although my findings did not suggest that there were any significant differences between the different clinical sub-groups and therefore did not provide any evidence to support a move towards CPD matching the 10 clinical pathways identified in the Darzi report; if the same study was carried out post-Darzi the findings might have been different.

### **6.8 Summary**

What has emerged from my findings is that it is the outcome of CPD activities that physiotherapist engage in that are important to the individual physiotherapist (individual achievement), the organisation that employs them (service enhancement), the profession (development of professional knowledge) and most importantly the patient (improved patient care).

Professional development has traditionally focussed on clinical skills-based courses or qualifications and academic awards, and if the current lack of funding for CPD continues there needs to be alternative or flexible ways of meeting learning needs and of recognising achievement. The value of work-based learning and other informal activities in the workplace, particularly by junior physiotherapists is important. Perhaps in the past this valued source of learning and personal and professional development has been

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<sup>7</sup> High Quality Care for All- NHS Next Stage Review Final Report: Our NHS - Secured today for future generations (Department of Health., 2008a)

overshadowed by the more expensive external courses on offer, although there appears to be no evidence that the latter is any more beneficial to the individual or the patient than the former. There could also be a need to look for alternative delivery of programmes of learning such as e-learning modules (Mathur et al, 2005).

It appears that although many physiotherapists are actively participating in a range of CPD activities there are still many who not fully confident about demonstrating the learning that has taken place during and following these activities and evidencing how this has changed their practice. They therefore still require more support through their employers, managers, the professional and regulatory bodies to be able to reflect of these activities and demonstrate evidence of the outcomes.

Despite the CSP's work to promote the use of the outcomes model of CPD (CSP, 2005b) and recording this in a professional portfolio there still appeared to be a lack of engagement with documenting reflective practice and recognising how CPD activities can be used to demonstrate CPD. There does appear that there are still a large proportion of physiotherapists who are not confident in using a portfolio.

## Chapter 7

### - CONCLUSION AND RECOMMENDATIONS -

#### 7.1 INTRODUCTION

This chapter presents the conclusions and implications of my thesis drawn from the main findings of my study, in relation to the research aims (Section 3.10). Much of the previous published research had focused on formal CPD, with skill-based courses still appearing to dominate in the UK (Beeston et al., 1998; CSP, 2006; O'Sullivan, 2003). The review of the literature has shown there was a paucity of research where respondents had identified the full range of CPD activities that they engage in, information on their participation in these activities, how they make the choice for one CPD activity rather than another, and what impact these activities had on their practice. An important purpose of my thesis was therefore to fill a gap in knowledge by identifying the CPD activities of a sample of physiotherapists and exploring their perceptions and beliefs of the outcomes of these activities. I believe that the findings from my study have provided an increased understanding of the reasons why physiotherapists choose to participate in particular CPD activities, provided new insights into outcomes of CPD, which has assisted the development of appropriate post registration provision for local physiotherapists in response to their perceived needs; by approval of a new MSc in Advanced Practice programme with 9 specialist pathways for physiotherapists, other AHPs and nurses (University of Teesside, 2007). The expense associated with the costs of external courses warrants consideration of a variety of activities, and future research should investigate non-formal CPD, such as WBL, mentorship and self-directed study. This chapter concludes with a reflective account of my learning and development throughout the research process (Section 7.5).

#### 7.2 SUMMARY OF MAIN FINDINGS AND IMPLICATIONS FOR PRACTICE

At the end of the previous chapter I summarised the main findings under four points:

1. That outcomes of CPD are what is important to the three parties concerned: practitioners, employers and patients

2. That past emphasis on external courses and awards needs to be complemented by work based learning and new modes of delivery
3. That there is a lack of confidence about CPD in some quarters and such people will need support as CPD becomes a re-registration requirement
4. That focus on outcomes models also creates uncertainty and there needs to be further support in use of portfolios to evidence the outcomes of CPD activities.

It appears therefore that participants in my study have accepted their personal responsibility to participate in CPD and to develop their knowledge and skills to remain on the HPC register. However if managers and employers want their staff to remain fit for practice they also need to accept that they need to support this requirement, for example, through providing the minimum of the equivalent of a half-day per month for professional development (CSP, 2003a). There needs to be some consistency, since at present some managers offer this time in excess of mandatory and in-service sessions, that is, they give the time for individuals to reflect on these activities, rather than just the chance to attend them. This view is supported by the outcomes-based approach.

The findings from this research suggest that physiotherapists who responded in this survey expressed a strong desire to participate in CPD activities in order to develop their own skills and through this development enhance the quality of patient care and improve service delivery. However it is not only individual achievements as a result of CPD that are important; it is also making explicit the link between the outcomes of CPD and patient care. The respondents' decisions to participate in CPD activities appeared to be influenced more strongly by altruistic values related to enhancing their professional practice than by the prospect of recognition and reward, or by compliance with policy.

This development of self through professional practice, as introduced in the findings in chapter 6 shows the need for individuals to be supported through a range of CPD activities focused on the individual, service, and patient needs. Despite policy initiatives and supporting guidance from professional and statutory bodies the findings suggest many physiotherapists require on-going support. The results of this study suggest that

effective CPD should enable individuals in their present role or one to which they aspire, at whatever stage they are in their career. Effective CPD requires individual physiotherapists to be able to identify their learning needs, recognise appropriate CPD activities and be able to apply the outcome of that learning and demonstrate the effect on their practice. Effective CPD requires support from service managers and employers in order to enhance their practice and service delivery.

What has emerged from my findings is that it is the outcome of these activities that are important to the individual physiotherapist (individual achievement), the organisation that employs them (service enhancement), the profession (development of professional knowledge) and most importantly the patient (improved patient care). The value of work-based learning and other informal activities in the workplace, particularly by junior physiotherapists, is important and has implications for practice.

However, as we have seen few studies have examined changes in clinical outcomes for patients treated by physiotherapists following participation in CPD activities. It would appear that measuring changes in knowledge or attitudes is more easily achieved than demonstrating the direct impact of CPD on improving clinical outcomes for patients. The challenge is to enhance the skills and increase the capability of physiotherapists in a rapidly changing NHS; and to develop effective CPD activities that provide outcomes that develop an effective physiotherapy service that is responsive to the needs of patients.

The study's findings offer challenges and questions to CPD provision because the results suggest there are a number of reasons why physiotherapists working in different specialities and at different stages of their careers chose particular CPD activities, or not.

Findings suggest that there should be less emphasis on formal courses and conferences, and an increase in WBL, and self directed learning. Work-based learning provides practitioners with the opportunity to developing their knowledge and skills with reduced time away from patient care, particularly for those who feel 'guilt' in taking time away

from their practice. There is a difference between work based learning, and learning as a separate activity, such as a short clinical course or a longer academic programme. WBL activities could be a by-product of the working process, such normal practice activity as shadowing a more experienced physiotherapist, or shadowing a colleague from another discipline to develop a more holistic view of the patient pathway. This could be supported through mentoring and clinical supervision. The challenge would be for the supervision to provide structured reflection from learning activities that take place during normal working activity, and assist the individual to collect evidence that the activity has improved their practice.

The findings showed that some people value academic programmes, particularly if there is an element of advanced clinical skills, and this suggests they will continue to have a place. However HEI providers need to further develop distance learning and on-line modules/programmes, so that learners can access these at a time that is convenient to them. Although students may not be on site there are still high costs involved in the development and delivery of on-line modules, and support to off-site students. To link into academic credits, collaboration between service managers and HEI providers to develop and support negotiated work based learning modules or programmes is one route, as is accreditation of previous experiential learning (APEL).

Another challenge evident from the findings where many people emphasise only clinical skills is changing the culture in physiotherapy, which continues to look for clinical skills based modules and programmes, frequently without much evidence base and lack of evaluation of the learning that has taken place. This is being addressed in some part by the work the professional body is doing on endorsing non-credit bearing programmes of learning. There also needs to be improved marketing of higher degrees in showing how higher level thinking and advanced clinical reasoning can have direct impact on physiotherapy practice. This would also need to be underpinned by research.

In order to make CPD work:

1. Physiotherapists need to plan their CPD and discuss this during clinical supervision, and with their line manager through the PDR system in their

workplace

2. There needs to be support from their line manager and employer to match training and development provision to professional and service need
3. Identify a core set of variables associated with engaging in CPD and promote the elements of employment environments that foster CPD.

However LLL is a human endeavour and CPD is only the career long part of LLL; sometimes there may be overlap, other times they may be completely different. It is clear from the findings that physiotherapists see themselves as consumers of CPD and need to be able to evaluate the merits of different CPD activities in order to select the most appropriate to their needs and the needs of their patients, as well as the organisation that employs them.

### **7.3 IMPLICATIONS FOR PHYSIOTHERAPY PRACTICE AND POSTQUALIFYING EDUCATION**

Having considered the issues which arise directly from the research, it is now time in conclusion to return to the general context of policy and development introduced at the beginning of the thesis.

As we have seen there have been mounting pressures on all health professionals working in the NHS to demonstrate their accountability to the public and prove the efficacy of their practice, and on-going professional development is seen as central to the quality of practice and clinical governance. The Health Act (Department of Health, 2001b) included changes to the regulation of health care professionals that are linked to evidence of CPD (NHS Executive, 2000), through the assessment of competency to practice (HPC, 2003). It also involved a widening of accountability to patients, the community, managers and policymakers. There is a huge financial investment by the NHS on spending on CPD. Brown et al. (2002) reported that the total NHS spending on CPD in 1999-2000 was £1billion pounds. There is no data available on the spending of

CPD in physiotherapy; however the Department of Health (Department of Health, 2003c) reported spending £13.4 million on CPD for AHPs and nursing.

CPD has traditionally focussed on qualifications and academic awards, and if the current lack of funding for physiotherapists continues there needs to be alternative or flexible ways of meeting learning needs and of recognising achievement. Although formal CPD is not the only way to stay up to date with knowledge, skills, and evidence based practice; more research is needed for CPD to be shown to be an effective means for improving practice patient outcomes.

It could be proposed that the priority for career long learning should be to offer CPD activities that enable the development of self within professional practice. CPD can provide the opportunity to change individual practice, and effective CPD should enable individuals to develop in their present role and also allow them to prepare for future aspirations throughout their career, across a range of specialities and contexts of practice. As physiotherapy promotes the principles of evidence based practice, the outcomes of CPD activities should be better linked to improved delivery of care and more effective clinical outcomes for patients, otherwise it is unlikely that the workplace will provide support in the form of course fees or study leave. Such a strategic approach will also help managers to develop structured in-service CPD programmes, and choose effective external programmes.

It is evident from the findings that participants found it difficult to describe and demonstrate the effectiveness of CPD in providing direct outcomes to patient care. Continuing career development needs to emphasise the learning developed in the context of professional practice, self-directed learning, self-awareness in identifying individual learning needs, critical reflection on their practice, critical analysis of the evidence base of physiotherapy practice, and the learning needs of their organisations.

While CPD budgets continue to be targeted as ways of meeting budget short falls, a smarter way of using work-based and self-directed learning needs to be developed and

encouraged. For instance many participants reported participating in in-service sessions, so perhaps these could be better planned and structured in order to not just include CPD content, but also how to critically review this content and reflect any new learning that has taken place and then how to document this in order to meet requirements of external stakeholders such as PDR/appraisal, Skills for Health competences; KSF; and HPC requirements. There could also be a need to look for alternative delivery of programmes of learning such as e-learning modules.

There remain challenges in trying to demonstrate the degree to which improvement in patient outcomes has occurred following specific CPD activities, and until appropriate measures are developed there will remain a tension around appropriate access to funding. Funding remains an issue and there needs to be more transparency in how budget holders ensure that funding matches service requirements, and ensure funding keeps physiotherapists, and other health professionals, up to date in their practice.

Objective outcome measures are available to measure the impact of treatment, but as yet no objective measures are available to measure outcomes of CPD, due to the difficulty in quantifying actual change in behaviour following CPD activity (Dolcourt (2000)). Often subjective perceptions of learners are used to try to demonstrate educational effectiveness, and learner self satisfaction with an educational programme of learning. Even programmes of learning that have robust strategies to assess their learning outcomes, do not assess changes in practice and direct outcomes on patient care.

#### **7.4 RECOMMENDATIONS FOR FUTURE RESEARCH**

In chapter 6 there were a number of places where it became evident that further research is needed. The points are listed here again in summary:

1. Research into the role of reflective practice in physiotherapy and the benefits of this on physiotherapy practice.

2. Explore physiotherapists' perceptions of mentoring and supervision and how these impact on practice
3. Explore in-service programmes; their content, structure and delivery, across a number of sites involving staff from a range of clinical specialties and employment grades
4. Explore work-based CPD activities, type, participation, outcomes, whether uni-professional or inter-professional
5. Explore self-directed learning activities, type, participation, outcomes
6. Following CPD activities explore the ways in which the outcomes for patients/service improved. The CPD follow-up period should be at least 12 months to detect intervention effects and their sustainability.

### **7.5 REFLECTIVE ACCOUNT**

In the spirit of reflection which has been discussed as important in CPD – and this thesis has served this purpose for me – I have space for some final reflections.

During the research process I kept a record of significant learning events, and the following narrative contains a summary of selected episodes that highlight those aspects I consider significant, and which I am prepared to share with others. Narratives such as this can be difficult to put into words. When summarizing I was very aware that others would read my private thoughts, therefore I have moderated what I included. This is not to say I did not gain insight into how my past experiences have shaped my ideas and beliefs and how this will affect my future decisions, but I have reserved the right to protect myself from revealing too much. When reading my collection of past experiences I recalled many memories and found this somewhat cathartic. In analysing these events Diamond (1991, p104) suggests 'The task is that of reconstructing the author's personal world from his or her own viewpoint by making explicit his or her

phenomenal categories, that is, those patterns through which he or she structures his or her world and interprets his or her existence’.

Reflection was on-going throughout the research process, particularly so throughout and following the interviews, where I needed to reflect-in-action in order to actively listen to the interviewee responses while also framing my follow-up questions if issues they raised required further probing, or to close down a conversation where topics had become saturated. Following each interview I also reflected-on-action, particularly in the early stages of data collection as my interview technique was being developed; and also when listening back to the tape recordings and checking against field notes so that I could reflect further on my interview technique. The use of a semi-structured interview schedule allowed me to ask the same questions of each interviewee while also allowing a flexible framework to explore new issues as they arose.

#### **7.5.1 What did I learn about myself?**

Procrastination can only be maintained for a limited period, as there are only so many times that I could clean my kitchen cupboards before the reality of just getting on with the writing-up phase hit home.

I am more of a perfectionist than I thought, and I needed a lot of encouragement not to stick to the exact research plan from my proposal— here I felt I was letting myself down by not completing the task as I had originally said I would, therefore I saw this as a potential failure. I had the dilemma of trying to complete as I had originally wanted to do, but time was running out.

I have increased my confidence in submitting work to be published/abstracts for conference presentations.

Using different types of data enriches research findings. I have always been more interested in finding answers to ‘why’ and ‘how’ questions, rather than identifying

answers to the 'what' and 'when'. The survey could report answers to questions but the interviews were needed to enable participants to explain their answers.

### **7.5.2 What did I learn about the research process?**

I had wanted to collect information on the actual amount of time spent on these activities by each respondent, and then look at differences in trends across the different sub-groups in relation to: years in present clinical speciality, grading of post, years in grade, academic qualifications, gender, and working hours. However as there was inconsistent recording of hours/days spent on CPD activities between respondents which affected the quality of the data, no further analysis was carried out on these data. The potential for respondent error in completing this section of the questionnaire had not been picked up in the pilot and there is a lesson here for the future.

Ethics can be a minefield, as raised in the *Methodology* chapter: section 4.5.2. Although in my case I manoeuvred through the process without having to re-submit any paperwork the process was lengthy and required numerous form filling, letter writing, emails and telephone calls to ensure a positive outcome. All this when I could not find any evidence that any fully consenting health professional had ever been harmed by filling in a questionnaire or being part of an interview. Perhaps the most ethical issue raised should have been the health professional taking an hour out of treating patients to attend the interview, or 15 minutes if they completed the questionnaire in their employer's time, although neither of these issues were raised by any of the Local Research Ethics Committees (LRECs), Research and Development Committees or by any of the Physiotherapy managers. It also calls into question this process for anyone following an academic programme, if NHS RECs do not have confidence in the decisions made by REC of academic departments in HEIs. Particularly so when frequently Chairs of REC in HEIs are members of NHS LREC.

On a positive note having been through the process myself, this made me much more confident when supervising post-registration physiotherapists who were doing MSc

dissertations, to ensure that they completed the form correctly. Also, due to my successful LREC submission the Chair of the University Research Ethics Committee at my employing university at that time, requesting using my LREC application as an example of good practice for university staff who were going through the same process (Appendix XXI).

Because of the time involved in completing the transcripts of the interviews, a full 12 months had elapsed between the interviews taking place and completion of the transcripts. I had intended to return each transcript by hand, but work commitments did not allow for this, so I returned the transcripts, which had maintained anonymity, using for example, Interviewee A, and placed in sealed enveloped marked Private and Confidential, to each interviewee. Although I asked participants to return the transcripts with any changes or additional comments, five were returned unopened, with forwarding address unknown, and no other responses were received. This could have been due to a lack of error in the transcripts, or the long gap between interview and return of the transcript could have affected their memory and meant the interviewee could neither confirm nor refute the authenticity of the transcript in relation to their interview. The accompanying letter (Appendix XX) had indicated that if no changes were received it would be accepted that the transcripts were a true reflection of the interview. However due to the time lapse I cannot be sure that they all reached their intended audience.

### **7.5.3 What could I have done differently?**

I have no real regrets as I thoroughly enjoyed the whole of the EdD programme, from the taught modules that helped me to decide which topic of interest to research, through the research proposal stage, which helped me to focus my research question and then carrying out the research itself, to the writing up of the thesis. I had also chosen to do an EdD rather than a PhD as I see my future as more a researching professional rather than a professional researcher.

There could be a lot of 'if only's', but on reflection I probably would not have changed what I did, as I accept that life (and work) goes on around an EdD thesis. For instance throughout this time I have moved house once, and changed my job 3 times at 3 different universities, and immediately following data collection took a part-time secondment from 2006-2007 with the Chartered Society of Physiotherapy, which is based in London. Although the secondment was home based, I was required to travel around the UK visiting lecturers in physiotherapy from all HEIs that run physiotherapy programmes, and attend meetings in London 3-4 times a month.

On reflection perhaps I should have officially suspended my studies on the EdD for 18 months when I took on this secondment, as I was in a state of constant guilt over not engaging with data analysis throughout that time. At the time I felt that if I had suspended my studies I may have found it more difficult to pick them up again, and although I did not produce any writing during this time, the research was constantly at the back of my mind, and I would occasionally pick up journal articles or write down thoughts that I could use when I got back into the writing up phase.

In relation to the actual research, the process would have been helped, and consequently the thesis would have been written up and submitted a year earlier if:

I could have found funding for:

- Postal charges, SAE, follow up reminders
- A research assistant /administrator
  - to distribute questionnaires to individual participant
  - to send out reminders, and follow up non-responses
  - to type up interview transcripts

However, despite these points, as I have said above, the research has met the aims of the study. The thesis has fulfilled its purpose for me, by offering me the opportunity to better understand my profession and enable me to develop and extend my research skills. It has served its purpose for the profession in adding more knowledge of the role and value of CPD; assisted in the design of CPD for local physiotherapists; and suggested further research for myself and others.

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Plan of Work (updated January 2008)

Activity	Duration													
	2004		2005		2006	2007		2008					Nov/Dec/Jan	
	Mar - Aug	Sept - Nov	May - Sept	July - Sept		Jan	Feb	Mar	Apr	May	June	July	Aug - Sept	
Thesis Proposal														
Ethical Approval														
Literature Review														
Data Collection														
Questionnaire														
Interviews														
Data Analysis														
Questionnaire														
Interviews														
Thesis Draft chapters														
Supervision														

## APPENDIX II: OVERVIEW OF LITERATURE SEARCH

## Summary of search strategies

Search Strategy 1	Search Strategy 2	Search Strategy 3
Continuing professional development (kw)	Continuing professional development (ti,ab)	Continuing professional development (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
CPD (kw)	CPD (ti,ab)	CPD (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Continuing professional education (kw)	Continuing professional education (ti,ab)	Continuing professional education (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Continuing education (kw)	Continuing education (ti,ab)	Continuing education (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Professional development (kw)	Professional development (ti,ab)	Professional development (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Lifelong learning (kw)	Lifelong learning (ti,ab)	Lifelong learning (ti)
<b>AND</b>	<b>AND</b>	<b>AND</b>
Motivat\$ (kw)	Motivat\$ (ti,ab)	Motivat\$ (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
View\$ (kw)	View\$ (ti,ab)	View\$ (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Opinion\$ (kw)	Opinion\$ (ti,ab)	Opinion\$ (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Perception\$ (kw)	Perception\$ (ti,ab)	Perception\$ (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Value\$ (kw)	Value\$ (ti, ab)	Values (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Barrier\$ (kw)	Barrier\$ (ti,ab)	Barriers (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Compliance (kw)	Compliance (ti,ab)	Compliance (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Participat\$ (kw)	Participat\$ (ti,ab)	Participat\$ (ti)
<b>OR</b>	<b>OR</b>	<b>OR</b>
Engag\$ (kw)	Engag\$ (ti,ab)	Engag\$ (ti)
<b>AND</b>	<b>AND</b>	
Physiotherapy (kw)	Physiotherapy (ti,ab)	
<b>OR</b>	<b>OR</b>	
Physical therapy (kw)	Physical therapy (ti,ab)	

**Abbreviations:**

kw = key word

ti = title

ab = Abstract

## Summary of retrievals in individual databases

Database	Articles Retrieved	Included	Excluded
<b>Search Strategy 1</b>			
CINAHL	773	n/a	n/a
AMED	47	n/a	n/a
Medline	34	n/a	n/a
PsycInfo	176	n/a	n/a
British Nursing Index	1	0	1
British Education Index	2	0	2
Australian Education Index	7	0	7
ERIC	16	0	16
<b>Total</b>	<b>1056</b>		
<b>Search Strategy 2</b>			
CINAHL	64	22	42
AMED	35	9	26
Medline	19	1	18
PsycInfo	3	0	3
British Nursing Index	n/a	n/a	n/a
British Education Index	n/a	n/a	n/a
Australian Education Index	n/a	n/a	n/a
ERIC	n/a	n/a	n/a
<b>Total</b>	<b>121</b>	<b>32</b>	<b>89</b>
<b>Search Strategy 3</b>			
CINAHL	149	34	115
AMED	11	3	8
Medline	76	8	68
PsycInfo	32	6	26
British Nursing Index	28	0	0
British Education Index	92	5	87
Australian Education Index	86	4	82
ERIC	78	4	74
<b>Total</b>	<b>422</b>	<b>64</b>	<b>358</b>

**Key:**

**CINAHL** (Cumulative Index to Nursing and Allied Health) database is a comprehensive source of information for nurses, allied health professionals, and others interested in health care.

**AMED** (Allied and Complementary Medicine Database) covering the fields of complementary or alternative medicine.

**Medline** database is source of medical information, covering the whole field of medicine including dentistry, veterinary medicine and medical psychology.

**PsychInfo** database provides extensive international coverage of the literature on psychology and allied fields.

**ERIC** = Educational Resources and Information Centre



1 June 2004

Mrs. H. Johnson  
Senior Lecturer in Physiotherapy  
School of [REDACTED]  
University of [REDACTED]  
[REDACTED]  
[REDACTED]

Dear Mrs. Johnson

I am pleased to inform you that the Ethics Committee of the School of Education has approved your Ethics Application in respect of 'The perceived value of continuing professional development (CPD) for Chartered Physiotherapists in one strategic Health Authority'. This approval is subject to further approval by the NHS.

May I take this opportunity to wish you good luck with your research.

Yours sincerely

[REDACTED]

[REDACTED]

Secretary

---

**Reply address:**

Leazes Road, Durham, DH1 1TA, United Kingdom  
Switchboard: 0191 334 2000  
Fax: 0191 334 8311  
Direct line: 0191 334

Queen's Campus, Stockton, University Boulevard,  
Thornaby, Stockton-on-Tees, TS17 6BH  
Fax: 0191 334 0006  
Direct line: 0191 334

**PRIVATE AND CONFIDENTIAL**

Direct Line: 

28<sup>th</sup> July 2004

Prof. Mike Byram  
School of Education  
University of Durham  
Leazes Road  
Durham  
DH1 1TA

Dear Prof. Byram

**Study 109/04 - The Perceived Value of Continuing Professional Development (CPD) for Chartered Physiotherapists in One Strategic Health Authority**  
**Researcher: Helena Johnson Supervisor: Prof. Mike Byram (School of Education, University of Durham)**

The Research Ethics Committee reviewed the above proposal at the meeting on 28<sup>th</sup> July 2004, the committee had no concerns with this study and agreed that this could proceed.

The School of  Research Ethics Committee wish you well with your study.

Yours sincerely,

  
**Chair**  
**Research Ethics Committee**  
School of 



# NHS Research Ethics Committee APPLICATION FORM

This form should be completed by the Chief Investigator, after reading the guidance notes.  
See Glossary for clarification of different terms in the application form.

Short title and version number (maximum 70 characters - this will be inserted as header on all forms):

Perceived Value of CPD for Chartered Physiotherapists- Version 1

Name of NHS research ethics committee to which application for ethical review is being made:

[Redacted] Local Research Ethics Committee

Project Reference number from above REC: 04/Q1002/34

Submission Date: 10/06/2004

## PART A

### A1. Title of Research

Full title: The Perceived Value of Continuing Professional Development (CPD) for Chartered Physiotherapists in One Strategic Health Authority.

Key words: continuing professional development; personal development, professional development, physiotherapy, perceived value

### A2. Chief Investigator

Title: Mrs First Name/Initials: Helena C Last Name: Johnson  
 Post: Senior Lecturer in Physiotherapy  
 Qualifications: MEd BSc Hons Grad Dip Phys MCSP  
 Organisation: University of [Redacted]  
 Address: School of [Redacted]  
 University of [Redacted]  
 Postcode: [Redacted]  
 Email: [Redacted]  
 Telephone: [Redacted]  
 Fax: [Redacted]

*A copy of a current CV (maximum 2 pages of A4) for the Chief Investigator must be submitted with application.*

### A3. Proposed Study Dates and Duration

Start date: 01/09/2004  
 End date: 31/08/2006  
 Duration Years 2 Months [Redacted]

**A4. Primary purpose of the research: (Tick as appropriate)**

- Commercial product development and/or licensing  
 Publicly funded trial or scientific investigation  
 Educational qualification  
 Establishing a database/data storage facility  
 Other

*If other, give details:*

It is also envisaged that findings from this study will assist in the planning of post registration provision of continuing professional development by School of [REDACTED], University of [REDACTED] in order to meet the perceived needs of physiotherapists in the [REDACTED] Strategic Health Authority (see letter of support from [REDACTED], Director, School of [REDACTED], University of [REDACTED])

**A5. Tick the box if your research:**

- involves testing a medicinal product  
 involves investigating a medical device  
 involves additional radiation above that required for clinical care  
 involves using stored samples of human biological material (e.g. blood, tissue)  
 involves taking new samples of human biological material  
 involves only patient records or data, with no direct patient contact  
 involves prisoners or others in custodial care  
 involves adults with incapacity  
 has the primary aim of being educational (eg student research, a project necessary for a postgraduate degree or diploma, other than an MD or PhD)

**A6. Do you consider that this research falls within the category where there is no local investigator?**

YES  NO

*If yes, please justify:*

This study involves all physiotherapists within one Strategic Health Authority (SHA), and these physiotherapists may be employed by/or work in any of the NHS Trusts or PCTs within this SHA. For instance a physiotherapist may be employed by a NHS Acute Trust but be based in a Primary Care Trust; or be employed by a PCT but work in a NHS Acute Trust. In submission of the doctoral thesis the student researcher must be able to demonstrate that she has engaged with all aspects of the research. It would therefore be inappropriate for another person to be involved in the collection of data through individual interviews. However CPD Co-ordinators in each site may be involved with the distribution of the questionnaires physiotherapists in the site they represent.

*Advice can be found in the Guidance Notes on this topic. Some studies do not require further consideration of site-specific issues by NHS Research Ethics Committees, but will still require approval to proceed from the host organisation(s).*

**A7. What is the principal research question/objective? (Must be in language comprehensible to a lay person.)**

Research Question: What is the perceived value of continuing professional development for chartered physiotherapists in one strategic health authority?

**Objectives:**

1. To identify the types of CPD activities that chartered physiotherapists engage in, and establish if there are any differences dependant on factors such as: qualifications, location, clinical speciality.
2. To explore the reasons individuals give for why they engage in certain CPD activities, and the choices that they make.
3. To analyse the perceptions and beliefs and underlying rationales that individual have about CPD, professional practice and patient care.

**A8. What are the secondary research questions/objectives? (If applicable. Must be in language comprehensible to a lay person.)**

Secondary objective: To use the findings from this study to assist in the planning of post registration provision of continuing professional development by School [REDACTED], University of [REDACTED] in order to meet the perceived needs of physiotherapists in the [REDACTED] Strategic Health Authority.

**A9. What is the scientific justification for the research? What is the background? Why is this an area of importance? (Must be in language comprehensible to a lay person.)**

Although physiotherapists have always been required to engage in CPD, with their Rules of Professional Conduct identifying that no physiotherapist should be practising in an area in which they are not competent (CSP, 2002), previously there was no statutory requirement to evidence this. However the new Health Professions Council (HPC, 2003) and new Health Act (DoH, 2001) will require individual health care practitioners to show evidence of having undertaken learning and development and to have applied it to practice (HPC, 2002). The government requires Allied Health Professionals (AHPs) to be engaged in CPD in order to enhance the quality of health care to patients and clients; the New NHS: Modern, Dependable (DoH, 1997), shows a clear relationship between CPD and improvements in quality in health care, with the introduction of 'Clinical Governance' and 'Quality Assurance' (DoH, 1999a; DoH, 1999b). The Health Act (DoH, 2001) attempts to link an individuals' demonstration of their competence in health care practice to retention of their registration with the Health Professions Council (HPC) (HPC, 2003).

To date, there is little research that identifies the types of CPD activities which chartered physiotherapists engage in, or how individual physiotherapists perceive how these activities influence their personal development, professional practice or patient care. O'Sullivan (2003) undertook a qualitative study to explore the barriers to undertaking CPD; the main issue to emerge was that individual physiotherapists were motivated and committed to CPD but experienced guilt about taking time for it because they were working in demanding environments where the patient needs are paramount, and CPD was not necessarily integral to practice. She concluded that an increased awareness and understanding of CPD is required in order to enable physiotherapists to become independent learners.

Anecdotal evidence from local physiotherapists in [REDACTED] SHA, relayed through the Chartered Society of Physiotherapy (CSP) CPD Co-ordinators Network meetings with the researcher, in her role as representative on the CSP CPD and Postgraduate Education Group, suggests that the local HEI provider, the University of [REDACTED] should be more pro active in providing CPD for physiotherapists in response to local need. Training budgets for CPD are limited and physiotherapists who are funded to travel out of the area to attend CPD activities through the rest of the UK seriously limits the CPD opportunities for other physiotherapists in their Trust.

**A10. Give a brief synopsis/summary of methods and overview of the planned research. This should include a brief description of how prospective research participants and concerned communities (not necessarily geographical) from which they are drawn have been consulted over the design and details of the research. (Where appropriate a flow chart or diagram should be submitted separately. It should be clear exactly what will happen to the research participant, how many times and in what order.)**

This exploratory study will use a sequential multi-method design, involving 2 phases of data collection:  
 Phase 1: involves a self-completion questionnaire survey of all physiotherapists employed in one SHA; 5 NHS Trusts and 10 PCTs; to identify the types of CPD activity physiotherapists engage in, the choices they make, and barriers to CPD. This will involve approximately 400 physiotherapists (Wilson, 2004). Participants completing and returning the questionnaire will be invited to volunteer to participate in phase 2.  
 Phase 2: individual semi-structured interviews to explore physiotherapists' perceptions and beliefs about CPD. This will involve a stratified representative sample of 20 physiotherapists based on data collected in phase 1. The advantage of stratifying a population before taking a sample is that the chances of picking a deviant sample are smaller than using a simple random sample of the whole population. A limitation of stratified sampling is that it requires advance knowledge of the important factors within the population and their relative proportions. Knowledge of these important factors will be found from data collected in phase 1. A semi-structured interview guide will be developed following analysis of data from the survey. The two phases of the study are interdependent and together will provide a more comprehensive picture than either would alone (Tashakkori and Teddle, 2003). Twenty interviews is considered feasible in the time available for an individual researcher following a part-time postgraduate programme. (See also Research Timeplan attached)

**Procedure:**

**Pilot:** Following approval from the Ethics Committee at the University of Durham (see attached letter); NHS LREC; University of ████████ REC; Research & Development Approval Boards for each NHS Trust and PCTs; and permission from physiotherapy managers to access staff; the questionnaire (attached) will be piloted with 12 physiotherapy academic colleagues: all have previously been physiotherapists in the NHS, with 3 being employed clinically within the last 12 months. Piloting and subsequent feedback will enable the researcher to make any necessary changes to improve the questionnaire design and improve clarity of instructions prior to the main study.

**Main study:** All participants in phase 1 will be sent a Participant Information Sheet (attached), attached to the Questionnaire (pilot questionnaire attached). These will be distributed to each NHS site in the SHA by the local CSP CPD Co-ordinators, who meet regularly with the researcher as part of the national Chartered Society of Physiotherapy (CSP) CPD Co-ordinators Network. Participants who then wish to volunteer for the individual interviews can complete and return the Contact Details Sheet (attached). This will be returned separately to the questionnaire to maintain anonymity of responses.

The data from the questionnaires will be analysed in order to provide demographic information from the participants in relation to factors such as: qualification, experience and clinical speciality; and discover if there are any differences in relation to these variables.

A stratified representative sample, in relation to grade, clinical speciality and experience, of 20 participants will be chosen from those who complete and return the Contact Details Sheet at the end of the Questionnaire, to take part in phase 2. The interviews will take place either in a private room in the School ██████████ or in a NHS site, as preferred by the participant. Participants will be invited to read and sign the Consent Form (attached) prior to their individual interview. The audio tape recordings of the interviews will be transcribed verbatim by the researcher in order to maintain confidentiality and anonymity of the participants. Each interview transcript will be returned to the interviewee so that he/she can check authenticity and provide further clarification if necessary.

Contact details, audio tape recordings of the interviews and transcripts will be kept in a secure place until successful completion of the research and publication of the thesis. Following this they will be destroyed.

The completed thesis will be available for reference from the Library, School of Education, University of Durham. The research findings will be disseminated to physiotherapists locally via their CSP CPD co-ordinator, and nationally through the Chartered Society of Physiotherapy CPD Co-ordinators Network. It is also envisaged that the researcher will submit a paper of the study for publication in the peer reviewed journal, 'Physiotherapy'.

**A11. Will any intervention or procedure, which would normally be considered a part of routine care, be withheld from the research participants?**

YES

NO

**A12. Will the research participants receive any clinical intervention(s) or procedure(s) including taking samples of human biological material over and above that which would normally be considered a part of routine clinical care?**

YES

NO

**A13. Will the research participant be subject to any non-clinical research-related intervention(s) or procedure(s)?**

YES

NO

**A14. Will individual or group interviews/questionnaires discuss any topics or issues that might be sensitive, embarrassing or upsetting, or is it possible that criminal or other disclosures requiring action could take place during the study (e.g. during interviews/group discussions, or use of screening tests for drugs)?**

YES

NO

*The Information Sheet should make it clear under what circumstances action may be taken.*

**A15. What is the expected total duration of participation in the study for each participant?**

Phase 1: 10-15 minutes for completion of the questionnaire.

Phase 2: One hour for individual interview

**A16. What are the potential adverse effects, risks or hazards for research participants either from giving or withholding medications, medical devices, ionising radiation, or from other interventions (including non-clinical):**

Minimal risk from qualified staff completing a questionnaire or volunteering to participate in an individual interview.

**A17. What is the potential for pain, discomfort, distress, inconvenience or changes to lifestyle for research participants?**

Minimal inconvenience for time taken to complete the questionnaire and participate in interview.

**A18. What is the potential for benefit for research participants?**

Findings will inform development of the post registration provision at [redacted] University in response to the identified perceived needs of local physiotherapists employed in the [redacted] Strategic Health Authority ([redacted] SHA). The present postgraduate provision that has been agreed by the [redacted] Workforce Development Confederation is available free to physiotherapists working within the [redacted] SHA. Further development of provision in response to perceived need would allow more physiotherapists to benefit from CPD, due to limited resources available for physiotherapists who are presently traveling outside the [redacted] SHA to access CPD provision at other HEIs.

**A19. What is the potential for adverse effects, risks or hazards, pain, discomfort, distress or inconvenience for the researchers themselves? (if any)**

Minimal. The researcher is fully aware of the time involved in collecting and analysing data from both phases of the research and in the writing up of the doctoral thesis.

**A20. How will potential research participants in the study be (i) identified, (ii) approached and (iii) recruited? Give details for cases and controls separately if appropriate:**

Phase One: Survey using self-completion questionnaire

(i) With permission from the physiotherapy managers within the [redacted] Strategic Health Authority, the physiotherapy CPD co-ordinators in each site will distribute the questionnaires to all members of the Chartered Society of Physiotherapy that are employed within the physiotherapy department that they represent. The Workforce Development Confederation have identified physiotherapy head count as follows:

- [redacted] NHS Trust: 64
- [redacted] NHS Trust: 18
- [redacted] 112
- [redacted]: 86
- [redacted] NHS Trust: 2
- [redacted] PCT: 0
- [redacted] PCT: 3
- [redacted] PCT: 0
- [redacted] PCT: 70
- [redacted] PCT: 0
- [redacted] PCT: 0
- [redacted] PCT: 14
- [redacted] PCT: 33
- [redacted] PCT: 0
- [redacted] PCT: 2

(Wilson, 2004)

(ii) Approval is required from R&D managers in each NHS Trust and from one R&D department that covers all the PCTs. Permission to access staff will also be requested from Physiotherapy Managers in each site. Following approval, Participants Information Sheets will be distributed with the questionnaires to each physiotherapist by the CPD co-ordinators.

(iii) Those participants who wish to participate in the study can complete and return the questionnaire in a sealed envelope and place it in a drop box in the staff room, to be collected by the researcher on a specified date.

Phase Two: Individual Interviews

(ii) A separate Contact Details Sheet will be sent with the questionnaire. Those participants who wish to participate in the individual interviews can complete and return this sheet in a separate envelope to the questionnaire in order to maintain anonymity of responses.

(iii) The researcher will contact a stratified sample of these volunteers (20 physiotherapists) in order to arrange an interview at the participant's preferred time and location.

**A21. Will research participants be recruited via advertisement?**

YES

NO

**A22. What are the principal inclusion criteria? (Please justify.)**

Chartered physiotherapists employed in the NHS at sites within the [REDACTED] Health Authority at the time of the study. All physiotherapists employed by the NHS are chartered physiotherapists.

**A23. What are the principal exclusion criteria? (Please justify.)**

No physiotherapists employed outside of the [REDACTED] Strategic Health Authority (SHA) will be recruited, that is those physiotherapists employed in the independent sector, social services, the prison service or in higher education. It is accepted that this will limit the results of the study to physiotherapists in the NHS. However the NHS is the main employer of physiotherapists and due to time and resource limitations of a student researcher following a part-time doctorate, it would not have been feasible to gain access to those not employed by [REDACTED] SHA.

**A24. Will the participants be from any of the following groups? (Tick as appropriate.)**

- Children under 16
- Adults with learning disabilities
- Adults who are unconscious or very severely ill
- Adults who have a terminal illness
- Adults in emergency situations
- Adults with mental illness (particularly if detained under mental health legislation)
- Adults suffering from dementia
- Prisoners
- Young Offenders
- Adults in Scotland who are unable to consent for themselves
- Healthy volunteers
- Those who could be considered to have a particularly dependent relationship with the investigator, e.g. those in care homes, medical students
- Other vulnerable groups

**Justify their inclusion:**

Chartered physiotherapists that fulfil the inclusion criteria of being employed in the NHS at sites within the [REDACTED] Health Authority at the time of the study.

**A25. Will any research participants be recruited who are involved in existing research or have recently been involved in any research prior to recruitment?**

*What steps will you take to find out?*

YES

NO

Not Known

The R & D Managers in each site will be aware of any other research involving this population. This has not been raised as an issue in any of the sites in communication with the researcher prior to making this application.

**A26. Will informed consent be obtained from the research participants?**

YES

NO

*Give details of who will take consent and how it will be done. Give details of any particular steps to provide information (in addition to a written information sheet) e.g. videos, interactive material.*

*If participants are to be recruited from any of the potentially vulnerable groups listed in A24, give details of extra steps taken to assure their protection. Describe the arrangements to be made for obtaining consent from a legal representative.*

A Participant Information Sheet (attached) will be enclosed with the self-completion questionnaire (pilot questionnaire attached). This describes each phase of the proposed study and expected participant involvement. Participants willing to volunteer for the individual interviews in phase 2 of the study will return their Contact Details Sheet to the researcher in a separate sealed envelope.

Prior to the individual interviews participants will complete an Informed Consent Form (attached) which explains that the interviews will be audio tape recorded, transcribed in full and both tapes and transcripts will only be available to the researcher and academic supervisor. Participant contact details, audio tapes of the interviews and transcripts will be stored by the researcher in a locked cupboard in her personal office, until successful completion of the thesis, after which time they will be destroyed. All data provided by the participants in the data collection, analysis and writing up of the study will be anonymised so that no individual or NHS site can be identified.

*Copies of the written information and all other explanatory material should accompany this application.*

**A27. Will a signed record of consent be obtained?**

YES

NO

*Attach a copy of the consent form to be used, with a version number and date.*

**A28. How long will the participant have to decide whether to take part in the research?**

Phase 1: 2 weeks to decide whether to complete and return the questionnaire.  
 Phase 2: 2 weeks from receiving the questionnaire to returning their Contact Details. They will have a further 8-12 weeks before the researcher will contact volunteers to arrange the individual interviews.  
 Participants can withdraw from the study at any point in the data collection and analysis period.

**A29. What arrangements have been made for participants who might not adequately understand verbal explanations or written information given in English? (e.g. translation, use of interpreters etc.)**

Not applicable. All physiotherapists employed in the NHS are required to have a good level of understanding and communication of verbal and written English.

**A30. What arrangements are in place to ensure participants receive any information that becomes available during the course of the research that may be relevant to their continued participation?**

Participants in phase 2 will receive the transcript of their own interview to check for authenticity. On completion of the study, a summary of the findings will be available via the CSP CPD co-ordinators to share with the participants in their site.

**A31. Does this study have, or require, approval of PIAG (Patient Information Advisory Group) or other bodies with a similar remit? (see Guidance Notes)**

YES  NO

**A32. Will the research participant's General Practitioner be informed that they are taking part in the study?**

YES  NO

*Explain why not:*

Research involves NHS employees not patients. No medical or therapeutic intervention will be used.

**A37. How is it intended the results of the study will be reported and disseminated? (Tick as appropriate)**

- Peer reviewed scientific journals
- Internal report
- Conference presentation
- Other publication
- Submission to regulatory authorities
- Access to raw data and right to publish freely by all investigators in study or by Independent Steering Committee on behalf of all investigators
- Written feedback to research participants
- Presentation to participants or relevant community groups
- Other/none e.g. Cochrane Review, University Library

*If other/none of the above, give details and justify:*

The doctoral thesis to be held in the Library, at the School of Education, University of Durham

**A38. How will the results of the research be made available to research participants and communities from which they are drawn?**

The research findings will be presented to CSP CPD co-ordinators from [REDACTED] Strategic Health Authority at one of their regular meetings with the researcher, and this can be disseminated to physiotherapists in the site that they represent.

The researcher hopes to submit a paper/s for publication in *Physiotherapy*, a journal sent to all subscribing Members of the Chartered Society of Physiotherapy.

**A39. Will the research involve any of the following activities at any stage (including identification of potential research participants)? (Tick as appropriate)**

- Examination of medical records by those outside the NHS, or within the NHS by those who would not normally have access
- Electronic transfer by magnetic or optical media, email, or computer networks
- Sharing of data with other organisations
- Export of data outside the European Union
- Use of personal addresses, postcodes, faxes, emails or telephone numbers
- Publication of direct quotations from respondents
- Publication of data that might allow identification of individuals
- Use of audio/visual recording devices
- Storage of personal data on any of the following:
  - Manual files including X-rays
  - NHS computers
  - Home or other personal computers
  - University computers
  - Private company computers
  - Laptop computer

*Further details:*

Questionnaires will not include personal details. A separate sheet that includes personal Contact Details from those participants willing to be interviewed will be returned to the researcher in a sealed envelope. This information will be kept confidential from any other person and will be stored in a secure place and destroyed on completion of the study. Audio tape recordings and interview transcripts will identify participants by a number only; all tapes and transcripts will be kept in a locked filing cabinet in the researcher's office at the University of [REDACTED]. Data used in direct quotes from the interviews will be reported in such a way as to maintain the anonymity of the individual, their place of work and their employer. Each individual interview transcript will only be available to the interviewee, the researcher and her academic supervisor. The returned questionnaires, tapes and transcripts will be destroyed after successful completion of the thesis. All data will be stored on floppy discs, and kept in a locked cabinet.

**A40. What measures will be put in place to ensure confidentiality of personal data? Give details of whether any encryption or other anonymisation procedures will be used, and at what stage:**

The questionnaires will be completed anonymously and will contain no information relating to hospital site. The Contact Details Sheet will be completed by the participants willing to be contacted for interview and returned separately from the completed questionnaire. This information will only be available to the researcher, will be kept confidential from any other person and will be stored in a secure place and destroyed on completion of the study. The audio tapes of the interviews will be identifiable by a number only e.g. interview 1. Data used in direct quotes from the interviews will be reported in such a way as to maintain the anonymity of the individual, their place of work and their employer, for example, being cited as 'participant 1'.

**A41. Where will the analysis of the data from the study take place and by whom will it be undertaken?**

Analysis of questionnaires and interview transcripts will take place in the personal office of the researcher, and will be undertaken by the researcher, as part of the process in completion of her doctoral thesis. Information to be used for the thesis will be stored on floppy discs and kept in a personal locked filing cabinet in the researcher's office.

**A42. Who will have control of, and act as the custodian for, the data generated by the study?**

The researcher

**A43. Who will have access to the data generated by the study?**

The researcher and the academic supervisor, Prof Byram.

**A44. For how long will data from the study be stored?**

2 Years Months

*Give details of where they will be stored, who will have access, and of the custodial arrangements for the data:*

Data will be kept in a personal locked filing cabinet in the researcher's office at the University of [redacted] accessible only by the researcher.

On successful completion of the doctoral thesis the questionnaires, Contact Details Sheets, Consent Forms, interview and interview transcripts will be shredded, and audio tapes wiped clean.

**A45. How has the scientific quality of the research been assessed? (Tick as appropriate)**

- Independent external review
- Review within a company
- Review within a multi-centre research group
- Internal review (e.g. involving colleagues, academic supervisor)
- None external to the investigator
- Other, e.g. methodological guidelines

*If you are not in possession of any referees' or other scientific critique reports relevant to your proposed study, justify and describe the review process and outcome. If review has been undertaken but not seen by the researcher, give the details of the body which has undertaken the review:*

There will be continuing formative assessment of scientific quality through regular research supervision with the academic research supervisor, Prof Byram. Prof Byram is experienced in the supervision of doctoral theses and can offer expert advice on the quality of the research (see attached Research Supervisors CV and Letter of Support). The scientific quality of the full research study will be assessed independently by the external examiner/s through submission of the doctoral thesis and a viva examination.

*A copy of any referees' comments or other scientific critique reports relevant to the proposed research must be enclosed with the application form.*

**A46. Has similar research on this topic been done before?**

YES  NO

**A47. Have all existing sources of evidence, especially systematic reviews, been fully considered?**

*Please give details of search strategy used:*

YES  NO

Key words using the following databases:

CINAHL, Medline, Cochrane;

using key words: continuing professional development, professional development, personal development, physiotherapy

Personal Communication with the CPD Officer and the Learning Resource Centre at the Chartered Society of Physiotherapy.

**A48. What is the primary outcome measure for the study?**

A successful doctoral thesis

**A49. What are the secondary outcome measures? (If any)**

Development of appropriate post-registration CPD provision at the University of [redacted] for physiotherapists employed in the [redacted] Strategic Health Authority

**A50. How many participants will be recruited? How many of these participants will be in a control group?**

Approximately 400 participants for survey. This figure is based on figures given in personal communication with Ms [redacted] Wilson, Information Analyst, [redacted] Workforce Confederation on 19 May 2004. 20 participants for the individual interviews.

**A51. Has the size of the study been informed by a formal statistical power calculation?**

YES

NO

**A52. Has a statistician given an opinion about the statistical aspects of the research?**

YES

NO

Give the name and contact details:

[redacted] Postgraduate Research Institute, School of [redacted], University of [redacted]

Give a brief summary of advice offered and attach a copy of the comments if available:

Formative feedback only can be given as this research is part of an assessed thesis for submission for a Doctorate in Education and as such has to be the work of the student researcher. Formative feedback from the statistician was that only descriptive statistics would be required from phase 1 in order to identify important factors in the population in order to identify an appropriate stratified sample and to assist in the development of the semi-structured interview. Formative feedback will be given by the academic supervisor during all aspects of the study.

**A53. Describe the statistical methods and/or other relevant methodological approaches (e.g. for qualitative research) to be used in the analysis of the results. Give details of the methods of randomisation process to be used if applicable:**

The aim of the questionnaire is to contextualise the types of CPD activity and identify any differences from factors such as grade, experience, clinical speciality. Data from the questionnaires will be analysed to provide descriptive statistics, to assist the stratified sampling and to inform the development of the semi-structured interviews. Advice on the development of the questionnaire has been provided by [REDACTED], Statistician, Postgraduate Institute, University of [REDACTED]

The audio tape recordings of the interviews will be transcribed verbatim by the researcher in order to maintain confidentiality and anonymity of the participants, and allow the researcher to become immersed in the data. Each interview transcript will be returned to the participant in order to check authenticity and to further clarify issues.

The interview transcripts will be analysed using Ritchie and Lewis' (1994) 'analysis method framework'. This framework classifies and organises data according to themes, concepts and categories that emerge from the data.

Validity in positivist research concerns generalisation and questions whether information collected from one particular sample can be applied to a similar sample elsewhere. However this study is exploratory and does not intend to produce generalisable knowledge, but rather to give an in-depth understanding of the phenomena in relation to the participants in one SHA.

To establish 'trustworthiness' in qualitative inquiry Guba and Lincoln (1989) propose alternative criteria to internal validity, external validity, reliability and objectivity, and suggest they are replaced by credibility, transferability, dependability and confirmability. Koch (1994) and Kreflung (1991) also use these four criteria, suggesting that 'trustworthiness' can be established if the reader is able to audit the researcher's actions throughout the study. The researcher intends to provide a transparent research process, an audit trail of data collection and data analysis; and will verify the emerging categories by the use of verbatim quotations from the research participants in order to maintain their context. The robustness of the whole research process will be assessed through submission of the doctoral thesis and the viva examination.

**A54. Where will the research take place? (Tick as appropriate)**

- UK
- Other States in the European Union
- Other States in the European Economic Area
- Other

**A55. Has this or a similar application been previously rejected by a Research Ethics Committee in the UK, the European Union or in the European Economic Area?**

YES  NO



**A58. Has funding for the research been secured?**

YES  NO

What arrangements are being made to cover any costs of the research? If no external funding is being sought, please say so:

No external funding is being sought.

Educational fees for EdD are paid by the researcher's employer, School of [redacted] University of [redacted]

Time to attend research supervision tutorials and to conduct individual interviews will be taken as Self Managed Scholarly Activity (SMSA), approximately 25 days per year. A portable tape recorder with integral microphone is available on loan from the School of [redacted], University of [redacted]. The researcher intends to apply for a sabbatical, with the support her employer, for time to write up the thesis.

Other costs in time and resources are to be paid by researcher.

**A59. Has the funder of the research agreed to act as sponsor as set out in the Research Governance Framework?**

YES  NO  Not yet known

**Has the employer of the Chief Investigator agreed to act as sponsor of the research?**

YES  NO  Not yet known

Give details of the organisation who will act as the sponsor of the research:

Organisation: School of [redacted]

Address: University of [redacted]  
[redacted]  
[redacted]

Postcode: [redacted]

UK Contact: [redacted] Director

Telephone: [redacted] Fax: [redacted]

Email: [redacted]

*A copy of documentation indicating that the organisation has accepted the role of sponsor should be enclosed if the sponsor is not the main funder, the Chief Investigator's employer, or an NHS body hosting the research.*

**A60. Has any responsibility for the research been delegated to a subcontractor?**

YES

NO

**A61. Will individual *researchers* receive any personal payment over and above normal salary for undertaking this research?**

YES

NO

**A62. Will individual *researchers* receive any other benefits or incentives for undertaking this research?**

YES

NO

**A63. Will the host organisation or the researcher's department(s) or institution(s) receive any payment or benefits in excess of the costs of undertaking the research?**

YES

NO

**A64. Does the Chief Investigator or any other key investigator/collaborator have any direct personal involvement (e.g. financial, share-holding, personal relationship etc.) in the organisation sponsoring or funding the research that may give rise to a possible conflict of interest?**

YES

NO

**A67. If the research involves a specific intervention, (e.g. a drug, medical device, dietary manipulation, lifestyle change, etc.), what arrangements are being made for continued provision of this for the participant (if appropriate) once the research has finished?**

Not applicable

## Summary of Ethical Issues

**A68. What do you consider to be the main ethical issues or problems which may arise with the proposed study, and what steps will be taken to address these?**

Issues of confidentiality of Contact Details for those participants volunteering to be interviewed has been addressed (A39 & 40)

Issues of maintaining anonymity of participants responses, their identity, their employer or NHS site has been addressed (A 39 & 40)

The right of participants to withdraw from the study is addressed in the Participant Information Sheet and Participant Consent Form (attached).

Data storage: All questionnaires, Contact Details Sheets, audio tapes and transcripts of interviews will be stored in a secure place and will be destroyed on successful completion of the thesis (A39 &40).

There is also potential that the study may raise the expectations of participants, in that that they may expect the CPD activities that they identify as important to them, will consequently be provided by their employer or the local HEI. Although development of CPD provision in response to identified need is an intended outcome of the study, it is recognised that any funded CPD provision is a contractual arrangement between the University of [redacted] and the [redacted] Workforce Confederation. A representative from the [redacted] WDC is invited to the CPD Co-ordinators Network meetings and has previously explained (at February 2004 meeting) the funding for post-registration CPD to the group for dissemination to the physiotherapists each member represents.

**A69. Do you need to add further information about certain questions in Part A?**

YES

NO

**Student Page**

**A70. Give details of the educational course or degree for which this research is being undertaken:**

Name and level of course/degree: Doctorate in Education (EdD) (part-time)

Name of educational establishment: School of Education, University of Durham

Name and contact details of education supervisor: 
 Professor Mike Byram  
 Director of EdD Programme  
 School of Education  
 University of Durham  
 Leazes Road  
 Durham  
 DH1 1TA  
 Tel: [REDACTED]  
 Email: [REDACTED]

**A71. Declaration of Supervisor**

I have read and approved both the research proposal and this application for ethical review. I undertake to fulfil the responsibilities of a supervisor as set out in the Research Governance Framework for Health and Social Care. I have delegated authority to sign on behalf of my academic institution that any necessary indemnity or insurance arrangements are in place.

Signature: 

Date: 10. VI - 04

Print Name: M.S. BYRAM

*A one-page summary of the supervisor's CV should be submitted with the application*

**PART B: Section 7 - Declaration**

- The information in this form is accurate to the best of my knowledge and belief and I take full responsibility for it.
- I undertake to abide by the ethical principles underlying the Declaration of Helsinki, and Good Practice Guidelines on the proper conduct of research.
- If the research is approved I undertake to adhere to the study protocol without unagreed deviation and to comply with any conditions set out in the letter sent by the NHS Research Ethics Committee notifying me of this.
- I undertake to inform the NHS Research Ethics Committee of any changes in the protocol, and to submit annual reports setting out the progress of the research.
- I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of patient or other personal data, including the need to register when necessary with the appropriate Data Protection Officer.
- I understand that research records/data may be subject to inspection for audit purposes if required in future.
- I understand that personal data about me as a researcher in this application will be held by the Research Ethics Committee and its operational managers, and that this will be managed according to the principles established in the Data Protection Act.

Signature of the Chief Investigator: .....



Date: 10/06/2004

Print Name: Helena Claire Johnson

1. Do you need to add further information about certain questions in Part B? YES  NO

**ENSURE THAT YOU COMPLETE AND SIGN THE FORM, AND ENCLOSE ALL RELEVANT ADDITIONAL DOCUMENTS.**

# NHS Research Ethics Committee APPLICATION FORM

## PART C: SITE-SPECIFIC ASSESSMENT

This form should be completed by the Principal Investigator for each site (see glossary)

Part C should be completed and sent with relevant enclosures to each NHS Research Ethics Committee or Research & Development (R&D) department which needs to consider site-specific issues. Consult the application procedure on the COREC website

The data in this box is populated from Part A.

Name of NHS Research Ethics Committee to which application for ethical review is being made:

[REDACTED] Local Research Ethics Committee

Project Reference number from above REC: 04/Q1002/34

Name of site NHS REC (or R&D department) undertaking site-specific assessment:

[REDACTED] Local Research Ethics Committee, [REDACTED]

Site NHS REC (or R&D Department) Identifier:

Questions C1, C4, C5, C6, C7 and C8 correspond to questions A1, A2, A65, A10, A12 and A13 on main application form respectively and will populate automatically:

### C1. Title of Research. (Populated from A1)

Full title: The Perceived Value of Continuing Professional Development (CPD) for Chartered Physiotherapists in One Strategic Health Authority.

Key words: continuing professional development; personal development, professional development, physiotherapy, perceived value

### C2. Who is the Principal Investigator for this study at this site?

Title: Mrs First Name/Initials: Helena C Last Name: Johnson

Post: Senior Lecturer in Physiotherapy

Qualifications: MEd BSc Hons MCSP

Organisation: University of [REDACTED]

Address: [REDACTED]  
[REDACTED]

Postcode: [REDACTED]

Email: Helena.Johnson@[REDACTED]

Telephone: [REDACTED]

Fax: [REDACTED]

A copy of a current CV (maximum 2 pages of A4) for the Principal Investigator(s) must be submitted with application.

**C3. Indicate the number of trials/projects within the organisation that the local Principal Investigator has been involved with in the previous 12 months:**

**How many are still current (active or recruiting)?**

**Give details of other members of the local research team responsible to the local Principal Investigator**

**i** Title:  First Name/Initials  Last Name:   
 Position:   
 Qualifications:   
 Role in the research team:

**ii** Title:  First Name/Initials  Last Name:   
 Position:   
 Qualifications:   
 Role in the research team:

**iii** Title:  First Name/Initials  Last Name:   
 Position:   
 Qualifications:   
 Role in the research team:

*If there are more members of the local research team, details should be provided at question C18 or on an attached sheet.*

**C4. Chief Investigator. (Populated from A2)**

Title:  Mrs First Name/Initials:  Helena C Last Name:  Johnson  
 Post:  Senior Lecturer in Physiotherapy  
 Qualifications:  MEd BSc Hons Grad Dip Phys MCSP  
 Organisation:  [REDACTED]  
 Address:  School of [REDACTED]  
 University [REDACTED]  
  
 Postcode:  [REDACTED]  
 Email:  [REDACTED]  
 Telephone:  [REDACTED]  
 Fax:

**C5. Other relevant reference numbers if known: (Populated from A65)**

Applicant's/organisation's own reference number, e.g. R&D (if available):   
 Sponsor's/protocol number:   
 Funder's reference number:   
 International Standard Randomized Controlled Trial Number:(ISRCTN):   
 European Clinical Trials Database (EUDRACT) Number:   
 Project website:

**C6. Give a brief synopsis/summary of methods and overview of the planned research. This should include a brief description of how prospective research participants and concerned communities (not necessarily geographical) from which they are drawn have been consulted over the design and details of the research. (Where appropriate a flow chart or diagram should be submitted separately. It should be clear exactly what will happen to the research participant, how many times and in what order.) (Populated from A10.)**

This exploratory study will use a sequential multi-method design, involving 2 phases of data collection:

Phase 1: involves a self-completion questionnaire survey of all physiotherapists employed in one SHA; 5 NHS Trusts and 10 PCTs; to identify the types of CPD activity physiotherapists engage in, the choices they make, and barriers to CPD. This will involve approximately 400 physiotherapists (Wilson, 2004). Participants completing and returning the questionnaire will be invited to volunteer to participate in phase 2.

Phase 2: individual semi-structured interviews to explore physiotherapists' perceptions and beliefs about CPD. This will involve a stratified representative sample of 20 physiotherapists based on data collected in phase 1. The advantage of stratifying a population before taking a sample is that the chances of picking a deviant sample are smaller than using a simple random sample of the whole population. A limitation of stratified sampling is that it requires advance knowledge of the important factors within the population and their relative proportions. Knowledge of these important factors will be found from data collected in phase 1. A semi-structured interview guide will be developed following analysis of data from the survey. The two phases of the study are interdependent and together will provide a more comprehensive picture than either would alone (Tashakkori and Teddle, 2003). Twenty interviews is considered feasible in the time available for an individual researcher following a part-time postgraduate programme. (See also Research Timeplan attached)

**Procedure:**

Pilot: Following approval from the Ethics Committee at the University of Durham (see attached letter); NHS LREC; University ████████ REC; Research & Development Approval Boards for each NHS Trust and PCTs; and permission from physiotherapy managers to access staff; the questionnaire (attached) will be piloted with 12 physiotherapy academic colleagues: all have previously been physiotherapists in the NHS, with 3 being employed clinically within the last 12 months. Piloting and subsequent feedback will enable the researcher to make any necessary changes to improve the questionnaire design and improve clarity of instructions prior to the main study.

Main study: All participants in phase 1 will be sent a Participant Information Sheet (attached), attached to the Questionnaire (pilot questionnaire attached). These will be distributed to each NHS site in the SHA by the local CSP CPD Co-ordinators, who meet regularly with the researcher as part of the national Chartered Society of Physiotherapy (CSP) CPD Co-ordinators Network. Participants who then wish to volunteer for the individual interviews can complete and return the Contact Details Sheet (attached). This will be returned separately to the questionnaire to maintain anonymity of responses.

The data from the questionnaires will be analysed in order to provide demographic information from the participants in relation to factors such as: qualification, experience and clinical speciality; and discover if there are any differences in relation to these variables.

A stratified representative sample, in relation to grade, clinical speciality and experience, of 20 participants will be chosen from those who complete and return the Contact Details Sheet at the end of the Questionnaire, to take part in phase 2. The interviews will take place either in a private room in the School of ████████ or in a NHS site, as preferred by the participant. Participants will be invited to read and sign the Consent Form (attached) prior to their individual interview. The audio tape recordings of the interviews will be transcribed verbatim by the researcher in order to maintain confidentiality and anonymity of the participants. Each interview transcript will be returned to the interviewee so that he/she can check authenticity and provide further clarification if necessary.

Contact details, audio tape recordings of the interviews and transcripts will be kept in a secure place until successful completion of the research and publication of the thesis. Following this they will be destroyed.

The completed thesis will be available for reference from the Library, School of Education, University of Durham. The research findings will be disseminated to physiotherapists locally via their CSP CPD co-ordinator, and nationally through the Chartered Society of Physiotherapy CPD Co-ordinators Network. It is also envisaged that the researcher will submit a paper of the study for publication in the peer reviewed journal, 'Physiotherapy'.

**C7. Will the research participants receive any clinical intervention(s) or procedure(s) including taking samples of human biological material over and above that which would normally be considered a part of routine clinical care? (Populated from A12)**

YES

NO

**C8. Will the research participant be subject to any non-clinical research-related intervention(s) or procedure(s)?**  
(Populated from A13)

YES

NO

**C9. Name of NHS or other organisation where the research will take place.**

[REDACTED] Strategic Health Authority.

**C10. Specify the location(s)/department(s) within the NHS or other organisation where the research will take place.**

Main Physiotherapy Departments at sites within the [REDACTED] Strategic Health Authority:  
[REDACTED] Hospital; [REDACTED] Hospital; [REDACTED] Hospital; [REDACTED] Hospital  
[REDACTED] Hospital [REDACTED] Hospital [REDACTED]; [REDACTED] Hospital [REDACTED].

**C11. How many research participants/samples is it anticipated will be recruited/obtained from this organisation in total?**

400

**C12. Give details of who will be responsible for obtaining informed consent locally, their qualifications and relevant expertise and training in obtaining consent for research purposes:**

The researcher: Helena Johnson, Senior Lecturer in Physiotherapy. I gained ethical approval for a study in 1995 from [REDACTED] Ethics Committee for a study exploring changes in the walking ability of physically disabled school leavers. I have attended research and ethics training and review for supervision of undergraduate and masters research projects 1998-2004, that have involved applications to University Research Ethics Committees. I have supervised 31 undergraduate projects and 5 masters projects. I attended a 'Researchers Training Day' on 4th September, 2003, run by the North East Office for Research Ethics Committees.

**C13. What local arrangements have been made for participants who might not adequately understand verbal explanations or written information given in English? (e.g. translation, use of interpreters etc.)**

Not applicable

**C14. What arrangements have been made to inform those responsible for the care of the research participants of their involvement in the research?**

Not applicable

**C15. Are the facilities and staffing available locally adequate to perform any necessary procedures or interventions required for the study, and to deal with any unforeseen consequences of these? (This should include consideration of procedures and interventions in both control and intervention arms of a study.)**

YES  NO

*Indicate what arrangements are being made:*

The researcher is the only person involved in interviewing participants

**C16. Give details of a contact point where participants may obtain further information about the study.**

The researcher:

Helena Johnson

University of [REDACTED]

Email: Helena.Johnson@[REDACTED]

**Please specify the headed paper to be used for the information sheet.**

University of [REDACTED]

**C17. If there is no Principal Investigator at local level, is there a local individual who is undertaking a task relating to the research?**

YES  NO  Not Applicable

*Give details:*

CSP CPD co-ordinators at each site will distribute the questionnaires and place a drop box, that will be provided, in the physiotherapy department. These will be collected by the researcher on a pre-arranged date.

**C18. Do you need to add further information about certain questions in Part C?**

YES  NO

**Part C: Declaration**

- The information in this form is accurate to the best of my knowledge and belief and I take full responsibility for it.
- I undertake to abide by the ethical principles underpinning the Declaration of Helsinki, and Good Practice Guidelines on current proper conduct of research.
- If the research is approved I undertake to adhere to the study protocol without unagreed deviation and to comply with any conditions set out in the letter sent by the NHS Research Ethics Committee notifying me of this.
- I undertake to inform the NHS Research Ethics Committee of any changes in the protocol, and to submit annual reports setting out the progress of the research.
- I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of patient or other personal data, including the need to register when necessary with the appropriate Data Protection Officer.
- I understand that research records/data may be subject to inspection for audit purposes if required in future.
- I understand that personal data about me as a researcher in this application will be held by the Research Ethics Committee and its operational managers, and that this will be managed according to the principles established in the Data Protection Act.

Signature of the local Principal Investigator\*      Signature 

Date: 10.6.04

Print Name: Helena Claire Johnson

\* The Chief Investigator should sign where there is no local Principal Investigator for the research locality.

**PART C IS NOW COMPLETE AND SHOULD BE SUBMITTED to the NHS Research Ethics Committee or NHS organisation conducting site-specific assessment**

## Appendix Va Research Protocol

**Study:** The Perceived Value of Continuing Professional Development (CPD) for Chartered Physiotherapists in one Strategic Health Authority (SHA).

**Researcher:** Helena Johnson MEd BSc Hons MCSP SRP, Senior Lecturer in Physiotherapy, School of XXXXXXXXXXXXXXXX, University of XXXXXXXXX.

**Supervisor:** Professor Michael Byram PhD, Director of Doctorate in Education Programme, School of Education, University of Durham.

### Purpose of Study

Physiotherapists are required to engage in CPD, with the *Rules of Professional Conduct* identifying that no physiotherapist should be practising in an area in which they are not competent (Chartered Society of Physiotherapy, 2002). The new *Health Act* (DoH, 2001) and recently set up Health Professions Council (Health Professions Council, 2003) require individual health care practitioners to show evidence of having undertaken learning and development and to have applied this to practice. This requires each individual physiotherapist to take responsibility for his/her own ongoing learning and to provide evidence that they are updating knowledge and skills in order to maintain their competence to practice. However, to date, there is little research that identifies the types of CPD activities which chartered physiotherapists engage in or how individual physiotherapists perceive these activities influence their professional practice or patient care. O'Sullivan (2003) undertook a qualitative study to explore the barriers to undertaking CPD; the main issue to emerge was that individual physiotherapists were motivated and committed to CPD but experienced guilt about taking time for it because they were working in demanding environments where the patient needs are paramount, and CPD was not necessarily integral to practice. She concluded that an increased awareness and understanding of CPD is required in order to enable physiotherapists to become independent learners. In submission of her EdD Thesis at the University of Durham the researcher proposes to explore the perceived value that CPD activities have for physiotherapists employed in the XXXXXXXXXXXXXXXXXXXX SHA. The researcher is a senior lecturer in physiotherapy at the University of Teesside, with responsibility for developing postgraduate provision for Allied Health Professionals. It is anticipated that findings from this study will increase understanding of the reasons why physiotherapists choose to engage in particular CPD activities and assist in the development of appropriate post registration provision for local physiotherapists in response to their perceived needs.

**Research Question:** What are the perceived benefits of continuing professional development for the physiotherapists in one SHA?

### Objectives:

1. To identify the types of CPD activities that chartered physiotherapists engage in, and discover if there any differences dependant on factors such as: qualifications, location, clinical speciality.
2. To explore the reasons individuals give for why they engage in certain CPD activities, and the choices that they make.
3. To analyse perceptions and beliefs about CPD, personal development, professional practice and patient care.
4. To use the findings from this study to assist in the planning of post registration provision of CPD in order to meet the perceived needs of local physiotherapists .

**Methodology**

This exploratory study will use a sequential multi-method design, involving 2 phases:

**Phase 1:** involves a self-completion questionnaire survey of the whole population of physiotherapists employed in one SHA, to identify the types of CPD activity physiotherapists engage in, the choices they make, and barriers to CPD.

**Phase 2:** involves individual semi-structured interviews to explore physiotherapists' perceptions and experiences of CPD. This will involve a stratified representative sample of 20 physiotherapists based on the data collected in phase 1 in regard to grade and clinical speciality. A semi-structured interview guide will be developed following analysis of the questionnaire. This will allow a deeper understanding to be gained from the perceptions of the participants. The two phases of the study are interdependent and together will provide a more comprehensive picture than either would alone (Tashakkori and Teddle, 2003). By choosing to explore perceptions of individual physiotherapists the researcher has made explicit her belief that these participants and their opinions are important to the outcomes of the study.

**Sample:** In phase 1, the questionnaire survey will involve the whole population of physiotherapists employed in one SHA at the time of the study: 5 NHS Trusts and 10 PCTs. This will involve approximately 400 physiotherapists: XXXXXXXX XXXXXXXXXXXX NHS Trust: 64; XXXXXXXXXXXX NHS Trust: 18; XXXXXXXX and XXXXXXXX NHS Trust: 112; XXXXXXXXXXXX NHS Trust: 86; XXXXXXXXXXXXXXXX NHS Trust: 2; XXXXXXXX PCT: 3; XXXXXXXXXXXX PCT: 70; XXXXXXXX PCT: 14; XXXXXXXX PCT: 33; XXXXXXXX PCT: 2 (Wilson, 2004).

Participants completing and returning the questionnaire will be invited to volunteer to participate in phase 2. In phase 2, a stratified representative sample, involving 20 physiotherapists, will be chosen based on the findings of phase 1. As the Rules of Professional Conduct (CSP, 2002) state that no physiotherapist should be practising in an area in which they are not competent, this sample will be chosen in regard to their clinical speciality. Twenty interviews is considered feasible in the time available for an individual researcher following a part-time postgraduate programme, while working full-time as a lecturer.

**Ethical considerations:** Following approval from the University of Durham Research Ethics Advisory Committee (attached e-mail dated 27<sup>th</sup> May 2004) further approval is required in order to gain permission to access NHS employees for research purposes. COREC (Central Office for Research Ethics Committees) require all applications to be made on a common electronic form. As the study is taking place in more than one research site within one domain (an area covered by one SHA) the researcher is applying directly to the XXXXXXXXXXXXXXXX LREC, by 10<sup>th</sup> June 2004. Permission is also required by the Research and Development Approval Committees; and physiotherapy managers, in each NHS site before research can begin. As the researcher is employed by the University of XXXXXXXXXXXX she is also required to gain approval by the School of XXXXXXXXXXXXXXXX Research Ethical Committee. All participants in the main study will be provided with a Participant Information Sheet (attached), attached to the Questionnaire (attached). These will be distributed to each NHS site by the local Chartered Society of Physiotherapy (CSP) CPD Co-ordinators, who meet with the researcher every 3 months, as part of the CSP CPD Co-ordinators Network. Participants willing to volunteer for the individual interviews will complete and return the Contact Details Sheet (attached) and will be required to read and sign the Consent Form (attached) prior to their individual interview.

**Pilot:** Following approval the questionnaire will be piloted with 12 physiotherapy academic colleagues who have all practised in the NHS; 3 of whom were working in the NHS within the last 12 months. Piloting and feedback will enable the researcher to make any necessary changes to improve clarity of instruction and questionnaire design prior to the main study.

**Data Analysis:**

The aim of the questionnaire is to contextualise the types of CPD activity and factors such as grade, experience, clinical speciality. Data from the questionnaires will be analysed to provide descriptive statistics and to inform the development of the semi-structured interviews. Advice on the development of the questionnaire has been provided by XXXXXXXXXXXX, Statistician, Postgraduate Institute, University of XXXXXXXXXXXX, who will also provide on-going support following data collection. The audio tape recordings of the interviews will be transcribed verbatim by the researcher in order to maintain confidentiality and anonymity of the participants, and allow the researcher to become immersed in the data. Each interview transcript will be returned to the participant in order to check authenticity and to further clarify issues. The interview transcripts will be analysed using Ritchie and Lewis' (1994) 'analysis method framework'. This framework classifies and organises data according to themes, concepts and categories that emerge from the data. Validity in positivist research concerns generalisation and questions whether information collected from one particular sample can be applied to a similar sample elsewhere. However this study is exploratory and does not intend to produce generalisable knowledge, but rather to give an in-depth understanding of the phenomena in relation to the participants in one SHA. To establish 'trustworthiness' in qualitative inquiry Guba and Lincoln (1989) propose alternative criteria to internal validity, external validity, reliability and objectivity, and suggest they are replaced by credibility, transferability, dependability and confirmability. Koch (1994) and Krefting (1991) use these four criteria, suggesting that 'trustworthiness' can be established if the reader is able to audit the researcher's actions throughout the study. The researcher intends to provide a transparent research process, an audit trail of data collection and data analysis; and will verify the emerging categories by the use of verbatim quotations from the research participants in order to maintain their context.

**Assessment of Scientific Quality:** Preparation for this research study follows 2 years a taught part-time EdD programme and successful completion of six assessed modules: Policy Studies: Educational Reforms in Britain and Abroad; Analysing, Interpreting and Using Educational Research; Management, Leadership and Change in Education; Lifelong Learning; Motivation, Challenge and Achievement in Education, and Independent Study –the Research Proposal. The thesis is due for completion by August 2007. The scientific quality of the research proposal has been assessed through successful submission of a Research Proposal in part fulfilment for the EdD in September 2003. The ongoing assessment of scientific quality is formatively assessed through regular research supervision with the academic supervisor. The research supervisor is experienced in the supervision of doctoral theses (see attached Research Supervisors CV) and can offer expert advice on the quality of the research. The scientific quality of the full research process will be assessed independently by the external examiner/s through submission of the thesis and a viva voce examination.

## References

Chartered Society of Physiotherapy (2002) *Rules of Professional Conduct*, Chartered Society of Physiotherapy, London.

Department of Health (2001) *The New Health Act*. Department of Health, London.

Guba, E. and Lincoln, Y. (1989). *Fourth Generation Evaluation*. Sage, Newbury Park, California.

Health Professions Council (2003) *Standards of Conduct, Performance and Ethics: Your duty as a registrant*. Health Professions Council, London

Koch, T. (1994). 'Establishing rigour in qualitative research: the decision trail.' *Journal of Advanced Nursing*, **19**, 976-986.

Krefting, L. (1991). Rigor in qualitative research. *American Journal of Occupational Therapy*, **45** (3) 214-222.

Oppenheim, A. N. (1998). *Questionnaire Design, Interviewing and Attitude Measurement (3<sup>rd</sup> ed)*. Pinter Publishers, London..

O'Sullivan, J. (2003) Unlocking the workforce potential: Is support for effective continuing professional development (CPD) the key? *Research in Post-Compulsory Education* **8** (1).

Ritchie, J. and Lewis, J. (eds) (1994) *Qualitative Research Practice*. SAGE Publications, London.

Sandelowski, M. (1986) The problem of rigor in qualitative research. *Advances in Nursing Science*, **8** (3) 27-37.

Tashakkori, A. and Teddle, C. (eds) (2003). *Handbook of Mixed Methods in Social and Behavioural Research*. SAGE Publications, London..

Wilson, T. (2004) Personal communication with Ms Terry Wilson, Information Analyst, County Durham and Tees Valley Workforce Confederation, 19<sup>th</sup> May 2004.

**Local Research Ethics Committee**

**LIST OF SITES WITH A FAVOURABLE ETHICAL OPINION**

*For all studies requiring site-specific assessment, this form is issued by the main REC to the Chief Investigator and sponsor with the favourable opinion letter and following subsequent notifications from site assessors. For issue 2 onwards, all sites with a favourable opinion are listed, adding the new sites approved.*

<b>REC reference number:</b>	04/Q1002/34	<b>Issue number:</b>	1	<b>Date of issue:</b>	01 October 2004
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**Chief Investigator:** Mrs Helena C Johnson

**Full title of study:** The Perceived Value of Continuing Professional Development (CPD) for Chartered Physiotherapists in One Strategic Health Authority.

*This study was given a favourable ethical opinion by Local Research Ethics Committee on 01 October 2004. The favourable opinion is extended to each of the sites listed below. The research may commence at each NHS site when management approval from the relevant NHS care organisation has been confirmed.*

Principal Investigator	Post	Research site	Site assessor	Date of favourable opinion for this site	Notes <sup>(1)</sup>
Mrs Helena Johnson	Senior Lecturer in Physiotherapy	N/A Host Organisation not specified in database.	Local Research Ethics Committee	01/10/2004	
Mrs Helena C Johnson	Senior Lecturer in Physiotherapy	N/A Host Organisation not specified in database.	Research Ethics Committee	01/10/2004	

Approved by the Chair on behalf of the REC:

..... (Signature of ~~Chair~~/Administrator\*)  
 (\* delete as applicable)  
 ..... (Name)

<sup>(1)</sup> The notes column may be used by the main REC to record the early closure or withdrawal of a site (where notified by the Chief Investigator or sponsor), the suspension or termination of the favourable opinion for an individual site, or any other relevant development. The date should be recorded.

## PARTICIPANT INFORMATION LETTER

### Research Study: The Perceived Value of CPD for Chartered Physiotherapists

**Researcher:** Helena Johnson, Senior Lecturer in Physiotherapy,  
XXXXXXXXXXXXXXXXXXXX. Tel: XXXXXXXXXXXX  
E-mail: XXXXXXXXXXXXXXXX

**Academic Supervisor:** Professor Mike Byram, University of Durham  
Tel: XXXXXXXXXXXXXXXXXXXXXXXX  
E-mail: XXXXXXXXXXXXXXXXXXXXXXXX

**Reason for the Study:** In submission of my EdD at the University of Durham I am exploring the perceived value that CPD activities have for chartered physiotherapists in the XXXXXXXXXXXXXXXXXXXX Strategic Health Authority. It is hoped that information generated by this study will increase understanding of the reasons why physiotherapists choose to engage in particular CPD activities and assist in the development of post registration provision for local physiotherapists. This research will involve two phases of data collection:

**Phase 1:** The first phase of the study involves a self-completion questionnaire to identify the types of CPD activity physiotherapists engage in, the choices they make, and barriers to CPD.

**Phase 2:** The second phase involves individual interviews to explore physiotherapists' views and experiences of CPD. This will involve a volunteer representative sample of approximately 20 physiotherapists based on the data collected in phase 1.

### Participation

Participation in this study is entirely voluntary and neither consent nor refusal to participate will involve any reward or disadvantage to any individual. Participants can refuse to answer any of the questions and are free to withdraw from the study at any time. The anonymity of all participants will be maintained in the collection of data, storage of audio tapes, interview transcripts and writing up of the findings. Any verbatim quotes used in the writing of the thesis will not identify any individual or NHS site. Personal details necessary for contacting participants for the interviews will be kept confidential to the researcher. Contact details, audio tapes, and interview transcripts will be destroyed on completion of the study. If you require any further information please do not hesitate to contact me.

### Phase 1: October– November 2004 Questionnaire Survey

Copies of the enclosed questionnaire have been sent to all practising physiotherapists in the XXXXXXXXXXXX Health Authority. If you are willing to participate in this study please complete the enclosed questionnaire and return it in a sealed envelope to the collection box in your staff room. These will be collected by the researcher on 25<sup>th</sup> November 2004. Individuals who wish to volunteer to be interviewed are requested to complete the Contact Details Sheet at the end of the questionnaire and return this in a **separate** sealed envelope to the same collection box.. More detailed information will be given prior to the interview which will take place at a time and venue of your choosing.

*Helena Johnson 20.10.04*

**Questionnaire: Perceived Value of CPD for Chartered Physiotherapists**

Please complete by placing a 'X' inside the box as shown  and/or by clearly writing in space provided .....

**Section 1: Professional details**

1. What year did you qualify as a physiotherapist?: .....

2. How long have you worked as a physiotherapist (excluding breaks in service)?

..... years

3. Please indicate your present clinical speciality: .....

4. How many long have you worked in this speciality (excluding breaks in service)?

.....years

5. In what setting/s do you work? .....

6. Please indicate your present grade? .....

7. How many years have you been in this post? .....

8. Are you employed : Full time?                      Part-time?                      Locum?

9. Please indicate your present qualifications::

months	Hold	Studying	Plan to start in next 12
MCSP	<input type="checkbox"/>	N/A	N/A
Grad Diploma	<input type="checkbox"/>	N/A	N/A
Honours Degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Postgraduate Certificate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Postgraduate Diploma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Masters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Doctorate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Are you male?  female?

**Section 2: CPD Activities**

**11. In relation to the following CPD activities, please indicate the approximate time you have spent on each activity**

<b>CPD Activity</b>	<b>Hours in last month</b>	<b>Days in last year</b>
Clinical supervision		
In-service, in clinical speciality		
In-service, general to all staff		
Journal Club		
Own Portfolio-keeping		
Mentoring others		
Secondment/s		
Shadowing others		
Work-based learning		
Member of CIG eg APCP, ACPIN etc		
CSP representation		
On-line searches		
Reading eg books/articles/journals		
Reflective practice		
Attendance at conference/s		
Presentation at conference/s		
Clinical course/workshop eg CIG		
Clinical course/s eg Bobath, MACP		
Clinical educator course		
Postgraduate module/s		
Postgraduate programme eg MSc		
Project work eg Audit/Research		
Mandatory Trust/PCT training		
Writing articles/books		
Other: Please give details .....		
.....		
.....		

### Section 3 Choices

#### 12. Reasons for engaging with CPD activities:

Please  the most appropriate response to each of the following statements, where:

SA = strongly agree A = agree D = disagree SD = strongly disagree N/O = no opinion

I engage with CPD because I want to:	S A	A	D	SD	N/O
improve my personal development					
improve my professional development					
improve my clinical skills					
improve patient care					
gain academic credit					
gain a postgraduate certificate					
gain a Masters degree					
gain a Doctoral degree					
improve my management skills					
improve my chance of promotion					
increase my pay					
increase my job satisfaction					
keep up to date					
use evidence based practice					
demonstrate my professional responsibility					
p.other? .....					

#### 13. What are the main barriers to your CPD?

Please  the most appropriate response to each of the following statements, where:

SA = strongly agree A = agree D = disagree SD = strongly disagree N/O = no opinion

I find it difficult to engage with CPD activities because of:	S A	A	D	SD	N/O
lack of support from management					
lack of support from my peers					
lack of support from other colleagues					
lack of time					
lack of funding from my employer					
no interest in academic qualifications					
no interest in personal development					
lack of personal reward					
lack of professional reward					
lack of academic reward					
lack of financial reward					
personal lack of appraisal skills					
personal lack of research skills					
no interest in professional development					
other? .....					

**Section 4:**

**14. Please prioritise three CPD activities in relation to your CPD:**

1. ....

2. ....

3. ....

**15. Please add any further comments you wish to make concerning CPD? :**

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Thank you for taking the time to complete this questionnaire. Please place the completed questionnaire in the envelope provided, seal and return **before 25<sup>th</sup> November 2004.**  
Helena Johnson

**PARTICIPANT CONTACT DETAILS**  
**Phase 2: Individual Interview**

I am seeking 20 respondents as a representative sample of physiotherapists in County Durham and Tees Valley Strategic Health Authority who are willing to take part in individual interviews to further explore their views on continuing professional development. It is anticipated that the interview will take no longer than one hour. If you are willing to volunteer for an interview, please complete **this sheet** and return in a **separate** envelope to your completed questionnaire, and post in the same collection box labelled 'CPD for physiotherapists' which is located in the physiotherapy staff room.

The collection boxes will be collected by Helena Johnson on .....2004

**Background Information: please place X in appropriate box**

<p><b>Present Grade:</b></p> <p>Employer: NHS Trust? <input type="checkbox"/> PCT? <input type="checkbox"/> Other? .....</p> <p><b>What year did you qualify as a physiotherapist?:</b></p> <p><b>What is your present clinical speciality:</b></p> <p><b>Number of years <u>working in this speciality</u>?:</b></p>
---

**Day time contact details:**

Full Name: Mr/Ms/Miss/Mrs.....

Address: .....

Tel: ...../Bleep.....

Email: .....

**If you require any further information please contact:**

**Researcher:** Helena Johnson, Senior Lecturer, School of Health & Social Care, University of Teesside, Middlesbrough, TS1 3BA.

Tel: 01642 384999

E-mail: Helena.Johnson@tees.ac.uk

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**CONSENT FORM – INDIVIDUAL INTERVIEW**

**TITLE OF PROJECT:** The Perceived Value of Continuing Professional Development for Chartered Physiotherapists in one Strategic Health Authority

**Researcher:** Helena Johnson, Senior Lecturer in Physiotherapy  
University of Teesside

(The participant should complete the whole of this sheet himself/herself)

*Please cross out  
as necessary*

Have you read the Participant Information Sheet? YES / NO

Have you had an opportunity to ask questions and discuss the study? YES / NO

Have you received satisfactory answers to all of your questions? YES / NO

Have you received enough information about the study? YES / NO

Do you understand that you are free to withdraw from the study:

\* at any time and YES / NO

\* without having to give a reason for withdrawing YES / NO

Do you understand that information you give in the interview may be included as verbatim quotes in the writing up of the thesis. YES / NO

Have you been assured that your anonymity will be maintained in the collection of data, storage of tape recordings and interview transcripts, and writing up of the findings. YES / NO

**Signed** ..... **Date**.....

(NAME IN BLOCK LETTERS) .....

**Feedback from Interviewee following first pilot interview**

**Venue:** Tutorial room in the University      **Date:** 11am, 20<sup>th</sup> May 2005

**INTERVIEWER**

*How did you feel, were you relaxed?*

**Pilot interviewee**

Yes

**INTERVIEWER**

*How well do you feel I framed the questions?*

**Pilot interviewee**

I thought your questions were quite good because they allowed me to say quite a lot. I've done interviews before, and it can be quite hard to keep it going, whereas the way you asked the questions it gave quite a lot to discuss.

**INTERVIEWER**

*Thank you.... I'll know more when I transcribe it, but I felt as though I was only saying a small amount, and then you were saying more. I felt you were being helpful, I don't know if other interviewees will be the same!*

**Pilot interviewee**

I think people will. .... I think CPD is more of an issue now and they are looking how they can get ahead, what is the best route to take.

**INTERVIEWER**

*One of the things my supervisor raised, was that there may be a power relationship .... with me being from university, and interviewees are in practice. Do you think that could be an issue?*

**Pilot interviewee**

I don't really think so, as your questions were asking my opinion on continuing professional development. There wasn't a 'you and us' attitude. I didn't feel that you were imposing your beliefs at all, or expecting particular answers. You were just trying to find out what I thought about continuing professional development.

**INTERVIEWER**

*What about the pace of questions?*

**Pilot interviewee**

Fine, plenty of time to say what I wanted and to think about my responses.

**INTERVIEWER**

*Did you feel I was an active listener, or did I seem preoccupied with wanting to ask the next question?*

**Pilot interviewee**

Not at all, I felt you were interested in hearing my opinions and that they were important.

**INTERVIEWER**

*Were there any issue or topics that you thought I should have picked up on and I didn't?*

Pilot interviewee

I don't think so, things just developed.

**INTERVIEWER**

*I had initially thought about noting down important points on the whiteboard. But then once we got started I felt that it would disrupt the discussion. What I had wondered, perhaps if I had a low table, and perhaps I just noted the odd thing down, I could have gone back to them later. The only thing was, I thought it might have put you off, perhaps if you were talking about something else while I was writing?*

Pilot interviewee

Personally I would have found it off putting if you had stood up, and clinicians might have thought that more so. Just jotting down the odd notes with paper on your knee or a low table would have been OK, so long as you had told me first that you might do that.

**INTERVIEWER**

*I want the interviewee to have control over the topics.*

Pilot interviewee

I know what you mean - I think it will depend on the areas that people work in.

**INTERVIEWER**

*Yes I'd I'm hoping that comes out. To me it is a very individual thing that everyone's continuing professional development needs or views are going to be very different. And it is then looking at 'are there any common things depending on speciality people are in, their background, education, years experience?'*

Pilot interviewee

I think it would be interesting the differences in different specialities. I am very conscious that in musculoskeletal, where I worked there was this competition, like if I went on a course, the person I worked with, she had to go on the course as well. There was always this sort competition, eg who has done the most courses?

**INTERVIEWER**

*Is there anything else you would like to add or give advice on?*

Pilot interviewee

No, just to wish you good luck.

**INTERVIEWER**

*Thank you very much*

**Post-interview reflection**

*While I was doing the interview I started to feel that I may be better changing my planned schedule to be based more around each individual's CPD journey from qualifying to the present time. And then explore the type of CPD activities that practitioner are involved in eg as a newly qualified physiotherapist, in their first senior post, moving into management, research etc..*

**Interview Schedule:**

- Welcome and thank for participating in this interview
  - Reminder of confidentiality of personal information and anonymity of any quotes
  - Sign consent form
1. Begin with your views on what CPD means to you
  2. What are your views on the changes to CPD in recent years?
  3. Tell me about the CPD activities you participated in when you first qualified
  4. How did these change in your first role?
  5. How did these change in your next role?
  6. How has your learning from your CPD activities had an impact on:
    - a. yourself?
    - b. your patient/client/service user?
    - c. your service?
  7. Have there been any barriers to your participation in CPD?
  8. What resources do you need to support and plan your learning/CPD?

**15.06.05**

## **Appendix XII. Clinical speciality categories**

The following 18 clinical specialties were reported by respondents, and these were reduced to 5 categories for analysis: musculoskeletal, neurological rehabilitation, care of the elderly, cardiovascular respiratory and other specialties. The first 4 categories were each used to represent similar specialties within physiotherapy practise, the remaining category included all of the remaining reported specialties that were not appropriate to be included in the previous named categories.

### **1. Musculoskeletal**

1. Musculoskeletal
2. Orthopaedics
3. Hand therapy

### **2. Neurological Rehabilitation**

4. Medical rehabilitation
5. Neurological rehabilitation

### **3. Care of older people**

6. Care of older people

### **4. Cardiovascular respiratory**

7. Respiratory care
8. Surgery/Intensive care

### **5. Other specialties**

9. Amputee management
10. Burns & plastics
11. Community
12. Learning disabilities
13. Mental health
14. Mixed caseload
15. Paediatrics
16. Pain management
17. Palliative care
18. Women's health

**Appendix XIII. Grading of post categories**

The following 11 grades of post were reported by respondents, and these were reduced to 3 categories for analysis: clinician, senior clinician, manager.

Clinician category included junior clinicians and senior clinicians working in rotational posts; senior clinician, included those clinicians employed in a particular clinical speciality, that is, senior clinician, clinical specialist and extended scope practitioner (ESP); and manager, including team leaders at Superintendent III grading or above, and physiotherapy managers. Some gave equivalent NHS Trust grades, which ranged from 9-15. Agenda for Change grades and post assimilation had not been implemented in the Strategic Health Authority at the time of data collection.

**1. Clinician**

1. Junior physiotherapist
2. Senior II physiotherapist
3. NHS Trust grading 9

**2. Senior clinician**

4. Senior I physiotherapist
5. Extended scope practitioner (ESP)
6. Clinical specialist
7. NHS Trust grade 11

**3. Manager**

8. Team leader
9. Superintendent II
10. Superintendent III
11. District Superintendent
12. Physiotherapy manager

## **Appendix XIV: Prioritising CPD activities**

32 categories were identified from the responses to question 14: an open question for respondents to prioritise their CPD activities in relation to their personal CPD.

### **1. Work based learning activities**

1. work based learning
2. secondment/shadowing
3. using EBP/critical appraisal
4. peer support group meetings/sharing good practice
5. clinical supervision/mentoring – staff
6. appraisals/PDR
7. journal club
8. in-service training, general
9. in-service training, clinical speciality
10. in-service training, inter-professional
11. professional development
12. patient care

### **2. Self directed learning activities**

13. self directed study
14. reading journal article
15. reading books
16. Internet searches
17. reflective practice
18. SWOT analysis/setting learning outcomes
19. portfolio keeping
20. personal development
21. IT skills

### **3. Attendance at courses/conferences**

22. external courses
23. external courses/workshops clinical speciality
24. CIG participation clinical education of students
25. Courses, general, non-credit bearing
26. management training / leadership development
27. mandatory courses
28. union sponsored: AfC, KSF
29. clinical educator course
30. postgrad study

### **4. Audit/Research**

31. audit
32. research

**Table XV.a. Participation (%) of respondents in CPD activities in the previous year/month in relation to present clinical speciality**

CPD activity	Participation of all respondents in previous: Year/Month		Clinical speciality of respondents: Participation as % within speciality grouping				Other n=32 (22.9%)
			Musculo - Skeletal n=63 (45%)	Neuro-rehabilitation n=19 (13.6%)	Care of Older people n=15 (10.7%)	Cardiovascular - respiratory n=11 (7.9%)	
Clinical supervision	100	100	100	100	100	100	100
Reading eg books/articles/journals	92	90	91	95	<b>100</b>	82	<b>94</b>
In-service, in clinical speciality	86	74	89	90	73	<b>100</b>	81
Mandatory Trust/PCT training	79	36	78	68	<b>87</b>	73	84
In-service, general to all staff	76	56	73	68	<b>93</b>	91	72
On-line searches	74	65	73	74	47	82	<b>84</b>
Own Portfolio-keeping	69	51	67	68	<b>73</b>	73	72
Reflective practice	67	60	64	<b>84</b>	60	55	72
Work-based learning	54	47	52	<b>68</b>	60	55	47
Mentoring others	49	41	48	<b>58</b>	47	46	50
Clinical course/workshop eg CIG	44	16	35	42	53	36	<b>59</b>
Attendance at conference/s	41	22	32	<b>58</b>	33	46	50
Project work eg Audit/Research	39	25	37	<b>53</b>	40	46	34
Specialist clinical course/s	31	12	43	26	0	18	31
Member of clinical interest group	29	16	14	32	33	18	<b>59</b>
Shadowing others	29	17	27	26	<b>40</b>	36	25
Journal Club	29	16	29	16	<b>33</b>	27	19
Clinical educator course	24	5	21	26	<b>40</b>	27	3
CSP activities	12	8	11	<b>21</b>	13	0	13
Presentation at conference/s	11	6	6	16	20	<b>27</b>	9
Postgraduate programme eg MSc	10	6	11	11	7	<b>27</b>	3
Postgraduate module/s	9	4	6	16	7	<b>18</b>	9
Secondment/s	8	4	<b>10</b>	5	7	9	6
Writing articles/books	6	5	6	11	0	<b>27</b>	0

**Table XV.b. Participation (%) of respondents in CPD activities in the previous year in relation to years in present clinical speciality**

CPD activity	Participation of all respondents in previous year	Years in present clinical speciality Participation as % within years in speciality grouping		
		0-5 years n=67 (47.9%)	5-15 years n=51 (36.4%)	16 years and more n=22 (15.7%)
Clinical supervision	100	100	100	100
Reading eg books/articles/journals	92	93	92	91
In-service, in clinical speciality	86	87	86	86
Mandatory Trust/PCT training	79	75	84	77
In-service, general to all staff	76	79	73	73
On-line searches	74	75	71	73
Own Portfolio-keeping	69	78	63	59
Reflective practice	67	69	71	55
Work-based learning	54	52	59	50
Mentoring others	49	45	45	73
Clinical course/workshop eg CIG	44	42	41	55
Attendance at conference/s	41	37	49	32
Project work eg Audit/Research	39	33	45	48
Clinical course/s eg Bobath, MACP	31	34	29	27
Member of clinical interest group	29	18	37	46
Shadowing others	29	39	24	9
Journal Club	29	37	22	18
Clinical educator course	24	21	29	18
CSP activities	12	10	10	23
Presentation at conference/s	11	9	14	14
Postgraduate programme eg MSc	10	10	10	9
Postgraduate module/s	9	10	8	9
Secondment/s	8	8	6	14
Writing articles/books	6	5	6	14

**Table XV.c. Participation (%) of respondents in CPD activities in the previous year in relation to present grading**

CPD activity	Participation of all respondents in previous year n=140	Grading of respondents (number) % within grading of role grouping		
		Junior clinician /rotational post n=41 (29.3%)	Senior/ specialist clinician n=83 (59.3%)	Team leader manager n=16 (11.4%)
Clinical supervision	100	100	100	100
Reading eg books/articles/journals	92	93	94	81
In-service, in clinical speciality	86	95	82	88
Mandatory Trust/PCT training	79	73	81	81
In-service, general to all staff	76	83	74	69
On-line searches	74	76	71	75
Own Portfolio-keeping	69	83	66	50
Reflective practice	67	73	66	69
Work-based learning	54	59	58	25
Mentoring others	49	42	48	75
Clinical course/workshop	44	44	45	38
Attendance at conference/s	41	39	39	56
Project work eg Audit/Research	39	37	39	50
Specialist clinical course	31	34	36	0
Member of clinical interest group	29	15	35	38
Shadowing others	29	54	19	13
Journal Club	29	29	30	19
Clinical educator course	24	20	28	13
CSP activities	12	5	16	13
Presentation at conference/s	11	7	13	13
Postgraduate programme eg MSc	10	5	11	19
Postgraduate module/s	9	7	11	6
Secondment/s	8	10	8	0
Writing articles/books	6	2	6	19

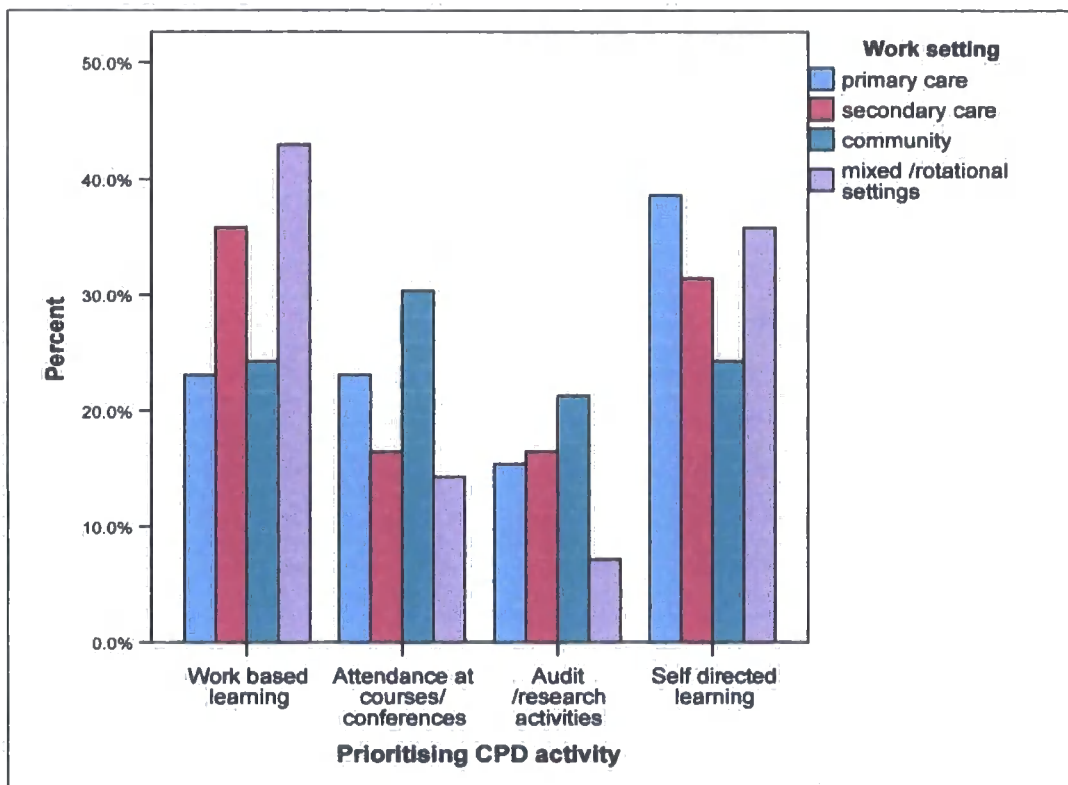
**Table XV.d. Participation (%) of respondents in CPD activities in the previous year in relation to years in present grade**

CPD activity	Participation of all respondents in previous year n=140	Grading of respondents % within years in grade grouping		
		0-5 years as clinician n=96 (68.6%)	6-10 years as senior clinician n=38 (27.1%)	16 years or more as manager n=6 (4.3%)
Clinical supervision	100	100	100	100
Reading eg books/articles/journals	92	94	90	83
In-service, in clinical speciality	86	87	87	83
Mandatory Trust/PCT training	79	77	82	83
In-service, general to all staff	76	78	76	33
On-line searches	74	72	79	50
Own Portfolio-keeping	69	74	61	50
Reflective practice	67	70	63	50
Work-based learning	54	51	55	100
Mentoring others	49	50	40	100
Project work eg Audit/Research	44	38	47	17
Specialist clinical course/s	41	30	34	33
Member of clinical interest group	39	24	37	67
Shadowing others	31	32	24	0
Journal Club	29	31	21	33
CSP activities	29	10	16	17
Clinical course/workshop eg CIG	29	42	47	50
Attendance at conference/s	24	41	42	33
Presentation at conference/s	12	10	13	17
Clinical educator course	11	22	29	17
Postgraduate module/s	10	10	8	0
Postgraduate programme eg MSc	9	12	8	0
Secondment/s	8	6	10	17
Writing articles/books	6	6	8	0

**Table XV.e. Participation (%) of respondents in CPD activities in the previous year in relation to present work setting**

CPD activity	% or respondents within work setting				
	Participation of all respondents in previous year n=140	Primary care n=15 (10.7%)	Secondary care n= 75 (53.6%)	Community n=35 (25%)	Mixed settings n=15 (10.7%)
Clinical supervision	100	100	100	100	100
Reading eg books/articles/journals	92	93	89	94	<b>100</b>
In-service, in clinical speciality	86	<b>93</b>	88	83	80
Mandatory Trust/PCT training	79	60	79	77	<b>100</b>
In-service, general to all staff	76	73	77	71	<b>80</b>
On-line searches	74	<b>80</b>	72	69	<b>80</b>
Own Portfolio-keeping	69	67	71	60	<b>87</b>
Reflective practice	67	73	61	<b>80</b>	60
Work-based learning	54	47	55	51	<b>67</b>
Mentoring others	49	53	45	<b>54</b>	53
Clinical course/workshop	44	40	35	57	<b>60</b>
Attendance at conference/s	41	20	37	49	<b>60</b>
Project work eg Audit/Research	39	40	36	43	<b>47</b>
Specialist Clinical course/s	31	<b>40</b>	32	26	33
Member of clinical interest group	29	20	19	<b>54</b>	33
Shadowing others	29	27	27	26	<b>47</b>
Journal Club	29	33	33	11	<b>40</b>
Clinical educator course	24	27	21	<b>29</b>	20
CSP activities	12	20	9	14	13
Presentation at conference/s	11	0	11	14	<b>20</b>
Postgraduate programme eg MSc	10	7	11	6	<b>20</b>
Postgraduate module/s	9	7	9	<b>11</b>	7
Secondment/s	8	7	8	<b>9</b>	7
Writing articles/books	6	7	7	6	7

Figure XVe Bar chart prioritising CPD activity in relation to present work setting



**Table XV.f. Participation (%) of respondents in CPD activities in the previous year in relation to highest academic qualifications**

CPD activity	Grading of respondents % within academic qualification grouping			
	Participation of all respondents in previous year n=140	Diploma n=69 (49.3%)	Degree n=63 (45%)	Postgrad ad qual n=8 (5.7%)
Clinical supervision	100	100	100	100
Reading eg books/articles/journals	92	88	95	95
In-service, in clinical speciality	86	79	92	90
Mandatory Trust/PCT training	79	81	75	84
In-service, general to all staff	76	74	76	79
On-line searches	74	62	79	82
Own Portfolio-keeping	69	62	75	74
Reflective practice	67	59	70	84
Work-based learning	54	48	54	74
Mentoring others	49	45	52	53
Clinical course/workshop	44	36	43	68
Attendance at conference/s	41	35	46	42
Project work eg Audit/Research	39	36	41	42
Specialist clinical course/s	31	26	38	26
Member of clinical interest group	29	29	24	47
Shadowing others	29	19	40	21
Journal Club	29	19	30	53
Clinical educator course	24	28	21	21
CSP activities	12	16	11	5
Presentation at conference/s	11	7	13	21
Postgraduate programme eg MSc	10	5	13	16
Postgraduate module/s	9	3	6	37
Secondment/s	8	3	8	21
Writing articles/books	6	5	6	11

**Table XV.g. Participation of respondents in CPD activities in the previous year in relation to gender**

CPD activity	Participation of all respondents in previous year n=140	Grading of respondents % within gender	
		Female n=120 (85.7%)	Male n=20 (14.3%)
Clinical supervision	100	100	100
Reading eg books/articles/journals	92	91	100
In-service, in clinical speciality	86	86	90
Mandatory Trust/PCT training	79	78	85
In-service, general to all staff	76	77	70
On-line searches	74	74	70
Reflective practice	69	67	70
Own Portfolio-keeping	67	70	70
Work-based learning	54	55	50
Mentoring others	49	47	65
Clinical course/workshop	44	47	25
Attendance at conference/s	41	42	35
Project work eg Audit/Research	39	41	30
Specialist clinical course/s	31	30	40
Member of clinical interest/occup group	29	32	15
Shadowing others	29	30	25
Journal Club	29	28	35
Clinical educator course	24	27	5
CSP activities	12	13	10
Presentation at conference/s	11	12	10
Postgraduate programme eg MSc	10	8	20
Secondment/s	9	7	15
Postgraduate module/s	8	8	15
Writing articles/books	6	6	10

**Table XV.h. Participation of respondents in CPD activities in the previous year in relation to hours of work ie full time /part time /locum employment**

CPD activity	Participation of all respondents in previous year n=140	Grading of respondents % within gender		
		Full time n= 98 (70%)	Part time n= 40 (29%)	Locum n=2 (1%)
Clinical supervision	100	100	100	100
Reading eg books/articles/journals	92	<b>93</b>	90	100
In-service, in clinical speciality	86	<b>88</b>	83	86
Mandatory Trust/PCT training	79	<b>79</b>	78	0
In-service, general to all staff	76	<b>78</b>	70	0
On-line searches	74	<b>78</b>	63	50
Own Portfolio-keeping	69	70	68	<b>100</b>
Reflective practice	67	66	<b>70</b>	50
Work-based learning	54	51	<b>63</b>	50
Mentoring others	49	<b>51</b>	45	50
Clinical course/workshop	44	42	48	<b>50</b>
Attendance at conference/s	41	42	38	<b>50</b>
Project work eg Audit/Research	39	<b>43</b>	30	0
Specialist Clinical course/s	31	32	30	<b>50</b>
Member of clinical interest group	29	29	30	<b>50</b>
Shadowing others	29	<b>33</b>	18	0
Journal Club	29	<b>32</b>	20	0
Clinical educator course	24	22	<b>28</b>	0
CSP activities	12	<b>15</b>	5	0
Presentation at conference/s	11	11	<b>13</b>	0
Postgraduate programme eg MSc	10	<b>13</b>	3	0
Postgraduate module/s	9	<b>11</b>	5	0
Secondment/s	8	<b>9</b>	5	0
Writing articles/books	6	7	5	0

**'Question 15: Please add any further comments you wish to make concerning CPD'**

<b>Respondent</b>	<b>Comment</b>
1.	Any time set aside as 'protected' time seems to be eroded at slightest thing
2.	Vital for professional development, clinical effectiveness and one of the challenges and interests of the professional work; to keep up with new research, approaches, developments, changes etc.!
3.	
4.	
5.	
6.	I find it hard to find the time to do CPD with waiting list initiatives and rising workload
7.	
8.	
9.	Practical sessions for IST are very beneficial eg respiratory manual techniques, musculoskeletal mobilisations and neuro facilitation
10.	
11.	
12.	
13.	Lack of time is the biggest barrier as involved in private work and sports club. However I feel these also help my development. Lack of financial gain from courses may become factor if job evaluated low on AfC
14.	
15.	
16.	
17.	
18.	Time and funding is difficult
19.	
20.	Sometimes it is difficult to find time as a junior to fit in CPD at work. A lot of my CPD is done at home, reading, research etc
21.	
22.	No real direction at present as to what to do, when to do it, how to record it, and use it. CSP has given guidelines and HPC in process of deciding what we will need to show we are professionally competent, but no-one can show us practical ways of storing information and analysing what we have. Not enough time (except at home) to do CPD, and too much clinical pressure Do not always know where to look for information and have time to disseminate to others Can end up with lots of information – do not know if it is all needed Do we only collect CPD on our own speciality? What about the rest of physiotherapy?
23.	
24.	
25.	It is necessary to practice CPD to maintain the progression of the physiotherapy profession. Individual standards require to be kept to highest level, by being aware of

	the research, EBP, clinical guidelines. CPD is necessary for this to be achieved.
26.	
27.	
28.	
29.	Sometimes it is difficult for non-Europeans to do CPD because of the fee structure. They pay twice the standard fee which is quite prohibitive considering they come from poorer 3 <sup>rd</sup> world countries.
30.	Would like good MACP based courses at Teesside University, included in MSc North East lacking in orthopaedic 'in-pt' type courses which link with 'outpatient' musculoskeletal courses
31.	Having qualified before the emphasis on research/self-directed learning came to the fore I have difficulty with some courses, specifically ones held in academic rather than clinical settings. Attempts at these tend to decrease rather than increase confidence in further CPD projects.
32.	Lack of guidance on how best to do it (CPD), many different styles and demands of what is required. (written in other Q 13 barriers to CPD)
33.	
34.	
35.	CPD is often frustrated by lack of time due to unrealistically high caseloads and poor working/office conditions. CPD is a must if therapists are going to gain skills and benefit from local knowledge as well as national courses. Line managers need to be committed to CPD
36.	CPD not given enough of a priority by management and employers – too much emphasis on waiting times/lists and not on best practice and supporting staff on courses and CPD.
37.	
38.	On initial qualification there is a desire to do courses but reservation to apply as often the speciality is passed (through rotational post) by the time the course is available.
39.	
40.	As mentioned before (Q 13) writing essays etc puts me off as I feel it has little to do with practice aspect of physiotherapy. However I realise is one way of measuring competency. Also feel pre-grad course not full enough so a lot of 'catch up' is needed to bring to workable level eg pharmacology, medical conditions etc. Written in Q 13: Having to do exams/essays put me off studying. I can see the point in practical exams for a practical job, but not academic (work)
41.	Very difficult to calculate out CPD activity as many times it is inherent to job role.
42.	
43.	Spend a lot of time ensuring that I share my knowledge and use all opportunities for rotational staff to improve using resources that are site based. Lack of relevant courses in Northern Region. Need a lot of time to attend South of England courses and travel paid by Trust.

44.	
45.	
46.	
47.	
48.	
49.	I feel at times there is pressure from above to met demands for waiting lists etc that we do not get the time to further ourselves. Also more courses during the week rather than at weekends would probably encourage more people to commit to CPD
50.	
51.	Working on the in patient side of the physiotherapy department has its downside when trying to perform CPD activities. With bed shortages, patient waiting list assessment/discharge/rehab, delay discharges pending, it is not easy to book time out <u>AND</u> stick to it when the ward is screaming out for physios. Whereas my colleagues in out-patients <u>regularly</u> book sessions out which is easier to do when you have full control of your work schedule, which is not so on the in-patient side. I find this very hard and do not feel the manager supports this enough.
52.	
53.	
54.	
55.	
56.	
57.	CPD should not be optional as it is in the best interest of our patients to receive the most effective and efficient therapy for whatever their condition is. It is a shame that most clinicians have not assumed this responsibility and will soon be forced to in order to be re-registered (with HPC). Our training programmes should instil the principle in physiotherapy students so we get rid of the idea 'Once a physio, always a physio'. We do not need to have the threat of not being registered before we can engage in CPD activities.
58.	
59.	In my job I work 18 hours in the community, and I simply feel guilty if I am not spending as much time as possible with patients. CPD is time consuming and it is not really built in to my timetable.
60.	Main reasons for CPD = professional development/keeping up to date therefore improving service to patients. This in turn leads to increased job satisfaction. Barrier to external courses mainly funding/finance. Time is major constraint to CPD, mainly outside of work obviously major demands on time.
61.	
62.	Becoming more and more part of the job but no time as yet allowed for it so all done in own time arart from study leave for courses and in-service
63.	I am in the 'twilight years' of my career and enjoy being a 'clinician', continually learning from my younger colleagues. However, I don't have a great interest in further academic qualifications for myself, but I'm not a dinosaur and still like to add to my clinical knowledge.
64.	

65.	
66.	I feel I'm only doing moderate amount (of CPD), don't know how much everyone else is doing and where i would stand on this. Technology, personally scares me and feel I have lack of knowledge prevents me from exploring it!! I would like to do more but would need support I would think than other people, this would concern me. Everything I do do not seem to get recognition for!
67.	Difficult to answer when basing it on 7.5 hours clinical. My research degree is in musculoskeletal area so <u>all</u> the work I do for that has a direct input into my clinical skills and CPD
68.	0
69.	0
70.	0
71.	0
72.	80% of CPD is done in my own time CDP{ time needs to be designated and structured. Also very important, not taken from existing clinical hours, but replaced by extra(?) (difficult to read) resources.!
73.	
74.	Limited department budget for attending external courses, and those in MSK get priority, especially if full-time No time to prepare for IST Would appreciate some time regularly to do a search for various information and put together a report. At present this needs to be done at home.
75.	0
76.	I don't think there is the same support for part-time staff as there is for full-time.
77.	0
78.	0
79.	Also need to recognise CPD relates to clinical and non-clinical skills eg leadership skills Would be interesting to determine the % of time spent on CPD which is outside of 'normal' working hours!
80.	0
81.	0
82.	0
83.	CPD is essential to maintaining our professional status. But employers are not willing to provide support, time, or funding to allow this to occur effectively
84.	I recently attended the CSP's day course on Impact and Outcomes of CPD, it was an excellent course (which I funded myself) and now feel much more confident regarding portfolio keeping etc, and more 'solid' reasons for completing CPD activities. Prior to this I felt I was 'making up' what I should be doing as I went along which is not motivating as it may be wrong (and therefore time wasting). A 'fool's guide' to CPD should be given to all practising physios as I feel no-one gives clear guidelines.

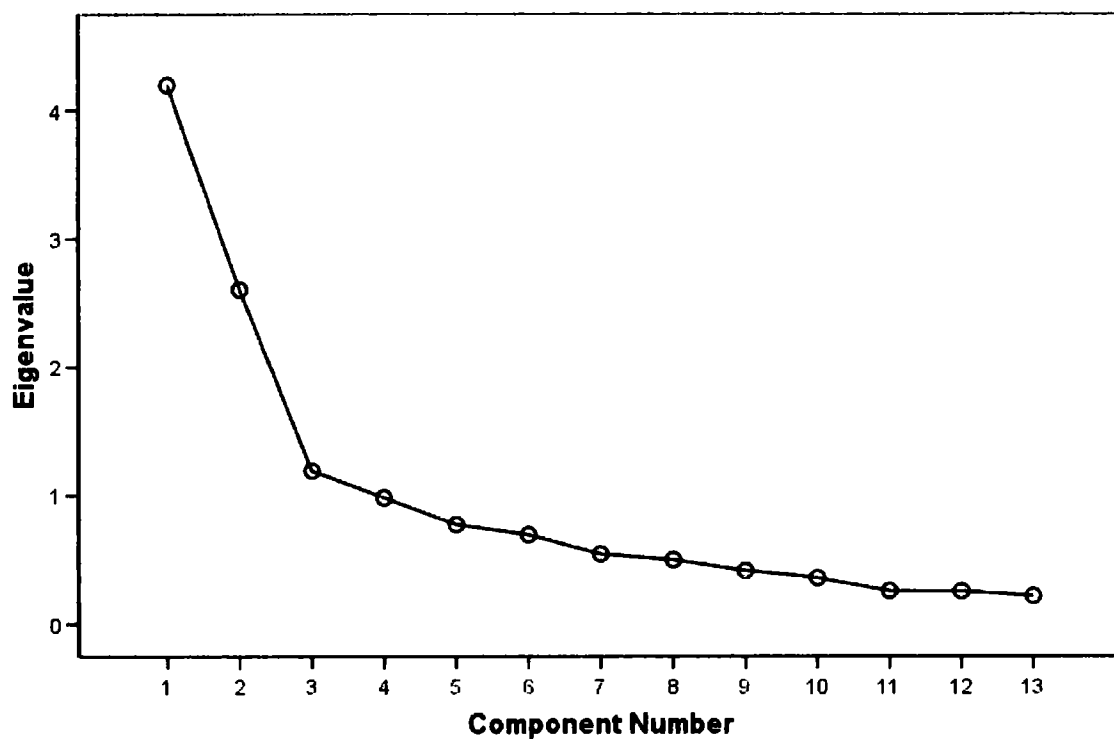
85.	0
86.	0
87.	I feel there is sometimes too much emphasis on CPD and hence less time available for the patient
88.	0
89.	I think CPD is extremely important but your employer doesn't always allow the time or your workload doesn't, therefore it gets pushed to one side and becomes something you very much do in your own time.
90.	0
91.	Does not seem to matter whether or not anyone does CPD because it is not checked up on and even if it were, it would not be hard to pretend you had done it. Personally I do it only because I am genuinely interested in learning and having evidence to support my treatment. There is nothing else really that motivates me to engage in CPD.
92.	Amount of monies made available to fund courses is negligible. Time taken for courses not drawn into contracts (although medical staff are allocated 35 days/year), therefore we need to push for more time & money especially now when waiting lists are decreasing. These resources can then be ring fenced.
93.	0
94.	0
95.	0
96.	0
97.	Necessary for personal & professional development
98.	At the moment CPD is limited to IST or courses related to the area of physiotherapy that you work in. If your post is a rotational one, it is fine because you will get the experience on all areas. If you have a static post, your skills and scope becomes limited and you lose contact with all other areas of physiotherapy which is not very good for your own personal satisfaction and development.
99.	0
100.	I find it hard to motivate myself to CPD out of work due to family commitments and a change of my priorities over the past year. The fact that I find courses invaluable but the distinct lack of funding is also a big factor, as being part-time can't justify spending hundreds of pounds on courses to improve my clinical practice.
101.	0
102.	As a junior wanting to develop professional skills in a specific area I find it disheartening to be told I must self fund any courses I may want to go on. I appreciate the importance of WBL, but I feel this alone is not enough, especially when you only spent 3-4 months in that speciality. Also no time is given eg ½ day/month for CPD during work time, this would be useful, more so than some IST.
103.	As a locum I pay for all my CPD and if I take time off to go on a course I don't get paid leave, I just don't get paid.
104.	0
105.	I have just returned to work from 1 year maternity leave, lack of time relates to lack of personal home time for additional reading/study; rather

	than lack of time at work as work is very supportive.
106.	I can see the value of CPD and I believe it is something we as professionals have done without the label of 'CPD'. Formalised CPD , I believe is easier for newer graduates to take on board, as they are of that 'mind set' already eg reflective practice.
107.	My ambivalence towards CPD is mainly due to the fact that I am due to retire in under 2 years. I think that CPD is important for people moving up the career ladder, but for people who have reached a level that suits them, providing they are keeping up to date, I think that formalising that into CPD is somewhat irrelevant. Some people just want to treat patients and go home!
108.	0
109.	0
110.	I never get around to writing reflective pieces
111.	Lack of time and funding are the main barriers
112.	I think my colleagues work hard to providing in-service training but it sometimes lacks relevance to ones personal caseload. Working with close working colleagues on a particular topic to include reading, practical skills, and patient case study is good and attending courses where there are no distractions to learning. I find keeping a written record or daily diary of events time consuming and I don't feel really benefit from looking back at what I have written. Changes in working practice and protocols seem to change rapidly so we are constantly checking with each other to make sure we are doing the right thing. Just working for the NHS maintains your CPD.
113.	0
114.	0
115.	It has been my experience as a manager, clinical supervisor/mentor and as a clinician that the majority of us spend a significant amount of time on CPD, a large proportion of which is in personal time. Staff for whom I am responsible often state they are not doing enough CPD but when we examine the situation we realise they are doing a great deal eg clinical supervision, support groups, reading, Ist etc What we are all not good at doing is documenting our learning through CPD and evidencing our reflective practice.
116.	Need more time to allow for CPD
117.	Full-time staff are given priority for funding and time off
118.	0
119.	0
120.	0
121.	I feel that working 2 days per week puts a limit on what I can sensibly take 'time out' for. However staff meetings are a good time to 'exchange' info and share ideas. I try to get feedback via handouts from courses.
122.	0
123.	I think staff are aware of changes in the future which may make spending time on CPD seems a waste of time eg the proposals for the Knowledge & skills framework will in the future inform CPD and training needs in a

	more formal way.
124.	<p>Other barriers: Agenda for Change taking up time and eating into clinical time.            Currently covering too many clinical areas            Wanting to improve service development seems to be a priority.</p> <p>Lack of time seems to be the main factor. A lead on CPD portfolio would be useful eg courses ( I am to attend an HPC study day) and examples            Also, appraisals, IST are not practical currently. I have not had an appraisal in 3 years since being here. The Trust is re-jigging its appraisal scheme, in conjunction with KSF, and I am involved in the KSF part as role in staff side. Stewards training has developed me personally, although I am not sure if it is considered CPD, but it has taken up a lot of my time, attending courses and out of work study (which is not included in Q 11).</p>
125.	0
126.	0
127.	Lack of support, have to do it (CPD) in your own home, ie searches, reading articles.
128.	0
129.	0
130.	0
131.	If CPD is to be valued and undertaken time needs to be protected for <b>all</b> staff regardless of grade or experience. As part of working week – I also have a life outside physiotherapy!
132.	0
133.	0
134.	0
135.	0
136.	Need Protected time for lit search/reading. Need backfill to allow absence from clinical area
137.	
138.	
139.	
140.	

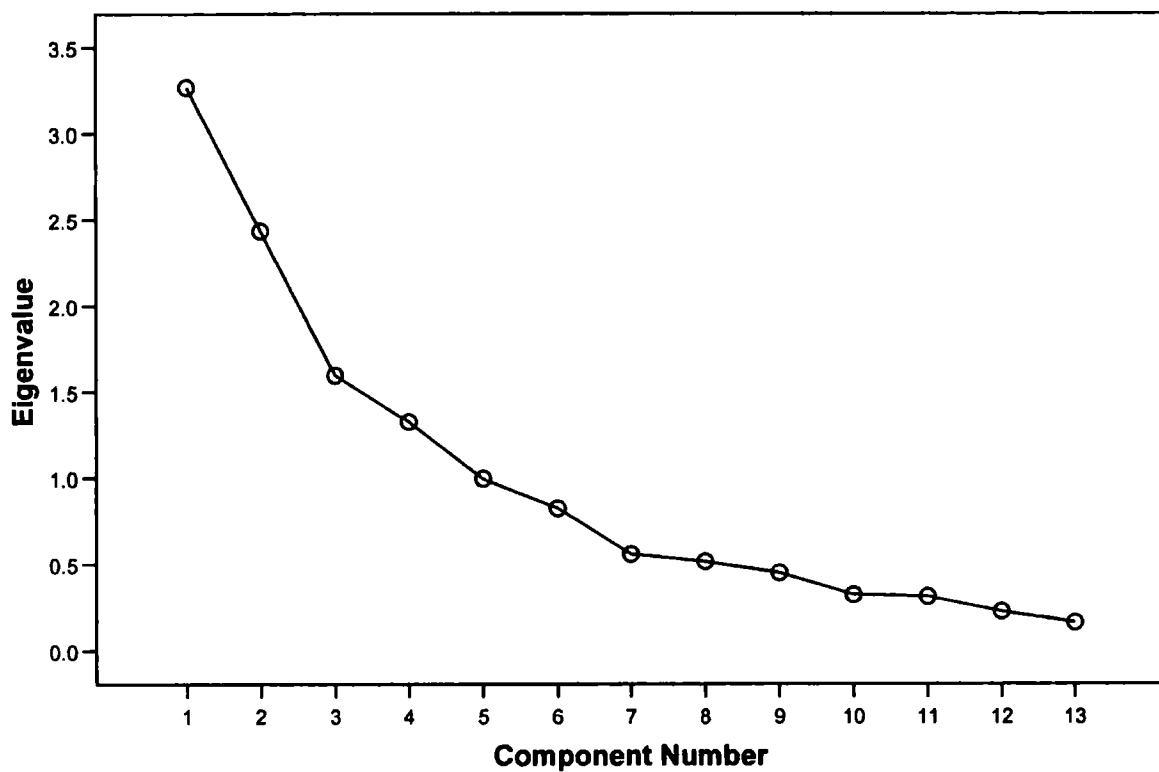
**XVII.a**      **Scree plot test for reasons for engaging with CPD**

**Scree Plot**



**XVII.b Scree plot test for barrier to engaging with CPD**

**Scree Plot**



## XVIII a. Friedman's rank test on results of components identified as reasons for CPD

	Ranks			Friedman test statistics			
	1	2	3	N	Chi-Square	df	Asymp. Sig.
	Develop. self / prof. prac.	Pay and promotion	Academic development				
<b>All respondents</b>	2.90	1.85	1.25	140	204.248	2	.000
<b>Years qualified</b>							
0-5 years	2.87	1.19	1.94	47	68.503	2	.000
6-15 years	2.88	2.88	1.84	40	54.724	2	.000
Over 16 years	2.95	2.95	1.78	53	82.020	2	.000
<b>Clinical specialty</b>							
Musculoskeletal	2.87	1.89	1.24	63	88.164	2	.000
Neurological rehabilitation	2.95	1.66	1.39	19	27.315	2	.000
Care of elderly	2.93	1.93	1.13	15	25.241	2	.000
Cardiovascular respiratory	2.77	2.00	1.23	11	13.762	2	.001
Other	2.97	1.80	1.23	32	52.146	2	.000
<b>Years in specialty</b>							
0-5 years	2.87	1.90	1.23	67	93.930	2	.000
6-15 years	2.92	1.83	1.25	51	76.416	2	.000
Over 16 years	2.98	1.73	1.30	22	34.753	2	.000
<b>Grade</b>							
Junior	2.90	1.16	1.94	41	64.138	2	.000
Senior	2.90	1.30	1.80	83	117.596	2	.000
Manager	2.91	1.22	1.88	16	23.524	2	.000
<b>Year in grade</b>							
0-5 years	2.88	1.87	1.25	96	133.839	2	.000
6-15 years	2.95	1.84	1.21	38	62.000	2	.000
Over 16 years	3.00	1.58	1.42	6	9.478	2	.009
<b>Employment</b>							
Full time	2.88	1.21	1.91	98	141.116	2	.000
Part-time	2.99	1.33	1.69	40	63.935	2	.000
Locum	2.5	1.25	2.25	2	2.000	2	.368
<b>Work setting</b>							
Primary care	2.83	1.27	1.90	15	18.949	2	.000
Secondary care	2.90	1.23	1.87	75	110.208	2	.000
Community	2.93	1.33	1.74	35	50.059	2	.000
Mixed	2.93	1.10	1.97	15	26.561	2	.000
<b>Academic qualifications</b>							
Diploma	2.97	1.73	1.29	58	92.135	2	.000
Degree	2.85	1.95	1.20	63	88.514	2	.000
Masters	2.87	1.87	1.26	19	26.000	2	.000
<b>Gender</b>							
Female	2.93	1.24	1.83	120	183.371	2	.000
Male	2.75	1.28	1.98	20	22.051	2	.000

## XVIII b. Friedman's rank test on results of components identified as barriers to CPD

All respondents	Ranks				Friedman test statistics			
	1 Poor recognition and reward	2 Inadequate support systems	3 Personal apathy	4 Perceived lack of ability	N	Chi- Square	df	Asym p.Sig.
	3.39	2.43	1.59	2.59	140	154.258	3	.000
<b>Years qualified</b>								
0-5 years	3.65	2.53	1.60	2.22	47	74.144	3	.000
6-15 years	3.28	2.53	1.54	2.66	40	42.504	3	.000
Over 16 years	3.24	2.27	1.63	2.86	53	50.926	3	.000
<b>Clinical specialty</b>								
MSK	3.36	2.44	1.61	2.59	63	66.850	3	.000
Neurorehabilitat	3.68	2.53	1.55	2.24	19	32.694	3	.000
Care of elderly	3.30	1.97	1.73	3.00	15	16.872	3	.001
Cardiovascresp	3.18	2.95	1.36	2.50	11	14.250	3	.003
Other	3.38	2.39	1.59	2.64	32	34.293	3	.000
<b>Years in specialty</b>								
0-5 years	3.51	2.57	1.59	2.33	67	88.516	3	.000
6-15 years	3.17	2.33	1.58	2.92	51	51.535	3	.000
Over 16 years	3.50	2.25	1.64	2.61	22	25.800	3	.000
<b>Grade</b>								
Junior	3.58	2.52	1.59	2.33	41	58.574	3	.000
Senior	3.36	2.39	1.58	2.68	83	88.956	3	.000
Manager	3.09	2.44	1.69	2.78	16	12.375	3	.006
<b>Year in grade</b>								
0-5 years	3.43	2.42	1.60	2.55	96	112.097	3	.000
6-15 years	3.25	2.57	1.59	2.59	38	35.560	3	.000
Over 16 years	3.50	1.83	1.50	3.17	6	10.400	3	.015
<b>Employment</b>								
Full time	3.40	2.54	1.64	2.42	98	103.373	3	.000
Part-time	3.41	2.14	1.46	2.99	40	60.414	3	.000
Locum	2.25	3.25	1.75	2.75	2	3.000	3	.392
<b>Work setting</b>								
Primary care	3.27	2.50	1.60	2.63	15	14.051	3	.003
2ndary care	3.42	2.45	1.63	2.51	75	86.357	3	.000
Community	3.40	2.26	1.54	2.80	35	41.512	3	.000
Mixed	3.30	2.70	1.53	2.47	15	15.920	3	.001
<b>Academic qualifications</b>								
Diploma	3.23	2.26	1.64	2.87	58	56.415	3	.000
Degree	3.50	2.59	1.56	2.36	63	85.624	3	.000
Masters	3.47	2.45	1.58	2.50	19	22.526	3	.000
Doctorate	3.23	2.26	1.64	2.87	58	56.415	3	.000
<b>Gender</b>								
Female	3.20	2.45	1.70	2.65	20	16.500	3	.001
Male	3.42	2.43	1.58	2.58	120	138.239	3	.000

Tree Nodes

Name	Sources	References	Created	Modified
Barriers to CPD	2	2	15/12/2006 15:33	07/02/2008 20:17
avoidance	1	1	09/02/2008 19:46	09/02/2008 19:46
distance to travel	2	2	06/02/2008 16:32	09/02/2008 00:11
expectations	2	3	07/02/2008 12:43	08/02/2008 19:13
impact on life	8	13	04/02/2008 23:18	09/02/2008 19:47
lack of confidence	2	8	08/02/2008 11:17	09/02/2008 00:17
Lack of Interest	5	11	15/12/2006 15:42	08/02/2008 23:25
Lack of personal skill	3	3	15/12/2006 15:43	09/02/2008 00:16
Lack of reward	0	0	15/12/2006 15:42	08/02/2008 11:47
Lack of support	12	32	15/12/2006 15:43	08/02/2008 19:45
lack of funding	17	54	04/02/2008 22:45	09/02/2008 20:20
Lack of time	19	45	04/02/2008 22:54	08/02/2008 23:46
travel	1	1	06/02/2008 16:25	06/02/2008 16:25
CPD Journey	2	2	10/01/2008 00:54	08/02/2008 11:10
Choice	19	69	04/02/2008 23:11	10/02/2008 14:41
CPD Journey as a junior	21	209	10/01/2008 01:02	09/02/2008 00:26
CPD Journey as a manager	3	27	10/01/2008 01:05	08/02/2008 19:32
CPD Journey as a researcher	1	2	06/02/2008 22:20	06/02/2008 22:21
CPD Journey as a senior	20	114	10/01/2008 01:05	09/02/2008 00:26
get there by accident or good fort	2	3	04/02/2008 22:36	08/02/2008 18:54
Planned route	13	32	04/02/2008 22:35	09/02/2008 20:07

### Tree Nodes

Name	Sources	References	Created	Modified
CSP input	9	28	05/02/2008 13:15	09/02/2008 00:23
practice outside NHS	2	8	07/02/2008 11:18	07/02/2008 15:40
The next step	15	31	04/02/2008 23:15	09/02/2008 00:21
culture	13	62	05/02/2008 18:08	09/02/2008 20:03
Differences between health professions	16	52	04/02/2008 22:49	09/02/2008 00:23
Funding	12	21	04/02/2008 22:50	09/02/2008 00:10
time	4	4	04/02/2008 22:53	08/02/2008 11:25
Impact of CPD	2	2	15/12/2006 15:35	05/02/2008 16:00
Impact on patient care	21	87	15/12/2006 15:36	09/02/2008 20:08
Impact on peers	7	21	05/02/2008 11:29	08/02/2008 11:50
Impact on the individual	21	126	15/12/2006 15:35	10/02/2008 14:39
Impact on the profession	5	8	04/02/2008 22:28	07/02/2008 23:09
Impact on the service	20	105	15/12/2006 15:37	09/02/2008 20:19
Reasons for CPD	1	2	15/12/2006 15:32	05/02/2008 15:57
AFC and KSF	14	24	04/02/2008 22:29	08/02/2008 23:45
clinical skills	9	17	07/02/2008 15:37	09/02/2008 00:24
credibility	3	6	07/02/2008 12:52	07/02/2008 23:29
Education	12	27	15/12/2006 15:40	08/02/2008 19:33
evidence of CPD	7	19	06/02/2008 18:04	09/02/2008 20:16

Tree Nodes

Name	Sources	References	Created	Modified
Funding	14	26	04/02/2008 22:45	09/02/2008 20:03
HPC	17	31	04/02/2008 21:51	08/02/2008 19:53
Information giving	2	2	07/02/2008 11:38	07/02/2008 20:06
new roles	8	26	05/02/2008 11:45	09/02/2008 20:18
Personal reward - promotion	13	30	15/12/2006 15:41	08/02/2008 19:33
Professional practice	12	25	15/12/2006 15:37	09/02/2008 00:24
self determination	21	106	04/02/2008 21:57	09/02/2008 20:18
<b>Types of CPD activities</b>				
	1	4	15/12/2006 15:34	05/02/2008 15:57
accredited courses	10	25	04/02/2008 22:14	10/02/2008 14:41
appraisal	11	17	04/02/2008 23:02	10/02/2008 14:41
audit	2	3	06/02/2008 16:22	09/02/2008 23:45
CIOGs	4	9	07/02/2008 15:44	09/02/2008 23:45
clinical courses	20	80	05/02/2008 12:34	10/02/2008 16:37
clinical supervision	8	32	06/02/2008 12:13	10/02/2008 14:41
collaboration	2	3	06/02/2008 16:24	10/02/2008 14:41
Conferences	4	5	06/02/2008 22:19	10/02/2008 14:41
critical appraisal	1	4	06/02/2008 18:36	09/02/2008 23:45
experiential learning	8	23	05/02/2008 11:18	10/02/2008 14:41
In-service	16	77	05/02/2008 11:18	10/02/2008 14:41
involving patients	5	6	07/02/2008 11:34	10/02/2008 14:41
Irrelevant courses	5	7	05/02/2008 18:16	10/02/2008 14:41
Journal club	9	26	04/02/2008 22:59	10/02/2008 14:41
Learning from specialist centres	5	12	05/02/2008 17:56	09/02/2008 23:45
mandatory training	15	28	04/02/2008 22:40	10/02/2008 14:41
mentoring	2	7	07/02/2008 15:49	10/02/2008 14:41
Multidisciplinary	9	21	07/02/2008 11:20	10/02/2008 14:41

Tree Nodes

Name	Sources	References	Created	Modified
On-call	1	3	08/02/2008 10:00	10/02/2008 14:41
Portfolio	19	39	04/02/2008 23:05	09/02/2008 23:45
postgraduate courses	22	95	04/02/2008 21:38	10/02/2008 14:41
Type of masters provision	14	47	07/02/2008 12:23	10/02/2008 14:38
private practice	3	6	06/02/2008 13:11	09/02/2008 20:12
Publishing	2	3	07/02/2008 20:07	09/02/2008 23:40
real experts	5	19	09/02/2008 20:23	09/02/2008 20:23
reflection	15	41	04/02/2008 23:06	09/02/2008 23:45
research	11	20	04/02/2008 23:04	09/02/2008 23:45
shadowing	15	38	04/02/2008 22:31	10/02/2008 14:41
supporting students & junior staff	6	9	06/02/2008 16:17	09/02/2008 23:45
work based activities	16	46	10/01/2008 12:14	10/02/2008 14:41
What is CPD	22	68	10/01/2008 00:54	09/02/2008 22:54
CPD time	8	21	10/02/2008 14:42	10/02/2008 14:42



12 March 2007

**Private & Confidential**

If you are not the addressee, and have opened this envelope in error, please return the enclosed contents immediately in the stamped addressed envelope provided

Dear [Interviewee]

**Re: Research Study:** The Perceived Value of CPD for Physiotherapists  
**Researcher:** Helena Johnson, Senior Lecturer in Physiotherapy,

As previously discussed please find enclosed your interview transcript from the above study. I would be grateful if you could read through and check to ensure you are happy that the transcript accurately reflects the content of your interview. Please make any amendments or additional comments as required and return to me in the stamped addressed envelope provided.

If you are in agreement with the contents you do not need to respond, and can destroy this copy of the transcript.

If no comments or amendments are received by 12<sup>th</sup> April 2007, I will assume that you are in agreement with the contents of the interview transcript and analysis will begin.

If you require any further information please do not hesitate to contact me.

Yours sincerely

Helena Johnson MEd PgDEd BSc (Hons) MSCP  
Senior Lecturer in Physiotherapy  
School of XXXXXXXXXXXXX  
University of XXXXXXXX  
XXXXXXXXXXXXXXXXXX  
XXXX XXXX

PRIVATE AND CONFIDENTIAL

UNIVERSITY OF [REDACTED]

Direct Line: [REDACTED]

3<sup>rd</sup> August 2004

Helena Johnson

School of [REDACTED]

University of [REDACTED]

Dear Helena

**Study 109/04 - The Perceived Value of Continuing Professional Development (CPD) for Chartered Physiotherapists in One Strategic Health Authority**  
Researcher: Helena Johnson Supervisor: Prof. Mike Byram (School of Education, University of Durham)

We are currently putting together some useful information, for future School Research Ethics applicants, and wondered whether you would allow the School to use the form which you submitted to the Committee as an example. The form would, of course, be made anonymous.

I should be obliged if you would give your consent in writing. Should you have any queries in respect of this request please do not hesitate to contact myself on telephone number [REDACTED] or by email to [REDACTED].ac.uk

Yours sincerely,

[REDACTED]  
[REDACTED]  
**Chair**  
**Research Ethics Committee**  
School of [REDACTED]



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