Videotaped Exercises and Instruction for Primary Care Physiotherapy Patients: Exploring the role they play in Shoulder and Back Pain.

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Abstract

Evidence surrounding the use of videotape to enhance memory has been well documented in the literature. The use of such a technique to convey information to patients and the general public is maximised through solid theoretical underpinnings, however it is less clear as to whether behavioural change can be facilitated using this technique. It is becoming more important to find innovative ways to help patients to maintain positive health behaviours between consultations and a key government discourse is to empower patients, especially those with long-term illness.

Physiotherapists often treat patients with medium to long term conditions especially those with musculoskeletal disorders. An integral part of the physiotherapists' treatment is prescribed exercises or advice to patients to support their therapy consultation. Videotape may be an effective media of communication to support patients in these activities. However, there is little research informing how videotapes might be received by patients in the home environment in supporting an exercise regime or to support efficacy of videotapes for patients. There is also little evidence about how and why any activity might be influenced by videotape. This study aimed to examine the role of the videotape in the patients' management of illness.

To achieve the aim of the study a qualitative approach was used. Data was collected through semi-structured interviews (n=33). A hermeneutic philosophy underpinned the study and offered an approach to gain an in-depth insight into the phenomenon based on the individual's and the researcher's *being-in-the-world.*

Three themes emerged from the data, *power and the body, pain and support.* A Foucauldian perspective was used to interpret the data. Factors effecting responses to the videotape were multi-layered and the effect of the videotape as a tool was set

within the sociological context of individual's lives, and influenced by discourses from the medical and the social arena. A number of issues relating to bodily control and the effects of pain influenced the use of the videotape. The videotape provided a number of important features to patients who used it to mediate their position as a patient. Evidence showed that the videotape transferred power to the patient.

Videotapes are a useful tool for physiotherapists for patients with shoulder and back pain. They allow the individual to exert control over their condition as well as feel that they are working towards addressing their condition themselves and supporting continuity of care.

Declaration

No part of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning. The study was designed, data was collected and analysed by the author under the supervision of Margaret Ling (retired), Dr Andrea Litva and Dr Mark Gabbay of the Department of Primary Care, the University of Liverpool. The study gained ethical approval from North and South Cheshire Local Research Ethics Committees and was funded by Chester and Halton Community NHS Trust and Halton Primary Care Trust.

Notes on Copyright

Chapter 1: Introduction

"Each is free to judge the work of others and to accept or reject it if it does not communicate something meaningful about the world" (Vidich and Lyman, 1994: 25)

1.1 Introduction: the rationale for the study

Medicine is frequently at the forefront of applying new illustrative media to its needs. Within a year of the introduction of moving pictures, cine-film was used for medical research and to a lesser extent for teaching; furthermore, cinemas showed health education films. However medical educators were slower to include film in their teaching programmes (Essex-Lopresti, 1998). Today, there is widespread technology available to health care professionals to learn, such as: distance learning courses, interactive learning tools, internet-based learning packages, but although videotape (or more recently DVD) is used as a teaching aid, it has not been widely adopted in the UK health service by health professionals for use with patients.

The use of videotape is most common in health promotion, but it is not usually formally evaluated. Eiser and Eiser (1996) reviewed 175 studies (1975-1995) which involved the use of video in health education and interventions within health-care settings. They found that many of the studies were carried out in the US. This may be because a much larger commitment to financial baselines in health care is accepted in the US and one of the perceived attractions of using videotape is the potential for cost effective delivery of healthcare information. In the UK the current focus in primary care is on chronic disease management and empowering individuals to self-care. This means that interventions to support individuals to retain a greater responsibility for their own physical health are being promoted which may also lead to a rise in the use of alternative ways of delivering health messages than the traditional information leaflet.

There is also evidence that home-based exercise programmes demonstrate a positive effect on decreasing pain (Thomas et al, 2002) which shows that the home environment is a suitable place to maintain exercise activity to address a therapeutic problem and individuals are willing to maintain exercise programmes which are designed to be conducted outside the medical environment. The current study is patient focussed and examines in detail some of the considerations for physiotherapy patients who are using a videotape of exercises at home to support their treatment for shoulder and back pain. Specifically, it examines the ways in which individuals interpret their condition and how an intervention such as videotape plays a role in their lives to support their recovery from the condition.

1.2 The structure of the thesis

The thesis is divided into nine chapters. This chapter introduces the work, provides background and context to the study and will give the reader an outline of the rationale of the development of the study. This chapter also provides a brief outline of the assumptions underpinning the use of videotape as a tool from which people can learn.

Chapter 2 outlines the philosophical position underpinning the thesis and how it informed the methodology and the approach to the study. It focuses on using a hermeneutic approach to the data and its philosophical roots. It is in this chapter that the reader may gain an understanding of the guiding principles of defining the research question and the design of the study. The chapter also introduces Foucault who provides the theoretical framework within which the study's findings are interpreted. The third chapter explores the rationale for the use of videotapes in health services and the theories underpinning their use in conveying information to individuals. The fourth chapter presents a comprehensive critique of the existing literature where videotape has been used as a tool to convey information to individuals to benefit their health. The literature is discussed and gaps are identified where more evidence needs to be generated. This chapter also provides a hermeneutic overview of the literature.

The fifth chapter describes the design, methods and analysis used in the study. This chapter is written in the first person as it not only explains where the ideas that stimulated the current study came from, but also reflects on the consequences of the research being carried out by JM as an individual as opposed to another researcher. This chapter also demonstrates how the methods used are in keeping with the philosophical approach to the study. Next, the three themes which emerged from the data analysis are presented as complete chapters (6,7,8). The findings are presented and a discussion in each chapter highlights the theoretical implications of the findings along with suggestions for future areas of research. Chapter 6 describes how feelings about the body are relevant to the use and perception of the videotape. It demonstrates how individuals living with an often chronic condition or one where they experience exacerbated episodes describe their feelings about their bodies. In chapter 7 how participants' pain is a salient factor in their perception of illness and use of the videotape is described. The way individuals interpret their pain and the role in how it influences them in their everyday lives and their use of the videotape is also explored and feelings about pain and the therapist emerge. Chapter 8 describes how factors of social support and approval influence the use of the videotape in the context of their everyday lives. People, places, time and the self are discussed in this chapter.

Finally chapter 9 brings the thesis to a close and reflects on the use of the guiding philosophy underpinning the thesis and some of the main theories used to explain the data. It discusses the findings from the study and identifies areas for future research and some of the implications of using videotapes for therapists and healthcare commissioners.

1.3 Context of the study

This study arises from a larger Department of Health funded study which looked at the efficacy of using advice and instruction in a therapeutic context. This larger study will be referred to as the "larger study" to avoid confusion with the research upon which my thesis is based. Primary care physiotherapy was the choice of environment to test this phenomenon and there were a number of reasons for this. Physiotherapy is a profession which commonly prescribes exercises for patients, and also expects a certain amount of "homework" to be completed in between their consultations in order to aid the therapeutic process (Kenyon and Kenyon, 2004). Physiotherapists also see and treat a large number of common conditions in primary care such as shoulder pain, knee pain, neck pain, back pain etc. where it may be appropriate to compile exercises on videotape. These types of conditions rely on a good understanding by the patient of the therapists' instructions and they may be expected to self care for a number of weeks or more before the next physiotherapy appointment.

The larger study employed a randomised controlled trial design, in which participants were randomly assigned to one of three regimes of instruction: a) the control group who received exercises taught in the traditional way (face-to-face); b) a videotape featuring a physiotherapist unknown to the patient (anonymous video); c) a videotape featuring the treating physiotherapist (therapist video group). The intervention groups received exercise instruction from a videotape which they were able to take home with them. It is important to note that videotapes were given to patients with instructions from their physiotherapist which stipulated that by performing a number of exercises (not all in most cases) the individual would progress towards relief of their condition.

Preliminary discussion among community physiotherapists in the Trust revealed significant variation in their approach to the chosen conditions. Thus an essential preliminary element to the study was achieving consensus on the content of exercise instruction for the two conditions of shoulder pain (SP) and low back pain (LBP) (Miller et al, 2001, see *Appendix 1*). All patients with SP or LBP over the age of 16 years referred by local general practitioners (GPs) to 13 community physiotherapists employed by the Trust were eligible for inclusion, provided that they had access to a video recorder at home and irrespective of the study would have received physiotherapy for their condition. Patients were excluded from the study if they could not demonstrate the ability to give informed consent for example due to a learning disability, they were not suitable for physiotherapy because they needed a specialist referral, such as for nerve root compression and if the pain was thought to emerge from elsewhere such as the neck.

Outcome measures reflected both client and professional perspectives: clinical progress of the condition, changes in well-being, physiotherapist contact time and level of patients' self treatment skills. Clinical progress was reflected through the Shoulder Disability Index (Croft et al, 1992), the Roland and Morris Disability Questionnaire (Roland and Morris, 1982). Changes in well-being/disability were measured by the SF-36 (Ware and Sherbourne, 1992) which provided a generic quality of life measure. Patients completed the questionnaires prior to receiving physiotherapy and 4-6 weeks later. Patient's self treatment skills were measured in a sub-sample of 10% of patients. A total of 550 patients were recruited to the study (SP n=165 and LBP n=365).

Quantitative data relating to the usefulness of the videotapes show that there are few significant differences in outcomes between using videotaped advice and instruction or having exercises taught face-to-face by the patient's physiotherapist. Where significant differences were apparent on a few dimensions of the SF-36 (Ware, 1992) questionnaire (Miller et al, 2004, *Appendix 2*), they were ambiguous. Tests revealed that the video group show significantly greater improvement in the dimension of *pain* than the control group. In the dimension *energy and vitality,* the therapist video group show significantly more improvement than the anonymous video group but not significantly greater than the control group. In addition, the sub-group of patients were assessed as to how accurately they completed the exercises – here it was shown that the videotape groups are significantly more accurate with their performance of the exercises than the control group (Miller et al 2004, *Appendix2*).

Although the quantitative measures show some differences, they did not explain why these differences emerged. The thesis illuminates the quantitative data in the larger study and presents data on individuals' experiences of using videotaped advice and instruction in relation to performing their exercises at home. Patients' perceptions are sought to shed more light on the *process* rather than the *outcomes* of using a videotape. Consequently the role the videotape plays in individuals' behaviours and beliefs in their condition is crucial. It is prudent to obtain data from accounts provided by users of the videotapes rather than from physiotherapists' records of clinical outcomes or questionnaire data. Process data from this qualitative study is reported and adds value to the outcome data provided by the quantitative study. A link is provided between input and output and insight is given as to how a given input (videotape) is translated into a particular output (increased health and well-being). Such is the ability of using two methodological approaches to compliment each other (Murphy et al, 1998:60).

The aim and objectives of the study were as follows.

1.3.1 Aim:

- To examine and explore the *role* of videotaped advice and exercises for patients suffering from shoulder and back pain referred to primary care physiotherapy services.

1.3.2 Objectives:

- To use a hermeneutic approach to develop the methodology for the study and explore how in depth interviews may be used to collect data.
- To use interviews to explore patients' perceptions of their condition and the utility of videotaped advice within the context of everyday life.
- To explore using an appropriate perspective (Foucauldian) for interpreting data generated by a methodology informed by a hermeneutic approach.

1.4 Introducing the philosophical approach

The current study is a qualitative account of the use of videotaped exercises by patients who attend their physiotherapist with shoulder or back pain. It was carried out by JM who, at the time of the study, was a research assistant in a community trust working in the physiotherapy department. While the study inevitably draws on a number of social theories, it emerges from a research question which was asked in the clinical arena of physiotherapy rather than sociology. The remainder of this chapter briefly introduces the philosophical approach which was developed during the study and which informs the research design, the methodology and the data analysis, and also introduces theories used to interpret data.

The thesis draws on a wide range of sources and different fields of interest, from the educational and psychological fields to sociology and theories of behaviour. One of the key reasons for this is the number of different interests which have led to the development of the study. The study was born from a need to address problems with demand for physiotherapy in primary care. There was also the need for patients to be supported by educational materials in between consultations to enable them to gain maximum benefit from their treatment. Consequently the study is underpinned by the philosophical interpretative approach of hermeneutics (Chapter 2*),* which allows us to understand the meaning of human actions. In addition the explanation of the data draws on relevant theories of behaviour and action. Hence the study is able to develop meaning within the field of the health services and provide relevance for health professionals. After the context is set, it is necessary to introduce the theoretical perspective upon which the study is based, which runs through the thesis. The theoretical lens through which the research question is designed and carried out falls within the interpretivist framework (Schwandt, 1994:119) and draws on the philosophy of hermeneutics, predominately that espoused by Heidegger. The term hermeneutics refers generally to the philosophy of interpreting the meaning of an object (that is, the text, a work of art, a social action and the utterances of another speaker). In this way the nature and meaning of the phenomena (*Verstehen)* can be uncovered. Dilthey, Heidegger and Gadamer are all hermeneutic philosophers who have utilised this paradigm and proposed it as an appropriate methodology for data generated through interview or other qualitative means (Rabinow and Sullivan, 1984). Using this approach is useful for a study located within the health service. One of the key tenets which identifies it from other approaches is that it does not attempt to subjugate objectivity with the research context and it allows the subjective and the objective to emerge in a unique combination. Hermeneutics allows to development of an interpretative framework for understanding of local and specific constructed realities (ontology) (Guba & Lincoln, 1994:109).

Although many studies which are discussed in the literature review (chapter four) are atheoretical, those which are considered as being most effective have a defined theoretical underpinning which is reflected in the aims and objectives which underpinned the development of the videotapes used. In the case of this study, the theory underpinning the development and use of the videotapes was located within social learning theory. Bandura (1997) proposed that an individual will choose to engage in a specific behaviour based on his or her belief of competency in performing the behaviour. The behaviour will also be engaged in if the expectation is that these actions will have a positive outcome (self efficacy) (Bandura 1997). In the case of videotapes, the desired outcome would be the improvement of the condition and the quality of the individual's life as a result of this. Chapter three outlines some of the theories referred to in the literature review regarding the development of videotapes, allowing the reader to contextualise the use of videotaped advice and education, including the importance of the theoretical underpinning in the development of videotapes which is discussed in chapter four.

Chapter four underlines the key features of the hermeneutic approach and how it was applied within the study methods and the analysis of the data. In addition to using a hermeneutic approach to the data and analysis, the study relies on the work of the post structuralist Foucault to explain and interpret the data. The choice of Foucault may not be entirely unsurprising as the hermeneutic approach to the data is within the interpretative traditions that underpinned some of Foucault's original thinking (Rabinow and Sullivan, 1984:8). Foucault was interested in asking questions about how humans function in society. He drew on historical works to describe how discourses shaped behaviour in society and with particular reference to the medical profession, he developed theories of power and surveillance (Foucault, 1989a). Foucault identifies, in his fundamental ontology, a project to provide a philosophy to found his work on knowledge, while recognising the limitations of applying this in the real world with the finitude of human beings, as does Heidegger. Both approaches acknowledge that there is no one universal "truth" and that the role of language is central point in developing theories and interpretation.

1.5 Conclusion

In introducing the current study this chapter has suggested that the use of the videotape in educating patients may play an important role. The current study examines the role of videotaped advice and exercises from the perspective of the patient who is suffering from the conditions of shoulder and back pain. This chapter has introduced the rationale of the study, the aim and objectives and the theoretical underpinnings of the study. The next chapter provides an overview of the philosophy which informed the study.

Chapter 2: Philosophy and Methodology

> "Everything we talk about, everything we have in view, everything towards which we comport ourselves in any way, is being; what we are is being, and so is how we are...In which entities is the meaning of Being to be discerned? From which entities is the disclosure of Being to take its departure?"
>
> Hiedegger, 1962:26.

2.1 Introduction

This chapter provides an overview of the philosophical framework that informed my approach to the study, methodology and analysis. The first section describes the key features of the hermeneutic philosophy which underpins the study, and its evolution within the qualitative tradition. I will then continue to outline how the study has been developed in line with the hermeneutic tradition and why the approach was suitable for the phenomenon under investigation. Finally the last section in the chapter explores the works of Michel Foucault and describes his theories relevance in the interpretation of data in the study.

All research is theory laden (Sayer, 1999). In qualitative studies, theory permeates the whole research process rather than lying predominately in one particular section of the work. From the conception of the research idea through to designing the project, collecting the data, analysing the data and writing the report, the theoretical approach will always be present, guiding and informing these processes (Whitehead, 2004). The theoretical approach acts like a lens through which we view the world (Patton 2002:543) and is often dependent on our theoretical or academic backgrounds, as well as our personal beliefs and philosophies (Morse, 1994). It is important to describe the theoretical criteria which shape our classifications and interpretation of data to allow other researchers to gain insight into our values, approaches and conclusions (Koch, 1996). The approach to the study frames what will be learned, that is, it will shape the search for classifiable and observable phenomena and the relationships between them. The theoretical framework also adds rigour and validity to the research findings. As the chapter unfolds, I will construct a picture of the theoretical philosophy of hermeneutic phenomenology and demonstrate why I considered it a suitable methodology and approach to underpin the research question.

2.2 Developing a methodological framework

A significant amount of time was spent attempting to immerse myself in methodology prior to data collection. In the early stages of the project a certain amount of "ontological gerrymandering" (Woolgar and Pawluck, 1985) was indulged in. This was done to find a methodological standpoint that fitted comfortably with my own philosophy and academic background (psychology) whilst being suitable to address the phenomenon under investigation.

One major criticism that has been directed at qualitative work is the absence of clear-cut methodological description (Mays and Pope, 2000), and the failure of authors to attach importance to the philosophical underpinnings of a method. As a result "method slurring" may occur where methodologies are combined and distinctions between them blurred (Baker, Wuest & Stern, 1992). However it may be important for the researcher to explore different methods in order to mature as a qualitative methodologist (Fine, 1994). This point is supported by my experience of qualitative research methods prior to commencing a PhD. My first engagement with qualitative data involved analysis, using features of a grounded theory approach (Miller, et al 1999; Miller and Pinnington 2003; Miller and Timson, 2004). However, as I have advanced in my study of qualitative data and embarked on a PhD, which involved a deeper understanding of qualitative methodology, it became apparent to me that a grounded theory approach was inappropriate to answer the research question posed by this study. When developing and understanding data, the philosophy is the lens through which the design and methodology emerge and inform how the data is collected and analysed. In contextualising the data, involving theoretical perspectives from a variety of different traditions, our understanding of social phenomena can be strengthened and enhanced (Walkerdine et al, 2002). It allows us to examine how the phenomena which we uncover might be given further meaning by other researchers using different philosophical approaches. When interpreting data, it is important to be aware of different approaches or philosophical lenses, when nesting or contextualising the research in the existing field of knowledge or evidence.

The methodological underpinning of the study shows the reader the position of the researcher's epistemology. For example, in the findings section, some of the main theories utilised to explain data in this study come from Foucault, however other theorists such as Giddens and Parsons are also discussed. I considered a hermeneutic phenomenological approach as suitable to underpin the study because one of the key aims of the research was to look at *meanings* to individuals of receiving a videotape of advice and instruction.

> "starting from a perceptual model of the unconscious, it [phenomenology] gradually generalises that model to embrace all lived or embodied meanings, meanings are at the same time enacted in the element of language"
>
> Ricoeur, 1970:389

2.3 The development of hermeneutics.

The hermeneutic philosophy was first developed as an academic discipline in the field of theology, where it was used to interpret texts and ancient manuscripts (Cohen et al, 2000:5). Hermeneutics today has developed into a philosophy, which incorporates a broad range of theoretical and practical approaches. Figure 1 shows an historic outline of where hermeneutics falls and identifies some key figures. This section is designed to give the reader a historical perspective on the development of the tradition.

The core underpinning - the semantic conception, worldview or constructivist paradigm of the hermeneutic approach, lies in the tradition of phenomenology (Schwandt, 1994:119). The philosophy of phenomenology is central to the hermeneutic method, so it is relevant to briefly consider the development of the philosophical underpinnings of the approach and its history in order to locate it. This philosophy espouses that reality is based on interpretations, and because interpretations are varied there is no single reality (Delanty, 2000:40, Koch, 1996). Subjectivity is valued, context is important in explanations, biases need to be articulated and ideas evolve and change over time. The unity of the subject with the world and the idea that the world is ultimately meaningful to them, is emphasised (Delanty, 2000:41). As noted in chapter one (p4), individuals do not respond only to the environment, but are rational beings who experience the world and others and determine the world, rather than the other way round.

At this stage a brief history of hermeneutic phenomenology is useful. Some of the key figures in the development of the hermeneutic movement to present day and their contributions are therefore described in Figure 1. The phenomenological movement can be divided into 4 phases, the preparatory phase, the German phase and the French phase (Spiegelberg 1984). It is important to note some of the key figures of the traditions, as they play a role in the formation of ideas of other major theorists who will also feature.

Figure 1. A Diagram locating the key philosophers in the development hermeneutic phenomenology.

Pre-Phenomenology

Immanuel Kant (1724-1804)	**Theory of cognition**
Georg Wilheim Friedrich Hegel (1770-1831)	**Phenomenology**
Friedrich Schlierermacher (1789-1834)	**Hermeneutic methods**

Preparatory Phase*:*

Franz Brentano (1838-1917)	**Intentionality/psychology**
Carl Stumpf (1848-1936)	**Phenomenology/psychology**
Wilhem Dilthey (1833-1911)	**Methodological Hermeneutics**

German Phase:

Edmund Husserl (1859-1938)
- **Transcendental phenomenology**
- Transcendental idealism
- Egology
- Intentionality
- Structures of consciousness
- Lebenswelt (life-world)

Martin Heidegger (1889-1976)
- **Philosophical Hermeneutics**
- Ontology of language
- Being and Time
- Dascin (Being there)

Hans-Georg Gadamer (1900-2002)
- **Philosophical Hermeneutics**
- Dialogue and discourse
- Ontology of human understanding "Sprache" (Speech)

French Phase:

Gabriel Marcel (1889-1973)
- Incarnate existence
- Mystery of being

Jean-Paul Sartre (1905-1980)
- Existentialism

Maurice Merleau-Ponty (1908-1961)
- Lived Body
- Philosophy of perfection

Paul Ricoeur (1913-present)
- **Phenomenological Hermeneutics**
- Reflective philosophy
- Ontology of language
- Hermeneutics of suspicion

The preparatory phase involved two key figures, Franz Brentano (1838-1917) and his student Carl Stumpf (1848-1936). Bretano's goal was to reform philosophy so that it could provide answers that organised religion could no longer supply. He also sought to make psychology scientific by basing it on descriptive psychology. Stumpf founded experimental phenomenology, which uses experimentation to discover the connections between the elements of what is perceived. Some of his work looked at the psychological effects of sounds including the influences of experiences (Kusch, 1995).

The German phase included Edmund Husserl (1859-1938) and his student Martin Heidegger (1889-1976). These figures were integral to the development of phenomenology and hermeneutic phenomenology. Husserl was the central figure in the development of the phenomenological movement and this phase was notable as an era when ideas in philosophy changed considerably both across and within philosophers. Husserl can be credited with ideas such as *phenomenological reduction* also known as *eidetic reduction* or *bracketing. Eidetic* comes from the Greek for Idea, as from Plato, which Husserl used to designate universal essences (Husserl, republished in 1970 and 2002). It refers to a reduction from particular facts to general essences. Husserl used the mathematical metaphor of "bracketing", meaning to bracket out one's prejudices and personal opinions and leanings, to elicit meanings from individuals describing their experiences. Other important concepts from Husserl's work are the notion of *intersubjectivity*, which refers to a plurality of subjectivities that make up a community sharing a common world. *Lifeworld* (*lebenswelt*), the world of lived experience, is another central concept found in Husserl's unpublished manuscripts. The world of everyday experience is not immediately accessible to us in our "natural attitude." The natural is what is original and prior to critical or theoretical reflection. We take what is commonplace so much for granted that we often fail to notice it, and, therefore, phenomenological study is required. In this phase, Heidegger examined the ontological status of Husserl's phenomenology and developed the theoretical underpinnings of his hermeneutic approach. Hermeneutic philosophy is best understood as a historical revision or extension of Husserlian phenomenology.

The French phase began when Husserl's papers were moved to Louvain, after he died in 1938. Prominent figures in this phase were Gabriel Marcel (1889-1973), Jean-Paul Sartre (1905-1980), and Maurice Merleau-Ponty (1908-1961). Alongside the development of phenomenology was the existential-analytic movement amongst therapists such as Freud. Hence, the philosophical views of phenomenology were also used to develop the research traditions in a variety of different disciplines in this area (Cohen et al, 2000:8).

2.4 The role of hermeneutics in qualitative methodology

This section will describe some of the background relating to the development of hermeneutics as it is known today and how it has developed out of the phenomenological tradition. Hermeneutics or *interpretative* research is a method used by a number of different disciplines including sociology (Denzin), education (van Manen) and anthropology (Geertz). Hermeneutics is the tradition of looking at a phenomenon, a single kind of human experience, rather than a social process, a structure or a culture (Schwandt, 1994). It asks particular kinds of questions relating to perceptions and lived experiences and how people interpret these experiences and give them meaning (Cohen et al, 2000:46). Cultural and social processes may be part of those experiences but they are not the objects of interest as they are in questions asked by those who might choose to investigate these as the centre of their interest such as sociologists or anthropologists (Schwandt, 1994). Phenomenologists focus on questions of the meanings of experiences (Schwandt, 1994), grounded theorists study social processes (Glaser and Strauss, 1967) and ethnographers are interested in understanding culture and traditions (Hammersley and Atkinson, 1991) – this doesn't mean that any one approach precludes an overlap with others.

Similarly, just as grounded theorists and ethnographers may be doing hermeneutic or interpretive research, a hermeneutic phenomenologist may share techniques, which have been developed within these other traditions (Fine, 1994). This does not detract from the rigour of the theoretical underpinning, because the techniques used to collect data (such as interviewing, focus group or case studies) do not necessarily influence the analysis, the questions asked or avenues pursued. The standpoint of the researcher, their tradition and the nature of the question being asked drive the focus of the research (Whitehead, 2004).

The notion of hermeneutic phenomenology was first presented by Husserl and Dilthey and it was developed significantly by Heidegger and Gadamer. Husserl and Dilthey rejected the notion of subject and object and started from a position that needed to show how we can know an object (Holstein and Gubrium, 1994). That is, individuals' experiences in the world are not primarily a "knowledge affair" (Bernstein,1976).

They are not characterised by the separation of subject and object until after the event, when we might stop to reflect about them. Subjects of interest to these philosophers were examining and understanding the structure of the *life-world* or *lived experience* (Husserl, 1970). Heidegger moved on from this stance and looked at how the fusion between the nature of the world in which we live and our experiences past, present and future creates a state of Being (Heidegger, 1962). Being (with a capital B) is a word to describe what it means to be a human experiencing the world in a particular place at a particular time, that is, our essence. Our experiences occur without prior reflection and distinction being made between subject and object – they flow into one transcending the distinction between subject and object (Delantly, 2000:41; Heidegger, 1962:456). A good way of describing this is in relation to a car accident, where, the actual act of hitting another vehicle is very immediate and experienced as a whole, rather than broken down into the individual components. We instinctively "know" what happened, and sometimes when we are relating that experience to a third party (such as the insurance company) it is hard to describe the events because they were so immediate and happened so quickly. In this way, we live or have our *being* in the world and we live our lives by *experiencing* the world and not primarily by *knowing* it in the objective sense.

Sometimes it is hard to articulate or represent through words the experience of Being, and Heidegger himself had particular difficulty in attempting to complete one of his major works *Being and Time* because he was constantly frustrated by the limitations of language. Although we allow our experiences of the world to be articulated through language either spoken or textual, this can only be an interpretation of our interpretation, which is again interpreted by the recipient of the information. Inevitably at times, we experience breakdowns of communication with others, and Being remains concealed or seems to be revealed as something it is not (Heidegger, 1962:37). However there are also times when Being can be revealed through mutual understanding (Heidegger, 1962:36), however, the interpretative process can be never ending as we develop, progress and change our views and ways of knowing a phenomena.

The process of obtaining understanding or interpretation is signified by the circle in hermeneutics (see section 2.10). The circle is the methodological process or condition of understanding that is developed through understanding by making sense of the parts and vica versa. We could find ourselves endlessly circling inside the hermeneutic circle, but meaning or understanding can be divined and articulated if we so wish (Heidegger, 1962:188). The circularity of the process is only temporary and eventually the interpreter can come to something which is approximately a complete and correct understanding of the meaning where the whole and parts are related. For the purposes of research rather than our individual experiences of the world, the fact that we desire to create a meaning is important. It should be noted that Heidegger was a philosopher not a methodologist and so some aspects of his descriptions require interpretation.

2.5 Heidegger's hermeneutics

Friedrich Schleiermacher (1768-1834) who is generally recognised as the father of modern hermeneutic theory, defined hermeneutics as the art of understanding practiced in reading classical, biblical and legal texts. Dilthey (1833-1911) extended the idea of hermeneutics to the epistemology and methodology of the human sciences. He used the theory of interpretation as a methodology. However Heidegger challenged this interpretation and developed ideas that hermeneutics was the existential-phenomenological analysis of the constitution for Dasein (existence or Being-in-the-world). Heidegger perceived that there was a fundamental error in the way that western philosophy perceived *Being*. Although the early Greek philosophers explored Being in relation to existence, later philosophers looked on Being in the nominal sense of "substance" or "Supreme Being" which resulted in a move away from examining one of the most fundamental phenomena in human life towards the search for the meaning of Being in some ultimate principle or 'divine agent' (Watts, 2001:10). For Plato, this took the form of the 'idea', for Aristotle substance was the key line of enquiry, for Descartes the source of Being was rooted in God and Husserl (Heidegger's teacher and a phenomenologist) focussed on *consciousness* and *knowing* as a medium of uniting objects with subjects (Holstein and Gubrium, 1994). This adoption of a theoretical stance was viewed by Heidegger as creating a fundamental rift between the isolated subject or mind and an independently existing realm of objects, which clouds the view of the indivisibility and fundamental unity of Being (Watts, 2001:16).

Subsequently, the field of ontology has been preoccupied with things in existence and the facts connected with them, or those things which exist as the consequence of Being, rather than the primordial (that which is before everything else and therefore cannot be derived from anything else) fact of their Being (existence) (Heidegger, 1962:232). This *a priori* approach to phenomena suggests that hermeneutics may be a useful philosophy to adopt in reference to health services research. Much NHS research concerns itself with what Heidegger might call *ontic* knowledge (things in existence and the facts associated with them) which gives us information which is often valuable about the entities in the world and their characteristics such as measures, similarities and differences between things. This information may be useful in certain cases, for example in examining the efficacy of a particular surgical intervention, but it does not allow us to explore from a human point of view or uncover ontology. An ontological point of view will look at the *real* nature of things – the kind of things that constitute the world of the individuals under investigation. Research which is conducted on the use of a particular intervention does not always take into account the human experience of that intervention. The human element of the phenomena under investigation may be incidental, since it is the device itself which is being investigated. Hence it is appropriate for this study to adopt a hermeneutic interpretative approach to gain a fresh and deeper view of a phenomena. A hermeneutic approach can offer clinical staff the ability to examine their selves in relation to the individuals they treat every day and become truly reflexive.

In this study, I am interested in the human experience of the phenomena (videotape), rather than the phenomena (videotape) in relation to human experience – that is, the primordial fact of individual's Being in relation to the videotape - where the measurable outcomes actually come from. One could argue that doing any kind of quantitative work in the context of a hermeneutic approach would be fruitless – it would be like putting the cart before the horse. How can you investigate a phenomenon in the health service if you have no fundamental understanding of its essence in human terms?

Heidegger did not see himself as developing a philosophy, but merely as someone who wanted to ask questions about the fundamentals of what it means to exist in the world (Watts, 2001:4). Whilst other philosophers asked questions about existence in relation to God, freedom and mind and body duality, the fundamental question relating to existence "What is the meaning of Being?" had not explicitly been posed. Traditionally, philosophers had also distinguished the "knower" from the world it knows (Addison, 1992:110; Palmer, 1969:13). The world was seen as "out there" and the thinker's task is to examine what is in the mind, rather than what is outside it. As individual thinking entities, individuals are the subject and the world is our object. Heidegger disagreed fundamentally with this view and argued that how can we possibly be objectively outside the world since we have existed as part of it since we were thrown into it at birth? Therefore he makes no attempt to isolate human beings from the world in which they live (Paley, 1998).

Heidegger emphasised *experiencing* as underpinning ontological-existential questions and focussed on language and temporality, or historicity as the medium through which we experience the world (Rabinow and Sullivan, 1984). He turned from existing philosophies of *consciousness* towards *existence.*

Heidegger expanded the definition of hermeneutics to include further ideas:

- *The process by which the "basic structures of Being ... are made known."* (Heidegger, 1962:25)

There can be no beings (entities with any sort of existence such as humans, animals, stones, chairs etc) without Being (the essence of these entities). Being and being need each other in order to make sense, just as we need vision to make sense of light and dark. Similarly, without Being – the basic fact of existence in the first place, no human (or any other entity) could exist. Being cannot be seen – only beings which exist as a result of Being convey it as part of their essence. This leads to a potential difficulty in ontology – since Being is not an entity or a thing, how can we make sense of it? It cannot be seen, heard or tasted, so the process of thinking about it and understanding it is very different from straightforward observation, measurement and classification that is used to comprehend beings. It is nearest to humans, because it is their very essence, but it is also further away because it is not something we can relate to directly. However despite being invisible and being hidden within beings, Being can reveal itself when penetrated deeply by ontological thought and be represented through language. This study therefore used an approach of gathering data through language and the interaction between researcher and participant.

- *Working out of the conditions on which the possibility of any ontological investigation begins.* (Heidegger, 1962:36).

Ontology tries to experience and understand Being by immersing itself in the full Being or 'thereness' or 'Beingness' of an entity. When this ontological thought or enquiry achieves the required penetrative intensity, Being will then reveal itself through the "clearing" or medium that is being used to investigate it. In this study, interviews were used as a means of eliciting the essence of the experience of videotape and allowing Being to reveal itself.

- *Looking at the influence of time on Being* (Heidegger, 1962:231)

To develop a deeper understanding of Being Heidegger noted that it needed to be located in an appropriate context or horizon. The context that Heidegger felt was appropriate was *time*; therefore the sense of what it means *to be* could only be explored and understood in term of temporal and historical locations. The past present and future are inextricable and significant parts of our way of Being. The present moment is meaningful in terms of what one is doing *right now,* but the past is alive in the present, in a sense it can be partially or fully responsible for one's present circumstances. The past can also combine with a present situation, to limit or create future possibilities. Similarly, the future can live in the present in influencing present behaviour that will influence the future. Although events in the past cannot be altered, what the past *means* to someone now, can influence how the present is interpreted, which in turn, then determines how future possibilities may be viewed. Interviews were viewed as a unique reaction between researcher and participant to create meaning and provide insight into the phenomena.

- *"an interpretation of "Dasein's" being" the German word for "there, to be" referring to the human beings and their way of Being* (Heidegger, 1962:2).

Heidegger's analysis leads him to conclude "temporality makes up the primordial meaning of Dasein's Being". In being temporal beings, Heidegger says that Being spans three dimensions of time simultaneously – past, present and future, which in turn exist in every moment of our existence – they constitute who we are and our current activities. The unification of the three temporal dimensions means that to examine who we are, our way of Being and the significance of our existence can only be understood within the context of the totality of the unfolding process of our life, in terms of where we are coming from and where we are going.

- *What is the truth? (*Heidegger, 1962:256*)*

Heidegger did acknowledge that such a thing as the truth exists, however, there is no final explanation – perceptions of truth are only relevant to the time and situation in which they arise. There are no universal truths that are independent of time and place. Heidegger was explicit that he had no philosophy and rather that his Being was concerned with a tireless commitment to asking questions and to stimulate interest and awareness of questions relating to Being.

During the twentieth century, hermeneutic philosophy has evolved from questions relating to a specific interpretative method, to those which can be applied to a range of research issues asking existential-ontological questions (Paley, 1998). Issues such as how people come to understand and interpret their experiences and Being in the world, lend themselves to the use of a hermeneutic method.

2.6 The importance of language and intention

Gadamer developed Heidegger's idea of hermeneutics as a primary and universal way of our being in the world and argued for hermeneutics as a kind of practical philosophy. He viewed understanding as a linguistic event and explored the centrality of language and dialogue to understand. Gadamer's (1989) analysis of Heidegger's work argued that the most important of all the processes involved with an underpinning of a hermeneutic philosophy is gaining an understanding of the processes involved in how participants understand the world, as it is presented to them. A hermeneutic approach explores how people interpret their lives and make meaning of what they experience. Gadamer (1989) placed high importance on studying interpretations of the world through language. He stated that to have a world is to have a language: "Our experience of the world is bound to language"(Gadamer, 1989:448). Therefore the object of research is to analyse language as well as the individual user of the language. Meaning takes place when the individual interprets language and puts it into speech. "language speaks us rather than we speak it" (Gadamer, 1989:463). Therefore the individual and their tradition must be considered in this approach.

A good example of how the philosophical underpinnings translate into real world research is shown through the discussion of consciousness and intentionality. Hermeneutic research attempts to bridge the traditional gap between the mind and the body and assumes that they are not separate but part of the same whole - consciousness and physical existence are linked together. Consciousness is about experiencing and being awake in the world, it is always intentional, that is always directed towards something. The study experience reveals consciousness and expresses this unity by examining consciousness as "in the world" and always conscious of something. In this study participants are asked to illuminate what it was like for them (their consciousness directions), to be given and to use a videotape in relation to their musculoskeletal problems, rather than asking them what they thought of the importance of physiotherapy treatment in general – that is, their conscious intentions towards the phenomena. This guided the aim of the study towards a better understanding of the impact of illness on people's lives and the role of using a videotape in connection with their treatment and experience. In gaining this knowledge the health service can move towards meeting unmet needs by providing a better quality service.

2.7 The importance of hermeneutics in understanding patients

Hermeneutics is the study of lived experience in contrast to reflected or vicarious experience. A hermeneutic approach to the study must be reflected in the nature of the data collection. The aim is to describe all phenomena and the way these phenomenon appear in the fullest breadth and depth. It is used to answer questions of meaning – understanding experience from those that are having them. It is useful to study topics which require fresh perspectives. In this study certain answers had been obtained, a certain picture had been built up, or part of a picture (Miller et al, 2004, *Appendix 1*) but there was also information to uncover in relation to understanding the patients we studied. A hermeneutic approach allows a study design which will add insight into the phenomena that is the lived experiences of using videotaped advice and instruction. By contrast the physiotherapists' perceptions of the videotape, with their knowledge and training and having contributed towards its devising and filming, will be different to those patients who receive the videotape. Understanding these patients' experiences may guide physiotherapists to interact in ways that may differ from people who lack that understanding and to also gain insight into the patient's experiences with this tool.

A hermeneutic approach also stresses the importance of why things might be said and interpreted about individuals (respondents) stories. Why have I interacted with the participants in the way that I have and interpreted and created the arguments that are defined here? The answer is found in the interaction between the text and myself and my preconceived (even if unconscious) prejudices, thoughts, fears etc. Some of these may be unconscious but evident to the reader of the text. In reading this thesis it is important to understand that it is not just about providing a wide ranging view of the phenomenon and how it might be interpreted in the wider world, but it is also a comment on me as the author and how I interpret the world. It provides a commentary on how I have realised the self or my Being. For the profession of physiotherapy this is an important approach because it can allow individuals to reflect on how the voices they hear in the stories from patients and the interpretations they make are informed by their own human experience. By learning from the self in relation to patients (rather than on its own) it is possible to engage in reflective practice and understand what the interpreting of self means for patient care.

Helman (1998:11) has discussed the importance of understanding patients' perceived needs in order to meet them effectively. Recent NHS policy also espouses the concept of empowerment and how patients can take a more active role in their care (DoH, 2001b). The meanings that patients attribute to their experiences helps consolidate needs they have and how these needs can best be met. Because each patient is unique, individual patients must clarify what their perspectives and needs are. Only patients can reveal their meanings and health care professionals cannot assume that they understand patients' perspectives or their needs (DoH, 2001b). In addition, action is based on meanings; therefore common meanings between health professionals and patients, will provide the most effective base for helpful patient-professional relationships and future development of quality healthcare (Helman, 1998).

2.8 Hermeneutic approach used in understanding health

This section examines a number of studies where the principles of hermeneutics have been used in health focussed research studies. Therefore this section provides examples of how hermeneutics has been applied to naturalistic enquiry in the realms of health service research and gives a perspective for the reader of other work in the field. I will briefly consider studies from my understanding of hermeneutics and critically discuss issues related to using a hermeneutic approach. This section intends to provide a brief overview of how hermeneutics has been applied to health and the type of problems which might be encountered, rather than an in depth look at each study.

Studies were selected by using the key word "hermeneutics". A range of different study designs in western countries (UK, Sweden, US, Australia) were examined (see *Appendix 4*). The studies (n=11) all reported an in-depth description of the lived experiences of the individuals being studied. In keeping with the hermeneutic phenomenological tradition, none of the studies reported generalisability, but looked at being judged by the research community where intellectual discourse would validate it and stimulate dialogue. Researchers were also aware that the phenomenon under enquiry did not end when the research paper was written, but continues to live in the individuals who read and interpret it.

A weakness on the part of a number of these studies (Meiers, 2003, Edvardsson et al, 2003, Lundgren and Wahlberg, 1999, Ekerman et al 2001; Kerr et al) is that the position of the researcher is not fully explained. As this is one of the fundamental tenets of hermeneutic enquiry, this is a fundamental flaw. It is important that researchers explain how they interact with the data to derive meaning from the interpretations. This may reflect the reluctance of researchers to reveal themselves to a wider audience and opens up an interesting question about the rights of the anonymity of personal qualities of the researcher, posing the question of whether we forgo the right when we choose to publish in these traditions. Does revealing ourselves to a wider audience feel too uncomfortable? One study which did provide a detailed explanation of the researcher's perspective (Sharkey, 2002) was the richer for it, as it gave the reader an ongoing account of how the data was shaped and reflected upon. The notion of an ongoing reflection and acknowledgement of how our preconceptions or biases might influence how we react to research participants allow us to grow as researchers. This is not the same as the Husserlian tradition of "bracketing" (Schutz, 1970) which intends to separate the individual from the data before collection occurs, but at the same time it is intended to be an ongoing process (Cohen et al, 2000:86).

Another key criticism of the studies was the confusion around the descriptions of methodologies (Meiers, 2003, Lundgren and Wahlberg, 1999, Walters, 1995, Thomlinson, 2002, Kerr et al, Sundin and Jansson, 2003, Walters, 1995). Several studies clearly kept to the tradition of Heidegger, Ricoeur or van Manen. However, although it was clearly described, this in itself made the methodology rather clumsy in that it almost became a prescribed approach, where the method was shown to "fit" the criteria rather than be responsive to the participants and data, which underlies naturalistic enquiry. My impression of this was that sometimes the data seemed to be fitted into the tradition rather than arising from the philosophical underpinnings. A number of studies also used the terms 'phenomenological' and 'hermeneutic' interchangeably or described them as separate entities. Heidegger was described as a phenomenologist in two papers and I feel that although his ideas sprung from this tradition, his hermeneutic or interpretative approach attempts to look at the essence of

Being as well as the meaning of phenomena (Heidegger, 1962:49) thus he is a hermeneutic philosopher or could even be a hermeneutic phenomenonologist. One paper incorporated a "hermeneutic phenomenological method within a framework of existentialism and symbolic interactionism" (Meiers, 2003). This would mean that the underlying tenets of hermeneutic phenomenology which have shaped the philosophical thinking behind the design and data collection of the study, are later on usurped by the tradition of existentialism and symbolic interactionism, which may have legitimately emerged later on out of a hermeneutic background. The study uses Merleau-Ponty and his ideas on lived experience in explaining the data and uses van Manen's approach to text analysis. The sections are laid out separately as the researcher describes each tradition, but no active links are made between them. Nonetheless, the findings are well presented and credible and if the methodology was a little less crowded or provided some linkage and explanation for the use of multiple theories, it might be less confusing for the reader. I have learned that in carrying out and interpreting qualitative research using hermeneutic methods it is difficult to slavishly adhere to one philosopher within the tradition as there are many whose ideas overlap or build on the development of our own philosophies. This is true of this thesis – I have principally employed Heideggerian principles, but also engaged with Gadamer, Ricoeur and others from the hermeneutic tradition. What the reporting of these studies does show us is that the principles of hermeneutic approaches have been adhered to in that the interpretations are individual to the researcher and their participants. However this uniqueness can be very difficult to convey to an audience in the form of a research paper in the field of health sciences. Academic peer reviewed journals often have strict word limits, hence it is likely that although hermeneutics may have much to offer as a philosophy underlying design and methods, it is likely to remain marginalised from mainstream health research or be dismissed as confusing or incomprehensible by those who seek specific answers and a structured approach to how data should appear. If hermeneutics compromises its unique approach to studies, then it ultimately ceases to be hermeneutics.

Lundgren and Wahlberg, (1999) confuse hermeneutics and phenomenology to the extent that their study is entitled a hermeneutic/phenomenological study. The two approaches are described but not reconciled and it is unclear how the design of the study (diaries) fits in with either of the traditions. The data are not well presented in that they are disjointed and does not take the reader through the hermeneutic journey. The discussion seems to go beyond the data that was presented to the reader. This is a common accusation levelled at the hermeneutic tradition (Cohen et al, 2000:97) for other reasons where discussion about the broader human condition and the impact of the data in the larger sense of the world is part of communicating the research study. Again journal word limits may act as a barrier to achieving this.

Although some papers do not give adequate attention to the credibility of the methodology, there is also the danger of stifling the voices of the participants through over-reliance on a theoretical or methodological perspective (Walters, 1995). In the Walters (1995) study data relating to the participants accounts are eclipsed by constant reference to the theories of Gadamer and Taylor. Some confusion may arise because of the assertion that the hermeneutic philosophy is not a prescribed methodology but rather a guiding set of principles espoused by a number of philosophers, therefore it cannot be categorised or pinned down to a qualitative recipe as they suggest. The researcher may use it as they see fit, in the phenomenon they are approaching and this is both a strength and a weakness. It is an advantage, because it allows the researcher to use well-defined methods from the qualitative tool-kit while keeping a philosophical perspective. However, the philosophical perspective and the principles which a number of different philosophers in the field may have brought to a study may be difficult to convey to the reader in the space provided. The next section describes how a hermeneutic philosophy was used to influence the design of my study.

2.9 Using hermeneutics in the study design

This section shows how the principles associated with hermeneutic phenomenology were applied to this study and therefore translated into a pragmatic study design and methods for looking at the phenomena under investigation. The method of enquiry must fit the problem and goals of the research question and the purpose of this section is to demonstrate how the development, design, and analysis of the study were underpinned by hermeneutic phenomenology. The hermeneutic approach embodies certain assumptions or understandings about the world, the people in it, research activity and the relationships between these. These assumptions and their implications for conducting this research are considered in developing the research question and designing and carrying out the study.

Hermeneutic principles helped focus the aim of the study. These principles can be broadly thought of as inhabiting three areas: understanding lived experience, understanding meaning and interpreting human action. Heidegger (1962) and Cohen et al (2000) have provided the basis for this interpretation.

2.9.1 Understanding Lived Experience – experiencing place and events

- Understanding of the phenomena of the world as they were presented to participants, how they are positioned and how this influences their understanding.

- Understanding the processes involved in how participants understand the world as it is presented to them.
- Understanding *Being* itself, that is, why there is *something* rather than nothing. The understanding of how individuals present themselves in relation to their presence in the world.

2.9.2 Understanding Meaning - ways of talking and experiencing events over time

- Participants of research are meaning-giving beings; that is, they give meaning to their actions, and these meanings are viewed as important in understanding human behaviour and their *Being.*
- Meaning is not only that which is verbalised; meaning is expressed in action and practices. To understand human behaviour, it is important to look at everyday practices, not just beliefs about those practices.
- The meaning-giving process is not entirely free and meanings are made possible by background conditions such as immediate context, social structures, personal histories, shared practices and language. Illuminating these background conditions can allow insight to occur.
- The meaning and significance of human action is rarely fixed, clear and unambiguous. Meaning is continually negotiated in ongoing interactions. Meaning changes over time, in different contexts and for different individuals.

2.9.3 Interpreting human action forming an analysis

- Interpretation is necessary to understand human action. Truth is not determined by how closely beliefs correspond to a fixed reality.
- It is never possible to achieve an objective, value-free position from which to evaluate the "truth" of the matter. Facts are always value-laden, and researchers

have values that are reflected in their research projects. An essential part of this process is the researcher as the instrument through which meaning is elicited.

2.10 Approaching the research question

Once the research question was identified, I paid attention to answering it with integrity and transparency. My initial question was “what are physiotherapy patients’ perceptions of videotaped advice and instruction?” this question evolved to “how do patients perceive the role of the videotape exercise advice and instruction in their illness episode?” From the outset, it was apparent that from my question the key word “perception” implied that a qualitative method was appropriate (this is discussed further in the methods section).

During the course of the study in exploring research ideas it became clear that the research question needed to evolve to encompass the “role” the videotape played in the “illness episode”. Patients’ beliefs and behaviours relating to illness and their perceptions and narratives were inevitably linked with how they perceived the videotape. This process is underpinned by adopting a method where there is reciprocity between text and meaning - the whole is constructed from the sum of the parts, and the whole is developed through the parts in the *hermeneutic circle,* (Gallagher, 1992:106) or circular approach to the data (see section 2.4 and 5.9). Having some sense of the “whole” or the big picture was conveyed through the initial construction of the research question, but more insight and meaning was uncovered as more data was collected and this informed the further development of the question. Heidegger (1962) and Gadamer (1976,1989) gave particular ontological importance to this circularity, and in their work, the circularity of interpretation is not simply a methodological principle, but an essential feature of all knowledge and understanding. The fact that every interpretation relies on other interpretations and so on, points to the finite and situated character of all understanding and the refining of ideas and questions.

2.11 Description of myself

The researcher is a central part of the research process in qualitative studies. As part of a hermeneutic approach, it is important to describe myself as it will give the reader insight into how I might interact with research participants and the data generated. My own feelings and experiences formed an integral part of how I analysed and interpreted the data. This description will play a part in showing the reader how a "horizon" (Gadamer, 1976) has been achieved. The horizon reflects the historic and culturally produced understandings that influenced interpretations of events and people. A description of my background and me is crucial to the study as any biases or potential biases should be acknowledged. This is important when allowing a version of reality to emerge, which is persuasive to the reader even if readers do not share the authors' interpretation (Benner, 1994). It also provides the reader with information which may determine the dependability of how choices were made.

The importance of self is further emphasised in methodological and epistemological discussions within the qualitative traditions. A common way to minimise bias in qualitative approaches, is to adopt a *bracketing* approach (Schutz, 1970). As mentioned previously Husserl originally used the mathematical metaphor of bracketing which means to acknowledge one's prejudices and personal commitments and to bracket out or put them aside during contact with the participants. This allows the researcher to be immersed deeper into the experiences of others to bring about an understanding of meanings as they were for those individuals describing their experiences. However it also denies the researcher's experience and cultural background (which may be relevant to the study in facilitating data collection) and requires them to dive into to a pool of subjective experience in an objective way. The hermeneutic tradition does not believe it is possible to separate the very essence of Being that has been formed through the years of individual experiences and development from the research process (Whitehead, 2004). A hermeneutic approach argues that it is not possible to set oneself completely apart from the data because to do that you would have to become completely impassive and neutral in the interview. Some of the richness of data through the interviewers' personality and cultural heritage might be lost if this was the case. In addition, the researcher is the tool through which the phenomena is interpreted, analysed and expressed. In this study I looked at a group who could be broadly defined as middle and working class, white individuals, having some common features with myself and so this approach to the interviews was beneficial. Instead of using a "bracketed" approach, I instead "worked the hyphen" (Fine, 1994:70), which is, an attempt to cross over into the participant's lifeworld and immerse myself in them, without denying my own experiences. As the research tool it is important for me to describe my background, as it is also integrated to the way I developed the study.

Firstly it is important to examine potential structural barriers to research. I am originally from the South of England, but have been living in Manchester for the past ten years - I do not have a pronounced Manchester accent. At the time of the interviews I was 29 years old and had two school-age children. I am white, university educated, Caucasian and female and perceive myself to be a middle-class professional. When conducting the interviews I dressed conservatively and carried identification at all times. Interviews were conducted in the Chester, Runcorn and rural areas of Cheshire.

At the time of the study, I worked for Chester and Halton Community NHS Trust physiotherapy department as a research assistant for four years, and had built up good relationships with the physiotherapists in the Chester area. Prior to working on the videotape study, I was involved with a previous research study looking into improving services for patients with low back pain.

These factors had the potential to effect the relationship between the researcher and the participant, in the flow of information and the rapport between the two. A rapport may be gained as a result of perceived similarities and shared experiences between individuals (Fine, 1994:73; Adkins, 2002:338). The main potential barrier was my age as most of the participants were older than me (average age was 47 years; range 18-88 years) and I had also never experienced any major musculoskeletal problems myself. However, although these facts did not enable me to empathise fully with regards to functional experience, they did potentially put the participant in a powerful position, in that they could inform me as a researcher. I found that rapport could be achieved on other levels, sometimes through personal disclosure about children and also common likes and dislikes. Qualitative researchers have acknowledged that the ability to build a rapport and make participants feel comfortable will add to the ability to elicit good quality data (Murphy et al, 1998; Renzetti and Lee, 1993: 177).

As a result of the number of years I have worked in the NHS and the physiotherapy department, it was important for me to acknowledge that a degree of institutionalisation may have taken place. Also participants may have viewed me in the role of a clinician/physiotherapist through my association with that department. In order to minimise the effect on the interview data I was careful to explain to participants that I was not a physiotherapist, but a non clinical researcher interested in their views and opinions, and that confidentiality was assured.

As a member of the physiotherapy department, and having worked on research studies looking at musculoskeletal disorders, I was aware of the many clinical issues relating to patients with low back pain. Therefore I had to take care not to offer opinions or suggest strategies for assistance with problems when asked because the balance of power would then shift in the interview and I would be placed in the role of "expert" or "physiotherapist" rather than "interested researcher".

Over the period of time during which the data analysis and thesis writing-up is taking place (2000 – 2004), I have remained working in the health service, initially as a Research Development Officer for the Chester and Halton Community NHS Trust, later a Research and Development Manager for and more recently an Assistant Director of Research and Development for a Strategic Health Authority.

2.12 A hermeneutic perspective on using videotape

Much of Heidegger's philosophy is laid out in his book Being and Time (1962) and I drew on this work for my understanding and interpretation of his ideas. In this section, by drawing on some of the key principles outlined in Heidegger's work, I will describe how a Heideggerian perspective might inform the research ideas under scrutiny and the design of the study.

A Heideggerian perspective on Being-in-the-world is determined partly by our capacity to comprehend, perceive, respond to, and concern ourselves with the things in the world around us. The trivia and banality is that which creates the essence or Being of the individual. Dasein (the way of Being, or directly translated "there to be") is inextricably linked to the world it inhabits and cannot be comprehended in isolation – *everdayness* (p421). Although there might be vast differences in the various worlds individuals inhabit, there is a basic underlying infrastructure or Being, that they all share or *worldhood of the world* (p91), that is that we are all inhabitants on this planet. This term is used to refer to the totality of all our practical functional relationships with everything in our world. How the world is experienced and made meaningful for us can be shown through our practical involvement or relations to the things (entities) around us, which we employ for a useful purpose to accomplish our goals. This is the world where the majority of our conscious time is spent.

It is only when we use something such as a videotape, that we can really *understand* it and what it is all about – the meaning is revealed to us or unconcealed. We have to experience it for this to happen or the true meaning for us will not be revealed. Our awareness of the world and its entities is increased via our practical involvement in or relationship with all the entities around us. Subsequently our involvement with *everydayness* (p421) or things goes towards making up our Being, although we may have different understandings of what these everyday things represent to us. For example, a hammer may represent an essential tool for someone who uses it for his or her trade (*ready-to-hand*: p102) than someone who does not use one very often (*present-at-hand:* p101). When Dasein relates to a *ready-to-hand* item, it understands the item as fundamentally existing within a network of other entities. The chain of connectedness between entities – one tool is ontologically impossible – a hammer exists in order to be used for hitting something such as a nail, the nail needs to be attached to something like a wall or a piece of wood and so on. So Dasein's involvement with *ready-to-hand* equipment illuminates the surrounding area as being a unified web of significance.

This network reveals where things belong and how they fit into our lives. In the case of the videotape this drives the research question, to look at how the videotape fits in to the lives of individuals. This will give us a clearer understanding of how it fits in the jigsaw of people's lives and their experience of illness. It also provides a perspective on the development of the research question.

2.13 Hermeneutic approach to interpretation of data

"Any interpretation which is to contribute to understanding must have already understood what is to be interpreted" (Heidegger, 1962:194) – that is, all interpretations are based on a prior context of intelligibility (Whitehead, 2004). In this sense, all understanding is circular – it has to be understood to be interpreted and interpreted to be understood (Watts, 2001:41). Heidegger notes that to enter the circle in the "right way" is important, if the basic conditions that make interpretation possible are to be fulfilled. The researcher must recognise the essential conditions under which the meaning can be made possible, or the circle may become a "viscous" one where Dasein (how an individuals *is* in the world) can never be revealed (Heidegger, 1962: 194-195). These conditions require some basic commonality between the investigator and the investigated.

Dasein possesses a preliminary understanding of anything that it asks about or interprets – this prior understanding guides and enables Dasein to question existence and make interpretations of the world (Heidegger, 1962:274-278). In interpretation, we immediately see things as something, and it is only possible to interpret something in terms of the concepts of which one is aware. Meaning is something that is arrived at when the function of something is understood, whilst simultaneously seeing its network of significant purposive relationships with other entities (Heidegger, 1962:91).

All understanding is a circular procedure (*hermeneutic circle)* by nature and is not seen as a distinct process from the whole of the study. Moving back and forth between collecting, analysing, reflecting and writing cannot be laid out or predicted in advance. Researchers are value laden and inevitably will bring their own interests to the data and this is acknowledged by the hermeneutic tradition (Schwandt, 1994:119). These values are seen as part of the ongoing process of observation, interviewing, reading and writing. This approach pays more attention to the structure of the texts or transcripts and analysis is suspended through rereading all sources of data and understandings are made rather than found. The processes are laid out in more detail in Chapter 5, section 5.9, Figure 2, Figure 3 and 5.13.

As something is revealed or uncovered in a particular way, this simultaneously conceals all the remaining possible ways of its Being. It is important to adopt a flexible view of "truth" in which something can only express degrees of concealment, like a vista seen in twilight. The clarity of truth often emerges gradually when the significance of the words is discovered after study. The "truth" is in the process of uncovering what is concealed and this activity is potentially never ending because it is always related to meaning at one point in time and will be shifting as time moves on. This is particularly pertinent if the researcher is analysing data over a long period of time. The researcher's interests and perspectives may shift which in turn may shift the interpretation of the research.

2.14 Heidegger's questions

Heidegger believed in two types of questions – ontic questions such as those which are answerable such as "how far is it to Australia?" These are trivial because settling the question renders it inert – there is no point in asking or answering it again. The second types of questions (ontological questions) are unanswerable and therefore potentially inexhaustible such as “how does it feel to be out in the rain on a cold day?” These according to Heidegger, are the only questions worthy of asking (Watts, 2001:22). They are inexhaustible because they can be asked again and again in different times and in different situations and analysis of the answers can be ongoing and potentially never ending. In practical terms NHS researchers do not have the time or resources to continue asking the same questions and carrying on with infinite pieces of work. This would mean that the researchers should continue to ask questions rather than find answers. This is not entirely out of keeping with the nature of research which regardless of epistemological standpoint, always calls for more research to gain a fuller picture of an area of work. In endeavouring to find answers, we inevitably as researchers need to ask more questions. Heidegger’s thoughts on this phenomenon only reiterate what is already known in the world of research. Heidegger (1962) says

> “Mathematics is not more rigorous than historiology, but only narrower, because the existential foundations relevant for it lie within a narrower range”(p195)

In support of this, research which is regarded as “gold standard” research such as systematic reviews, rarely claim to be the last word on the matter. No research gives the finite “truth” it is just shades of the truth. In addition, one of the major criticisms of methodologies in laboratory based research studies is having more than one researcher performing certain tests on certain samples. This implies that there is subjectivity in carrying out quantitative procedures and this underlines how humanness or Being pervades all research processes, regardless of ontology.

Although Heidegger emphasised the importance of asking questions he also advocates that one should avoid all attempts to subject Being to logical analysis and formal definition. He claims that the phenomena of Being cannot be articulated through words. When individuals translate what is inside themselves into words, original meaning may be lost, through the limits of language (Heidegger, 1962:203-210). The only legitimate approach to attempt to understand and investigate Being was questioning which allowed the investigator to tease out the meaning. A mind fully absorbed in the activity of intense authentic questioning gradually enters into a state of deep connection or oneness with that which is being questioned. This implies that a process of categorisation is impotent in understanding one or more Beings, however, Heidegger did acknowledge that there were ways of coming to know a Being and allowing its essence to be released (p276-8). Therefore asking questions and allowing them to be categorised into a picture would not be inconsistent with the philosophy. The interpretation of the picture and its perception of completeness is going to be in the realm of the reader, but no picture will ever be complete and the fact that it will be reinterpreted once again when the reader looks at what is written needs to be acknowledged. The five transformations (1) individuals internal perception to 2) forming perception into words to 3) the perception of the researcher to 4) relaying their understanding into words to 5) the perception of the reader in reading them) that the Being has gone through to reach its final form in the hands of the reader should also be acknowledged.

Another argument with the Heideggerian approach is the argument that there is no point trying to know Being, because it is not an entity or a "thing", therefore if its existence is questionable, it cannot be known, and therefore enquiry into its meaning is futile. Heidegger argues that Being does exist and an individual by their nature of being individual requires them to have their diversity deep within them in the form of an essence (Watts, 2001:19). If humans exist, then Being must exist.

Also, it is not the purpose of the enquiry to *know* Being, but to uncover the meaning of Being as it expresses itself through mankind's way of Being, the researcher is uncovering meaning rather than knowing. This again underlines the interlocking principles of Heideggerian theory in the co-dependent relationship of Being and being.

A number of seemingly contradictory ideas are posited in Heidegger's work, however, in moving forward with scientific investigation, the nature and limits of the philosophies have to be acknowledged and developed. The fact that Heidegger made comments which indicated that individuals true experience could not fully be known, is a conclusion to a series of ideas on the subject. He also goes to great lengths to inform readers of ways that Being and Dasein can be revealed to "others" in other sections of his work.

2.15 Interpretation of the findings

The final section of this chapter will turn to look at Michel Foucault and his theories which will play a role in understanding the data. This section introduces some of Foucault's thinking, its context and its relevance to providing insight into the health service and my study. By using theories from the sociological arena, I can demonstrate how societies medical systems impact upon lived experience; the link between environment and individuals and juxtapose the subjective inanimate body with the objective inscribed (instrumental) body. Foucault examined what is accepted as meaningful and true in a particular historical period. He is particularly concerned with discourses and power structures which run through society.

2.15.1 Locating Foucault

Foucault's work is located within the post structuralist movement which is not a school, but a group of approaches motivated by common understandings. Post-structuralism is not a theory but a set of theoretical positions, which have at their core a self-reflexive discourse which is aware of the ambiguity and the complex interrelations of texts and meanings (Fox, 1993). Originally labelled a structuralist, the French philosopher and historian Michel Foucault came to be seen as one of the most important representatives of the post-structuralist movement (Jones, 2005). He agreed that language and society were shaped by rules and governed systems, but he disagreed with the structuralists for two reasons (Jones, 2005). Firstly, he did not think that there were definite underlying structures that could explain the human condition and secondly he thought that it was impossible to step outside of discourse and survey the situation objectively. These positions are also in keeping with the underlying principles of the hermeneutic philosophy.

Foucault attempted to analyse the 'discursive practices' or serious 'speech acts' that lay claim to revealing knowledge. Rather than analyse these discursive practices in terms of their truth, he analyses them in terms of their history or genesis. He claimed that he was attempting to do an 'archaeology' of knowledge, to show the history of truth claims (Foucault, 1980:85). In his latter work, he borrowed from Nietzsche the 'genealogical' approach and from Marx his analyses of ideology (Rajchman, 1995; Foucault:1980:53). Foucault sought to show how the development of knowledge was intertwined with the mechanisms of power (Foucault, 1980:51). Unlike Marx, Foucault had no belief in a deep underlying truth or structure: there was no objective viewpoint from which one could analyse discourse or society (Turner, 2000:xi). This point is also in keeping with the hermeneutic philosophy. It the central point of how power and knowledge interact, which provides the focus for much of the interpretation of the data in this thesis. The representation of the videotape and the way it was a presence in the lives of the individuals along with how it influenced structural changes in how they framed their illness experience was important.

Foucault focused on the way that knowledge and the increase of the power of the state over the individual has developed in the modern era. In his 'History of Sexuality' (Foucault, 1984) he argued that the rise of medical and psychiatric science has created a discourse of sexuality as deep, instinctual and mysterious (Foucault, 1998:3-13). This discourse became accepted as the dominant explanation, and its assumptions began to seep into the discourse of the everyday. In this way the individual human experience of sexuality is shaped and controlled by the discourses that purport to explain it. The search for knowledge does not simply uncover pre-existing 'objects'; it actively shapes and creates them. This influence of the medical system on the way that individuals form their interpretations of the world and how they experience it is of particular interest. As the study is carried out within the context of the medical system (primary care) this theory provides us with a rich opportunity to use these issues in relation to explaining how the videotaped exercises play a role in an individual's illness experience.

2.15.2 Power and knowledge

Foucault's work was heavily informed by theoretical and philosophical analysis; it is critical of established medicine and seeks to provide an alternative way of viewing illness and disease (Foucault, 1976, Foucault, 1984). It placed power and knowledge at the centre of the sociological understanding of medical institutions. Foucault saw power as being inextricable connected to knowledge, so that any extension of power involved an increase in knowledge and every extension of knowledge involved an increase of power (Foucault, 1989a). Foucault noted that knowledge and power are not the same, but are bound together and reliant on each other for their existence as they actively feed off each other. In effect power and knowledge make each other possible.

> "It is not possible for power to be exercised without knowledge, it is impossible for knowledge not to engender power" (Foucault 1980:52)

Exercising power gives rise to opportunities to increase knowledge; conversely increased knowledge may create the opportunity for increased power. In the case of this study we use this theory about power and knowledge to explore whether a device such as the videotape which is designed to impart knowledge will also allow individuals to gain power.

Foucault studied a number of populations and bodies to explore these phenomena including historical information on hospitals, schools and prisons. He noted that penology and criminology were closely associated with the development of practices that have the principles of surveillance and control or Panopticism (Jeremy Bentham, 1748-1862) (Foucault, 1977). These emerged at a time when there was increasing surveillance of the population in general on the part of the state, especially in public health and medicine. Foucault's interest in other issues such as social control, and ethics are all situated within a theory of power and employ many of the same principles.

Foucault identifies two distinctive conceptions of power through his historical analysis; *disciplinary power* (Foucault, 1979) targets particular groups of individuals, for example prisoners; and *bio-power* (Foucault, 1973; Foucault, 1998:140-4), which is orientated towards the control of populations in general through means such as health promotion. Foucault's analysis of power is useful in understanding the functions of the medical profession and related areas - for example he has been important in relating the historical functions of the clinic as a site for bio-power (Foucault, 1973). These principles could allow us interpret health policies and the medical profession today, especially in light of changes to secondary and primary care in the NHS.

Foucault described power as a "general matrix" and an all consuming "net-like organisation" that functions in the form of a chain (Foucault 1980:98). Power is everywhere, because it comes from everywhere, it is also fluid like mercury in a maze and as it moves around, discourses (groups of ideas or patterned ways of thinking within wider social structures) are created which act as channels for the power. Power is not regarded as an intentional effect of any wills, least of all the state:

> "There is not, on the one side, a discourse of power, and opposite it another discourse that runs counter to it. Discourses are tactical elements or blocks operating in the field of force relations; there can run different and even contradictory discourses within the same strategy; they can, on the contrary, circulate without changing their form from one strategy to another, opposing strategy." (Foucault, 1998: 101-2)

Individuals are not static targets subject to a single source of power, but active agents circulating between the threads of power and in positions of exercising as well as being subjugated to the power of others (Foucault, 1980:93). Marxists used the concept of power in a more singular way and Foucault, saw their ideas of attempting to seize power from the state through political action, with an aim of diffusing the power of the state, as futile because the thread of power runs through the entire social structure and is part of daily practices (Turner, 2000,:xii). Power would be present everywhere and always - it would just embody itself differently. Foucault used the idea of power as a concept in a different and more pragmatic way. He saw power as a relationship that was localised, dispersed, diffused and typically disguised through the social system, operating at a micro, and local and covert level through sets of specific practices (Foucault:1998:92). Foucault saw power as productive and as subtler than the traditional power that was imposed by monolithic lawmakers who focussed on the negative (Foucault, 1980:92-95).

For example power is embodied in the day to day practices of the medical profession working in the hospitals, surgeries, clinics or local government; through the activities of such professionals as doctors, nurses, therapists and social workers. Power is also embodied in other parts of society, through people who hold official posts as well as individuals who conduct ritualised practices such as those associated with religious ceremonies (Foucault, 1980:92-95).

2.15.3 Discourse

Discourses are an important concept in Foucault's work, if society is viewed as the *body* and the power that runs through it as *arteries*, then the discourses might be viewed as the *blood* which runs through the arteries to keep them alive. Discourses may change, and as a result change the nature of the objects that the discourses govern – an example of this is mental illness and how attitudes towards it have changed in society over the years (Foucault, 1980:56). Foucault's roots as a theorist and a historian led him to form theories about discourses. He studied the ethical systems of early Christianity and ancient civilisations and developed these theories (Foucault, 1970). These studies led him to explore how these institutions created self-subjection and ethical systems which informed the identification of behaviours such as desire and sexuality and created a regulating set of behaviours which we call moral activity to shape these natural instincts (Foucault, 1979). There were essentially three levels to this process of the development of moral activity (Foucault, 1998:103-114). Firstly it called for subjection - people recognised their moral obligation and subjected themselves to a more powerful body such as God. The individual accepts the objectification of moral obligations into codes or discourses of ethics. Foucault showed us examples of this from the eighteenth and nineteenth centuries. He explored discourses such as those associated with sexuality (Foucault 1985,1986), which in turn produced specific roles or identities such as the hysterical woman or the amoral citizen. By having society identify these individuals and these identities they may then become the object and focus of medicalisation and normalisation through the medical process or through the penal process or even social pressures from others in society. Secondly, practices of subjection and self-formation involve interaction with other more powerful individuals in order to be educated and to adhere to the rules of living in an orderly society. These arrangements existed throughout the ages in society and examples can be taken from medieval times where during confession a more knowledgeable and therefore powerful individual absolved the individual and schooled them in the rules of morality to transform their lives for the better. Similarly we may take the contemporary equivalent as being 'talking therapy', where individuals can unburden themselves to a professional or self-help, where individuals can transform and educate themselves (Giddens 1992).

Finally subjection is the absorption of the moral order and ethical ethos into the organising principle which drives self-governance and behaviour. A moral code evolves through how the moral identities are shaped and guided – and example of this in contemporary society is the ideology of self-fulfilment (moral order). This may be attained through self-knowledge and as a result of self-knowledge a behaviour such as self-regulation or self governance (for example the adherence to a special diet, exercise or therapy) and serves to achieve the status quo for the individual's behaviour.

Foucault's genealogical approach in relation to care of the self and the influence of prevailing medical discourses, is explored in William's (1989) study of the National Ankylosing Spondylitis Society (NASS). The study offers a perspective of the growth of self-help groups among the chronically ill. Groups such as these allow professional discourses on disease to be augmented by sufferers' discourses to supply support not provided formally in health care. They allow individual's feelings about a condition to be freely expressed in a bottom-up way rather than being imposed from above. Although the group was set up with an emphasis on empowerment of members through self-care and mutual support, with a focus on exercise rather than drugs, the ethos drifted gradually towards an emphasis on orthodox medical treatment and advances, which was reflected through newsletters and general advice given to group members. Williams pointed out, that NASS seemed to be extending therapeutic advice and activities advocated by health care professionals into the lives of patients. NASS reflected characteristics identified by Foucault's concept of governmentality, incorporating top-down welfare practices. The bodies of NASS members are inscribed by their practices as part of the group and as their knowledge increased, so did their ability to be influenced by a dominant discourse (medical) which was a main provider of accessible knowledge in this area. In the current governmental theme of "self-help" individuals are expected to discipline both the physical body and the self, that is to turn the medical surveillance onto themselves.

2.15.4 Surveillance and control

The view of power as an invisible thread or artery which runs through the fabric of society is also associated with Foucault's ideas in the area of discipline – or the power which exists through the disciplinary practices which produce particular individuals, institutions and cultural arrangements (Foucault, 1977). This view was inspired by Foucault's study of Bentham's Panopticon, an architectural design for schools, hospitals or prisons that required the surveillance by observers. In a prison situation cells are open only to other observers not to other cells.

> "All that is needed then is to place a supervisor in a central tower, and to place in each cell a madman, a patient, a condemned man, a worker or a schoolboy...they are like so many cages, so many small theatres, in which each actor is alone, perfectly individualised, and constantly visible...Full lighting and the eye of a supervisor capture better than darkness, which ultimately protected. Visibility is a trap." (Foucault 1991:200)

Surveillance or perceived surveillance nurtures self-discipline in behaviour as individuals turn the surveillance onto themselves. He transferred these views of watchfulness and self-regulation to the disciplinary management of society where a "carceral" society might arise with individuals institutionalised through everyday routines and mundane arrangements. Even today, the design concept of the Panopticon is still regarded as a highly functional means of surveillance or observation in hospitals, especially in intensive care units as well as outside the health service through closed circuit television and increasing visibility to others.

An example of the way power is being diffused in the contemporary NHS is through encouraging service users to take a more active role in health care activities. This activity might be interpreted through a Foucauldian lens. Users of health care services are encouraged to take responsibility for their own health and courses have been set up for this with chronic conditions. They are also being asked to work with the health service at all levels to ensure a "patient-driven" NHS (DH, 2004). These initiatives and others are indications that the current socio-political climate is working towards delivering and developing health services through passing power to individuals using health services rather than adopting a top down approach where power is retained by the more specialised individuals or those with the most expertise. Through a Foucauldian lens, these discourses are developing to ensure that individuals self govern and self manage and reduce their reliance on health services.

Historically, hospitals and other medical institutions have made it possible for large numbers of people to be organised centrally and subjected to observation or surveillance by medical practitioners and public health officials. The hospital offered an environment to examine patients at a time when medicine was making links with disease characteristics and demonstrable pathology (Foucault, 1973). This established a rationale for the physical examination both in the living and the dead and allowed diseases to be identified and named. This knowledge confirmed state acceptance to the role of medicine, legitimised the power of the medical establishment and sanctioned the role of the medical practitioner to watch and examine people.

Foucault described the surveillance of individuals through the medical profession as *le regard* or "the gaze" (Foucault, 1989a:xi). In *The Birth of the Clinic* (1973), Foucault examined the way that medicine inscribed, analysed and *read* the body. He emphasised that this allows an anatomical atlas to be made of the body which is read through the *clinical gaze* of the doctor. Hospital methods subsequently emphasised clinical observation, bedside teaching and physical examination for the information which would point to the disease (Armstrong, 1983). The link to power and knowledge was also clear - those with the knowledge have the authority to increase their knowledge through *the gaze* – also make a person or population visible to an observer, which in turn reinforces power (Foucault, 1989a:131-151). This knowledge can be coded and organised and used as a resource by the observer to develop an expertise and control over those who are observed. Foucault (1980:166-182) suggested that the knowledge the medical profession has about the human body, illness and its prevalence in a population, provided the basis for medical dominance. A health professional also has the means of gaining and sustaining power from knowledge which has been accrued and which is legitimised in every interaction between patient and health professional. Subsequently, this expertise can allow such individuals to gain knowledge though others and in turn lent them the ability to 'discipline' individuals in their care and beyond (Foucault 1977; 1979; 1980; 1984).

Hence we might view the participants in my study as agents who have been subject to this disciplinary power and subjected to the *medical gaze*. In my study, the situation could be viewed as being reversed and individuals are given the opportunity to repeatedly view the physiotherapist on their videotape. However, it could also be interpreted as a form of surveillance because the physiotherapist is present on the screen and might be perceived as exerting power over them from afar. Today this "gaze" is also being extended by remote technology such a telemedicine which allows individuals to be subject to *the gaze* on a regular basis.

Foucault proposed that the active subject be constructed (Foucault, 1980:206-209) as a result of being subjected to the gaze. Individuals who are "gazed" upon may be subjected to the power of another but they can still retain power for themselves through their minds and souls and the inner dialogue, which may take place during or after the gaze is concluded. The gaze may compel individuals to listen to their conscience or inner voice and construct a new reality. Foucault (1977) conversely also suggested that power is inscribed upon a docile body, however, the clinical gaze may also unleash or channel inner power as a by-product of this process (Lupton, 2000:94-110) – how this power is directed may provide us with important insight in how individuals behave after they have been subjected to the clinical gaze. Magill (1997) explained that the gaze may offer individuals an advantage in allowing them to learn about their bodies and behaviour; offering individuals, new insights and subsequently the ability to reflect on and manipulate their own behaviour in the future. The concept of the "ethics of the self" described how thought exists independently of external social structures and that individuals can account for themselves actively through self-examination, interaction with others and the relationship of power that ensues between them (Foucault, 1982). These encounters with bodies of knowledge which might not usually be accessed encourage individuals to explore different discourses and understand themselves and their illnesses better. Clearly in the current socio-political climate of the NHS, this outcome is highly desirable.

Foucault's theories about surveillance, control and the clinical gaze have allowed researchers to gain insight into understanding and explaining behaviours and mechanisms within the contemporary health care environment and exploring how that behaviour can have implications on the welfare of individuals within it. An example is an ethnographic study in which Jeffrey (1979) looked at how the medical gaze affects individuals and the way they are treated in a UK accident and emergency department. Jeffrey uncovered a categorisation of patients by staff, into "good" and "bad" depending on their characteristics. "Bad" patients were non-urgent and often had disagreeable personal characteristics such as they were drunk, they smelt or they were dirty; they may have self-inflicted injuries, such as those who self-harmed or took drugs or had attempted suicide. In turning patients' characteristics and symptoms into signs (malingering, time-wasting, or non-medical problems) staff were interpreting the body through the clinical gaze and rewriting them into categories of legitimacy or not – deserving of their attention or not deserving of their attention. The clinical gaze exerted power upon all the patients and good patients were docile bodies, inscribed by the medical gaze and made a subject through the clinical staffs' power and knowledge. The "bad' patient was non docile through their physical presence and their presenting problem, hence they defied the application of medical power though knowledge and were subsequently treated contemptuously and roughly by medical staff. The good patients is a good citizen who allow themselves to be subject to medical power, while the bad patient offers resistance to prevailing accepted medical discourse through their lifestyle or behaviour, and is subsequently stigmatised by hospital staff.

Other studies from the nursing literature find Foucauldian theories of discourses particularly useful to give insight into nursing practices. Lawler (1991) and Irving, (2002) described through observations (participant and non-participant), how nursing discourses arise and become entrenched. Key to the discussions by these authors is the discourse of a person as being unable to self-govern. These two perspectives, although independent pieces of research in their own right, complimented each other in the message they deliver and also provided a good example of how Foucault's theories are applicable to the contemporary world of medicine. They both discussed how nursing staff produced docile bodies in their patients through hierarchical observation and stereotyping, paternalism, normalising judgements and ritualised examination, which denied patients their identity and their rights to having their subjective narrative heard. As Foucault stated, under the clinical gaze individuals are distilled to cases where

> "the case is no longer, as in causistry or jurisprudence a set of circumstances defining an act and capable of modifying the application of a rule; it is the

> individual as how may be described, judged and measured, compared with others, in his very individuality and it is also the individual who has to be trained or corrected, classified, normalised, excluded etc" (Foucault 1991:191).

Rose (1990,1992) a commentator on Foucault's work, looked at political, institutional and ethical dimensions. The political will use the subjects as a source of data to form both a target and a resource for activities or the furthering of their ideals and the environments where practices are undertaken on subjects such as in prisons, clinics or hospitals. Ethical dimensions consider how the individual comes to understand, decipher and act on this information. Here it becomes possible to behave in a good or bad way – the good or the bad citizen. A good citizen accepts the advice or practices when those who give them have more status through "power" or "knowledge" than they do. Subsequently it can be said that governance functions through political thinking, the culture of the institution which determines practice and the individual's conscience and their behaviour within these systems. The values, which influence how a society is governed overlap with how individuals shape and govern themselves. This point again adds to discussions about the move in the NHS towards self-surveillance and how this approach is adopted and managed within the service and then absorbed into the public consciousness as a discourse.

A Foucauldian perspective offers my study the opportunity to bring the body into medicine and examine what it means to subject the body to modern health-care. In my study, the body is not simply a focus of discourse, but it constitutes the link between daily practices on one side and the large-scale organisation of power (the NHS) on the other. In other words, as has already been shown in this section, the body is defined by those institutions and discourses which govern it. Foucault spoke about knowledge in the plural (*savoirs*) to illustrate the point that specific forms of power required highly specific and detailed formations of knowledge. It might also be possible for the body to be subjected to any number of them at any one time. This also will allow us to explore whether bodies are “docile”, as Foucault purported in his early work in that the individual shapes his or her actions on patterns which are found in their culture, society or social group (Foucault, 1987:122).

Foucault did not offer any all-embracing theory of human nature. He was critical of 'meta-theory' or beliefs that claimed to give an exclusive objective explanation of reality. For Foucault there is no ultimate answer waiting to be uncovered. The discursive practices of knowledge are not independent of the objects that are studied, and must be understood in their social and political context.

2.16 Conclusions

It can be seen from this chapter, that hermeneutic phenomenology provides an appropriate underpinning to answering ‘what’ and ‘how’ questions about human issues. The underlying principles of hermeneutic phenomenology are well disposed towards facilitating an investigation of the phenomena of patient’s perception of videotape and the role it plays in their physiotherapy treatment, which is the nature of this investigation. Defining a philosophical position allows me to ensure that methodological and analytical decisions are based on these. The chapter has invited the reader to explore some of the ways in which the developments of the research question and study design are hermeneutic in nature. The chapter has also explored the works and theories of Foucault and how they contribute to the treatment of the data which has arisen using a hermeneutic approach. In combining a hermeneutic approach to study design and treatment of data with a sociological theoretical interpretation of data, we can examine the body as it is lived and explore the structures which inscribe and direct the body. The next chapter will outline the rationale for using videotape and its role as a medium for conveying exercises to patients.

Chapter 3. Why use videotaped advice and instruction?

3.1 Introduction

The following chapter describes the theoretical assumptions underpinning the use of videotapes as a means of passing on information to individuals. A number of theories have been used to underpin studies where the use of videotapes has been developed to improve health as described in the literature review (Chapter 4). These are taken broadly from the discipline of psychology and education. In this chapter, the rationale for using videotapes is described, the theories underpinning their use are briefly outlined and the development of the videotapes in this study presented.

3.2 Why use videotapes?

According to several educational theories that underpin how adults think and learn, advice presented visually through the media of videotape is theoretically a positive and useful tool to educate people (Fleming and Levie, 1978, Phillips *et al*, 1988). Research has also found that 20% of individuals do not have the literacy skills to comprehend written prepared material (Basic Skills Agency, 1998), which means that a large number of service users may not be maximising their potential for receiving information. Streiff (1986) illustrated this point when she surveyed 106 clients receiving written information in an ambulatory unit. A total of 54.7% read at a level that did not allow them to understand written material written at a ninth grade level (age 13).

Videotaped instruction could provide patients with a consistent education tool and could help individuals with compromised reading skills. The idea of using the videotape is also supported by Curtis (1990), who emphasises consistency of instruction without instructor bias or accidental omission. Curtis determined that patients could benefit from individually reviewing the information and technically manipulating the "stop-play" feature on their VCRs to gain further clarification. As videotaped material can include music, sound, voice-over or dialogues, it has the potential to have a large advantage over printed media in holding an individual's attention. This enables the communicator to use marketing techniques to alter levels of awareness, attitude and knowledge to the matter in hand (Leiner et al, 2004).

Curtis (1990) further supported the use of videotaped instruction to help address heavy client loads, increased practice demands and severe cost and time restraints. However despite these assertions that videotaped advice and instruction is beneficial for use in healthcare settings, it remains clear that they should not be used without careful consideration and evaluation (Eiser et al, 1996). Smith and Cason (1998) demonstrated that only one videotape out of three that were currently being used to prepare patients for cardiac catheterisation were rated as suitable using a suitability of materials assessment instrument. From the literature (Chapter 4) we can gain an overview of the types of settings where videotapes are used, the types of information which they are conveying, and also other spin off benefits which support their use. This review (Chapter 4) will consider the specific areas where videotape has been used and considers the role it played in relation to the situation it sought to address.

3.3 Videotapes impact on learning

Whilst most of the empirical work regarding videotape has been conducted without expressing a specific theoretical framework, there are a number of key factors that underpin the presentation of visual material through videotape. Well-designed videotape can enhance learning because

> "where the learner reacts to or interacts with the criterial stimulus, learning is facilitated, and that facilitation increases with the degree of learner activity or involvement" (Fleming and Levie, 1978:38).

Although no comprehensive theory specific to effective interactivity in videotaped instruction has emerged from studies, there is some evidence for specific types of videotaped instruction. Guided pathways for inexperienced users (Hoelscher, 1989) and instructional cues for complex material (Lee, 1989) appear to produce superior learning. This, greater guidance for the user tends to increase the recall of instructional content and additionally the

> "power of orienting activities increases as the availability of alternative processing aids such as practice decreases" (Phillips et al 1988:94).

Three of the key features of presenting information through the media of videotape are considered to be the audio and moving visual stimuli which are provided, the learner's control of the media and the psychological motivation to perform a specific activity (Hannafin and Rieber, 1989). Hannafin and Rieber (1989) reviewed studies on the instructional effects of visuals in instructional design and provided a theoretical framework for incorporating them. Theorists have explained the effectiveness of visuals in learning as a function of the increased comprehensibility of the content (Burwell, 1991); selective increases in learners' attention (Brandt, 1987; Miller and Irving, 1988) and increased enjoyment (Sewell and Moore, 1980). A comprehensive application of learning theory to the unique visual features of video instruction was provided by Hansen (1989). Video provides more effective learning at several stages of the five stage model of skill acquisition developed by Dreyfus and Dreyfus (1986). Higher levels of skill performance require active discovery and application on the part of the learner (Schoen, 1983) and realistic video representations provide unique instruction-based opportunities for both (Hamilton and Taylor, 1992).

The visual features of videotaped instruction are the primary factors employed to explain the enhanced learner motivation. Assuming that the novelty effects are not paramount, two related cognitive theories may explain the relationship between attitude towards the videotape as a media of learning. Krull (1983) reported that attention is affected by both the experiences of the learner and by the capacity of the instructional delivery system to focus the user's attention on cognitive activities. Clark and Sugrue (1988) drew on the work of Bandura (1978) and Saloman (1981) in looking at the self efficacy theory of motivation to learn from media (this will be explored in more detail later). They hypothesised that

> "the relationship between attitude towards media and learning is best conceptualised as an inverted U" (Clark and Sugrue, 1988:31).

The greatest levels of motivation resulted when perceived difficulty of the medium and perceived personal task skills are at moderate levels. If however, perceived levels of difficulty are too high or too low, lower motivation is predicted. This theory might explain some of the conflicting outcomes in the research into videotaped advice and instruction which is demonstrated in Chapter 4.

> "Studies that have shown increases in motivation (or learning) with decreases in attitude toward a specific medium, are now predictable given the self-efficacy theory" (Clark and Sugrue, 1988:31).

Another feature of the videotape is that it allows the learner to take control of the pace and frequency of learning. Therefore the learner can master how quickly or how slowly they can absorb the information (Clark and Sugrue, 1988). If individuals need to hear or see the information again, then they are at liberty to rewind the tape, which allows the learner to accommodate various learning styles in the absence of one-to-one tuition. This factor combined with the audio and visual stimuli provides a powerful learning tool. Individualised instruction is theoretically best able to adapt to different learning styles (Kinzie & Berdel, 1990; Laurillard, 1989). The benefits of learner control are also maximised when the learner possesses high aptitude and high enquiry into the material which is being provided (Milheim and Azbell, 1988) – with material which was provided to aid a health problem for which they have consulted a health professional, it might be expected that scrutiny of the material was in the interest of the individual. A study by Burwell (1991) also showed the interaction between the locus of control of an interactive video programme and learners cognitive styles. Learner control produced significantly higher recall scores for field dependent students and significantly lower recall scores for field-independent students than program control of interactive video instruction. This suggests that this means of instruction may not suit all individual learning styles. A meta analysis of interactive video instruction (McNeil and Nelson, 1991) indicated that cognitive achievement was influenced by a myriad of variables which are difficult or impossible to account for in a meta-analysis. Variables such as the nature of instructional content, environmental factors, instructional methods, features of the learning materials and the characteristics of the learner all influence achievement to varying degrees. I will now describe some of the theories underpinning how individuals learn new materials and how they are relevant to the use of videotape.

3.3.1 Adult learning theory- how adults learn

This theory specifies that an effective learning environment addresses issues of saliency, motivation, retention and transfer. This is important when considering the context of giving videotape – that is, a physiotherapist giving it to a patient. Knowle's theory of andragogy serves as a theoretical framework for adult learning. Andragogy is defined as the art and science of helping adults learn (Knowles, 1980). Adults have different expectations and patterns of learning compared with children because adults have more experience and independence. For adults therefore, the instructor serves as a facilitator to gaining knowledge. Andragogy emphasises respect for the independence of the learner, using the learners experience as a resource for learning and use of problem orientated learning (Knowles, 1980). This suggests that using videotape as a means for education may serve to complement a therapist or be used as a stand-alone tool by the motivated individual. In relation to a healthcare context Gessner (1989) suggested that as illness represents a period of change for individuals, therefore it may provide a condition in an individual which is more conducive to learning where under other circumstances they might not be as motivated. This has implications for how and where videotaped advice and instruction may be used for best effect. However, physiological and psychological discomfort may disrupt an individuals' cognitive skills, implying that the timeliness of an educational intervention is important. For example, showing a tape in the doctors' office before an operation may not yield the best results because the individual may have their cognitive processes disturbed by an unfamiliar or stressful environment.

3.3.2 Experiential learning – the learning environment

The theory of experiential learning is espoused by Kolb (1984) and Kolb's learning cycle is often used in educational theory today. It describes the learning process as being cyclical, including concrete personal experiences, reflection and generalisations, leading to active experimentation with what has been learned. (Kolb, 1984; Smith and Irby, 1997). Research suggests that learning is most effective when it occurs in the context in which the activity will occur (Godden and Baddeley, 1975).

therefore receiving a videotape which can be viewed and experienced in a home environment may be beneficial to the retention of information.

3.3.3 Social Learning Theory- behavioural approach

Social learning theory (SLT) refers to a class of inter-connected approaches that derives from general psychological learning theory. These approaches are adapted to take into account some of the complexities of human social behaviour. When looking at providing an educational intervention, there may be other factors in play besides the physical acquiring of information and the context in which it is received. The main processes of learning, or behaviour acquisition are *association*, *reinforcement* (reward), *practice* and *imitation*. Individuals also acquire expectancies about the consequences of their actions and about their ability to perform particular tasks or achieve particular goals. These processes may be relevant to individuals who will be carrying out exercises with the instructions that carrying out such exercises will improve their condition (Niemisto, 2003).

The terms *locus of control* and *self-efficacy* are used to refer to people's more general or more specific expectancies about their abilities to control important events or achieve certain goals. *Behavioural efficacy* like perceived behavioural control refers to one's ability to carry out a particular behaviour (Ajzen, 1991). The important assumption in SLT is that these experiences are learned through past successes and failures.

The most common form of intervention based on social learning theory is that of modelling, where a target group is shown an example of desired behaviour to imitate. This theory examines how behaviour modelling, rehearsal and feedback on performance of actual behaviours can be beneficial to the learner. It fits specifically with how videotaped exercises might be assimilated into the individuals understanding and ability to replicate them accurately. The effects of video modelling were shown to have potential benefits for clinical practice in facilitating knowledge acquisition and improving self-care (Krouse, 2001). As the basis for performing the exercises is modelling, this theory underpinned the making of the videotapes used in this study.

The rationale behind using this theory to underpin the beliefs about providing videotapes for patients is that ultimately an individual will choose to engage in a specific behaviour based on his or her belief of competency in performing the behaviour. If an individual is required to perform exercises in between physiotherapy consultation for their therapeutic benefit, they may need support in carrying out this activity. If the individual is not convinced that they are carrying out the exercise properly they may be less motivated to complete the exercise programme. The expectation that such action will have a positive consequence or outcome is called efficacy (Bandura 1997).

When looking at how exercises or instructions might lead individuals reproducing them, Bandura demonstrated that observation of a model (association) leads to formation of an internal neural representation that can be enacted to guide movement production (imitation). Bandura proposed that modelling could profoundly affect the psychological state of the observer. Specifically, modelling has an important role in motivating the performer to practice a modelled activity (the social-cognitive theory of observational learning hypothesis). The ability of the observer to visually monitor performance is viewed as important for allowing the observer to determine whether his or her performance matches that of the model. Imitation would be assumed to be less accurate if the ability to view moving limbs was not possible. This implies that using videotape is superior to static two-dimensional drawings when asking someone to replicate an exercise or action. In viewing two-dimensional material, the observer would have to rely primarily on proprioceptive[1] feedback to monitor performance. In a series of studies in which observers were either able to monitor their movements visually or not able to monitor them, Carroll and Bandura (1982, 1985, 1987) reported that the use of ongoing visual monitoring had a significant positive effect on immediate and long-term accuracy (learning) of motor skills performance. With respect to the use of modelling to teach exercises, if the exercise is performed with the active body parts within the observer's sight, the learner must rely on the proprioceptive information to evaluate accuracy but can revise this on an ongoing basis with reference to the model. Information conveyed via a dynamic modelling more closely matches the conception of the exercise as it should be performed than two-dimensional static modelling, resulting in more accurate memory recall. Weeks et al (2002) also demonstrated that the information value of videotaped images was greater than that of static images resulting in improved functional memory representation.

Bandura (1997) proposed that the ability to learn from a model is also influenced by the complexity of the exercise. In terms of information contained in a demonstration, it might be assumed that a more complex task is composed of more information than a less complex task. This increased information load can stress the observers' ability to pick up and retain the appropriate information in a demonstration. This is important to remember in a clinical environment when instructing patients to perform exercises, for complex exercises, more exposures to a model may be necessary to ensure retention of the information presented in the

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[1] a proprioceptor is a sensory receptor, found chiefly in muscles, tendons, joints, and the inner ear, that detects the motion or position of the body or a limb by responding to stimuli arising within the organism.

demonstration. This also underlines the value of using a tool such as an exercise videotape. Weeks et al (2002) also showed that dynamic modelling is more effective at providing relevant attention focussing information concerning the exercises regardless of complexion.

Bandura (1997) also discussed that learning how to do something correctly and confidently will enhance the motivation to continue or adhere to the task or modelled activity. Individuals may give up quickly when faced with a challenging situation, such as an exercise that may be perceived as complex, however as skills build and the learner gains confidence, commitment to engage in the activity increases. By contrast, individuals who have confidence in their ability to accurately perform modelled activities approach complex activities as challenges rather than activities to be avoided. This link between confidence and adherence will be affected by many factors in a clinical environment, such as level of discomfort, amount of supervision from the therapist and method of instruction. Therefore in video modelling, viewers identify with the models acting in the videotapes and perceive themselves as capable of making decisions and performing specific practices relating to their own care.

3.4 How the videotapes were developed.

The two conditions chosen to be the subject of the videotapes were shoulder and back pain. As previously mentioned, they were chosen for pragmatic reasons, in that they were common conditions, which were routinely treated by physiotherapists in primary care. Audit data showed that they would provide a sufficient sample size for the larger study. In addition they were conditions for which physiotherapists commonly prescribed exercises to be performed between consultations. Exercises were also demonstrated as being beneficial to the recovery of function in these two conditions (Niemisto et al, 2003, Desmeules et al, 2003).

The videotapes were developed according to guidelines suggested by Meade (1996) and a literature search that described the benefits of conveying information to patients through videotape. The initial literature review revealed that not all videotapes are of good quality. In order to maximise their usefulness to the target populations they should be: professionally made, easy to understand and culturally specific – it is better if they are developed with patients and easy to understand with clear instructions (Meade, 1996). The videotapes used in this study were developed by the physiotherapists involved with research. They spent time developing the exercises and shaping the advice which was to be included on the videotapes (Miller et al 2001, *Appendix 1*, including a list of exercises). When consensus was achieved a storyboard was developed and a script formed. Each physiotherapist had the opportunity to be filmed narrating the videotape which was to be used with their patients, so it was personalised. Physiotherapists wore their uniforms on camera to denote the appropriate level of expertise when the advice and instruction was conveyed.

The format of the videotape followed the following sequence: the video was introduced; the advice section followed and then the numbered exercises (sixteen for back pain patients or seventeen for shoulder pain patients) demonstrated by a non-uniformed member of staff. Patients were allocated a prescribed number of exercises by their physiotherapist. The individual who demonstrated the exercises, was an experienced physiotherapist in the department who was not directly involved with the study, this ensured that the exercises were performed accurately. Videotapes were piloted with a number of patients before the final version was completed – patient suggestions were incorporated into the final version.

3.5 Conclusion

The current section briefly explored theories which underpinned the use of videotape to convey information to patients. It was also described with reference to the videotape used in the current study. Social learning theory informed the use of the videotape in this context and provided the most comprehensive theory of how individuals assimilate information and carry out exercises through modelled behaviour. The next section reviews the literature where the use of videotaped advice and instruction is reported in specific studies.

Chapter 4. Literature Review

4.1 Introduction

This chapter will document the approach used to search the literature and provide an overview of the critical literature, which led to the development of the research question. All of the data discussed is quantitative and the chapter will conclude with a discussion of the data in hermeneutic terms and the implications of this. I will also provide the reader with an insight into the key ideas, and strategy that led to the development of the study. The literature search strategy was iterative and literature was also sought during the study period and at write-up.

The main aims of the search were:

- to look at literature involving the use of videotape as a medium of conveying health care information
- to look at outcomes for those who used videotaped advice and instruction
- to enable a picture of the literature to be constructed which would inform development of ideas and support the research question.

4.2 Search Strategy

Although a defined method was used to search the literature, it was also an inductive process and occasionally articles were uncovered "by chance" or through the help of colleagues as well as following lines of enquiry that the literature uncovered.

The literature was searched initially using Medline, CINAHL, EMBASE and PSYCHinfo databases, however as the study progressed a new more comprehensive search package became available through ADITUS, and later ATHENS, which enabled all the relevant health databases to be searched at once. Databases such as the Allied and Complementary Medicines Database, ASSIA for health, BNI plus, CINAHL, EMBASE, HMIC, Medline, PsychINFO, RPS e-PIC and Serfile were searched regularly for new information, using this approach. In addition several journals were regularly viewed, such as *Physiotherapy, Physiotherapy Theory and Practice* and *Qualitative Health Research.* Regular searches were also performed on key author names in the field to highlight any new publications or on authors where there appeared there might be another paper, for example if the study hinted at reporting further data elsewhere.

In addition to the published research there might also be studies that were unpublished, which might be relevant to the study. The grey literature was accessed through the FADE database (FADE, 2001), which provided an overview of conference proceedings and masters and PhDs in University libraries. Also a number of published authors were approached and asked if they knew of any more work in the area of interest.

In the initial stages of the study a number of key words were put together "videotape" "instruction", "exercise" and "health" were taken to search the literature for evidence of studies using videotaped advice and education. Key areas of interest that informed initial searching were "videotape", "instruction/education" and "exercise". These will inform the broad themes of this literature review. The themes were searched as isolated terms and in combination. Limits were set on searches such as the stipulation of "health" and "human subjects" to try and exclude unsuitable studies. Trawling the literature uncovered articles on using videotapes in a number of different ways, from developing them to using them as evaluation tools. Further analysis of the abstracts produced twelve articles where the use of video instruction was researched using patients in health care situations and formed part of a health care intervention. A summary of the articles reviewed can be seen in *Appendix 3.*

4.3 Methodological research characteristics

Several research designs were used to test the utility of videotaped instruction in the studies. Most studies used experimental or quasi-experimental designs and compared two or more groups. The most common experimental design compared traditional patient education practice such as the use of a clinician appointment, brochure or informational booklet, with the use of videotaped instruction. A number of studies were descriptive and surveyed perceptions about the videotape and its helpfulness and some studies used one group pre-test, post test design. Studies were assessed for methodological rigour using the Critical Appraisal Skills Program (CASP) framework (2002, Guyatt *et al,* 1994).

4.4 Sample Characteristics

The participants in the studies included children and adolescents as well as adults. The studies on children used observations as outcome measures. The majority of studies were conducted on adults of both genders. Single genders were used in conditions were the condition studied was specific to them such as pregnancy and prostrate screening. The populations studied varied widely and included healthy volunteers and pseudo patients as well as specific patient groups. Patient groups included those anticipating surgery, those with orthopaedic problems, cancer, gynaecological conditions and dental problems.

4.5 Inclusion criteria

A total of 72 studies were initially identified. Studies were included on the basis that they were published in the English language and evaluated using a videotape to improve individuals' health. Although this seems like a broad criterion, which would be inappropriate in some other contexts, the literature in this sphere was very heterogeneous with respect to the aims and the various interventions and the methods employed to evaluate them. They came from a variety of different disciplines and subsequently had a number of different theoretical underpinnings to their focus and subsequent outcome measures. Studies were included where videotape was relevant to this thesis. In particular videotape studies were discussed where they elicited a behavioural change, performed a functional task, alleviated anxiety, enhanced motivation and worked in partnership with a therapist.

Thirty one papers are presented here, forty-one were excluded on the basis of the published abstracts and/or subsequent review of the whole paper because: the findings did not report results relating to the effectiveness of video in health education; videotape was used as an educational tool for training purposes with clinicians and students; papers concentrated on describing the content of videotapes but not evidence of effectiveness; or they were not used as part of a relevant intervention for instance, subjects might be presented with stimulus material via video as part of an experimental study. A breakdown of the papers reviewed in this literature review can be seen in *Appendix 3*.

4.6 Behaviour change

In certain areas of health, videotape was viewed as being a cost-effective way of eliciting specific behaviour changes in areas where services might be under or over utilised. Areas where national priorities for health have been identified such as cancer, are considered to be domains where giving health information to a large number of individuals is considered desirable. Videotaped information was perceived as a cost effective way of delivering certain key messages and overcame barriers to information delivery such as low literacy. However, Meade et al (1994) reported that an information-giving booklet targeted specifically at low literacy individuals relating to colon cancer was as useful as an information giving videotape. The study looked at three groups – intervention videotape, information booklet and control and assessed their knowledge after viewing/reading. A longer follow-up could have given more information about how individuals retain and adhered to information, however the study only reported the *type* of information videotapes might be good at conveying.

In this case, videotapes were as good as the booklets, but are not a more effective means of conveying information to these groups. This study demonstrated that not all videotapes are good at delivering information.

Although videotape may not necessarily be able to show an increased amount of knowledge, the media of video may be able to convey messages to individuals to change specific behaviours. Leiner (2004) demonstrated in a randomised control trial that messages about polio vaccinations were more effectively delivered by a videotape of animated cartoons than an information booklet, leading to greater uptake of the vaccine. Similarly Volk *et al* (1999) conducted a trial in the US looking at how using a videotape and educational brochure prior to a visit to a family medicine clinic, improved knowledge of prostrate cancer and reduced screening in this population. The benefits of early screening for prostrate screening are not certain and may have some considerable disadvantages (Volk *et al*, 1999). The information videotape was shown to significantly increased knowledge (by 14%) and significantly decreased (by 17%) the desire for screening. This demonstrated that an intervention based on increasing information for people can be useful regardless of whether individuals choose to be screened or not, because it increased the informed nature of the choices they made.

Studies which were reported in journals often focus, as Meade's study did, on individuals with low literacy who were viewed as people who might find it difficult to comply with health promotion messages due to a lack of understanding or engagement with them. Two factors were viewed as defining these groups – education and income. In the US a private health care system exists, so individuals on lower incomes are less likely to have health insurance and therefore might avoid contact with the system. Davis *et al,* 1998 used a videotape to influence uptake of mammography screening amongst low income and poorly educated women in the US. A group of women in the target group worked with researchers to develop the videotape to ensure that it was culturally appropriate and participants were randomly allocated to 3 groups. Group 1 received a personal recommendation from one of the investigators, group 2 received a recommendation and an easy-to-read National Cancer Institute brochure and group 3 received the recommendation, the brochure and a 12 minute culturally appropriate videotape. Six month follow-up showed that group 3 had a significantly greater uptake of mammography (29%) compared with group 1 (21%) and group 2 (18%). At 2 years there were no significant differences between brochure (group 2) and personal recommendation (group 1). However group 3 remained significantly better. This suggested that videotape was useful in conveying information and written materials were not as useful even if they were well presented. The study particularly highlighted the value of patient involvement in the development of the study and also underlined that work in the preparation of materials for distribution to patients was very important. This finding were supported by other work on developing culturally appropriate videotapes by Herek *et al* 1998 and Stevenson *et al* 1994. In this study the videotape was supported by a recommendation and booklet which demonstrates that combined methods of imparting information are also valuable.

Further work carried out by Pignone *et* al 2000 demonstrated that colon cancer screening could be increased by a videotape. Patients were randomised and one group received an information brochure and the other an information brochure and a videotape. Immediately after watching a videotape, the intervention group were significantly more likely to express a preference for undergoing one of the screening tests. They were also more likely to discuss the decision with others. An indication of intent was added to the notes of the intervention group. After 6 months, both groups had requested screening tests but the number of individuals who had requested a test in the videotape group was 14.2% higher than the control group. Meade et al (1994) found that although a videotape produced increased interest in screening and increased intent to be screened, this had no significant effect on the amount of screening tests ordered or performed. In this study (Pignone *et al*), the videotape may not have produced a significant effect on its own, but with the brochure and with an indication of intent attached to the notes, the effect was far greater. The control group also displayed more of an increase than might be expected which suggested a more informed group can increase the uptake of screening in those who expressed an intention, but make little difference to those who expressed no desire for screening after presentation of the information.

Using the videotape as part of a supportive package was demonstrated through Scott et al's study (2001). They conducted a controlled trial, to look at the effects of a parenting programme on anti-social behaviour in children, in disadvantaged groups. Parents of children referred from adolescent mental health services, aged two to eight years were allocated to parenting groups or waiting list control. The children themselves did not take part in the study, only their parents. A key part of the eight parenting workshops was the use of the Webster-Stratton basic videotape programme to depict "right" and "wrong" ways of handling children. Participants viewed these as a group and discussed their own child's behaviour in the group with feedback and support from therapists. Outcome measures were behaviour feedback on their children through semi-structured interview and anti-social behaviour questionnaire. After five to seven months, the intervention group were shown to have significant improvement over the control group, although these children were still above average in anti social behaviour. Parents in the intervention group displayed greater positive parenting and increased the proportion of praise to ineffective commands they gave their children threefold, while parents in the control group reduced it by a third.

In these cases the use of videotape was central to the study as a catalyst for gauging interest and discussion with individuals from socially and economically deprived areas. A number of other issues also arose from this study, such as the importance of the group setting and group dynamics which supported adherence and support from therapists who led the groups. These studies demonstrated that in order for a videotape to exert an influence over behaviour, it should not be given as a stand alone intervention, but supported by an element of user involvement in its development and support from a therapist and/or other information booklets was desirable.

4.7 Performing tasks

In Chapter 3 some of the theoretical aspects of how videotape can support individuals modelling actions were discussed. In certain areas of health using a videotape in this way could offer distinct advantages to supporting patients. In some health care settings, instructions may be so technically complex that they are beyond the capacity of most patients to retain in sufficient detail to put into practice (Rastall et al, 1999). Research evidence indicated that the setting of the consultation and the patient's unwillingness to appear 'stupid' means that individuals leave the consultation without a cohesive understanding of what is involved (Tod et al, 2001; Gardner and Chapple, 1999). Therefore researchers should also consider confidence, perceived usefulness and motivation of the targeted population in completing a task.

Videotapes developed for individuals to demonstrate how to carry out a particular task were focussed at specific populations who may already be motivated to imitate that behaviour. Janda et al (2002) demonstrated in a randomised trial that a videotape could teach women skills in breast self-examination which could lead to more regular examinations. The videotape contained information on cancer incidence, possibilities of early detection, and the benefits of self examination and how to perform the examination. It was viewed while the women were in a hospital awaiting an appointment. Video groups and non-video groups were compared and no additional training was given. The study showed that women who had viewed the videotape examined their breasts significantly more than those who did not (8 times per year on average versus 6 times per year).

The study also showed greater effects of increase in examination in the control group than might normally be expected at follow-up and all groups were self examining on an ad hoc basis, so they were aware of its benefits. This may be due to the Hawthorne effect which arose because they took part in the study and therefore were primed more than other members of the population. There was no significant difference in the confidence of either group in completing a breast examination. Therefore although the videotape was useful, it was clear that the group of individuals were motivated and confident and within a motivated population a videotape could increase the breast self-examination rate. Similarly, Jorgensen *et al* (1998) demonstrated that showing an educational videotape to skiers before the started their skiing holiday significantly reduced the number of injuries and significantly improved the number of behavioural activities of testing ski bindings and other safety tips as suggested on the videotape. Although individuals were not randomised the study – they were assigned intervention or control status according to which coach they were travelling on. The study showed they were motivated by the desire to reduce injury in their activities.

Information which relates to the actual performance of tasks and assesses how well these are carried out is important in providing evidence of the effects of the usefulness of videotape. Weeks *et al*, (2002) developed a study to examine these factors. The team compared a dynamic modelling group using videotape versus a static modelling group using illustrations to examine the effects of these two approaches on quality of performance, motivation and confidence of individuals. Participants were tested 24 hours after they had viewed exercises in the two different formats. The videotape group outperformed the static-modelling group in terms of quality of performance, using the correct posture. The study also found that the videotape group was more motivated to perform exercises in a home environment and more confident in the correctness of the exercises. In addition a gender effect was also identified with females scoring higher on exercise acquisition than males. Carpenter *et al* (1994) also identified such an effect in their study on anxiety with men showing greater decreases in anxiety following watching a videotape.

Participants in the Weeks *et al* study were young, healthy volunteers, with uniformly correct postures and had no vested interests in performing the exercises correctly. This study underlines how motivation to carry out the exercises or continue behaviour in a home environment could be facilitated by a videotape. The study also demonstrates that using videotape is a useful means of transferring exercise skills to individuals (especially for females who performed better as a subgroup) and in motivating and giving confidence to videotape users.

The Weeks *et al,* (2002) study which took place in laboratory conditions with healthy volunteers, underlined the fact that studies should be designed to be tested in realistic settings with patients who are routinely seen by therapists before conclusive judgements are made about generalisability. Miller *et al*, (2004) aimed to test whether there were any clinical changes or changes in well being in physiotherapy patients who were given videotaped exercises for shoulder and low back pain. This population was considered to be one which was motivated to follow-advice and instruction to alleviate the symptoms of their condition. Control groups were taught exercises face-to-face by their physiotherapists as they would usually deliver exercises. The randomised control trial showed no significant differences between the groups, although there was evidence that the back pain videotape group demonstrated some significant improvements in well-being shown in two dimensions of the SF-36 questionnaire. Evidence here suggests that videotape was as good as and in some cases superior to face-to-face instruction. In the Weeks *et al* study videotape was compared with a static modelling system and was shown to be superior, whereas in the Miller *et al* study two methods of dynamic modelling were compared.

Using videotape to enhance the outcomes in patients in an applied setting can demonstrate how theory can be applied to practice. Lin *et al* (1997) supported the idea of individuals being motivated to perform exercises. In their study, a non randomised controlled trial, they looked at pre and post operative education for patients undergoing surgery for total knee anthroplasty. Patients in the experimental group were shown a videotaped version of an instruction booklet in addition to receiving the booklet. The booklet contained a description of the surgical procedure and some information about the operation and post operative behaviour and exercises needed to make a good recovery. The study sample showed that the group who had viewed the videotape to reinforce their learning, were more regular and accurate in performing their exercises and more knowledgeable about their condition than the control group who had received only the booklet. The experimental group also had better flexion in their knees. This study as with the Weeks *et al* study, shows that better information led to more knowledge and therefore more motivation to comply with exercises. The authors of the study point out that there were a number of limits to generalisability in this study, which include the convenience sample, the lack of randomisation and the restriction of patients to one medical centre. However, in contextualising the study with the Weeks *et al* study who have compared static modelling with dynamic modelling, the findings are in agreement. However this study also adds to how a videotape might improve or reinforce information medical treatment. The videotape acted as reinforcement to the booklet (or vica versa) which in turn led to more knowledge by the recipients. It is important to note that as with previous studies which have been discussed the videotape is used in partnership with another information giving medium.

A study which looked at comparing a static modelling system with a dynamic modelling system, with the aim of improving oral health was designed by Addy et al (1999). The study looked at the efficacy of a short videotape in giving participants instructions in using an electric tooth brush. A cross-over design was used to increase the power of the study so that each group acted as its own control. The control group were left using the tooth brush instructions alone for the first part of the trial. Those receiving the videotape achieved more efficient brushing or made significant increases in brushing ability which led researchers to conclude that it was an efficient means of passing on instruction and achieving greater oral hygiene than written instructions. To shed further light on what influence different types of information giving have on patients behaviour and ability to retain information, a group of Dutch researchers (van der Palen *et al*, 1997) examined how adults with chronic obstructive pulmonary disease (COPD) responded to different types of instruction regarding inhaling medication. Patients were either assigned to the control group; personalised instruction; videotaped instruction at home; and group instruction. At baseline, all patients were assessed and provided with a copy of a checklist of actions to adhere to when using their inhaler. Results showed that using videotapes or group instruction may be a cost effective ways of ensuring COPD patients get the most out of their inhaled medication, as incorrect use can compromise lung function and cause further medical complications. Superior results were found after 9 months in the group instruction and the video group compared with personal instructions. Reasons for this were hypothesised to be related to modelling – where the two groups had had the chance to see the correct behaviour modelled several times in both scenarios. The beneficial effect of group support was also noted by Scott *et al* 2001. One of the key advantages of this study is that it provided a longer term follow-up period (9 months) than most studies. This reliably demonstrated that the effects of education and instruction can last over a reasonable period of time. Interestingly, personal instruction did not have a significant effect on improving the use of medication.

4.8 Anxiety

Some studies have indicated that good communication with patients leads to enhanced outcomes such as greater patient satisfaction (Waitzkin, 1984), improved adherence to medical regimes (Sanson-Fisher *et al*, 1989) and a good response to the treatment of chronic illness (Bartlett *et al*, 1984). Other studies have documented that lack of communication with patients increases patients health care costs (Leppik, 1990) and gives patients additional fear and unnecessary pain and anxiety about their conditions (Frith, 1991).

In considering how a videotape might help alleviate anxiety, Done and Lee (1998), in a prospective randomised, single-blind trial, looked at whether a videotape conveyed useful pre-anaesthetic information to patients. Results showed that a video intervention was effective in increasing patient's general knowledge about anaesthesia, but anxiety levels were unchanged. Those with chronic anxiety also recalled less information, in both intervention and control groups which may lead us to conclude that the timing of giving the information (perhaps not just before a procedure at the hospital) is imperative. The setting where the videotape is viewed may also have an impact on its effect on patients and how much information they take in. By the time patients get to hospital they may already be anxious. Reproducing this study in a home setting might address differences in information recall and anxiety levels of chronically anxious patients. By the time they get to hospital, they may be too anxious for the videotape to have the best effect.

The issue of the medical environment is further illuminated by Roth-Isigkeit *et al* (2002) who evaluated the effects of a preparatory videotape on men prior to cardiac surgery. One group saw a video of hospital-related information, while the other saw a videotape of specific surgery related information including a "role-model" relating his experiences of having undergone surgery. Venous blood was sampled to examine levels of stress hormones, before and 15 minutes after viewing the videotapes. A post-operative follow-up questionnaire was also administered to participants on their experiences of seeing the videotape. The group watching the *non-surgery* specific information showed a decrease in stress levels after viewing, whereas there was no significant difference in the other group's stress levels. This shows that specific information may not necessarily have beneficial effects in decreasing stress on those waiting for surgery, however non-specific information about the hospital had a calming effect. The beneficial impact of the hospital information suggests that becoming familiar with the environment where the surgery is going to take place is also important for decreasing anxiety.

If a videotape is to be useful to patients, it is important to establish whether there are situations where it might give too much information which might be distressing for patients. Karl *et al* 1990 provided some evidence confirming how giving information may also increase anxiety. Parents of children who were to undergo surgery were given a videotape which was developed to give information about the anaesthesia procedure. Anxiety increased where it had previously not existed, in particular in parents whose children had already undergone previous surgical procedures. This study was not rigorous enough in its design to make definite conclusions, but when placed with literature in this area, it supported other work in the field such as Done and Lee (1998). This begs the question "how much information is optimal for patients and also whether parental anxiety might have a negative or positive effect on their children's outcomes?" It also allows us to ask questions about ethics in giving information in these situations.

As well as a number of studies which looked specifically at pre-operative anxiety the videotape might also have specific effects on postoperative behaviour. Research has demonstrated that the benefits of improved communication have led to improved adherence and patient satisfaction (Sanson-Fisher *et al,* 1989). Videotape may be able to play and active role in a number of different situations. Kulik and Mahler (1987) showed that less anxious patients were more mobile postoperatively and were discharged from hospital sooner after coronary artery surgery. High anxiety negatively influenced working memory capability, which may be detrimental to additional information giving prior and after surgery (Sorg and Whitney, 1992). A number of studies demonstrated that a videotape might be a good way of alleviating anxiety in hospital settings and also support anxious patients. Bondy *et al*, (1999) answers some of these questions in a study which gave out information up to three weeks prior to surgery. The study showed a statistically significant difference in pre-operative anxiety (using the State-trait anxiety questionnaire) in participants receiving a videotape and pamphlet for hip or knee anthroplasty compared to the "usual care" group. The study offered strong evidence of the use of videotapes in partnership with pamphlets as an information giving tool prior to surgery. In a series of detailed structured questions about their experiences of using the videotape and pamphlets prior to their surgery, positive responses were received from patients. Amongst the positive responses received were: satisfaction in receiving information in this way, the influence of the information in making decisions on anaesthesia and how the information decreased their anxiety. Nearly half of the participants also shared video information with another person close to them. This important aspect of allowing patients to view videotapes in their home environment was also echoed by the findings of Kalichman *et al* 1993 and Browner *et al* 1996. Discussing treatment options with others was also important and will be discussed later.

A Chinese study carried out by Callaghan et al (1998) shed more light on using videotapes and compared videotapes and specific pamphlets to convey pre-operative information for men due to undergo transurethral resection. In a non-randomised controlled study the authors compared an intervention group - specific information pamphlet and preoperative counselling videotape with a control - preoperative counselling videotape. Outcome measures used were the Chinese State Trait Anxiety questionnaire, the Patient Satisfaction Questionnaire and demand for analgesia. The study showed that the experimental groups had significantly higher levels of satisfaction and significantly lower levels of post-operative anxiety. This demonstrated that the effects of videotape were enhanced when used with another method of communication and may also be beneficial in other cultures. Luck et al (1999) also used videotape with the specific aim of changing precolonoscopy anxiety. Patients were randomly assigned to a videotape and leaflet intervention group or a leaflet group and outcome measures showed that the video intervention group were significantly less anxious and scored significantly more highly on a knowledge scale. However another researcher Leydon (2000) commented that the Luck study adopted a reductionist psychological focus and more attempts should be made:

> "to represent and understand the relationship between the psychological and the physical."

Her comments were relevant to many of the quantitative studies in this review that looked at evaluating the use of videotape and suggested that more explanation behind the reasons for certain responses and behaviours to videotape needs to be investigated

Studies which looked at anxiety in patients related to a specific surgical procedure which might induce some anxiety in those waiting to undergo it. There might also be situations where treatment in primary care might induce anxiety or distress such as patients who require normal dental treatment. The need to assess the level for information giving has been discussed earlier, as has the potential to cause distress if the information levels given are too specific or not given at an inappropriate time (Roth-Isigkeit *et* al, (2002) and Done and Lee (1998). Carpenter et al (1994), in a dental anxiety study, non-randomly assigned participants to 3 groups, a behavioural videotape, a placebo videotape and control of usual care. Groups were analysed for gender effects and information needs. Gender effects will be discussed later in the review. Those patients who had a high desire for information scored significantly higher than those individuals who had low information needs regardless of which group they were in. However individuals also responded well to the information with regards to it decreasing anxiety. Those who had low information needs did not respond as well to the videotape in terms of anxiety lowering. Patients in the treatment group also indicated that they would like to view their videotape again before treatment, which shows that it might be useful to give to patients directly before their dental treatment rather than to view at home. This finding contradicts earlier findings which suggest that information given in a hospital setting may increase anxiety rather than decreasing it. However in this primary care setting, patients are having routine dental treatment rather than a specific surgical procedure.

4.9 Age and gender issues

In deciding about the usefulness and appropriateness of using a videotape, it is important to consider the population and their information needs. A number of the studies reviewed in this chapter indicated that there may be differences in how individuals of different genders and ages utilised and absorbed the information given to them. When considering using videotape it is important to note these differences. When studying dental patients attending for a routine appointment, Robertson *et al* (1991) demonstrated that there may be gender differences in the information that is required to reduce anxiety before undergoing dental treatment. Their participants were randomised to 3 groups, an informative video group, a placebo video group and a no treatment control group. Intervention videotapes contained specific information on procedure, anaesthesia and coping techniques, breathing and restoration skills and control videos contained non specific information about dentists training, the setting, dental fear and anxiety and the dental process. Overall individuals rated the treatment video as being more helpful, however, women's heart-rates in the placebo video group were significantly lowered than the other two groups, compared to men's who were significantly lowered by the treatment video group. These findings suggested that the act of watching a non specific dental videotape before their appointment was as good as seeing specific information about what to expect in the consultation for women. However, the nature of the material invited different physiological responses. Another study conducted by Carpenter et al (1994) in a related study, looked at patients submitting for normal dental treatment. The study design non-randomly assigned participants to 3 groups. Gender differences were evident - men in the treatment groups showed significantly greater anxiety decreases in response to the videotape, while women again responded significantly better to the placebo videotape in terms of their anxiety measured on a dental anxiety scale. The researchers suggested that genders may have different coping strategies and styles and the placebo videotape supplied a setting of the social context that the treatment may occur, while the treatment videotape presents information seeking and direct action coping skills as a means of managing anxiety. These studies also highlighted cultural differences which influenced how individuals respond to a videotape (Stevenson *et al,* 1995) may also need to be applied to gender. In both of the dental studies the treatment video featured a man, which could have influenced how the different genders responded to it. However in these two studies it seems that the videotapes are similar in that they both talk about the dental environment. Therefore the studies do not allow us to confidently determine what aspect of the videotape was beneficial for the different groups. The gender effect was not only reported in dental studies. Weeks et al, 2002 demonstrated females scoring higher on early exercise acquisition from videotapes than males. However males exhibited more confidence in performance, whether they were accurate or not, thereby reducing the possibility that they would self-evaluate their performance prior to subsequent trials. The study suggested that using videotape is a useful means of transferring accurate exercise skills to individuals, especially for females. The possibility of gender differences has been raised in these studies, but the numbers supporting them are very small – further evidence is needed to provide conclusive evidence.

Few studies looked at how age influenced how well videotapes conveyed information to recipients. This review did uncover evidence that suggested videotape was not suitable for passing information to older people (over 75 years), and the evidence was more supportive for use by younger children with additional one-to-one support. The possible effect on the age of the participant was outlined by Brown et al (1999). The team conducted a randomised controlled trial on participants over 75 years old, which looked at increasing the use of advanced medical directives (these are instructions to medical staff on how to proceed in the event that the person is unable to give these instructions for example if they are unconscious. They may for example choose not to be rescussitated in certain cercumstances). The study compared the use of a videotape and an information leaflet to increase the use of advanced medical directives in older people with an information leaflet alone. The amount of use of medical directives increased by the same amount in both groups indicating that videotape did not influence the number of people placing an advanced directive in a medical record. The researchers also noted that only a third of patients viewed the videotapes which might reflect that individuals did not wish to view the videotape and might not be ready to think about this type of information. Also sensitive information of this nature may not suitable to be conveyed by videotape. The study indicated that it is as useful to just give the information leaflet. This showed that it more useful for over 75's to have written material for this type of information. The fact that so few viewed the tape, indicated that they may not have been comfortable using videotape or they may not have been comfortable with the material. It was not possible to determine this from the study.

Another study looked at conveying information to children. Agertoft and Pedersen (1998) suggested that using videotape is not a suitable way of passing on skills to young children. They reported that using videotaped instruction and individual instruction in children aged 3,4,and 5 years with bronchial asthma without additional home tuition was insufficient to ensure the correct use of a Turbuhaler. It was concluded that the videotape and individual instruction was best used in association with home training in 4 and 5 year olds, however the youngest age group (three year olds) could not use it effectively even with additional training, due to the lack of motor and cognitive skills. This study underlined the importance of how in certain situations it may be important to supplement videotape with another form of information such as professional support and is in some cases inappropriate. In the case of young children, this study indicated that this support should come face-to-face from a professional. The benefit of additional therapist support is also highlighted in section 3.11.

4.10 Sharing issues with family and friends

In reviewing papers it is evident that along with a straightforward account of whether an intervention is efficient or not, there arose a number of interesting results that merited reporting. One of these was the ability of a videotape to stimulate debate and sharing with other family members and friends. In studies where this was reported, it was usually elicited from semi-structured questionnaire or comments which were noted by the researchers and deemed worthy of reporting with the trial. Some studies also built a group element into their trials. Other research showed the value of the family and sharing information regarding health (Miller and Timson, 2004; Cohen and Willis, 1993), which acted as buffers against stress. When an individual presents to a clinician as a patient, they should not be viewed as an isolated "case", but as an individual who is placed within a social and environmental context. Sharing information with family members and friends is beneficial to individuals' well-being and viewing a videotape in a normal home context may enhance satisfaction with information received. A number of studies where debate in groups accompanied a videotape (Scott et al, 2001, van der Palen *et al* 1997) also showed enhanced effects. Bondy *et al*, (1999) showed a statistically significant difference in pre-operative anxiety (using the State-trait anxiety questionnaire) in participants receiving a videotape and pamphlet for hip or knee anthroplasty. Positive responses related to satisfaction in receiving information using videotape which also allowed them to make decisions on anaesthesia with those close to them. The way the information was given and the opportunity to discuss it with others reduced their anxiety. Nearly half of the participants shared video information with another person close to them. Lisko, 1995 in a small study indicated that it was useful for partners of patients to view videotapes which gave instructions about post-operative home-care, as they played a formative role in encouraging their partner.

The influence of enhanced discussion with friends and family is not formally evaluated in any of the trials, so there is no conclusive evidence that these discussions enhance the role of the videotape or formal measurement of what precise effect they have. Large studies that have specifically measured discussion in home environments also support this. The randomised controlled trial reported by Pignone *et al* (2000) looked at whether a relevant informative videotape could improve the uptake of colon cancer screening. As well as improving screening, the intervention videotape group was significantly more likely to express a preference for undergoing one of the screening tests and to discuss it with others. Browner *et al* (1996) evaluated patient information for pregnant women on the alpha feto-protein (AFP) screening test for foetal abnormalities. Two non randomised groups are compared – videotaped advice and booklet versus a booklet group - videotapes were viewed at home. Participants in a semi-structured questionnaire showed that the videotape group were thinking "a lot" more before deciding to take the test, discussing their decisions with others and discussing their test results more. Schapira *et al*, (1997) explored how videotape might aid decision-making for patients with prostrate cancer. This study used pseudo-patients and demonstrated that viewing the videotape enhanced the participant's motivation to engage in a shared decision-making process – that is not leaving decisions up to the physician, involving family members, and seeking more information themselves. This demonstrated the added value of using techniques to stimulating debate and interest of others for individuals when making important decisions about health.

Scott *et al* 2001 demonstrated that videotape was also a successful way of gauging interest and discussion with individuals from socially and economically deprived areas who attended parenting classes for their behaviourally challenged children. These therapist supported groups which centred around a videotape led to more favourable outcomes (also discussed in *sections 4.6* and *4.11*) in positive parenting. It should be noted that many of the studies discussed in this section did not formally evaluate these effects, but thought them to be of significant relevance to report alongside their trial results. In collating these results they form a substantial body of evidence which merits further investigation.

4.11 Working with the therapist

As well as the importance of discussing health concerns with friends and family, the role of the therapist played an important role in the treatment process. When an individual presents to a health service, it is important that communication between therapist and patient is good, to enhance patient outcomes and satisfaction (Waitzkin, 1984). Studies in this review have also indicated superior outcomes for videotape when supported by a professional (Scott et al, 2001, Davis *et al* 1998, van der Palen, 1998). A study by Caulderfield et al (1998) indicated that in certain situations peer support was more valuable than videotape. The study looked at initiating and sustaining breast feeding for 7-10 days and underlined that in trying to demonstrate behavioural change, many factors which interfere with sustaining behaviour must be considered. A videotape was not sufficient to support individuals in this study and other factors may exert strong influences such as the perception of others in society on behaviour and attitudes of hospital staff.

Hui *et al* 2000 also demonstrated the value of support from therapists. They looked at using a videotape as part of a programme to enhance compliance and outcome in positive airway pressure education in Chinese patients with sleep apnea. The randomised trial compared usual basic support with enhanced support. The enhanced support included more education and nurse support as well as the videotape. The study concluded that enhanced support did not increase compliance, but enhanced quality of life during the reinforced period. A confounding factor in this study was the fact that patients had to rent or buy their own equipment which may have influenced their compliance. It is difficult to say whether this positive effect may be due to enhanced attention from health professionals in addition to the videotape, but it underlines the importance of looking at psychosocial variables such as quality of life as well as physical outcome measures and those of memory retention.

A study which looked at how informed decision making can be assisted by supporting patients with a videotape was conducted by Onel *et al*, 1998. The team looked at shared decision making in a group of patients with newly diagnosed prostrate cancer. The videotape was designed to be viewed at home and evaluated to examine its usefulness as a tool to help patients with treatment decisions. The study design was not randomised and patients were asked to complete a questionnaire relating to their assessment of the impact of the videotape. Most patients felt that after watching the videotape, their understanding had increased and they were very happy with their treatment choices. Notably, although the videotape increased understanding, understanding was increased even more after the visit to the doctor. This underlined the role of the therapist as being important in complementing existing information gathering and it supported the conclusions of other studies, which show that videotape is a good informative tool and used in partnership with support from clinical staff its potential is enhanced. Scott et al (2001) showed that a videotape in partnership with feedback and support from therapists and a group allowed parents to significantly improve positive communication with their behaviourally challenged children over the control group. The results from this follow-up are encouraging and positive gains were demonstrated over nine months. The group setting and dynamics may have influenced the adherence and the feedback as well as the input from the therapists, however the videotape was the core component in delivering the parents training and as such is a useful tool.

Studies looked at the benefits of training, using video for transferring CPR skills to parents of children who are at risk of sudden cardiopulmonary arrest (Dracup *et al*, 1998) and medical students (Todd *et al*, 1998). Both studies used randomised controlled trial designs. Todd *et al* concluded that the video group learned less well than the instructor and video class. The instructor and video class with social support provided afterwards had the best results (Dracup *et al*); however it might only be necessary to provide support to a small number of individuals in this way, because the other methods had adequate outcomes. The main predictors of poorer learning were fewer years' education, lower income, a better psychosocial adjustment to their child's illness and no previous experience of CPR. This showed that using videotape as a means of passing on information may be an adequate learning aid for some people, but others may need to have support in addition to the videotape. Individuals had different learning strategies in order to be able to complete tasks successfully along with their motivation to learn. A videotape with an instructor to give feedback was most successful in these studies.

4.12 Motivation, compliance and self management

The importance of motivation and compliance with a health professional and the advice and instruction they gave was highlighted elsewhere in this review. Studies demonstrated that interventions which motivate individuals led to greater confidence and improved health outcomes. However there is no clear evidence about the ability of individuals to self manage conditions based in the longer term on enhanced support of interventions although there is information which suggests that quality of life might be improved (Hui *et al*, 2000). Schapira *et al,* 1997 showed that a videotape enhanced individuals' motivation to become engaged in a shared decision-making process with health professionals, with regards to a diagnosis of prostrate cancer. Research teams have also considered using videotape as a means of helping consent participants into trials. Weston et al (1997) randomised groups of women who they wanted to recruit into a perinatal trial, to a video and written information group and a written information group. This study, looked at retention of information over a period of two to four weeks. Key outcome measures were the women's willingness to participate in the trial and views that it was a worthwhile study, knowledge of pre-labour rupture of membranes, the study protocol and risks and benefits with their options for care. It was found that women in the videotape group retained more information and were more willing to participate in the trial. However, after a two-week period, they were less keen to take part in the trial and the difference between the groups lost significance. This gives us ambiguous information about the merits of passing information in this way. However, this study used *pseudo*-patients (as with the Schapiro *et al* 1997 trial) and recruited patients from very distinct educational and social groups (professional, middle class). Therefore, results from this study might not be generalisable across culturally, educationally and socially different groups.

A study which also contradicted the ability of motivation and compliance to produce enhanced patient outcomes is demonstrated by Hui *et al* 2000, who looked at using a videotape as part of a programme to enhance compliance and outcome in positive airway pressure education in Chinese patients with sleep apnea. Enhanced support included more education and nurse support as well as the videotape and the study concluded that enhanced support does not increase compliance, but enhances quality of life during the reinforced period. This is interesting when considering the possible benefits on health that enhanced quality of life might bring. This study underlined the importance of looking at psychosocial variables such as quality of life as well as physical outcome measures and those of memory retention; however it also demonstrated the positive benefits of increased attention. Studies carried out in the field of cancer have also highlighted the effect of psychosocial benefits for patients involved in cancer trials which appear to emanate from increased attention from trials nurses (Wright *et al* 2004).

This idea of a videotape allowing recipients to feel that they were experiencing enhanced attention was supported by Holzheimer *et al*, (1998). They found that asthmatic children (2-5 years) gained greater benefits in terms of knowledge, compliance and health from an educational intervention which included a specifically made informative asthma management booklet and videotape. Three intervention groups (video and book; video and control book; control video and book) were compared with a control group (control video and control book). Significant differences are found in all three intervention groups compared to the control group relating to knowledge. There was no difference between using videotapes and books alone and the effect of using both enhanced the positive effects. There were also improvements in compliance with management of the condition including less wheezes and coughs being reported and less seeking medical advice in children in the intervention groups reported in diary information kept by parents. However a significant difference is only found in the latter between the control group and the book and videotape group. The evidence here indicated as we have seen before that other communicative materials such as a book enhanced the effects of videotape.

Weeks *et al*, 2002 examined the effects of dynamic modelling through a videotape on quality of performance, motivation and confidence of individuals. Participants were tested 24 hours after they had viewed exercises in two different formats, (dynamic on videotape and static on paper). The videotape group outperformed the static-modelling group in terms of quality of performance, using the correct posture. In addition the videotape group was more motivated to perform exercises in a home environment and more confident in the correctness of the exercises. This study underlined the importance of motivation to carry out the exercises or continue behaviour in a home environment. The study suggested that using videotape was a useful means of motivating and giving confidence to videotape users, although it should be tested out in realistic settings with patients before conclusive judgements are made. The issue of adherence to a home exercise regime and self treatment has not been previously evaluated and is something that should be further addressed in the future. Lin *et al* (1997) demonstrated that a group who had viewed the videotape to reinforce learning, were more regular and accurate in performing their exercises for post operative care in total knee anthroplasty, and more knowledgeable about their condition than the control group who had received only the booklet. The experimental group were also shown to have better flexion in their knees, which provides evidence for the enhanced ability of videotape to support self care and showed that specific post-operative exercises shown in this way had a positive benefit for patients in regaining function. This study as with the Weeks *et al* study, showed that enhanced information through a variety of media leads to more knowledge and therefore more motivation to comply with exercises as well a greater quality of life.

4.13 Discussion of the review.

Studies showed an emphasis on using video to increase knowledge rather than effect improved self-management. Despite the fact that some established scales are available to assess knowledge, studies in this area tend to rely on development of ad hoc measures to suit their own purposes. This meant that it is not possible to compare video studies with interventions using other media. However the review has shown that although most studies rely on measuring an increase in knowledge, some have measured how gains in knowledge translated into more practical self-care skills.

Many studies in this review were carried out in the United States, where the use of videotaped advice and instruction appears to be more prevalent. However, there were also a number of studies which looked at Asian and European populations which implied that the use of videotape is transferable to other cultures. This review provides strong evidence that videotapes are effective in passing on health messages to populations. However, the review also draws attention to situations where a videotape was not an appropriate or timely intervention. Some studies which looked at patient information giving prior to surgery showed that giving them information in this format made patients more anxious and therefore had a negative effect. Studies which showed patients receiving information of this nature at home rather than directly before surgery, showed patients responding more positively to information having had a chance to digest it in a familiar environment.

The importance of the quality of videotape and other patient information is outlined in some of the studies reviewed. A study by Smith and Cason (1998) indicated the fact that videotapes are not always suitable because they are poorly made. Patient videotapes on cardiac catheterisation using the suitability assessment materials instrument were reviewed. The instrument looks at three main dimensions, content, literacy demand and learning. Each component of the domains are scored and rated as superior, adequate or not suitable and of three patient videotapes, only one scored *adequately* on all three criteria with the other two scoring below 40%, deeming them unsuitable for patient use. These criteria should also be acknowledged in the making of the videotape to ensure appropriateness. Where health care procedures require patients to have an increased knowledge of procedures, the materials provided to facilitate this should be appropriate and effective.

The videotape offered opportunities for discussion and contemplation outside the health care environment (hospital or clinic) and allows significant others and family members to engage with health care information. This support is mentioned in a number of studies, but has not been formally evaluated with regards to videotape. This issue arose in a number of studies and was highlighted as something which was beneficial to considering treatment options in particular. It would be interesting to explore the influence of the family further, especially when using videotape with children, where parental attitude and behaviour are acknowledged as being critical (Eiser *et al*, 1996). The videotape was also a good vehicle for allowing individuals the opportunity to be proactive in their illness – to inform others and also seek further information or make more informed decisions about their healthcare– this could go some way to empowering and motivating patients and helping them to become partners in health-care decisions.

Despite strong evidence to support the use of videotapes in imparting health information and eliciting positive effects on patients, few studies looked at the longer term effects of videotaped advice and instruction. This highlighted the mismatch between knowing about something and actually translating that into a change in behaviour or a sustained activity. In some cases where videotape was given in an acute setting for example, it was not appropriate to look at long term follow-up, however there were also many studies where it would have been appropriate such as those looking at screening uptake and behaviour modelling. Those studies which did do a follow-up reported positive findings with respect to the videotape. In light of the little evidence to support longer-term follow-up, findings should be treated with caution.

Another area where studies opened up the possibilities of gaps for future research was in the amount of information need in patients. There were clear differences in the response of individuals who had high information needs and those who had low needs. For those who had high information needs, the fact that these were satisfied could lead to a significant reduction in stress related behavioural factors such as raised blood pressure and heart rate. This area also opened up the possibility that that there may be gender differences in how information from the videotape is assimilated and utilised, however there was no conclusive evidence for this and further work could be carried out in this area.

The review also showed that there were few studies which looked at the effect of the videotape alone and where they did they were sometimes shown to be inferior to having a videotape in addition to something else (usually an information booklet, but sometimes a therapist or group). It can therefore be concluded that the videotape may be used in partnership with another intervention. The strength of evidence supporting therapists as an enhancing factor is reliable and many interventions in health-care work in partnership with patients so it is unlikely that they would be given videotape alone without any "back-up" by health care staff.

One of the weaknesses of the body of evidence of videotaped instruction in health care environments is the lack of qualitative research in the area. All the studies in this review rely on quantitative outcome measures to support their conclusion. Most of the studies are randomised control trials which support key questions which therapists want to ask about whether an intervention "works" or not, however few of the "why" and "how" questions are answered. Why might there be gender differences? Why might there be an influence of friend or family? Why are videotapes not effective in certain situations? How does a videotape enhance a therapeutic regime?

This study attempts to address the gap in the literature where a qualitative study could play a role in evaluating the role of videotaped advice and instruction in the individuals' experience of an illness. This study was designed to complement a randomised control trial (Miller *et al*, 2004, *Appendix 2*) used in the field of physiotherapy to support patients in a therapeutic regime in partnership with the therapist.

4.14 Hermeneutic comment.

Hermeneutics is the tradition of looking at a phenomenon, a single kind of human experience (Schwandt, 1994). It asks particular kinds of questions relating to perceptions and lived experiences and how people interpret these experiences and give them meaning (Cohen et al, 2000:46) as someone who is *being-in-the-world*. Heidegger discussed how the fusion between the nature of the world we live in and our experiences past, present and future creates a state of Being (Heidegger, 1962).

That is, what it means to be a human experiencing the world in a particular place at a particular time, that is, our essence. Our experiences occur without prior reflection and distinction being made between subject and object – they flow into one transcending the distinction between subject and object. These guiding principles allow me to examine the studies in the literature review in a hermeneutic way.

The studies failed to deliver an accurate scientific account of how videotape influenced individuals, for a number of reasons and one was the separation of the videotape and the patient as subject and object. The effects of viewing the videotape *on* the individual rather than looking at the interaction between the two were not investigated and this is a contributing factor to the data being open to criticism. The use of a therapeutic tool such as something which is required to produce a behavioural response is subject to many other factors which cannot possibly be controlled for an a quantitative study. In order to do a full evaluation of the effects of a videotape the effects of the individuals *being-in the world* and *Being* should be examined as well as the effects of gaining knowledge such as many seemed to use as a proxy for behaviour.

It is important to note that the studies under scrutiny in this review, do give us some information about certain aspects of using the videotape, but can only be viewed as a small part of the picture. The hermeneutic philosophy does not believe that the "whole picture" can ever be achieved as the effects of time and the interpretation of others, inevitably influences and often distorts the picture. However, it is possible to achieve "a picture" which is beholden to its context and time and must be viewed in these terms. This picture however is bound to be more informative to health professionals in deciding what course of action to take or how to allocate scarce resources than the information that for example showing a videotape increases a patient's knowledge of the information shown. Heidegger would dismiss this knowledge as trivial and not worth asking, because it has an "inert" answer through the question being settled. In some sense this might be unhelpful for health professionals who need to answer questions in order to provide evidence-based health care, but on the other hand this data on the phenomena of videotape is an area where we can see his point. Heidegger encouraged the questions about ontology which can be asked again and again and add more and more to the meaning and allow us to begin to understand the way the phenomena operates in the world.

Data provided from the review, being designed in keeping with the quantitative tradition did not allow us any insight into the whys and wherefores of the phenomenon. Researchers tended not to reflect overly on the limits of their studies which might have acted as a precursor to a qualitative, (if not hermeneutic) study. They suggested different ways of looking at the problem, but not an underlying shift in the paradigm through which they approached the issue. This suggests that although data has been presented in the usual fashion, there has been little interpretation about the real limitations of the studies and how these could be addressed. This provides us with some insight into the prevailing schools of thought in the areas where videotape is being attempted to be utilised in healthcare. In times where patients are being encouraged to be empowered through greater access to information and choice, it is still uncertain as to how these are going to be evaluated.

In a hermeneutic approach to the issues, a study would start by looking at the individuals and their healthcare and how the videotape played a role in this *being-in-the-world*. There would be a chain of interconnectedness which would have to be uncovered in order to gain a fuller understanding of the phenomena. The idea of a tool such as a videotape existing in isolation of other factors is not acceptable to providing an answer to whether it is effective or not. In designing a study which would reveal its usefulness, it is first necessary to contextualise the individual's approach to the problem at hand, perhaps even before the videotape is made. It has been noted before that some videotapes did consult with their prospective patient groups before producing a videotape and this was demonstrated to have a beneficial effect. It has been shown in the data that for some individuals, clearly the videotape passed on negative effects, especially where individuals may not wish to have information or are in an extremely anxious state before they begin. A hermeneutic approach would consider aspects of environment and options for the patient's perceptions prior to the needs of the medical facility. In addition, quantitative "tests" which take place after the videotape has been viewed cannot hope to capture the individuals responses to the videotape and their feelings upon reflection and digestion.

Another important factor that would be relevant for many of the studies in the review is the role of the environment on their *being-in-the-world* and how others in their social spheres might exert an influence on their understanding and attitudes to the videotape. This has been highlighted with respect to those who were careful to make culturally appropriate videotapes for the groups they targeted. This acknowledges the fact that everyone should not be treated the same and results demonstrate the success of this approach. It is clear that individuals do not exist in isolation to their fellows and by virtue those close to them as well as medical staff will have an effect on the messages they take away from the videotape. Few studies consider the fact that individuals may view the videotape with their spouses or other members of the family, although there are mentions of these as being beneficial as spin off benefits rather than things which might have been central to the inquiry in the first place.

In conclusion, a hermeneutic approach to this area would have produced a very different type of study design as has been demonstrated in Chapter 2 of this thesis. Consideration would be given to the individual's essence and how they view the condition they are suffering from in order to provide a detailed analysis of their response to the condition and the context through which they would experience a videotape. The studies presented in the literature review could not provide a comprehensive answer to the question of how useful is a videotape and how it influences participants in their everyday thoughts and perceptions of the phenomenon. They may provide an answer to part of the question, but will ultimately not be able to provide a complete picture for clinicians with the evidence they might require which includes the voices of patients, in deciding to use a videotape to support their clinical work. The next chapter describes the methods employed in the study.

Chapter 5: Methods

> "The basic challenge that all methodological discussion must face is the question: 'how does all this help in the analysis of data and the production of explanation?' 'What is the connection between the resultant explanation of data and the epistemological starting point described by the analyst?'
>
> Melia (1997: 29)

5.1 Introduction

This chapter describes the study design and methods used to capture and analyse data. It also aims to give a detailed description of the practical and theoretical processes used in developing the research design, collecting and analysing the data. Miles and Huberman (1994:5) state that "research is actually more of a craft, than a slavish adherence to methodological rules" and this is in keeping with my philosophical approach. No single study conforms to a standard methodology, each one calls for the researcher to fashion the methodology to the peculiarities of the setting (Vidich and Lyman, 1994:23). This thesis aims to leave a clear audit trail for the reader to identify what has actually been done and how the data has been assembled and analysed. This ensures the reader may follow the trail to the interpretation and transferability of findings (Whitehead, 2004). This chapter falls into sections which outline: the study and design, the methods of approaching and collecting data, sampling, analysis, ethical issues, reliability and validity, and the presentation of the findings. These issues are discussed in relation to the philosophical and theoretical standpoint of the study.

5.2 Locating the Study Design

The rationale for the study design is described in Chapter 1 *Introduction.* A qualitative methodology was suitable for investigating the research phenomenon, for two reasons. Firstly to explore the phenomenon of the videotape and the role it played in the patients' illness episode and secondly to address an area in the literature relating to patients' responses to information which is designed to be carried out between consultations given in this way. The *Literature Review* (Chapter 4) has demonstrated that research could be carried out to further our knowledge of how patients respond to information presented by videotape and also how patients' ongoing self-care may be optimised over a period of time. It is clear from the literature that these are commonly investigated using quantitative designs, but these designs remain inadequate to answer wider questions about how individuals respond and behave towards interventions. When dealing with the complicated phenomenon of human behaviour it is beneficial to have evidence as to why this is the case, and this question can be best answered through qualitative research.

Patients' perceptions were sought because these may help us comprehend behaviour, beliefs, understandings and ideas. All perspectives are treated as rational and allow us to understand the "culture" of the individual and their social world (Hammersley and Atkinson, 1991:13). It was therefore fundamental to obtain data from accounts provided by users of the videotapes through a means which would allow the issue under investigation to become clear. It is important to acknowledge that the data from this study will be reported and can add to the picture provided already by the published quantitative research (Miller et al 2004) (*Appendices 1* and *2)*.

Individuals' representations of their experiences were the focal point of this study, that is, individuals' lived experiences were represented through enabling them to voice an opinion and reflect on the videotape of exercises. This partnership approach to health-care which focuses on empowering patients to take control of their health is line with the socio-political climate in the NHS (DoH, 2001a) and the modernisation plans relating to involving users in service development and research (DoH, 2000a, The NHS Plan).

5.3 Sample and site

The study took place in Chester, Cheshire rural and Halton (Runcorn and Widnes), in the North West of England, (now two primary care trusts, Halton and Cheshire West), The area has a diverse population and extends to North Wales. The demographic profile of the area is mixed – from affluent to deprived and includes both rural and urban populations. In total 26 GP practices across Chester and Halton participated in the larger research project (*Appendices* 2 & 3).

Patients were approached and recruited towards the end of the trial recruitment between September 1999 and September 2000. Participants recruited to the trial were approached for inclusion into this qualitative study by their physiotherapist. They were asked whether they would be willing to be contacted by a researcher who wanted to find out more about their experiences of the videotape. If participants agreed their details were passed on to me and I contacted them to give them further details about my study and to make arrangements to meet when I would conduct an interview.

5.4 Inclusion criteria

I aimed to recruit a sample reflecting the experiences of individuals who had used videotaped advice and instruction. The inclusion criteria for the trial were all patients with shoulder pain or low back pain over the age of 18, referred by local general practitioners (GPs) to fourteen community physiotherapists, provided they had access to a video recorder at home. Participants who were eligible for interview were all currently using the videotape in addition to their physiotherapy treatment. This meant they either had the video in their possession, or they had returned it to their physiotherapist in the last few days. This reduced the potential for recall bias. I interviewed participants who had been using the videotape for at least two weeks. This time was chosen as it the individuals would have been given a chance of using the videotape and been able to form an opinion about it. This provided sufficient time for them to use the tape at home and have the opportunity to form opinions about it in relation to their condition.

There was the possibility that individuals who were hard of hearing or for whom English was not their first language, might be recruited into the study, and special arrangements might have to be made to accommodate these individuals. When the situation arose where English was not a participants' first language, interviews could still be conducted satisfactorily, because the participants had fluency in English. Interviewees with different first languages included Welsh (2), Italian (1) and Arabic (1). No patients were excluded on this basis. However, if this study were carried out in a different area, where there was a higher degree of ethnicity and poorer communication of English, then suitable arrangements would have to be made. Biographical details of the research participants can be seen in *Appendix 6*.

5.5 Sampling

5.5.1 Developing a process of sampling in the study

Qualitative inquiry starts with an *a priori* theory which is flexible (Glaser & Strauss, 1967; Lincoln and Guba, 1994). The initial question allows for preliminary decisions about the boundary of investigation. I must ask questions like "which data sources are information-rich?," "Whom should I talk to", "what should I look at first".

As the study develops, additional questions arise: "which data sources may confirm my understanding?" "which data serves to challenge my understanding?" and "which will enrich my understanding?" (Guba & Lincoln, 1989; Lincoln and Guba, 1985; Patton, 1990).

Inquiry has to begin with some prior understanding or theory about the subject to be studied. No investigator can be a 'clean slate' - inquiry begins with the theory or understanding that is to be modified or confirmed in the context of the study (Kuzel, 1992). This is particularly underlined in the hermeneutic tradition (see section 2.5). I wanted to gain an overview of patients' perceptions of being given a videotape of exercises to complete, so I was conscious of trying to interview a number of people of different ages, genders and social backgrounds. Although it was not my intention to gain a statistically representative sample, having a varied demographic mixture of participants allows the results of the study to become richer and more credible (Murphy et al, 1998:92; Schofield, 1993:200). Using this approach also enabled me to be confident that I had sampled to redundancy (and put myself in a position where the meaning would be most fully revealed to me, or in other words, until no new themes or ideas emerged from the data. As part of the ongoing data collection data were reviewed for new issues and potential "themes". This gives me a wider understanding of videotaped exercise usage as well as a good idea of when to stop data collection. A total of thirty-three patients were sampled, twelve with back pain and twenty-one with shoulder problems.

5.5.2 A purposeful strategy

Qualitative inquiry, its strategies for sampling, and the theory it produces are a reflection of the values and customs of the researcher, the respondents and the audience for the results (Kuzel, 1992). The sample was purposive, in that participants were chosen because they had shoulder or back pain that had been referred to the community physiotherapist and been given a particular intervention (the videotape). The sample of participants was taken from a larger sample of patients who had received videotapes for the larger study. Patton (1990:169) wrote "qualitative inquiry typically focuses in depth on relative small samples, even single cases, selected purposefully". These aims result from the underlying purpose of sampling within the tradition of qualitative inquiry. In qualitative inquiry, sampling is driven by the desire to illuminate the questions under study and to increase the scope or range of data exposed – to uncover multiple realities or intersubjectivities. It allows for development of theory that takes into account local conditions (Murphy et al, 1998:90).

The sample size was difficult to estimate prior to the study commencing, because interviews were conducted until redundancy occurred. This maximised the possibility of finding evidence which would not confirm the status quo, and hence of making the data denser or richer (Henwood and Pidgeon, 1993). Patients who expressed deviant or previously unexpressed views were explored to add richness to the accounts. A total of thirty-three interviews were conducted. One of the tenets of hermeneutic research is to see informants, not in terms of groups of individual characteristics that can be seen as variables, but as people who offer a picture of what it is like to be themselves and to undergo a particular experience such as using a videotape. A brief biographical description of participants can be seen in *Appendix 6*, which can be used by the reader to illuminate the quotations. Respondents were sought from both shoulder and back video group to allow us insight into using videotapes in more than one condition. The exercises on the shoulder and back videotapes are uniform for each condition and demonstrated by the same therapist/actor. A more detailed description of the tapes can be found in *Appendix 1.*

An advantage of a project of this nature, is that I was in constant contact with the data at every stage of the collection, processing and final analysis. This allowed me to be deeply immersed into the data and concepts surrounding collection and analysis, which is in keeping with hermeneutic traditions and enhances sensitivity to participants' accounts of experience and their explanations (Hammersley and Atkinson, 1991:14). Also, the strength of the individual responses and their representation of the world is not lost and the complex human world is not simplified by over sampling which might dilute individual meanings.

5.6 Data Collection

Data were collected using semi-structured interviews (see section 5.7.1). Patients were identified as they were recruited from the main study as having been given a videotape by their physiotherapist with exercises to complete at home and approached to be interviewed about their experiences.

5.6.1 Recruitment to the study.

I offered patients the choice to be interviewed at their GP's surgery or in their own homes. It has been argued that information may flow more freely from participant to researcher when the participant is in a naturalistic setting (Becker, 1970), whereas the medical environment of the surgery may act as a barrier to communication. However, Hammersley (1992) commented that arguing about 'natural' or 'artificial' settings is spurious. He urged us not to forget that social research is itself part of the social world, and therefore settings which are part of everyday life such as classrooms, law courts or in our case the doctor's surgery, are neither natural nor artificial. Also one of the tenets of hermeneutic phenomenology is exploring how individuals experience place, and I felt this was consistent with the philosophy of the study. I believed that it was also important to offer individuals the choice. Often if they worked, they would only be available in the evening and may have viewed a home interview as an intrusion and decline to be interviewed. Alternatively, not being interviewed in the environment of their choice could act as a barrier to communicating with the researcher, either in the interview itself or by refusing an interview. Some individuals preferred to be interviewed at home and others found that taking part in an interview before or after their physiotherapy appointment at the surgery was more convenient.

A total of thirty-three patients were interviewed, of which seventeen had been given a videotape featuring a physiotherapist unknown to them narrating the exercises and appearing at the beginning and the end of the tape. The remaining sixteen patients had received videotape, which featured their *own* physiotherapist appearing at the beginning and the end of the videotape in the same way. Twelve had back problems and twenty-one had shoulder problems. The exercises for shoulder and back pain groups were naturally different because the conditions were different; the specific content of the videotape was not being investigated but the individual's response to it. Also, patients were unlikely to be given the full sixteen back exercises or the full seventeen shoulder exercises to complete, but rather a selection of up to six exercises. Patients may be doing different exercises for the same condition. A full description of the making of the videotapes and the exercises can be seen in *Appendix 1*, Miller *et al*, 2001.

5.7 The Interview

5.7.1 Semi-structured interviews

Semi-structured interviews were used as a means of gathering data in the study. They were considered sensitive enough to allow meanings and understanding relating to those meanings from the participants' perspective to emerge (Fontana and Frey, 1994:361). An interview offers respondents the opportunity to define and redefine the issue under investigation in their own terms. This also allows them to challenge the researchers' pre-conceptions about what is important or significant for them in relation to the phenomenon. The uncovering of the "insider's perspective" (Jensen, 1989) allows us to access information which might not be easily observed and to enter the other person's perspective.

Interviewing provides the opportunity to create an understanding with the respondent through engaging with them in an in depth discussion. It also allows the opportunity to open up new areas of inquiry that had not been anticipated in advance. An interview is not the same as having a conversation (Dingwall, 1997), respondents are required to talk about *something* and the interview sets the tone for this.

> "the sequence may be flexible; the question wording may be flexible; it may be dressed up like a conversation between friends. But an interview is not a conversation between friends. It is a deliberately created opportunity to talk about something which the interviewer is interested in and which may or may not be of interest to the respondent".

This approach allows some flexibility without imposing too much restriction on their accounts.

In depth semi-structured interviews were considered and were carried out in the pilot phase of the interview, however, my experience of using this approach showed that it was more useful to construct a guide to topics which were under discussion hence moving more towards a semi-structured schedule. This provided a focus for the participant and provided more relevant information as well as the opportunity to explore phenomenon of the experience of the videotape in more detail. The interview schedule is summarised in *Appendix 5*. The list of planned issues to cover in the interview allowed me to construct a "conversation" which would provide a full, vivid and comparable first-hand account of using videotape. Denzin (1970:132) noted that it is important to provide a full account of the interview schedule to ensure that the questions are in keeping with the aims and objectives of the study. Denzin also noted that bias may enter into the interview process if information derived from the questions is distorted by the interviewer, making the assumption that they share a common perspective with their respondents. Watts suggested that in hermeneutics situations may occur where meaning may or not appear (Watts, 2001:64). Heidegger (1962) described "unconcealment" or the "truth" of an entity as not being clearly defined, but as a complex array of possibilities. The ultimate test to ascertain whether a credible version of the truth has been arrived at is when results are presented and dialogue is opened with parties interested in the results.

The semi-structured interviews contained open-ended questions with room for elaboration and clarification. Interviews were often lengthy (two hours) and their duration was difficult to calculate in advance, however this was justified because of the desire to gain "thick" data on a little researched area. I used open questions for their effectiveness at retrieving lengthy, detailed responses which enabled participants to answer questions in their own way, with opportunity to use their own frame of reference. These were supported with prompts, for the purposes of clarification and elaboration where participants did not understand or were unsure what they were being asked. Closed questions, where responses could be pre-defined or leading questions, which suggested a certain response, were avoided where possible to allow the interviewee to produce their own response and not a biased or directed account based on what the interviewee thinks the researcher wants to hear.

Open-ended questions have had their criticisms – Mason (2002) considered that, they might miss opportunities for gaining richer data from individuals who are not adept at the use of language, from individuals with less education or those for whom English is not a first language. In addition they may be more difficult for participants to address, are untidy and time-consuming and difficult to analyse and use (Mason, 2002:72). Subsequently, in certain instances data quality is optimised by using specific questions and a more structured approach to interviews. In the study participants were happy to give their "stories" and address the questions that I asked, therefore I did not feel that Mason's position was justified in this particular context. Closed questions were sometimes used when I wished to clarify a point or an interpretation of what had been said. Individuals did at times misunderstand questions but were allowed to continue and when a suitable gap in the interview arose, the question was rephrased or clarified. In the study the benefits of using an interview approach outweighed potential limitations.

5.7.2 The Interview Schedule

My interview schedule or topic guide was devised for the semi-structured interviews (see *Appendix 5*). However during the course of the interviews, I found that an initial guide was useful and respondents were mostly talkative and confident in thoroughly addressing the issues without the aid of prompts or probing. The guide was useful as a reference point but was not slavishly adhered to. This shows that participants had control (despite the semi-structured questions) over the content and direction of the interview. It was my intention that respondents would feel empowered through participating in the interview process (Mishler, 1986:118). It also implied that respondents were comfortable with the interviewer and happy to maximise their opportunity to make their voices heard, raising issues and describing events they considered to be important when they chose to. Participants had the opportunity to explain how they felt, permitting the examination of personal meaning and value of the experience of using videotapes of exercise and instruction.

5.7.3 Formulating the interviews using a hermeneutic approach

In hermeneutic phenomenology researchers are interested in three key ideas – experiencing place, experiencing events over time and ways of talking about experiences (See Chapter two, *section 2.9*). The structure and shape of the interviews remained flexible. I was aware that salient factors were not the same for all participants and this included things such as the environment in which they lived. An example of this is an idea which a female shoulder pain patient [AC] who lived in a rural area brought to my attention. She mentioned the uses of videotapes for patients who lived a long way away from the surgery and went into some detail regarding her initial impressions of being given a videotape in light of this. Understandably, this is not necessarily going to be relevant or even occur to other patients who do not live far from their surgeries. As a part of the interview I endeavoured to explore AC's ideas about how she thought the videotape might be useful, but these issues may not arise with other patients. This is an example of how I allowed interviews to be participant-led and let individuals set the agenda. There were still core points which I wanted to raise with participants around the way they used their videotapes and how often they viewed them amongst others, which meant that there was an underlying framework or a semi-structured element as well as the participant-led element.

5.7.4 Rapport

It is important that a rapport is established between the researcher and the participant, in order to elicit good quality data (Hammersley and Atkinson, 1991:78). It could be difficult to establish this rapport with an individual who I only had a telephone call with and met with for an hour or so in the interview, so it was important that as much was done as possible to encourage a relationship which promoted useful data. Interviewees were much more likely to unpack information freely if they could tune into the relevant verbal and non-verbal cues such as a nod of the head or an encouraging noise such as "mmmm" (Holstein and Gabrium, 1994). It was also important for me to be aware of the verbal and non-verbal cues, which were received from the interviewee for the communication to flow freely. Individuals within the freedom of a semi-structured interview schedule often offered personal information. Unsolicited information for example was given in relation to bereavements and the health of other family members. This is not conclusive proof of the integrity of the interviews; however, it does give some evidence of rapport with the researcher and the confidence of participants of imparting this information. This control afforded to participants coupled with the rapport established with the interviewer helped to minimise the risk that the individual felt manipulated, as though interviewer has extracted information from them and given them nothing in return.

5.7.5 Taping the interviews

Participants were asked prior to the interview if they were willing to have the interview tape-recorded. Recording the data ensured completeness of the transcripts and this was a means of ensuring reliability in the study (Peräkylä, 1997). All participants agreed and they were assured of the confidentiality of the interview. Interviews were taped rather than notes being made, because writing may have acted as a barrier to communication and it may also have led to an incomplete record being made. In terms of the naturalistic behaviour of the researcher especially in terms of non-verbal behaviour, such as eye contact and facial expression, the physical act of writing may have obscured these phenomena (Hammersley and Atkinson, 1991:157).

5.7.6 ***Debriefing***

At the end of the interview participants were invited to comment on the research, ask questions and add anything not already mentioned. This allowed the participants to bring up any additional information that they felt may have been left out of the interviews. Some people asked for clarification on what would happen to the results or added bits of personal information about their circumstances. Some interviewees asked for information or advice on modes of exercise such as yoga or exercise aids. Others asked for information about access to the physiotherapist. Interviews ended on a positive note when I thanked participants for taking part and for the valuable information they had given me.

5.7.7 ***Observations***

To add to the verbal communication, it was important to record some of the non-verbal information (Hammersley and Atkinson, 1991: 145-148). In the hermeneutic tradition, field notes and observations are recorded before, after and around the event (not during). These accounts are symbolic and distanced from the phenomenon under investigation (objectified because they are not produced during the interview) and hence useful in achieving hermeneutic interpretation (Ricoeur,

1981) when data was being analysed. My thoughts and feelings prior to the interview were recorded, for example my initial telephone contact with the individual would have given me some initial observations. One lady was brisk on the telephone and immediately gave me some of her views – she seemed very opinionated and complaining, which I noted in my reflective diary. Immediately after the interview had been conducted, I took the tape and listened to it, and completed observations and perceptions, of the interview, myself and the interviewee. These observations were interview specific and related to feelings and observations about the individual, their response to certain questions and non-verbal behaviour. These things were all relevant including other information that they had disclosed after the tape-recorder had been switched off. Information that was pertinent to the study was noted and incorporated into the analysis. A metaphor that offers a view of this is one of stepping back from a painting to view it as a whole, rather than viewing each part in detail.

5.7.8 Reflective diary

Throughout the research process, I kept a reflective diary to document the process of developing theories and ideas, and comment on the process of research (Hammersley and Atkinson, 1991:165). It provided a valuable commentary on the way I describe and interpret experience as a researcher and how my ideas and perspectives changed over time and with exposure to the research process and how I developed as a researcher. Within this diary I also recorded contact with the participants and the physiotherapists and thoughts about these conversations. The diary has proved a useful tool in writing up this thesis in providing me with a guide to my thought processes at different stages of the study. Thoughts and ideas and interpretations were also noted in association with the data as it emerged. This process of ongoing development and the evolution of ideas and theories are in keeping with the hermeneutic method.

5.8 Ethical Issues and Risk

5.8.1 Ethics and consent

I sought ethical approval for the study from North Cheshire and South Cheshire Health Local research ethics committees in April 1998 for the study. Approval was given in June 1998, subject to minor amendments. Data collection for interviewees did not start until September, 1999. This was because the qualitative study was described as a sub-study within the larger randomised controlled trial.

The protocol included details of an interviewing process. Patients were given an information sheet when they entered the main study, which informed them about the project and what was involved, including details of the possibility that they might be interviewed as part of the research project. Patients were assured that the decision to be involved or not in the study, would have no influence on their care by the physiotherapist. It was confirmed that they understood what the study was about from the information sheet. Patients then signed a consent form and agreed to take part in the study.

I took care to elicit consent a second time for potential participants who were approached for interview. The physiotherapist approached individuals who were undergoing treatment and asked if it was permissible to pass on their details to the researcher to take part in an interview. They were assured that it would not affect their medical care. When I contacted the patient, I was sensitive to individuals' privacy and did not assume consent even though details of the individual were passed on from the physiotherapist. Participants who agreed to be interviewed were invited to choose their preferred interview venue: they could be seen at home, or the surgery (see *section 5.6.1*). Participants were assured of their rights at the beginning of the interview to stop the interview at any point and to withdraw any comments. Sometimes patients took advantage of this for example to answer a telephone or speak to someone else in the house.

5.8.2 Confidentiality and risk

Participants in this study might face a number of potential risks and it is important to examine these. During the study period, a framework of governance for health and social care research was published which reinforced the need to do this (Department of Health, 2000b). Firstly, by consenting to the study, participants took the risk that their identity could be discovered and their privacy infringed. Many participants spoke about their health care and mentioned specific staff by name. Also, some participants perceived that their experiences had been negative and that they had issues in relation to this that they wished to discuss. To help reduce the risk of disclosure, the content of the interviews was kept confidential and all data presented in the analysis are anonymised, including names of specific healthcare staff. All research data were stored in a locked cabinet, and data recorded on the computer were password protected and could be viewed only by me. The audiotapes of the interviews were only played in private in my office or my home or the transcriber's office or home. Similarly, no names were used in transcribing from the audiotapes and in writing up. To enable a compilation of quantitative data and a description of patient characteristics, qualitative study participation was recorded on the trial master database.

I and a member of NHS clerical staff transcribed interviews. The transcriber was based in a different location to where the interviews took place. She was fully conversant with the rules relating to patient confidentiality and was unlikely to be known to the research participants. All patient tapes sent to her for transcription were coded, so no names were given which could have made identities explicit. Similarly during analysis it was sometimes necessary to present my PhD supervisors with interview data for discussion and for advice on analysis and development of themes. Data presented were not linked to named participants, and again both supervisors were located at the University of Liverpool, and were unlikely to be known to the participants.

Data presented in this thesis and in further dissemination will not show any key features or characteristics which are likely to identify research participants, unless participants have chosen to speak to people who may wish to access this thesis about their involvement in the study. In some cases where individuals may talk about specific areas of their lives for example their professions, it might be apparent to the reader if they know them. There is also the risk, that when discussing personal matters with a relative stranger (the researcher), potentially sensitive material might come to light, which might give rise to negative emotions such as embarrassment, anger or feelings of discomfort. To attempt to minimise these risks and to be aware of the possibility of causing non-negligent harm through the interview process, questions were posed as sensitively as possible and care was taken to be sensitive and responsive to the interviewee at all times. Discretion had to be exercised into judging how the participant might respond to probing questions on certain issues, and when to cease that line of enquiry.

Another risk which might be identified is the fact that despite the use of an information sheet and consent form, the participants might not give their consent voluntarily. They might feel obliged to participate; because their physiotherapist has asked them or they may be scared to appear "stupid" by asking questions about issues that they do not understand on the information form. Research has shown that in some cases where individuals have been provided with detailed information and been given time to digest it, they have opted not to take part in studies (Weston et al, 1997). To ensure that any coercive effects of this nature were minimised, I provided explanations of the study at a number of different points: from the information sheet, the physiotherapist and myself during a phone call to arrange the visit. This gave opportunities for potential participants to say no if they changed their minds about participating in the study. Physiotherapists had a good knowledge of my study and how it complemented the main trial, due to their role in recruiting and consenting patients when giving patients videotapes. They were assured that the study was not an exercise in "checking up" on them, but solely to advance thinking in areas of patient information and using videotape as a means of giving information. They were also invited to contribute patients comments (good and bad) to aid development of the interview schedule. A good explanation can empower individuals especially in relation to health service research where they may feel that they are potentially helping others who might suffer from similar conditions in the future (Mishler, 1986:125). A number of patients stated that they felt their involvement in the study was allowing them to be altruistic which they were happy about. Research has also shown that the need to tell is important for individuals suffering from health problems, and a non-judgemental listener may provide a useful vehicle for the individual to voice their grievances and express their feelings (Mishler, 1986:131).

5.9 Hermeneutic approach to data analysis

There are a number of key principles involved in carrying out research using a hermeneutic method that I have described in Chapter 2 *Philosophy and Methodology*. This section describes some of the processes and assumptions which were made in relation to the data, through the hermeneutic approach to interpretation and analysis. The task of hermeneutic interpretation is to critically examine the phenomenon in question, with the intention of gaining a deeper comprehension of that phenomenon.

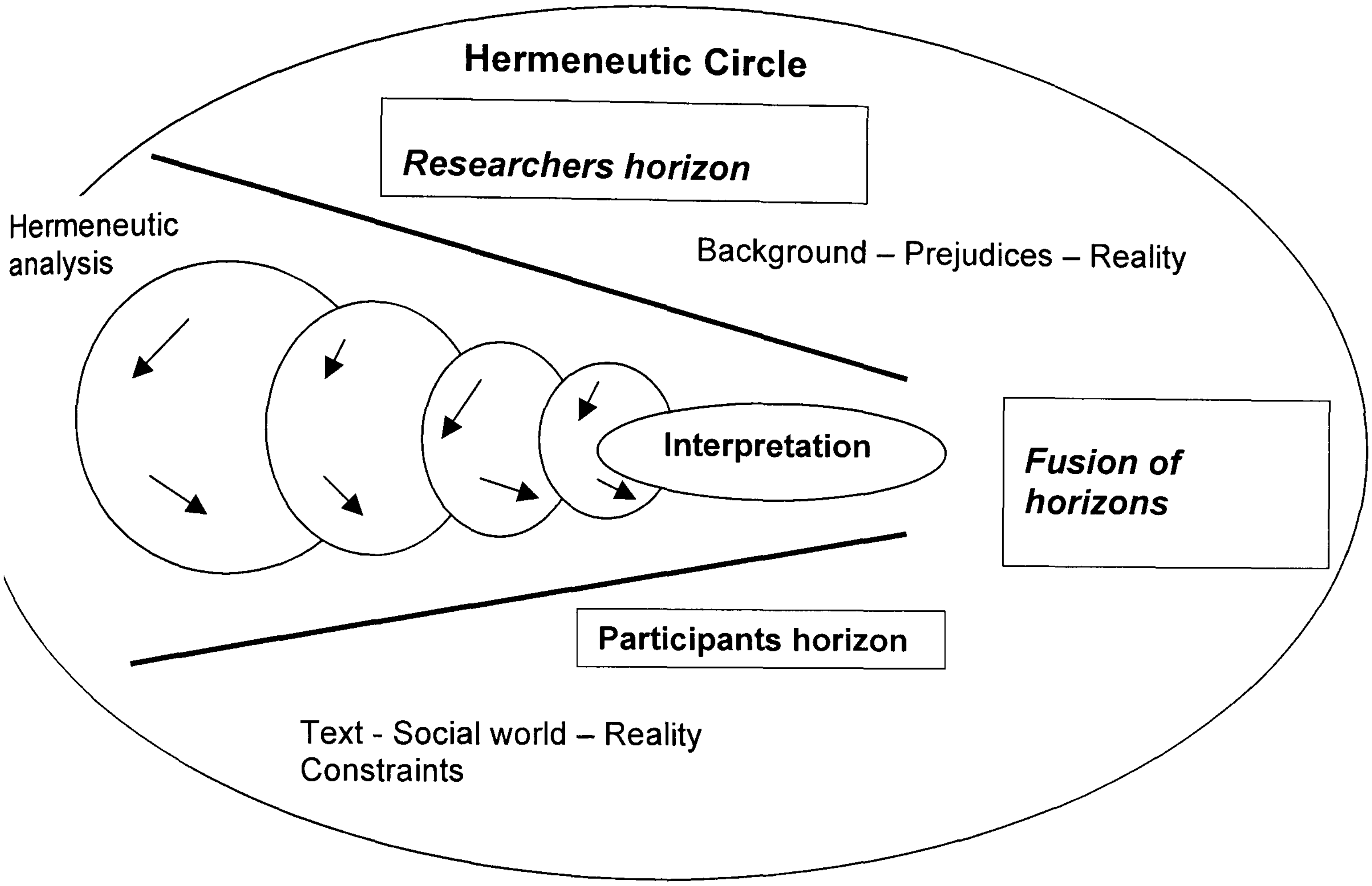
> "No individual inspection of a work ever exhausts its meaning; interpretation can always be rectified. Even the best is only an approximation of the meaning" (Ormiston and Schrify, 1990:97)

In interpretation we immediately see things as *something* and it is only possible to interpret something in terms of the concepts of which one is aware. Meaning is something that is arrived at when the function of *something* is understood whilst simultaneously seeing its network of significant purposive relationships with other entities.

All understanding is a circular procedure (*hermeneutic circle* see *section 2.4*, 2.10 and 2.13*)* by nature and is not seen as a distinct process from the whole of the study (Gadamer, 1976). Moving back and forth between collecting, analysing, reflecting and writing cannot be laid out or predicted in advance (Henwood and Pidgeon, 1993). Researchers are value laden and inevitably will bring their own interests to the data, this is acknowledged by the hermeneutic tradition (Allen and Jensen, 1990) as these values are seen as part of the ongoing process of observation, interviewing, reading and writing. Integral to this process is the role of the researcher as a research tool so a description of the researcher is required (see *section 2.11*). The researcher *interprets* and *shapes* the data and devises how a credible account can be given (Ricoeur, 1981). Therefore, the hermeneutic approach pays more attention to the structure of the texts and analysis is suspended through rereading all sources of data. Understandings are *made* through the researcher rather than *found* as objective meanings (Ricoeur, 1981). This raises issues about representation and legitimisation of data in relation to the position of the researcher, and the possibility of contamination or bias. Therefore the relationship between the research process and the findings it produces should be open and analysable. The reflexive character of the analysis and the incorporation of the researcher as an influence on the findings is important for interpretation by others. I have attempted to convey the process or journey towards interpretation or hermeneutic fusion of horizons by means of a diagram (Figure 2).

As something is revealed or uncovered in a particular way, this simultaneously conceals all the remaining possible ways of its Being (Ricoeur, 1981). It is important to adopt a flexible view of "truth" in which something can only express degrees of concealment. The clarity of truth often emerges gradually when the significance of the words is discovered after study. The "truth" is in the process of uncovering what is concealed and this activity is potentially never ending because it is always related to meaning at one point in time and will be shifting as time moves on (Todres and Wheeler, 2001). In the case of research, as the researcher becomes more experienced then it again shapes the interpretation of data.

Figure 2. Fusing of horizons in hermeneutic analysis within the Hermeneutic Circle.



I undertook transcription and preliminary analysis as an ongoing process during the interviews. As interviews were being conducted I gained more insight into the area of enquiry and exposure to the data through listening to the tapes as writing a reflective diary and completing observations. Hermeneutic analysis is a necessarily circular procedure and plays a part in the hermeneutic circle (see figure 2).

> "Hopping back and forth between the whole conceived through the parts which actualize it and the parts conceived through the whole which motivates them, we seek to turn them, by a sort of intellectual perpetual motion, into explications of one another." Geertz (1975:52-3)

The reflexive character of the analysis and the incorporation of the researcher as an influence on the findings is also important for interpretation by others.

Ricoeur provides some insights into some of the key principles guiding hermeneutic analysis. The interpretation of the data broadly follows the four principle forms of *distanciation* (distancing), as espoused by Ricoeur (1981:200). Firstly the dialogue is transcribed, that is it is taken from the moment of speech and preserved on paper. A certain essence of context is lost, but we are concerned mainly with the "what" of the dialogue rather than the specific circumstances where it took place. Here it can be freed from its particular frame of reference in terms of time and place. This is assisted by field notes and observations. Secondly, the text must stand on its own, without the author. This has been assisted in the study, by adopting a microanalysis of each interview transcript and the use of field notes. The author is now distanced from the text and is not consulted for further meaning. The text is not living or evolving it is viewed a single entity at a single point in time. The data can be allowed to stand alone, but the researcher relationship with the data has become more complex and broader. The interpretative process is well underway.

Thirdly, the meaning of the text is now taken and understood as a whole and given a circular character, in that the whole is implied by the recognition of the parts. By looking at the details the whole is construed. This means words acquiring meaning in the context of sentences and sentences acquiring meaning in the context of paragraphs and of the text as a whole. The reader can see the whole and the parts simultaneously, rather than the authors of the text who can only see the parts.

Lastly, data is then allocated to categories based on their relationship with one another and analysed in a structural way. Ricoeur (1981) stated that carrying out "segmented" work (horizontal aspects) and then establishing various levels of integration of the parts with the whole (hierarchical aspects) brings us to a greater level of understanding. This understanding, allows the reader to understand the internal aspects of the text as well as the new reference created by the text through themes and theoretical links of the data.

The data were broken into "chunks" to analyse. I believed this to be the best way for me to analyse it as it would involve periods of time familiarising myself with the data and a process of immersion and extraction (Dey, 1993:83), which is a technique useful for circumnavigating the hermeneutic circle. I could achieve periods of extreme closeness with the data as well as periods of distancing, when I moved to another part of the data. The first stages of data analysis are involved in re-establishing a relationship with the data and taking a step towards a micro in-depth analysis of it. The next steps are involved with building up a network of themes through the data. The final steps are concerned with finalising and testing the thematic framework. It was possible to move backwards and forwards between the stages in a circular way, no one stage was closed or final until the phenomenon was considered to be uncovered. I have depicted this approach pictorially in figure 3.

5.10 Processes of data analysis

5.10.1 Stage One: familiarisation

The text is committed to paper – distanciation (Ricoeur, 1981), here aspects of the text and field notes were made more comprehensible to me. This stage also involved taking a small number of interviews (n=7) and reading and rereading them to familiarise myself once again with the data. Ideas began to form in my mind about some of the issues that were arising from these seven interviews. Marks were made on the interview transcripts and passages, which I thought might be salient, were underlined.

5.10.2 Stage Two: immersion

Each of the interviews were then taken in turn and a detailed single analysis was written about each of them. From this individual analysis comments were sorted into categories. Links were made between categories through a network of flow diagrams. This is part of the "horizontal" aspect of the work in terms of beginning the process of segmenting the data. A description is emerging, and the process of understanding is beginning.

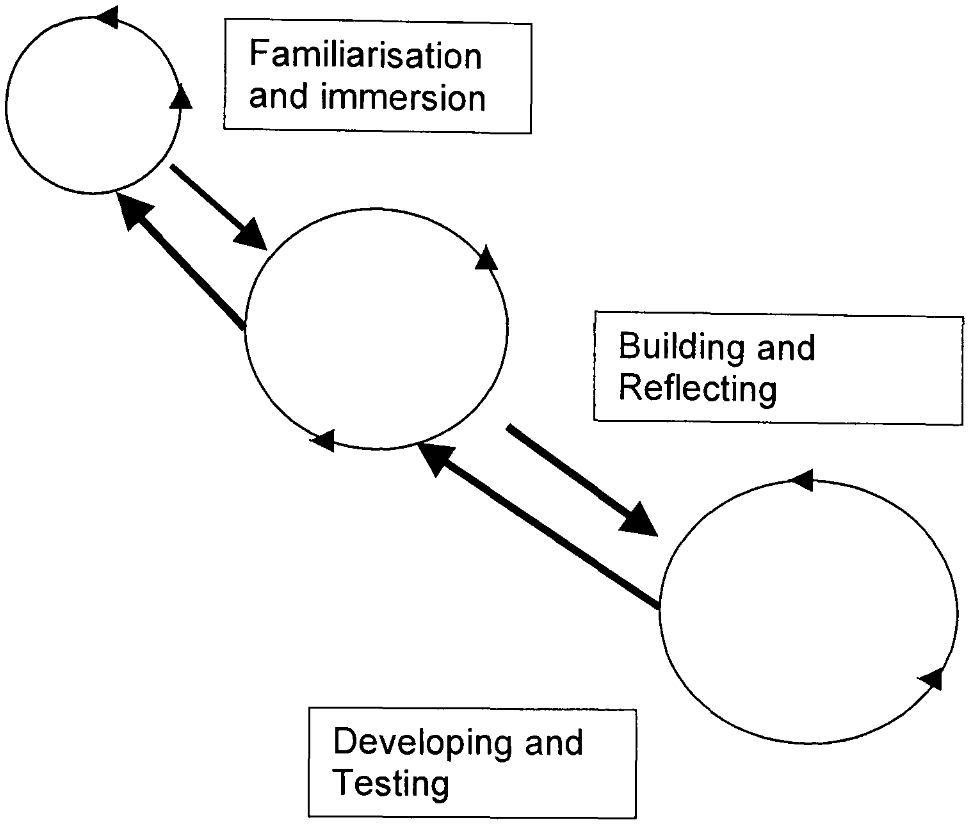
5.10.3 Stage Three: building

The next stage of the analysis was to analyse and reflect upon the "flow diagrams" which had been created to organise the individual categories. The process of finding connections among the issues and themes is now moving from the stage of being implicit to being explicit, that is they are being systematically worked out. The properties and dimensions of the data are being examined in more detail and theoretical issues are starting to emerge. The data is starting to move past the stage of being descriptive into the theoretical, although it still has some way to go, the categories that are emerging and their relationships will be the foundations for the developing theory. I have taken issues relating to analysis from Silverman, (1999) and Miles and Huberman, (1994). Although the data is moving onto a further stage, it is still important to be able to look back into the other stages of analysis – especially the microanalysis of individuals. This allows me to decide whether the appropriate decisions have been made about the organisation and construction of the themes. As this process occurs the hermeneutic circle is navigated.

The data is being broken apart and reconstructed into an interpretative framework, but that does not mean it can not be broken down or reconstructed again if it needs to be. The shape of the data is not changing, just my understanding of it. At this stage, I found regular contact with my academic supervisor supportive, because it enabled me to examine my own assumptions about the data and help any theory earn its way into my interpretation. My supervisors' academic training in sociology and interest in theories of the body was a useful contrast to my own psychology training and helped me to remain aware of my academic and NHS background. Our discourse prompted me to contemplate new concepts and examine categories in terms of their properties and dimensions in a constructive way.

It became apparent that several of the themes were describing aspects of the same phenomenon. For example there was much overlap between "exercise" and "video" – it could therefore be prudent to look further at these two themes and see whether they could be linked. Some themes also seemed to be exerting more influence than was originally thought and some less, so that some themes seemed to be actually describing some secondary themes in more detail. In some cases when I am describing sub-themes themes, what I am actually looking at is the range of phenomena discussed (eg self-image), that could be placed with "the body". Also, I noticed that it may be necessary to rename or reorder some themes in relation to the data as a whole e.g. perception of the problem could be renamed "explanatory model of illness".

Figure 3. Approach to data analysis based on a hermeneutic circle of interpretation



5.10.4 Stage Four: reflecting

The next stage of the analysis is where I started to further build up the thematic framework. I had previously looked closely at each interview and written an account of the interview in terms of what people were describing and which issues were emerging from the interviews. This gave me a picture of what each individual was telling me and to attempt to start identifying and classifying themes. Next I looked at the interviews as a whole and attempted to categorise the themes further. I took each of the themes from the second stage of analysis and opened separate word files or "bins". I then opened my seven interview files and filed the transcripts into the relevant "bin", until all the verbatim material had been accounted for. In some cases, material was classified into more than one "bin" due to the issues fitting the criteria of two or more themes. Once this task was completed, I looked at each category and did two things: firstly I read and reread the verbatim material in order to produce a description of the themes; then I attempted to look at secondary and tertiary themes. Some theoretical points were starting to emerge in this process.

5.10.5 Stage Five: developing

After the first seven interviews were analysed and a thematic framework assembled, it was time to test the rigour of the framework against the remaining data. To do this, I chose to micro-analyse eight further interviews and test whether they would fit into the framework. I analysed them separately, and then applied the framework to the analysis. The framework was modified as a result of the new data. For example, one of the sub-themes around approaches to exercise was extracted and given status as a theme in its own right.

5.10.6 Stage Six: testing

The robustness of the themes could now be tested alongside the rest of the data from the remaining transcripts. Data from the remaining transcripts was analysed in the same way, but the process was becoming quicker. Much of the data was accommodated or represented and it was easier to identify and explore negative cases which contradicted data or ideas.

The analysis was finalised when the circular process of analysis had produced no further possibilities for exploration. Through interacting with the data, I have now reached an understanding of the texts and the phenomena they describe. The result is the interpretation, which follows in Chapter six.

5.10.7 Stage Seven: finalising

The final stage is to place the data into an academic context and discuss the findings with regard to other theories and literature in the field. This process of final interpretation starts to bring in "others" to the field of creating meaning and gives the data the ability to inform the wider academic audience and help inform the development of theories.

5.12 Presentation of the Findings:

The findings of my study do not aim to be generalisable in the quantitative sense – the goal of this study is to aim for theoretical inference and credibility (Hammersley, 1996). This study will make inferences about the "truth" of the issue under investigation rather than generalise to a finite population. In keeping with the hermeneutic philosophy the voice of the researcher is not subjugated or "bracketed", however in presenting the data I must also be mindful that individuals should not be identifiable under the terms – if I read it would I know it was me? Although the hermeneutic approach advocates an individualistic approach to the data, nonetheless it should be apparent as to how interpretations of the data have emerged, even if the reader does not concur.

The findings are presented in a manner that is conventionally used in medical sociology. Each theme is introduced and briefly described. Within each theme sit the sub-themes which make up the main theme from the analysis. The main substance of the sub-themes is the presentation of the study's data through direct quotations or field notes. Direct quotations are important for uncovering the life-world of the individual and demonstrating how they constructed meanings. It also demonstrates to the reader that the direction of the approach is rigorous and systematic and that isolated comments are insufficient to illustrate a sub-theme although they can illustrate depth of an issue (Silverman, 1999:200). Quotations have been 'cleaned' for ease of reading for example the repetition or "mmmm's", "you know". Notes have been made, of any participants who were stumbling to find the words or who were finding it difficult to articulate their feelings for other reasons. My thoughts and perceptions from observational work are also presented from my field notes, when they may illuminate the quotation for the reader.

The findings are data driven, however, due to the size limit on the thesis decisions had to be made regarding which quotations and accompanying filed notes to use. Decisions were reached by looking at how best the quotation captures the meaning and essence of the construct it is describing. Quotations are not comments, but sections of the interview, where possible to provide the reader with clarity and context. The findings are presented with each theme forming a chapter (six, seven and eight) and each chapter has a discussion section where the implications for theory are discussed. They have been presented in this way so the reader remains close to the data in each section. The discussion demonstrates how the findings from the study fit into the wider health literature and they are interpreted and discussed in mainly in relation to Foucauldian theory which allows us to provide a comment on health illness and society.

5.13 Conclusion

In summary, this chapter outlined the practical aspects of the research process and has demonstrated that these are underpinned by the philosophy of hermeneutics. A detailed description of the methods, analysis and the audit trail relating to how the research was treated and approached, has also been provided. This will enable the reader to make a judgment of the study's quality. The next part of the thesis describes the study's findings.

Chapter 6: Power and the Body

> "There appear to be strong reasons for regarding the body as simultaneously both discursive and animated, both Körper and Leib, both socially constructed and objective. The emphasis which we give to any or all of these dichotomies will depend on what type of research we want to undertake."
>
> Turner, 1992:57

6.1 Introduction

In this chapter, the theme of *the body* is explored and how individuals perceive they have *power* over it. The body is the ontological centrality of humanity and becomes even more so when faced with a situation where it is not functioning in its usual way (Nettleton and Watson, 1995:5). Most of the time the body in full health is the physical vessel which allows us to carry out our daily tasks, and as such, does not come to the fore of our attention. The postmodern concept of the body as an exterior that carries the total sum of health experience, inextricably bound up in physical, psychological and social experience, implies that the experience of the body cannot be filtered out from these other concerns (Fox, 1993:23). In Foucault's work the body was of major significance and his unique perspective on the body as a focus for disciplinary power allows us to consider how power works in relation to the human body (bio-power) (Bunton and Petersen, 2000:5). This theme is concerned with individuals' responses to having the shoulder or back condition and how power is exerted over the condition. Videotape and exercises play an important role, but other factors also come into play, such as issues relating to the body and how they influenced individual responses to the condition. Three sub-themes emerged and are described: *responding to loss of control of the body, the decline of the body, and regaining the body through exercise.*

6.2 Responding to loss of control of the body

Respondents' reactions to the musculoskeletal processes taking place in their bodies as a result of their condition were varied and related to perceived control or lack of control over the body. Information, which respondents received through their bodies about their condition, emerged as having both negative and positive effects on individual actions. The loss of control over the body due to an episode of illness led to individuals attempting to regain control over their physical and social selves in a number of different ways. Responses can be pragmatic, avoiding or emotional (Moos, 1997) or a mixture of all these factors.

Respondents showed how they demonstrated emotional and avoidance patterns of behaviour in response to their condition.

> **PM**: "I just can't do half of the things like I used to do its gone worse because I used to, I'm really mad on my garden but my gardens really had to go by the board unless I feel all right I'll go out there but I can't do anything like I used to do in the garden and that was one of my things was the garden. I live on my own you see, so things like decorating and simple things you take for granted that you can do you no longer can do or if you attempt to do them you end up then for about three days not being able to do anything because your back just, *you've over done it,* yes that's it then and sometimes I just say I can't stand this I've got to go and do that because if you don't do it nobody's going to do, so I've got to go and as I say then afterwards it will be days then, saying why did I do that because I can't do anything now. This digestion thing has just been driving me mad because it's so painful and I've really got to watch what I eat, everything."
>
> ***Field Notes**: I got the impression from this lady that she was very defensive about her back pain which she had had for many years and prevented her from working. She may have perceived me as a health professional or as a fit and healthy person who did not understand what it was like for a person to suffer with a chronic problem which she was experiencing. I may have unconsciously given her this impression. I felt she was justifying her ability to try and do as much as she could.*

PM demonstrates an emotional and avoidance approach by exhibiting cycles of boom and bust behaviour, where activity is intense and concentrated in windows where the pain subsides, which ultimately in their eyes leads to more pain.

> **AH**: "Oh I did I started a regime and I did them more than was recommended for a few weeks but then other things happened. Basically I was made compulsory redundant and my mind was focussed on trying to fight that situation than doing the exercises. Like it's one of those things that can happen to us all and I'm trying to get over…
>
> … maybe the two maybe linked - you know the stress of the situation could be making me more tense, certainly yesterday I spend all day on the PC so there was no exercise at all really, I was hunched over the PC tapping away and of course I'm not sleeping very well so I'm moving one way and then the other"
>
> ***Field Notes:*** *AH's body language suggested that he seemed reluctant to divulge this information at first, but revealed it later on in the interview. He seemed to feel awkward talking about it and I felt sorry for him.*

AH describes an emotional and avoidance response to his condition which is compounded by other work problems. This influences how much control he feels he has over his condition and how to address it.

> **JJ:** "At first, when it first happened, it was in the middle of Wrexham in H Square where you can't get the car and I sort of locked right around and all I could do was shuffle. I was in agony and I could shuffle about two foot and stop and have to do that from H Square to the Library car park, which is quite a long way to shuffle. I felt such a fool. Everybody was looking at me. Anyway I made it and that's how it started. I went to bed for five days or so."
> ***Field Notes:*** *JJ gave me the impression of still being very emotional about her back pain and on the doorstep leaving told me how she was worried about coping with relatives who were coming to stay for Easter as house guests.*

JJ describes how she felt emotionally when her body let her down in a public place which led her to avoid all activities and social contact.

Respondents talk about their frustration in relation to completing daily activities and hence regaining control of normal health status. They try to deny or subjugate the body in the hope that the normal body will return. The physical body restricts their abilities to maintain the integrity of the social body and exist in the social world. Profound emotional responses exist hand-in-hand with avoidance in relation to work and daily activities provoking feelings of frustration and despair. In an attempt to regain control PM engages in "boom and bust" behaviour – activity followed by periods of more intensified pain when she is even more disabled by her condition causing her frustration. If she does attempt activity, she is disabled by pain later on which compounds how her life and control over her environment is restricted by her condition. She is driven by trying to address tasks in spite of her condition which she feels is telling her that she is not able to do things, however this might be a result of how she viewed me as an interviewer and tried to convince me that she was trying everything she could to meet her social obligations. Information is being given to her through her low back pain and also her other health problems, which she perceives is telling her that normal activity, even eating, is negative and will cause her discomfort later on. JJ shows how the lack of control of her physical body provokes a profound emotional response, in that she felt foolish and had to adopt a shuffling gait to get back to her car. Her body has betrayed her in a very public way. Not only was it immensely painful, but it was also visual and invoked the public gaze leaving her open to value judgements and possible stigma. She needs time to recover and regain control over her emotional self before she recovers her physical body. JJ also describes how she went to bed for five days to try and recover physically and perhaps as demonstrated by her distress also emotionally. She is also worried about houseguests who may elicit an unwelcome view of her condition within her home. This emphasises the emotional as well as the physical impact of the condition and the experience of having a lack of control over the body. The negative social experience eclipses the physical pain in her description. AH admits to not being able to address his conditions because his work situation is more urgent and he is prioritising gaining control over that situation more important than his immediate physical health. This shows the physical body is taking second place to emotional need and his need to regain control over his emotions will allow him the strength to take control over his physical self. Lack of control over the body is accepted and ignored. AH feels he cannot counteract his stress and work on his physical problem at the same time. He will compromise the physical body to keep the social body intact. He also describes being hunched over the computer, which depicts someone who is working hard in an urgent way which shows the energy he is putting into his immediate problem or work at the expense of his physical body.

Other respondents adopt a pragmatic and avoiding approach to their condition. They might have spent a period of time avoiding, but they are voicing a practical approach to how they should manage and gain control over their condition.

> **AM** "It's if you start, say I want to help my husband with the decorating, I will stress myself and I get tired and I start to bend up and down and after half an hour or twenty minutes, I do anything like that I'm gone."
>
> ***Field notes:*** *AM was a welcoming Italian lady running a B&B, who prided herself on her homemaking abilities and her ability to run the business with her husband. Her view in discussing this issue was about how she adjusted her activity through avoidance in some cases and carrying out activities but stopping when she felt tired or unable to carry on*

AM maintains control of her body, by not putting herself in situations where her back pain caused her discomfort – her approach is both pragmatic and avoiding.

> **IW**: "It does take a while for it to register that you have got a problem and to do something about it, and you don't do anything about it until it gets worse, like your car and you see oil on the drive and then you suddenly break down on the motorway and you think oh I wish I had done it on the drive."
>
> IW also illustrates this pragmatic approach along with avoidance.

> **GS**: We have an uncle who's got spondy, oh I can't remember it. Collapsed vertebrae. His spine is fusing together, I can't remember what it is.
> ***JM:*** *Spondilolythesis?*
>
> **GS**: Something like that, yes. And we see how he is and sometimes he's got injections, plaster-cast, there's been times when he's seized up and he's had to lie on the floor and I've called the doctors out, and he's been hospitalised. They've given him epidurals and allsorts haven't they?
> **GS brother**: Yes.
>
> **GS**: Your back's very important I think, like you say once that goes your knackered.

> ***Field Notes/observationa:*** *GS demonstrates that he is keen to engage with physical exercise once he has been assured it is OK by a professional. The fact that he has been engaged in litigation for his back has also prevented him from addressing his problem. GS welcomed me into his busy home and spoke to me at length. Babies, brother and his wife entered the interview from time to time.*

GS shows that avoiding addressing the problem is reinforced by litigation connected to the condition and family history. His pragmatic approach is revealed in his approach to carrying out exercises once he has received a professional opinion (from the physiotherapist) which challenged the avoidance behaviour. GeS also demonstrated a lengthy endurance of her shoulder problem befor she eventually took action.

> **GeS**: I took a long time going the doctors about it and he gave me an exercise sheet which I did and it gradually, very, very gradually… It took about six months to actually feel any relief at all. Then I stopped doing the exercises because I thought it was getting better but then I realised that it ached and ached if I carried any shopping or if I did anything in the Library it was just aching and it wasn't going to just heal that final little bit without some help and I felt that I need some strengthening exercises really. So that's why I decided to do something about it at last.

In not addressing their condition immediately and avoiding activity, respondents have shown again how avoidance is part of their coming to terms with the fact that they may have a problem which challenges the integrity of the body. The integrity of the body is maintained until they find they cannot complete their social obligations. Outside factors such as GS shows avoiding behaviour in how he perceives lack of control over his body to be attributed to external factors which is corroborated by his brother who happens to be there at that particular time. AM describes her back as being fine as long as she does not attempt anything too strenuous. Her way of coping with her condition and discomfort is to not over exert herself – or put herself in positions where she might become uncomfortable. IW describes how he initially externalised the problem feelings about the onset of his shoulder condition. IW uses the body as a machine metaphor describing his condition as a car and how not acting on evidence provided, leads to a worse problem. He felt he did have the power to take control and chose avoid the problem. In using this machine metaphor he showed how he objectified the arm and again viewed it as something external to the body rather his whole self. Language used here also reflects this externalisation of the limb and the arm is spoken of as being something mechanical, which is malfunctioning and describes it as something to be mended. GeS's decision to address her problems is again not a quick decision, but it is motivated by the desire to perform daily activities without discomfort. Her realisation that over a long period of time her arm has not got better led her to seek help. Her body is letting her down in performing usual social roles, however it takes her a significant period of time to acknowledge this and realise that she had the power to take control. Seeking help and following advice helps her attempt to regain control of her arm. Her perception of the problem is that there is the "final little bit" to heal, which means although the body can heal itself to some extent; it cannot completely heal without help from professionals.

GS incorporates his family history and family beliefs into his interpretation. He talks about how his genetic heritage predisposes him to this condition – he is destined to have the condition and his response was to believe that he did not have the power to change it. This is due to the culture of the family and their explanations of back pain (the explanation is reinforced by his brother who arrives during the interview) - invoking the biological positivism of naturalistic theories. He mentions family members who have experienced significant episodes of back pain requiring hospitalisation, physiotherapy or other treatment.

Respondents also showed that a pragmatic approach to the condition might also include emotion and subsequently they expressed their fears that the condition would not be resolved. In some cases fear gave them the power to respond to the condition and attempt to take control. This fear inspires their response to the loss of control of the body.

> **MM:** "because I'm usually so ever so well and energetic it doesn't come very easily having to be in and taking ages to get dressed and undressed and to do things. The garden is in sad need of doing but I can't do it so it doesn't come easily but I'm trying to be very patient and let it just take its course.

> MM describes an emotional, pragmatic response to her condition.

> **AC:** "...hopefully I can get it right again because it is very limiting if I can't. It's quite frightening to think that if it is a weakness the slightest bump on it and it could happen all over again. I really want to get on top of it; I really must get it sorted. Whether we end up having any physical interference at the end of the day, when I say physical whether its surgery or not I've got to go for it because I really do need to get it right."

> **AC:** ...I've got a week off work next week so I should be able to persevere and consciously make an effort to get things right and I would think if I'm not right in another three weeks or so given the progress I've made then I'm not going to be totally right. I hope I'm wrong I hope I can do it.

AC shows both a pragmatic and emotional response to her shoulder problem in her hopes and fears about her attempts to address it.

> **CS:** "You can see my spine, if I bend over then it really does stick out.
> I look weird when I walk past windows and I see the way I'm standing and I think this doesn't look right..." "...If, I don't make a conscious effort to do something about it then I'm just going to get worse and worse"

CS demonstrates how she has an emotional and practical response to her condition which is triggered by how she perceives she looks. This leads her to make a conscious effort in trying to regain control.

> **DP** "I was quite annoyed at myself because I couldn't do the same with this arm, as I used to be able to do, so it was rather restricting"

> **DP:** To go to this party I put on a dress with a zip and I hadn't tried it on because at first I couldn't get anything over my head so it all had to be buttoned down the front or whatever and then I thought oh heavens how am I going to get the zip up I never thought about that, I'll just have to ask someone to zip me up when I get there. I manage alright now so I've come to the conclusion that its very slow progress and as long as you do your exercises even if its only an inch [increased range of movement] a week that is worth something. I never dreamed it was going to take this long, I really didn't.
>
> ***Field notes:*** *DP was a determined lady and the interviewed conveyed her fears of not being able to regain the way she was before her fall and her frustration at the length of time it was taking to regain function. She was very anxious to return to her job but has gradually realised that this goal is becoming less likely as her condition does not resolve. She expressed her fears over and over again that she may never regain full use of her arm.*

DP also expresses an emotional and pragmatic response, but is emotional in her fear that she may never regain her former mobility and pragmatic in her determination that she will do her utmost to ensure that this does not happen.

The respondents are mainly motivated by fear which leads them to adopt a pragmatic approach. MM's view of the condition is expressed through her perception of the problem being time-limited and being allowed to run a natural course supported by exercises. Her sadness at not being able to complete her usual tasks is expressed through description about how energetic she was before her accident. Her resolve to be patient and let the healing process take its course will be ultimately leaving an element of the outcome to chance. AC talks about addressing the problems of her shoulder, and describes her fears, tempering them with a practical approach. She does not refer directly to her shoulder, but instead uses the third person "it" which objectifies the problem for her. She looks at her shoulder as a problem to solve and schedules it for when she has some more time to focus on it showing as well an element of avoidance. The potential to take control of her condition is not immediate and has to wait because of a lack of an opportune time. She has not ruled out surgical options which might be needed, and is happy to let other authorities (surgeons), help her arm regain its former function. CS shows a perception that her low back problem has physically changed her body, which accentuates her feelings about how she has lost control of her body. Her response to this is to try and take action to help the problem. She is conscious of her appearance in the world and how others see her (as also demonstrated by JJ in this theme), which will in turn influence how she feels about herself. Taking control in this context means changing her life for the better – she will look better and feel better. DP has experienced situations where her shoulder condition causes her to become annoyed with herself and has put her in an embarrassing situation. Again demonstrating the importance of how others perceive the problem. She also describes how her expectations about her condition were wrong. DP shows that she accepts her slow recovery rate and finds ways round her inability to perform basic functional tasks such as getting someone to help her. She has seen gradual progress, which means that she has some control over her body's function after seeking help.

6.2.1 Conclusion

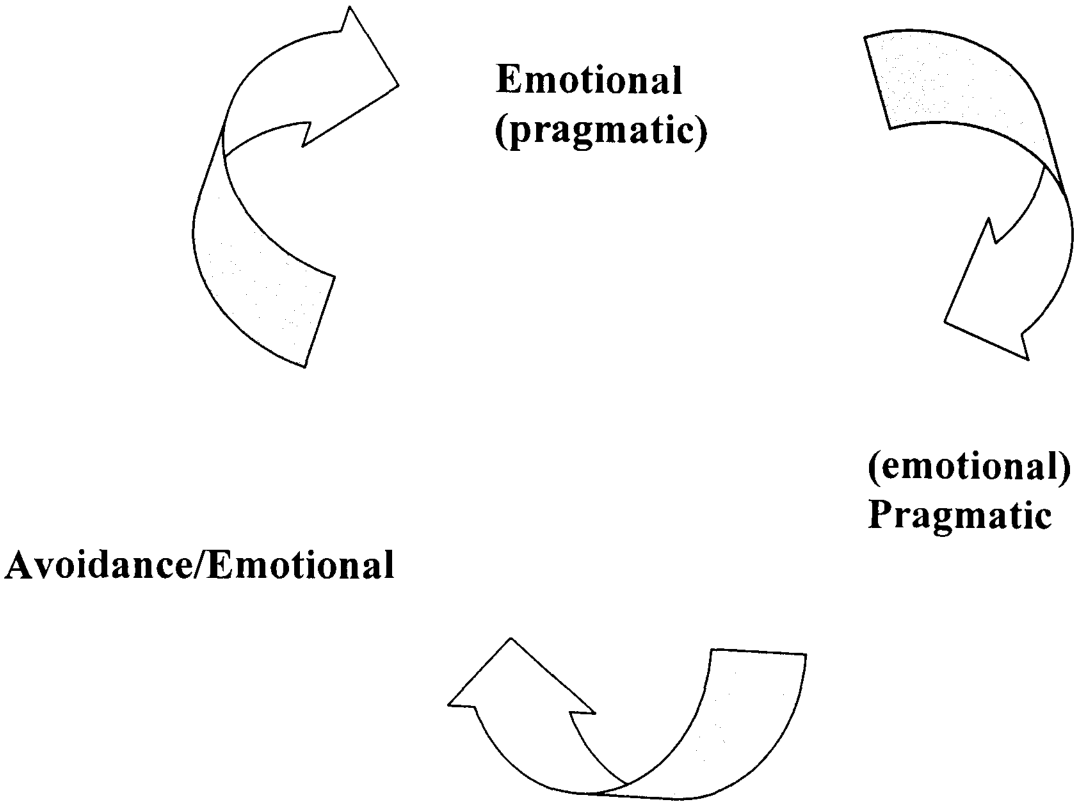
Respondents demonstrated a range of responses to their conditions and demonstrated a range of ways of coping and expressing themselves. Respondents found that it has been difficult to assimilate their disabilities into their everyday lives and appeared to objectify their conditions, looking on them as separate entities from their social selves. It is also important to underline that respondents have an emotional response to their condition, even when they have decided to seek help from a health professional and this develops into a practical response elements of the emotional state remain. However it remains dominant in some more than others and in some cases galvanises action, but in others eclipses action. This theme shows how individuals perceive they had control over their bodies and how they described their behaviour and perceptions of control in order to reclaim the body from illness. It also provides clarity on how individuals behave in the way they do in moving forward from the avoidance/emotional stage of their illness to the emotional/practical.

Table one summarises the sentiments which were expressed in this theme. These findings could also be viewed as a cycle. Individuals may express a number of sentiments at different times or stages of their illness as part of their illness experience. The emotional element may come to the fore of the illness experience at different times. This can be viewed pictorially in figure four.

Table 1. Findings Summary for "Responding to the loss of control of the body"

Type of response	**Ways of having control or no control**
Emotional	Erratic behaviour – "boom and bust"
	Negative – no-one can help
	Depression
	Social withdrawal
	Fear of condition
Pragmatic	Help seeking
	Social withdrawal
	Medical help
	Acceptance of condition
	Actively taking on regimes
	Making decisions
Avoidance	Ignoring condition
	External attributions eg genetic heritage
	Objectifying condition eg use of metaphor

Figure 4. Cycle of Regaining Control



6.3 The decline of the body

This theme explains how individual perceptions of ageing effects how respondents think about their own body's decline and demise and subsequently their power. Participants' ages are noted in this section so the reader can gain a perspective on how old the respondent is in relation to the types of ideas they are expressing, this demonstrates that the age is not necessarily linked to feelings of decline and ageing. Ageing provides a marked change in the body and changes in the power that individuals feel they have over their bodies and the ageing process. Changes in the body due to musculoskeletal problems can act as a signal or marker of the ageing body (Williams and Barlow, 1998) and the signals of ageing given to respondents through their musculoskeletal problems provoked responses from respondents both in terms of how society perceives them and how they perceive themselves. A defined musculoskeletal problem can act as a sharp reminder of the mortal self and the limitations of the body, which were not present in youth in terms of feeling and looking older than their years.

Respondents spoke of how they perceived age as playing a negative role in the healing process and how it diminished their sense of power over their condition.

> **DP**: "...yesterday I think she [the physiotherapist] thought I was a bit despondent about it all and she was saying that, (I don't know how old these ladies were or if they were ladies or not) she said, one lady couldn't lift her arm up off the bed and I only know one person, that's through a friend, and she fractured her shoulder and her foot now she's two months ahead of me so we'll say five and a half months ahead since she had her accident and she back nursing. Now I can't visualise, although I suppose quite a lot can happen in two months and she's younger than I am so I think that does help but she is still going to physio...age, I don't think that really helps as you get older perhaps arthritis sets in but there again I suppose I could have broken it there, it must have gone to the right of the shoulder but it could have been there or in the wrist as well so yes when I'm feeling passive I think it could have been worse.

DP (66 years) talks about how she perceives that her age is a mitigating factor in the healing process of her condition.

> **DL**: I couldn't have done that [exercise] eight week ago, I had a job to put one leg after the other really. I mean you get like to my age and you think oh, its age like.

DL (62 years) also confirms how he felt his experiences of back pain were the inevitable consequences of growing older.

Respondents look on ageing as having negative health consequences and their perception of the body is that it repairs itself better when it is young. DP listens to the story the physiotherapist tells her about individuals who she might compare herself favourably to in her progress with her condition, she considers age to be an important factor and demonstrates this by contrasting herself with a younger person who has recovered quicker. There is less control over the health when the body is older and it is prone to other conditions like arthritis which is associated with older people in a way it is not with a younger person. The story of the younger person who recovers faster eclipses that of the other person who has recovered slower, whose age was not disclosed to her. DL also expects his body to start letting him down as an inevitable consequence of getting older. The expectations associated with the ageing process indicate a self fulfilling prophecy. He feels as if his body will let him down because he is older and it does but this is because of his age.

Respondents demonstrated how the condition made them feel old and as such had declining social power and contrast this with views of their younger selves.

> **AM**: "...I've gone really, I think of myself, I've gone like an old woman."
> **AM**: "I never really took many tablets because I don't believe in it, what I used to do was get out the hot water bottle and put it on my back and sometimes I just get on with it, if you've got things to do. But now I've got more time for myself maybe because my children are all growing up, and because I've got more time, maybe I'm feeling poorly, but before I was younger. I used to run an B&B and look after my children, but my two big

> ones have gone anyway, but they were here before, so I've got more time for myself and maybe I'm thinking about it a little bit more. I don't know, but my back, it never bothered me that much because I could get on with it."
> **AM:** "...I don't lift anything and if I do bend down I do it very carefully, you know like before I used to jump on the floor and pick things up, now I tend to go slow myself, when your young you just turn around and do it but I'm conscious in my brain I say 'oh don't'. Sometimes somebody drop something and I dare not jump and pick it up and I think oh no wait they might to it themselves. I'm much more lenient with myself."

AM (49 years) demonstrates how she is feeling older as a result of her condition. AM expects and accepts the fact that age is the cause of her back problems and she notices her back pain more than in her youth.

> **PH**: "I suppose as you get older, you know...it's just one of those things in the end...I'm hoping that it's going to go you know altogether. I mean there are some days when it's not good when you get out of bed, but I suppose in a way you think to yourself it is your bones that are wearing aren't they, you know, the wear and tear of your bones"

PH (68 years) also describes the inevitability of ageing and the role it plays in her condition. PH also shows how her condition makes her feel old and presents an image of the physical body wearing out.

> **PM**: "I just think I'll be like an old age pensioner which I will be soon enough but its dead frustrating when you can't do things isn't it?"

PM (44 years) also describes how her experience of back pain is making her feel older than her years which frustrate her.

> **JA**: "I've had this for quite a few years and I felt as if I was getting old before my time. I felt like a sixty/seventy year old woman, I've got my neighbours that are old ladies that I do the shopping for, I felt like them, they're restricted because they can't go up the hill because we have to go up the hill and that and they're restricted they can't get up the hill and I felt just as bad as them after rolling out of my bed in the morning..."
>
> ***Field notes**: JA presents herself as an energetic single parent of a 10 year old who seems to pride herself on being busy. She is not able to work at the moment and had to give up a shop job due to her back pain and the lifting the job involved. She wants to go to college to train as a beauty therapist. During the course of our interview her mobile phone rang several times and she spent*

some time making arrangements with friends and relatives and she talks about how she helps out her neighbours.

JA (39 years) talks about her perception of herself becoming older than her years, through suffering with back pain.

The experience of feeling old invokes a perception of the body wearing out and having daily activities and social responsibilities interrupted. Certain things which were taken for granted such as getting out of bed reminds them of ageing and people who are older than them. Comparisons are made with others who are younger or older as well as their younger selves. AM associates ageing with her back problems but allows herself to accommodate a gentle decline in physical activity. It also symbolises a decline in social responsibility in terms of family responsibilities and allows her to alter her identity away from her frenetic younger self with her responsibilities towards her job and family towards thinking of herself and her health more. AM associates youth with boundless energy and age with slowing down and feeling tired, but does not express regret that she does not retain the same pace of life. She associates the absence of her children (now two have grown up and left home) with her feelings of lack of energy – she does not need to be so active. She was able to be active because of her youth, and also because of her social responsibility to her children and her job required it. She acknowledges that she pushed herself, but now she has more time to think about herself and her health, she accepts that she cannot do some of the activities that she once took for granted. PH provides an image of the physical body wearing out. The body is perceived by her to be a declining frame, which may let her down from time to time, as she becomes older as it wears out. She creates an image of the body as being used up through age, or fading slowly away. PM expresses frustration in relation to not being as active, and looks upon her problem as accelerating the ageing process that is making her older than her years. Her perception of older people is of people who cannot do tasks, so she needs to be able to express herself as being younger than that by at least trying to do things, to enable her to keep power over her identity as someone who is not yet old. JA also shows ageing as being in a state where people can not fulfil their everyday activities and social roles. She also demonstrates that her role in helping her older neighbours might be jeopardised.

Other evidence also describes the perceptions of ageing as extending to how they feel about their appearance. The perception of an older physical appearance in addition to loss of power and strength to carry out everyday activities underlines respondents' feelings of the body's decline. As well as being fearful of ageing and the associated changes in body and bodily functioning respondents go to lengths to avoid performing a behaviour that will lead them to exhibit behaviour which makes them *appear* older.

> **CS**: "I don't want to be a crooked old woman when I'm older because that's the way I'm going if I don't start doing something now as you see these little old ladies that are really arched over. My boyfriend said to me last night 'god you're going to be really crookedly' and I thought I'm not."
> ***Field notes:*** *CS is a petite lady who seems on the verge of distress, who has her baby with her who interrupts us from time to time. She presents her boyfriend as being unsympathetic to her chronic back pain and I interpret her comments about him in a negative light. She also has a 6 month old baby and two older children which resonates with me as a mother of young children. I get the impression that her boyfriend undermines her through negative comments and not helping with the baby and the other children.*
> ***Reflective diary*** *Her image of an old woman makes me think of a Grimm's fairy-tale type image of an old lady.*

CS (36 years) demonstrates that looking old is a real worry for her, especially as her boyfriend reinforces it.

> **AT**: "It's not ideal because it gets to the point when you don't want to sit down and you kind of avoid sitting down and the wife says why are you walking round all the time, but it's not ideal, but yes I would rather be active

> than sit down and you've probably seen it a hundred times getting up like an old man of ninety where you are trying to straighten up."
>
> ***Field notes**: AT is an enthusiastic man who presents me with a picture of someone who has had an active life skiing and doing other outdoor sports. He is a semi-retired executive who has lived in several places around the world and spends some time showing me around his large house and the impressive work he has recently done renovating it before we start the interview. He has carried out most of the renovations himself. His use of the words "you've probably seen it a hundred times" implies he looks on me as a health professional that sees patients regularly.*

AT (59 years) shows that he is mindful about how he might look older than his years in certain situations which leads him to avoid them.

CS describes an image of ageing as having a distorted body - being bent over and frail. The implications of the visible ageing crooked body are especially poignant when another person voices them as this makes these worries concrete. AT avoids sitting down because he has difficulty getting out of the chair even though there may be only his wife present. He attempts to normalise it by acknowledging it is a common phenomenon, but his behaviour indicates that he would prefer not to sit down than display the behaviour of a more elderly person. His vigour for life and his apparent active lifestyle mean that he finds the condition which reminds him of the decline in the body, difficult to accept, so he tries to subjugate it.

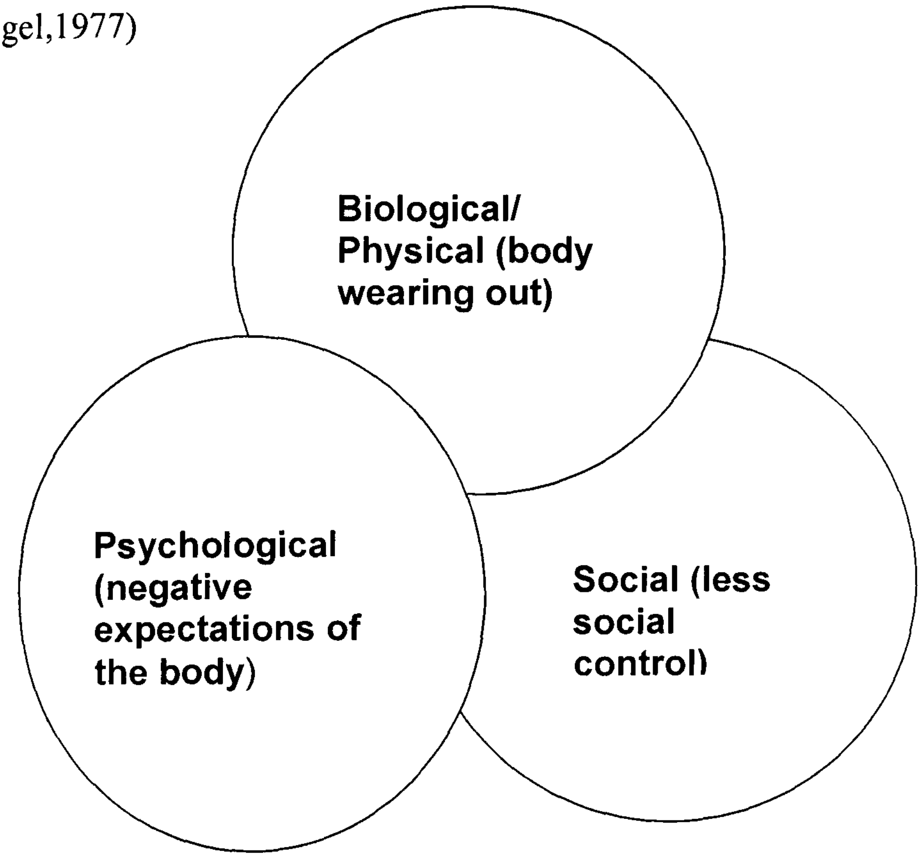
6.3.1 Conclusion

This theme describes how respondents acknowledge the ageing process and the role it plays in their condition and their perceptions that it marks a decline in the body and hence power over the body. It also demonstrates that their condition imposes a greater perception of ageing and decline in respondents through their personal experiences and how they are viewed by others. Influences on how they feel about their physical condition are drawn heavily from social situations and how they are perceived by others which also have implications for psychological well-being. Respondents discuss how their condition is reminder of the fact that they are growing older and the influence this has on control. Age and ageing rather than being biological facts to be confirmed by reference to a birth certificate, is shown to be a socially constructed phenomenon. Table two summarises the three main responses from this theme the psychological, biological and social. Figure five provides a model (based on Engle's famous biopsychosocial model) of how these three elements co-exist within the individual's feeling of decline in the body. The three elements co-exist and are often experiences simultaneously in an individual.

Table 2. Findings Summary for Decline of the Body

Type of Response	Musculoskeletal problems tell individuals:
Psychological	Becoming old prematurely
	Negative expectations of body
Physical/biological	Harder to heal the body
	Limited activity
	Sign of body wearing out
Social	Signify an era of social decline
	Inability to fulfil social duties
	Sign to others of ageing
	Release from responsibility
	Legitimates avoidance of activity
	Less social control

Figure 5. Model of Perception of decline. (Based on the biopsychosocial model (Engel,1977)



6.4 Regaining the body.

The videotaped exercises provided a vehicle through which the body could be regained. That is, informants believed that exercises played an integral part in regaining *strength* and therefore normal or near normal function. This theme explores how individuals defined their use of the videotape in supporting their body's recovery through regaining their former activities and their reliance on the videotape. Respondents motivations and responses are explored. Exercises are viewed as being able to provide noticeable benefits, provide a means of halting physical decline, provide goals and be a catalyst for further activities; however doing them might also be limited by the condition.

Respondents showed how their goal of being able to perform their usual activities was important in motivating them to carry out their exercises.

> **AW:** I think if you have a goal, if you play any sport and you want to get back to it, if you have a goal of any kind this makes you do them [exercises], it does make you do them. Well I know I have to do them for my own benefit, I must get mobile.

AW demonstrates how the videotaped exercises have enabled her to focus on her goal of regaining her body and participating in former sporting activities.

> **MM**: "So as I said to X [physiotherapist] I will do the exercises and persevere and get as much mobility as I can and be satisfied with that."

MM describes how she concentrates on the exercises to allow herself to regain her mobility.

> **CS:** "...when you feel that you have got to do it [exercise], it is easier to do it with a video as I must admit I never used to do anything before."
>
> **CS**: "Well if I don't do them [the exercises] and I don't make a conscious effort to do something about it then I'm just going to get worse and worse and

> by the time I'm fifty I'll be in a wheel chair or something so I'd rather think more positive about it and try and do something while I can."
> *JM: "Do you think you are feeling a little bit more positive at the moment?"*
> **CS**: At the minute I am because I want to be determined to do it…"

CS perceived that the exercises will allow her to stop the decline of function and appearance in her body.

> **DP:** "I'm going to get better, that's my goal. I am going to get better" (twice for emphasis).
> **DP:**"I have got to say in all honesty I don't enjoy it [exercises] but I wouldn't dream of saying I'm not doing them, its not worth it. I just make myself do them, you've got to have some control because I want to get right, that's the burning factor that keeps me going."
> **DP:** "I manage alright now so I've come to the conclusion that it's very slow progress and as long as you do your exercises even if it's only an inch a week that is worth something. I never dreamed it was going to take this long, I really didn't."
> **Field notes:** *The physiotherapist who referred this patient to me for interview said that she thought it was unlikely that she was going to regain full mobility in her arm although she has not mentioned it to her because she felt it would be detrimental to her motivation in the treatment she was receiving. This put me in a position where I felt sorry for this lady as she talks about her hopes to regain her former function and her efforts to adhere to the exercises despite her discomfort.*

DP notes that the exercises are the key to her regaining movement in her shoulder and achieve her goal of a full recovery. The value can be viewed in small amounts of progress.

It is demonstrated that individuals are struggling to regain their former mobility and there is a sense of sadness about the activities and hence lives that are lost to them with their condition. Physical bodily changes as a result of a musculoskeletal condition can lead to individuals taking action and taking control of the body through doing the exercises. AW shows how her prime motivation to return to sport is supported by the exercises and she looks on the exercises as vital in supporting her to do this and has a specific aim to regain mobility in order to play golf. Her prime motivation is supported by the exercises. CS shows her motivation by the way she envisages a future of reduced mobility and a lesser quality of life. She perceives that the videotaped exercises play a positive role in helping her regain her body or at least slow down the perceived degenerative process. Although DP dislikes doing the exercises she is viewing them as essential to her goal of regaining her body and this motivates her to continue. Her frustration at the length of time it takes to recover does not stop her commitment to the exercises.

Motivation to carry on with the exercises is also demonstrated when there is marked improvement and gains perceived from carrying them out. This is also translated in an enthusiasm for exercise and carrying on with other activity.

> **GS**: "...they were just totally for my back problem...the exercises on the video were working on the problem I'd got, which is good... I feel like I am actually exercising, because I haven't done any exercise whatsoever."
> **GS**: "I've noticed I'm more flexible when I bend over. I can bend over a good deal more than I used to."
> ***Observations: "GS was very keen to show that he was enthusiastic about exercising and keeping fit. His fitness regime was curtailed by his road traffic accident which caused his back pain and now he is exercising again he is feeling much better for being fitter.***

GS shows that the benefits he derives from the videotaped exercises are twofold – firstly he is able to use them to focus specifically on his back problem which has given him notable benefits and secondly he is feeling fitter as a result of doing them.

> **AC:** "It was suggested that I did what I could and I followed through a few more of the exercises as I felt the mobility coming back, so it was useful to have that you know. But you can't do more than you're physically capable of doing, so it's not dangerous in any way, you're not going to over stretch yourself are you? But it was useful to have it [the videotape] there because I think I can do that, I wonder what I can't do or where I am limited."

AC also expresses the view that performing her exercises is constrained by her condition but notes that exercise helps encourage the mobility to return.

> **GeS**: "by actually following a video… it's much better. I've only been doing them for two weeks and I'm finding a big improvement"

GeS also notices that the exercises show an improvement which are facilitated by the videotape.

> **DL**: I struggled [laughs]to start with because I didn't realise how unfit I was really…
> *DL describes videotape exercise*
> …but even the supporting yourself on your arms for five minutes, 2 ½ minutes and I had collapsed. I had strain down the back of the arms. To look at it you would think well, there's nothing to it really. [pause] but I persisted with it and now that one I'm up to, I can do six, seven minutes no problem. Various other ones I struggled with those as well to start with but now I'm also doing two mile at night walking and I do, I've started walking lunchtime at work. So I've got that up to about a mile and a half at dinnertime
> ***Field notes:*** *DL was proud of the progress he had made – he put the videotape on while I was there and we talked with it on in the background. I got the impression that he expected me to demonstrate the exercises. He was also proud to describe his daily exercise regime of walking which had started as a result of trying to do the exercise for his back and finding out how unfit he was.*

DL describes how he was inspired to use the videotape was a catalyst for starting further exercise and produced noticeable benefits through improved fitness.

> **IW:**"…if it said do ten then usually I'd do fifteen or twenty trying to go for it whether it did any good I don't know."
>
> ***JM**: What part do you think exercise played?*
> **IW:** "I think it played a lot; I think it did the whole thing really. I don't think it would have got better on its own as quick as it has done as I said it's been the last twelve months really."

IW believed that he needed to increase the amount of exercises recommended and the exercises have hastened his recovery.

> **GW:** I'm not getting any problems with my back at the moment. I did have, but with the exercise and the physio I just get a bit of twinge when I get out of bed in the morning.
>
> **GW:** I have been doing a lot of the exercises but Alison only gave me the four to do not the lot just four and do ten at a time but some of the exercises I've been doing two hundred in the morning

GW showed how he used the exercises to build up to doing more exercise and is has had a notable relief from his back pain.

Beliefs about exercise and perceived benefits in terms of flexibility and fitness empower respondents to take action to minimise the effects of the problem. By taking action they can alleviate the effects of symptoms or prevent the pain returning and regain and maintain power over the body. Having the videotape also worked as a benchmark for AC and allowed her confidence in exploring what she needed to work on in the future and where the limitations lay. However she expressed the view that exercises might even be dangerous if individuals overstretch themselves. Videotaped exercises support GeS through giving her ability to improve her condition and noticeable benefits. She finds it easy to improve her condition with the videotaped exercises. Similarly, IW does more than recommended to try and regain control of his body and he thinks exercises have played a role in his recovery. He believes that if he does more than the recommended amount he may get better quicker. DL's body let him down initially and demonstrated that he was more unfit than he originally thought and his lack of fitness became an object to be overcome. The videotaped exercises have played a role in allowing him to take control and successfully build on his fitness levels, and expanding his fitness regime and receiving noticeable benefits. This demonstrates a sense of achievement and empowerment that DL has achieved in the control of his physical body. GW continued to do exercises from the videotape even though he was experiencing little discomfort at the present time which gives him a sense of control over his body through preventative measures.

Not all respondents felt that they could easily regain the body through exercise and they cautiously make this heard in the interviews.

> **PM:** "the exercises they were good and as long as you're not in too much pain to begin with you are all right doing them so I did them and still do them when I can do them."
> **PM:** "I haven't noticed any real difference myself but I think maybe if you did them everyday but I don't do them everyday only because I can't do them everyday. So I can't really say as if I did them as you're probably supposed to do them maybe it would so I don't know."
> ***Field notes:*** *PM said that she was strongly encouraged to attend the physiotherapist by her GP even though she was sceptical initially. She emphasised this point perhaps to make sure that I knew she had reservations about the efficacy of physiotherapy and physical therapy from the outset.*

PM relates that she found it difficult to carry on with a regular exercise regime due to her condition limiting her.

> **KR:** "Well I'm not doing them as often as I should do really, because when I start doing the exercises I start feeling the pain and I'm a bit of a coward so I tend to stop and I don't do them as often as I should, but I am trying but I keep getting these awful pains, excruciating pain then I stop."
> **KR:** "I think if I had realised what it was and started doing exercises to release the muscles in the back of the neck as soon as I started feeling the pain I might have been shut of it by now but I didn't realise what it was and just kept on."
> **KR:** "It helps at the time, but its worse afterwards, if you know what I mean".
>
> **Reflective diary:** *I wondered whether KR perceived me as a health profession which prevented him from being more candid about the fact that the exercises did not seem to help him. This fact was underlined more to me upon reading the transcripts. KR also smelt of stale sweat (the physiotherapist had told me that he had problems with body odour). I felt that I did not allow this to influence the interview; however there is the possibility that my discomfort was conveyed to him.*

KR is also limited by his condition in doing the exercises and the discomfort he feels afterwards.

> **AM:** "I think that the only one that is beneficial for my back is that one."
>
> **AM:** "It was very simple, that's what I like about it; it's not overdoing it. Mine only takes about ten minutes; it's not overpowering and its very gentle,

> very gentle exercise. It's not like one of these tapes that's in twenty minutes, ...do this [gestures meaning a strenuous aerobics videotape] ."

AM feels that only one of the exercises is useful for her back and provides noticeable benefits.

These respondents underline the importance of being able to notice an improvement in mobility or relief from discomfort. If these things do not happen easily they find it difficult to continue with prescribed exercises. For example PM did not gain any sense of improvement or control of her body thorough doing the exercises. She emphasises that she has attempted them and emphasises that she does not personally feel they are providing her with much benefit. KR's feelings flow in a similar way to PMs. Although he blames himself for not having a stronger mental attitude to force him to do the exercises and an earlier response to the condition would have helped him complete exercises. He states that he feels the exercises would have played a role in releasing muscles in his neck if he had started them earlier. Out of the four exercises she has been prescribed, AM finds that only one exercise gives her relief from her condition. The simplicity and lack of strenuous exercises which helps her as she does not believe she should do any strenuous exercise.

6.4.1 Conclusion

This theme concentrates on the utility of the videotaped exercises and individuals approaches to completing them. The way physiotherapy consultations often have "homework" to support the consultation, was accepted by patients as being beneficial to their treatment. Exercises supported their bodies and enabled them to grow strong, providing individuals with greater flexibility and fitness. Exercises also gave patients benchmarks for improvements, goal setting and were seen as key to regaining function. However completing exercises was not always easy for respondents and the commitment to them might be dictated by their discomfort from their condition or fundamental beliefs about their efficacy. The exercises were seen as playing a crucial role in allowing patients to complete their exercises and regain their bodies' strength, function and flexibility but advantages for some from the types of exercises that were given represented disadvantages for others. Table three summarises the main points in this section.

Table 3. Findings Summary for "Regaining the body"

	Exercise
Advantages	Exercises help recovery
	Exercise allows active engagement with the problem
	Exercise increases flexibility
	Exercises give determination to tackle the problem
Advantage/Disadvantage	Exercises are simple
Advantage/Disadvantage	Exercise can be influenced by pain
Advantage/Disadvantage	Exercise highlights limitations of the body

6.5 Discussion

Power and the Body emerged in relation to respondents' perceptions of their bodies as changing entities due to their condition and how they responded and attempted to overcome these changes, regain the body and return to full function. The physical disability which respondents encounter exerts a psychological and social deterioration of the personal and social self, which results in feelings of loss of control. Sub themes described aspects of the bodies' functions and responsibilities and the role of videotaped advice and exercises in the process of taming or regaining their bodies. Aspects that emerged from their experience of a debilitating musculoskeletal condition were perceptions of lack of control of their bodies, a sense of decline of the physical, social and mental faculties. Foucault's theories provide a comment on interpretation of these functions in his analyses of "bio-power", (Foucault, 1990:140-4) however it should be noted that this study is more concerned with the "anatamo-politics of the body" (Foucault, 1990:140-4) at an individual level rather than the "bio-politics" (Foucault, 1990:140-4) of population health. Foucault describes the body as not natural or neutral but as reproduced through a specific set of practices and discourse (Bunton and Peterson, 2000:5). His approach draws attention to techniques for managing the social body "apparatus of normalisation" (Armstrong 1983:51) as dictated through discourses. This theme describes how the body is seen, described and acted upon in relation to a musculoskeletal condition. Data show that the body which has been constrained by a musculoskeletal problem transcends the traditional definitions of acute and chronic and exists on a middle ground where boundaries may be blurred. The importance of the emotional self as part of the physical self is also highlighted in this theme. This is evident in *sections 6.2 and 6.3.*

As individuals attempted to regain power over their bodies through alleviating their condition, videotaped exercises played a role as demonstrated in *section 6.4*. Although the videotape did not influence how individuals perceived themselves and their bodys in relation to the condition, it did contribute to how they approached recovering from the condition in terms of completing exercises given by the physiotherapist and looking at how they might overcome the condition. It also highlighted where exercises might not be useful for respondents. This theme confirms that the body is more than a surface without depth (Fox, 1993:23) and is a multi-dimensional construct which consists of history, experience as well as physical, mental and social states (Turner, 1992:16).

6.5.1 Responding to loss of control of the body

An illness which affects the body means that individuals experiencing it suddenly find that their body is speaking an unfamiliar language – it is not behaving as it should and they need to interpret this new unfamiliar body's language (Kelly and Field, 1996). The sense of constancy in the embodied self is lost along with the ability to predict and plan future actions. Thoughts and feelings about their body can have a profound effect on an individual's sense of self and how they respond to this information through their actions (Kelly and Field, 1996).

The data show that individuals responded to the condition with emotion, but the emotion was tempered with avoidance and/or pragmatism. This demonstrates that individuals might move through a series of stages in their illness (see figure four). The effects of human emotion in response to a condition have also been shown in other studies such as studies in epilepsy (Jacoby, 1994); cancer (Schou, 1993); and rheumatoid arthritis (Williams, 1984). Data from this theme shows that individuals feel deeply about their altered physical status, and although the videotape has little role in these reactions to illness, it can play an important role in how individuals respond to the medical treatment and advice they have received. Understanding the body is an integral part in control and insight into how they behave.

Individuals behaved in a number of different ways towards their condition. One way of coping was to avoid or ignore the body and objectify it until it resumed its "normal" duties. Patients used a number of different strategies to objectify the body, which was a part of the process of moving forward to future action. In the study all respondents had consulted a physiotherapist, so we can assume that by consulting a health professional they were attempting to address the problem. It was important to consider how the avoidance-emotional transformed into the pragmatic-emotion. Data showed that some individuals did not appear ready to engage with an exercise regime. Coping with the body in its "weakened" state inspired a number of different behaviours which affected the attributions that were ascribed to the condition, such as the belief that exercise is the key to recovery and will allow the body to be tamed and returned to its former function. In this sense Foucauldian concepts of the self governance and discipline were evident. This could be viewed as an aspect of disciplinary forces which occur as a result of the way society views health and illness. Society imposes a form which is the template of human functioning and what is expected of us. Through society's discourse, bodies are manipulated, shaped and formed into functioning objects that work. These bodies behave in a certain way to obey our societal obligations (Foucault, 1991:135-169) – the "useful body" (Foucault, 1991:136).

In *section 6.2* the avoidance and emotion state often changed to pragmatic and emotional in response to individuals' social responsibilities, so in the case of many, this is the driver for action or responding to something which will provide them with assistance in meeting this goal. In some cases the body was viewed as being out of control and outside their control – it may be easier to view something as subject to external forces outside our control (Leganger and Kraft, 2003) and blame it's occurrence on our environment rather than to attribute it directly to ourselves and our own bodies malfunctioning. This *allows* and legitimises an individual to have no control or responsibility for the problem which has occurred and may over-ride social responsibilities or act as a driver in abdicating from them. Other researchers have also concluded that certain chronic illnesses such as low back pain have certain societal benefits and legitimise lack of activity (Parsons, 1979; Chew and May, 1997).

As part of the avoidance aspect of the condition, respondents might chose to objectify their condition. Naomi Scheman notes that the *Cartesian* subject establishes its claims to cognitive authority by separating itself off from its body, which then becomes not the lived body but the object of investigation – a mechanical body, best known by being taken apart and examined. This body became:

> "the paradigmatic object of an epistemology founded on a firm and unbridgeable subject-object distinction. And it became bad – because it had been once part of the self and it had to be pushed away, split off and repudiated. So, too, with everything else from which the authorised self needed to be distinguished and distanced. The rational mind stood over and against the mechanical world of orderly explanation, while the rest – the disorderly, the passionate, the uncontrollable – was relegated to the categories of the "primitive or exotic"
>
> Scheman 1993:

This encapsulates the concept of the body as an entity amenable to technical control and therefore subject to constraints, disciplines and obligations (Foucault, 1991:136) this objectifies the body into an economic entity rather than a subjective entity with emotions and language.

The idea of degenerative or unpleasant changes is demonstrated in *section 6.2* and signified a lack of power leading some individuals to ignore or dissociate themselves from it – it may become a problem to be dealt with by them later. In complying or seeming to comply with medical advice and the regime, they are behaving within acceptable boundaries. Hence Foucault's ideas of individual agency emerge and may provide interpretation of these phenomena. However it can be seen that the prevailing discourse mediates their responses. If respondents think that others would find this useful and they do not, then they obliged to acknowledge the majority's view of the concept and at least give the impression that they think it is a good idea, or demonstrate a social face to their condition. Otherwise, they will seem to be people who are not willing to comply with instructions or are deliberately going against trained professional advice; such is the power and associated knowledge that the therapists bring. This is also underlined by some evidence of respondents feeling that me as a researcher was a health professional who might be checking up on them. Foucault, (1980:109) noted this in his discussion about how the medical system and social systems are interlinked. Individuals accept that the therapist who is endorsing the approach is qualified and hence exerts more power than they do and therefore their decisions about treatment hold authoritative weight. However individuals (as with other forms of authority such as the police) may still not want to comply with them or feel that they are unsuitable to their personal needs. This is demonstrated by those individuals who struggled with the exercises or who believed they would have no benefit to them. This implies that the discourse in health with regards to clinical treatment in putting the patient at the centre of the consultation rather than adopting a paternalistic approach does necessarily fit with the patients understanding of what the consultation is about. They still feel the need to be seen to be "doing the right thing" rather than entering into a true partnership. Therapists may find it useful to ascertain where the patient is on the avoidance-emotional, pragmatic-emotional spectrum (figure 4), which might have a bearing on what approach they take to individual treatment. Individuals may not feel they have their own agency (Foucault, 1991:156) in response to more overwhelming pressure to comply or at least be seem to comply with the physiotherapist's discourse. It also suggests that the issue of patient choice and empowerment is one which warrants further enquiry. Foucault said in his later work that agency may be denied to some and given to others (Foucault, 1980:55). In *sections 6.2 and 6.4* some individuals are clear about when they feel that the exercises will not be helpful for their condition.

The Western medical model (focusing on the specific problems diseases and viewing them in isolation) looks on the body as an object of regimen and control (Turner, 1992), with emphasis on the responsibility of the individual to be responsible, to control, to maintain and restore health (Nettleton, 1995:110). However this is a fairly recent phenomenon and conversely the medical system has spent decades endeavouring to meet the needs of the population and has inadvertently created a reliance on it. To meet the growing demand for authority and expertise, the medical system is divided into many technical experts and disciplines (Foucault, 1989). The emphasis on the individual, especially in longer term conditions is now returning and this societal view (or discourse) is currently supported by policy in the UK NHS through schemes such as the Expert Patient Programme (a scheme to give patients more knowledge about the illness and therefore allow more choices open to them) (DH, 2001b). The view that individuals must do their best to remain healthy was also prevailing view on participants in the sample, who were proactive in addressing their condition. However for many, their own belief systems, shaped by societal obligations not government policies, have influenced these. The influence of government initiatives or discourses on the fundamental beliefs about health and illness in society might be a useful area of future enquiry as well as how natural stages of acknowledgement of conditions are mediated and responded to.

6.5.2 The decline of the body

In experiencing altered physical conditions, individuals have to accommodate a different image of their selves (Nettleton, 1995:68). In this study image was often described in negative ways (*see section 6.3*). It was viewed, as undesirable to have to experience a disability and it was also indicative of ageing and decline. The link between mind and body emerged as individuals described their condition and the physical changes that were occurring in their bodies. Bodies were being renegotiated and viewed differently by their inhabitants as they attempted to interpret and respond to their body's needs - the symbiotic relationship between the social, the psychological and the physical (see figure 5). Physical decline is also social decline and the two cannot be looked at in isolation as the way that others perceived them influenced how respondents behaved and felt. In Foucault's description of docile bodies, he underlines the fact that individuals are disciplined to impose a cultural blueprint upon their bodies and the way they behave from an early age. Bodies are a means of gaining economic power and this extends into the social sphere of the individual (Foucault, 1991:139) and means that individuals may be at a loss when they become older and therefore less economically able or debilitated in some way. This theme may hold similar interpretations as the previous one *responding to the loss of control of the body 6.5.1* in that social roles and economic "usefulness" are discourses which regulate individuals' responses to a condition.

Respondents associated musculoskeletal problems with ageing, as an indication of a loss of youthfulness and activity which they are eager to hold onto. The ability to be strong and health is also a hallmark of their contribution to and therefore status in society. The influence of society and culture on the individual is constructed through discourses which value the youthful, slim, sexual body, highly and tends to sequester the ageing body from public attention (Featherstone, 1999:174). This is demonstrated by the actions of some respondents to hide away or mask the problem until it has past. Hence, society constructs an accepted view of individuals and empowers the young and vigorous, and looks more negatively at older sections of society. Socially "unacceptable" ways of looking and moving plays a role in triggering action by individuals in relation to their condition. The condition led them to feel that they are demonstrating the effects of decline in their bodies and their "being in the world". Old is viewed as being negative because it signifies the loss of activity, vigour, and productiveness. The inner body is a reflection of the outer body and vice-versa (Featherstone, 1999:171). The appearance, preservation and management of self can represent the organisation and surveillance of disciplined bodies within a social space (Foucault, 1991:192). This again underlines the role of the social self in the physical body.

Respondents viewed ageing as something less desirable even when it gave them benefits, such as legitimising a lessening of activity. Respondents would be prepared to modify their behaviour rather than be thought "disabled" or old before their time. This is expressed through visual means such as their appearance and how they appear to others. The appearance feeds into feelings of self mastery and a display of youthfulness even if they do not feel it inside as demonstrated by those who are humiliated or feel it necessary to hide their condition. Underlying these masking behaviours seems to demonstrate a fear of the body letting them down. Negative images of ageing are often presented in terms of becoming like or looking like an older person. These are expressed frequently in association of not being able to "do" as much and "feeling old" or becoming old prematurely which leads to feelings of playing less of a role in society which values activity and productivity highly (Featherstone, 1999: 192). Williams and Bendelow (1998:76) describe the emphasis on productivity as "a stunning indictment of an era premised on *doing* rather than *being.*" In this model of society, it becomes increasingly harder to grow old gracefully, where ageing has a negative cultural value. Body maintenance is therefore a reaction to ageing in an attempt to retain some of the benefits of youth (Turner 1992:35). A sign of decline such a musculoskeletal problem can act as a catalyst for more effort in maintenance. Data showed responses were tempered with the desire to adhere to cultural norms in how ageing is viewed and in many cases this motivated them to carry out prescribed exercises. Respondents are eager to hold their status in society as depicted by their continued full functioning and the exercises on the videotape provides them with a means to work to achieve this goal. It may allow them to discipline their body in a way that is acceptable to them and the outside world.

The data demonstrate that the body is simultaneously socially constructed as well as organically founded. Armstrong (1987) makes the point that biology and sociology are linked but have historically moved in mutually exclusive circles and autonomous discourses have arisen. Hence a 'political anatomy' or 'mechanics of power' was described by Foucault as he attempted to reconcile the two in his work (Foucault, 1991:138). Data here underline the need to reconcile the two disciplines especially in relation to health care professions and their treatment of individual patients. It is important to view the process as multi-dimensional in order for individuals to be understood and responded to by clinicians.

6.5.3 Regaining the body

Participants viewed the prescription of exercises to individuals by the physiotherapist as helpful. They were able to set themselves goals and believe that they may be achieved by carrying out exercises. A number of advantages of exercises and perceived disadvantages were highlighted by respondents. Conversely, disadvantages for some were viewed as advantages for others, for example the simplicity and non-strenuous nature of the exercises was discussed and for some this was very useful, but others would have preferred something more vigorous.

Exercises on videotape are a tool provided by the therapist and many view it as giving them a therapeutic step on the path to recovery. A further discussion on the merits of using videotape to convey exercises over other mediums such as paper versions can be seen in *Chapter 8, section 8.3 and 8.5.2.* Bodies can be "disciplined" into returning to normality and achieving their status once again. This theme links to the theme of the decline of the body *section 6.3,* which associates disability with ageing. In regaining their body through exercise they are also regaining their fitness and social power. Not only will this give them the social reinforcement of achieving full health and perhaps perceived youth, but it will also allow them to regain the natural order in their lives. Foucault described this struggle in our lives as taming "the wild profusion of existing things" (Foucault, 1989b:xvi) which "disturb and threaten our collapse". Videotaped exercises were seen as allowing individuals a sense that they could work at something on their own and take control of the illness through their own efforts. In order to regain their former selves a degree of dedication and sacrifice was involved. The respondents were mainly motivated to complete the exercises by the desire to improve their condition. The data implied that individuals in the study were adversely affected by their condition and therefore motivated to carry out exercises where they perceived it would be of benefit to their recovery. However, in cases where exercises were not perceived to benefit recovery or return a natural order, they were less important and therefore not carried out regularly. This could be due to the fact that a natural order for those individuals was not the regaining of function in the way that is traditionally viewed by society. Chew and May (1997) noted that for individuals with long term conditions there are perceived benefits of enduring back pain, however data here imply that this is possibly due to a simplistic assumption that the natural order is regaining function and returning to employment or other activities which are perceived as useful to society. The importance of examining the individual beliefs about what they hope to gain from a treatment before administering it is interesting. Ajzen and Fishbein (1980) reported that it is important that individuals have the ability to realise their intention, for example that they have the skills or resources to carry out the exercises or desired activity, prior to commencing that activity. For many in this study, the ability to perceive achievements that they attributed to the results of exercise was a good motivating factor.

All respondents had consulted with a physiotherapist before they were interviewed and this may have exerted an influence on how they mediated their responses to their exercises and their utility in regaining their bodies. Foucault described how the institute of medicine might be coercive and discipline individuals to view their bodies in particular ways (Foucault, 1989b). The power of the institution is not coercive in the violent or authoritarian sense that may have been seen in previous centuries, but is readily accepted as legitimate and normative in society. These institutions exercise a moral authority over the individual by explaining individual problems and providing solutions to them (Foucault, 1989:245). In this sense it could be said that institutions which are in a position to coerce or exert a directing authority (extol the benefits of the exercises) because their coercive character, are often masked by their normative involvement in the troubles and problems of individuals (Foucault, 1989b:109). They may be coercive and normative but they are also voluntary, therefore the individual chooses to subject themselves to their influence (Foucault, 1991:136). In this case, individuals demonstrate that they are happy with the exercises even if they find them tiresome or are limited by their condition.

In having the means to complete an activity which is perceived as beneficial not only to health but to lifestyle and perception of self, videotaped exercises may be useful, however they may not be the answer in all situations. Buchmann (1997) indicated that if individuals who hold expert knowledge and as a result of that social power, imparting that knowledge enables the individuals to enhance their power over the issue for which they consulted the therapist. This may improve adherence to a treatment or task. In my study, individuals' perceptions of the exercises, as well as what they felt they would achieve by doing them, were important factors in completing them. Those who had evidence of success with the exercises were also further encouraged to maintain their activity.

In my study, the videotape can act as something which might impart knowledge and distribute power to some, to influence their bodies, which in turn gave them a means of regaining their bodies. The videotape could be seen as something which had potential to give individuals power. Gastaldo (1997:113) used the theory of bio-power (Foucault, 1998:140) to examine health education in Brazil and how power handed to individuals develops into capillaries which run through society. She described how government policies on participation and social policy could be viewed as the "circulation of power" or as "capillaries in the social body". Perhaps the videotape could be viewed as such? Policy can promote constructive power relations in the management of the social body and circulating power may facilitate the implementation of policy or health improvement. The process of promoting such knowledge however is complex and involves disseminating knowledge through the web of micro powers negotiating all the potential resisters. This study demonstrates how such processes operate at an individual level.

6.5.4 Conclusion

This theme of the study emphasises the role of the body and its potential in the experience of illness. All human beings are subject to common processes that have an organic foundation, but data shows that society and culture temper these. Foucauldian theories of power and disciplining bodies illuminate our view of these processes and the factors which influence them. The role of how individuals perceive their bodies are viewed by the outside world is also important and enables us to see how a number of different discourses operate on the body during an episode of musculoskeletal pain. The body's potential to recover either fully or partly may be realised through completing exercises and taking an active role in recovery. Individuals may benefit from being given a videotape which enables them to perceive mastery and power over their condition and their body and hence their physical and social selves.

Chapter 7: Pain

> "Pain… is located at the intersection of the mind, body and culture. As such it demands the dissolution of former dualistic modes of Western thought that have sought to divorce mind from body, biology from culture, reason from emotion."
>
> Williams and Bendelow, (1998:168)

7.1 Introduction

The issue of pain and respondents' reactions to it emerged from the data which gives important information on how the individuals understanding and thoughts about pain impacted on their ability to have power over their condition. Pain and disability are predominant symptoms in the presentation of musculoskeletal conditions and the alleviation of this discomfort is the main reason for visiting the physiotherapist. The individual's use of videotape was associated with the pain they were experiencing. Williams and Bendelow (1998:168) state that pain emerges at the intersection of bodies, minds and cultures. Therefore is never the sole creation of anatomy and physiology but also dependent on a multitude of other factors. In any language or culture there is a wide variation in the interpretation and meaning of pain. The Oxford English Dictionary (2004) refers to pain as: "a primary condition of sensation or consciousness, the opposite of *pleasure*; the sensation which one feels when hurt (in body or mind); suffering, distress". Implicit in these meanings is a broad definition of pain transcending Cartesian principles of narrow mental and physical definitions (Freund & McGuire, 1995:144). The complex relationship between pain and other factors such as environmental and psychological ones is demonstrated. Pain and discomfort play an important role in an illness as they act as distinct markers of deviance for individuals and act as a way of self-evaluating a healthy state. Data supports the complex role of pain in determining behaviour in relation to the physiotherapy consultation and videotaped exercises. This chapter is concerned with respondent's pain and discomfort and the role which the exercise videotape played in their perception of the embodiment of pain. Three sub-themes emerged, *interpreting pain and discomfort, pain and the videotape,* and *treatment and pain.*

7.2 Interpreting Pain and Discomfort

The theme of *interpreting pain and discomfort* includes how individuals interpret the physiological effects of the condition and the implications this has for how they view their bodies and the tasks they perform. Respondents perceived that being able to give a voice to their pain and discomfort, interpreting it through language and couching it in the context of their everyday lives was important. It was also important to talk about the emotional impacts of their condition and their hopes and fears. Respondents were unwilling to express the emotional side of their pain to therapists even though the two aspects of physical discomfort and emotion were difficult to separate.

Individuals expressed their pain through the impact it had on their everyday activities and used a number of different methods to convey its impact. The imagery and metaphor that the language divulged was interesting. As they described the physical pain, the emotion associated with it was also presented.

PM expresses her discomfort which is related to her back pain and not being able to bend down. However even though she conveys the debilitation of the condition, and how she is feeling, she uses words and actions to describe how she feels as a whole.

> **PM**: "when I got up, I felt terrible this morning and it took me ages to get myself together and the fact that I had to put tights on this morning, I usually wear pop socks but I could only find one and I thought I'm going to have to put tights on which I didn't really want to. Anyway it's just all things like that but when I feel alright, it's the times that I feel alright when I do the exercises but when I feel lousy and my back's killing me I don't attempt to do them"

PH shows that she is able to know early in the day if her back pain is going to cause her problems.

> **PH:** "Well, I'm hoping that it's going to go you know altogether. I mean there are some days it's not good when you get out of bed…"

CS demonstrates how the pain she experienced during pregnancy was evident through her facial expressions and her emotion is expressed through her comparison with contemporaries.

> ***JM:*** *"How was it when you were pregnant?"*
>
> **CS**: "It was horrendous really. She was the only one that I had after I had broken my back and I suffered quite a lot with her. I couldn't walk at all without being in just complete and utter pain. I used to see other pregnant women who were 40 weeks and I was only 30 and I couldn't walk and you could see the pain on my face and these women were just walking around happy as Larry and I thought how can they be like that? I couldn't understand it."
>
> ***Field notes:*** *CS seemed to be especially emotional when talking about her pregnancy. I wondered about other things while she spoke of this such as the emotion she might have been feeling when she was pregnant, was it a planned pregnancy – her other two children were both a lot older. I had the feeling that there may have been other emotional factors which contributed to her feelings at this time; however I could not substantiate these.*

GW shows that he is happy to experience a little pain rather than the aching debilitating pain he has previously suffered and provides some powerful imagery of something drilling into his foot to illustrate the pain and discomfort.

> **GW** "I just get a bit of twinge when I get out of bed in the morning but this here is the problem, there around there [gestures to part of his leg], and by

there mostly I can go 24 hours if I'm not sleeping gnawing, gnawing, gnawing."

***JM**: "Is it painful? "*
GW:"That's why I'm limping, yes. It all depends like yesterday wasn't too bad with it being Sunday, I didn't do any walking about I just made my dinner, I live on my own, and sat and watched the football, had a couple of glasses wine at night, life of Riley."

GW: "I found out when I was getting in the car, this is where I was having the pain by there and that's gone and I'm getting out of the car now, its just when I change gear with my foot I've got no, and I'm so grateful I've got no pain there and what little twitch I get I could live with it your better off, when your making cups of tea at half past one in the morning and your sitting on the end of the bed and its like somebody has got a Black and Decker inside your foot

***Field notes:** GW was a retired man who had lost his wife to cancer and conveyed to me a feeling that he was alone and lonely. His one friend who he used to meet to go walking had also died and his daughters lived a number of miles away. I'm not sure if I gave him the impression I felt sorry for him because he did not seem sad in himself and cracked jokes during the interview. He seemed to want me to feel that he was managing fine, both emotionally and physically. His car was his independence and his pain threatened to take that away from him. His wife died of cancer two years ago.*

Respondents used emotive language to describe pain and discomfort they experienced. They also couched the experience of pain in the reality of their everyday lives and their daily activities. The direct term "pain" is not used very frequently, and the theme showed that pain and discomfort were interpreted differently by different people, depending on the implications of the pain for the individual. Euphemisms or avoidance words tend to be used instead of the direct word of pain, such as feeling "lousy", "my back's killing me" or being "poorly". This may be because they want to avoid directly confronting pain directly through the words they use. Pain and discomfort is also discussed in terms of "weakness" or "stiffness" or implications for their bodies in experiencing pain and discomfort. PM shows that her physical discomfort extends into her whole being and her pain and discomfort means she is sluggish and slow to get herself ready for leaving the house. She says that she feels *terrible* and it disrupts her activities. She also mentions that feeling "*lousy*" in association with her back "*killing*" her which implies that as well as bringing pain and discomfort, the pain also leads to an altered state mentally in the way that she feels. PH also uses language such as "*not good*" or "*really bad*" to describe her pain and discomfort which are again euphemisms used to describe the pain. This highlights her unwillingness to speak about the complaint directly.

CS used words such as "*horrendous*" and "*suffering*" to convey her feelings and the emotion that she felt at that time in reference to her pregnancy. For her, the meaning and articulation of the pain is very much at the forefront of the discussion. She is also conscious of other people not having the same experience during pregnancy as she did which sets her apart from other pregnant women, and causes her distress and confusion. Her comparison of herself to others and her questioning of how they could be so free of pain is demonstrated. CS underlined the extent of her pain, by a physical manifestation and she describes that the pain was so bad that it was effecting her publicly displaying emotion through her facial expression and not being able to walk.

GW used imagery to convey a sense of his pain. The imagery he used was extreme and reflective of something eating away at his body like a cancer. The image of pain consuming the body like a cancer is used and is again an example of the way individuals articulate and invoke different images in relation to their pain which arise from their cultural experiences of illness. He described the extreme pain his in with his foot "gnawing, gnawing, gnawing" and "like somebody has got a Black and Decker inside your foot." Strong images – one of the pain eating away at him and the other an image of something drilling inside his foot, both descriptions invoked images of his foot being eroded or eaten away. He jokes about disruption to his daily activities which mean him having to rest and not go out or move about, which helps the pain, by describing it as the "life of Riley" but I felt this was masking his physical as well as his emotional discomfort at having his activities confined by the condition.

Respondents used emotive language to describe how they responded to the pain as discomfort they experienced.

JJ describes how the hurt in her back might be indicative of a more serious longer term condition. She also describes how her past experience of the condition resolving quickly is not happening in this episode – this causes her distress.

> **JJ:** "this time it's going down my leg and it's not hurting me in my back so much now as in my hips, so I'm getting panic stricken in case I've got arthritis in my hips because I've got it in my hands not badly but its there."
>
> **JJ:** "I'm impatient, it's not getting better fast enough, I'm not loosening up fast enough before when I've had this, when this has happened I've loosened up much quicker, even though I've had the pain I've loosened up quicker.
>
> ***Field notes:*** *JJ seemed to be very anxious throughout the interview and felt that her life was on "hold" until she could resolve her back pain. For her it seemed to be a very emotional experience*

Letting the pain pass is an important way of coping with the condition for PH.

> **PH:**"...if my back is really bad, I sit there for a while until it's passed over, because I don't want to be taking tablets, paracetamols or otherwise it's not good for you is it?"

Restrictions of usual activities like driving cause AC to express disbelief at how her shoulder condition affects the rest of her life.

> **AC**: "I couldn't change gear in the car, I had to use my right arm reaching across, I'd got no strength to pull the gears, I couldn't believe the weakness in that arm, it was just painful I couldn't even grip it. I could grip your hand now quite, you'd know, and that one is still not there but it's getting a lot better, its weakened considerably."
>
> ***Field notes:*** *In the interview AC prided herself on being stoical which was demonstrated by her description of her outdoor activities. Having recently experienced a divorce, she has starting working in a local garden centre to make ends meet. She lives in a rural area and seemed to have been particularly anxious about the severity of her condition and its implications for maintaining her ability to drive to work in light of her recent financial crisis.*

Now GW has no pain in his back – just in his foot and leg, he feels grateful.

> **GW:** "I am so grateful that I've got no pain there. And what little twitch I get I could live with". "ooh, it's like heaven".

AM shows how social change effects how she responds to her condition.

> **AM:** "I've got more time for myself and maybe, I'm thinking about it a bit more, I don't know but my back never bothered me before"

Respondents describe the negative emotions associated with pain and discomfort which threatens their social world. The meanings they give to their pain, influences how they contextualise it within their social world. JJ describes how the location of the pain in her body triggers emotions of fear and impatience. Her interpretation of the pain as perhaps meaning arthritis makes her fearful of experiencing further discomfort and debilitation. JJ's experience of pain and its duration also triggers fear, in that her latest experience of the condition might have a more sinister meaning because it is not behaving in the way her previous experiences of the condition had led her to expect. Her memory of pain in her body is acting as a template for how she expects the pain to behave again. She also describes the "panic" of considering a serious and debilitating condition in her hips. JJ also describes "loosening up" which she describes as being separate from the pain, but enabling her body to be freer to behave as it did before the onset of the condition. The "loosening up" signifies liberation of her body, even if she still experiences pain. Her impatience to be released from the pain also reflected the constraints it imposed upon her physical body – the disability is looked on as being outside the self or social body. An image is presented of the condition consuming her. PH describes pain as something to be avoided or managed carefully through limiting activity until "it" has "passed over". Her answer to this is to wait, immobile for it to go as if it is something inhabiting her body for a temporary period. A confrontation with the pain is avoided, through waiting for it to pass and pain killers are also avoided as they might do more damage to the body. Her questioning implies that she required reassurance for her approach. AC interprets her pain in terms of "weakness". This suggests that the pain is not a primary concern, but the fact that her arm is weaker and unable to perform its function adequately. Pain and bodily changes have lead to incredulity in AC, it has lead her to become *weak* and not performance of her daily activities properly. Similarly AM finds that social change have led her to reinterpret her pain and subsequently her health responses.

Respondents coped with discomfort by describing their pain in terms of comparison with others who were worse off.

> **GW**: "It's no good knocking yourself about is it if it's paining you all the while?"
> **GW**: "My wife had cancer, and she was ill for nearly six years and she always smiled and you have to make the best of it don't you?"
> **GW**: "I'm used to it now though. I know there's a lot more people worse off than me, so I don't go round with a face down."
>
> **DP:** "I suppose I could have broken it there, it must have gone to the right of the shoulder but it could have been there or in the wrist as well so yes when I'm feeling passive I think it could have been worse."

DP who has quite severe shoulder problems copes by telling herself it could be worse. GW compares his difficulties with his wife's experience of cancer to demonstrate the desirable qualities in keeping cheerful in the face of adversity, but he again uses a questioning approach, as if seeking approval or confirmation that this is appropriate. Showing mastery over your public self is a commendable quality.

7.2.1 Conclusion

The interpretation of pain is shown to provoke an emotional response in individuals. Their language used to express their experiences of pain is strong and emotive and relief is expressed when the pain is gone. Respondents express their feelings about their thoughts, fears and disbelief about the condition and how it may effect their whole perception of their everyday activities and their future health. It is also shown that pain subjugates the social body. Table four summarises the findings.

Table 4. Findings Summary for "Interpreting Pain and Discomfort"

Manifestation	**Interpretation**
Physical	Carry on with usual activities
	Relief when the pain has gone
	Expressing pain through language
	Functions of the body effected
Emotional	Fear
	Something invading the body
	Relief when pain has gone
	Expressing pain through language

7.3 Pain and Exercise

Participants' responses to pain were also underlined through their use of the videotape. Pain influenced individual's experiences of using the videotape to complete their exercises. Respondents used language that implied their desperation to end the pain and again showed the struggle, between the social, and the physical body. Pain acted as a signal that the physical body was under attack. Respondents used the videotape and completing the exercises as a means of maintaining control of their physical body and autonomy in keeping the pain away.

Respondents discuss when they might gain the most benefit from completing the videotaped exercises.

PM finds that when she is experiencing pain, which is most of the time, she cannot even attempt to do any of the exercises.

> **PM:** "…it's the times that I feel alright when I do the exercises but when I feel lousy and my back's killing me I don't attempt to do them"

GeS speculates that she would not be able to carry out the exercises when she was in pain, however it is beneficial to do them after the acute phase has subsided.

> **GeS**: "They are quite simple and I realise that because my arm has improved so much before I started them I didn't find them too painful but I would imagine about a year ago when my arm was very painful I would have found them very difficult to do. So it's been quite easy for me and I suppose if something is really painful then you don't want to do it anyway."

JA finds that she responds to the pain by completing the exercises which allow her to start the day.

> **JA:** "...but I found they definitely helped me a lot with my back mainly sometimes when I can't get out of bed I would do some of the exercises in the bed so I could get my back moving. So I thought the video was very good it definitely dealt with the things on my back that I needed especially now that I can do some of the things while I'm in bed to get out and I did find the video helpful... I do them definitely in the morning because it helps me to get out of the bed and that. But I mean it's easing, it's not so bad now I find I'm more able to get out of the bed now where there might just be a niggle there, but now I'm actually able to get out of the bed that's the big difference without there being pain."

These quotations illustrate that individuals respond to completing the exercises in different ways and have different motivators and inhibitors. PM describes how she has to wait until she is *feeling* better in order to attempt the videotaped exercises. The pain acts as an inhibitor of activity and therefore controls her physical body in stopping her from doing the exercises. It also has an effect on her social body through her mood in making her "feel lousy", which again acts as an inhibitor. Conversely JA describes how the videotaped exercises help her with her back pain first thing in the morning and enable her to start feeling better at the beginning of the day. Before she used the videotaped exercises pain has previously restricted her morning movements. GeS perceived her ability to do the exercises might have been compromised by the pain she had experienced previously in her shoulder, if she had been asked to complete them at an earlier point in her experience of the condition.

Respondents also described their experiences of the videotape as acting as a potential release from the pain even if they experienced difficulty at first. They feel that the videotaped exercises are offering them a way of negotiating their pain and gaining relief. Their approach could be viewed as using the exercises to relieve symptoms in the same way that they might take medicine to relieve symptoms.

DD notes that the videotape allows her to continue on with her therapy despite finding the pain interfered with her ability to carry them out.

> **JM:** *"How did you feel about being given a videotape?"*
> **DD:** "I didn't mind really, you know, I was in that much pain I was glad to think that I could continue treating this pain, ...I watched the whole of it all the way through first and I just did the exercises, which were marked on the chart. I found it a bit difficult but obviously with the pain but gradually it got better."

Completing the exercises is important even after the videotape has been returned and helps ID to continue feeling better.

> *JM: How did you get on with the videotape?*
> **ID:** "Oh, I found it great, great. As I say each time I did my exercises I put it on you know cause I only had to do 8, it was up to 12 and I did it and when I took the tape back I still do it y'know, well I felt a lot better with it"

CS feels confident to carry out the exercises with the videotape with a view to improving her posture and relieving her constant pain.

> ***JM:*** *"How are you feeling now?"*
> **CS:** "Confident. A little bit confident, if I put my mind to it I can try and sort of help myself but the physio has just told me it's the way I hold myself really. Just by doing little exercises I can straighten my posture and ease some of the pain that I've got, not all of it but ease it a bit better."
> ***Field notes:*** *CS described how her chronic back pain has caused her extreme crises in confidence and extremes of emotion. She seems to be desperate to do anything to help her situation and is worried her pain will get worse. Her anxiety is conveyed by anxious hand movements*

AJ experiences pain after completing the exercises, but views it as part of the healing process – she feels that continuing with them will be beneficial.

> **AJ:** "I did quite a few exercises from the videotape last week but I knew about it the day after, I was in a lot of pain the day after but then again it has come alright...well you don't want to seize up and if you don't keep going it will seize up but it will be worse wont it?"

The videotape is viewed as an extension of physiotherapy in allowing PH to work on reducing the pain and allowing her to feel that she is addressing the problem.

> **PH**: "I really do feel it's a help to you. I mean in-between going for the treatment you see, at least your doing something, you know trying to get yourself better, get rid of the pain with it."

AMak expects some pain on completion of his exercises.

> **AMak:** "I must admit they're very good exercises because when I first did them obviously I could feel the effects of it because you feel the pain there after you've done the exercises, but it's a case of no pain, no gain"

SG underlines a similar sentiment that even though she experiences pain, this is not necessarily a bad thing and even welcomes it.

> **SG:** "Well, I feel that it gives me a bit more mobility. It hurts to do it but I actually like the stretching of it. It's difficult, especially morning stiffness is quite a common problem."

AW also expects to experience pain in order to get better and pain is something that has to be worked through.

> **AW:** "She thinks I'm improving, I know I'm improving because I do them religiously everyday, it hurts, it hurts terribly, it's very painful but I still do it because I have to do them and I must do them to get mobile, there aren't any short cuts....I mean it hurts but you can't avoid that you have to work through the pain."

Respondents considered that using the videotape was important in reducing their pain. Some of them experienced pain while completing the exercises which did not change their response to them as the desire to be relieved from the pain overrode other concerns. DD describes her desire for relief from the pain and looks upon the exercises as an aid to being free of the pain. The pain does inhibit her a little but the benefits of the exercises help relieve this. The physiological discomfort is outweighed by the perceived benefits of greater pain relief later. CS also described how she finds the videotape useful in allowing her to try and get a release from her pain. CS believes that the exercises will not only allow her some release from the pain, but might also improve the physical appearance by improving her posture. The exercise videotape offers CS a tangible means of hope and allows her to regain some confidence towards regaining control over a condition that has profoundly affected her life however she is not expecting a complete release from the pain. AJ described how she continues with her exercises despite experiencing pain. Her approach to pain and using the videotape, is one in which she expects to experience pain. AJ and SG have experienced pain as a result of the exercises, but look on it positively. She looks upon the exercises as playing a useful part in keeping more pain at bay and her perception of the condition is that her pain might even get worse if she does not complete her exercises in a similar way to CS. The cost of pain in the present is offset by future gains of less pain. PH expressed pleasure that she is being given something to do in between her physiotherapy appointments to help her discomfort which may contribute to helping her get better. She talks about using the videotape to get rid of the pain.

7.3.1 Conclusion

In summary, pain can be a barrier to doing exercises, however, exercises also allow individuals to tackle their pain and try and overcome it. By using a videotape of exercises respondents perceive that they can regain former function and help reduce pain, which is important in empowering individuals to take control of the body in spite of the pain. Physical pain can sometimes be ignored if the gains of greater mobility and a relief from pain are to be gained. For others the perceived trade-off of doing the exercises whilst experiencing pain is not worth the effort. Table five summarises the respondent's responses regarding pain and carrying out the videotaped exercises.

Table 5. Findings Summary for "Pain and Exercise"

Advantages	**Disadvantages**
Pain is good/healing	Pain may inhibit using videotape
Exercise may give release from pain	Pain is expected
Exercises are an investment for future pain relief	
Exercise allows to help self and overcome pain	

7.4 Treatment and Pain

Respondents speak about healthcare professionals and the treatments they use. In this theme so far I have explored respondents' reactions to the pain they experience and how this is interpreted within the use of videotaped exercises. This sub-theme is concerned with how individuals interpreted their pain and gave meaning to it in the context of their treatment by health care professionals for their condition. Data show that many respondents have received positive experiences of physiotherapy in terms of the pain they have experienced but others have had more disturbing and painful experiences.

A number of respondents describe the pain that they experience as part of their treatment as being good as it is part of the therapeutic process. This demonstrates the *no pain, no gain* mentality where the therapeutic process necessarily involves pain to promote healing. Individuals have not been rewarded with release from the pain, but believe it will happen in the future – the perceived risk (pain) is worth the perceived benefits (relief from the condition)

IW describes treatment which is painful as being beneficial to his arm.

> **IW**: "I feel much better when I've had physio. She pushes where it needs pushing, where I tend to stop because it hurts."

DP describes how her therapist stretches her arm once a week which is very painful and she has to recover afterwards from the treatment. The pain is expected and accepted by DP.

> **DP:** "It is painful; I'm still suffering from yesterday afternoon. I go to see X [physiotherapist] once a week and she puts me through the pain, the torture...she stretches my arm, its sheer purgatory it is. She pulls it as far as it will go. I never scream or anything but you see the pain in your eyes, it is

> really very, very painful.... I asked her outright if I could have a personal physiotherapist would it get it right any quicker and she says she doesn't think it would. It's time and she said that I don't think you would stand the pain every day because it does take a bit to recover from stretching it, but I think that does some good as well. "
> ***Reflective diary:*** *I had images of torture, heaven and hell, when I considered this lady's transcript*

DD describes feeling sore after physiotherapy, but again, it is viewed in a positive way. DD feels that the pain is a signal that something has been unlocked.

> **DD**: I found after I'd had Physio I'd been a bit sore you know, that kind of thing, so I just left it till later in the evening. You know it was finding the difference between the pain and unlocking something isn't it.

GW describes intense pain delivered by a consultant he had been referred to, which he accepts as part of the diagnostic process.

> **GW:** "X [physiotherapist] explained that to me, so I wasn't worried about that. She explained because I haven't any feeling there, I'm numb. Mr X found that out straight away, but he done something with my leg, dear me, and I hit the roof and nearly blacked out and he was pressing with his two hands and I was to push up and that was okay I had some pain with that one and then he put one hand on there and then went, "oh". Apparently it must have told him, because he said that's fine that, so you can get dressed now but he had done all the others before with the hitting me and all that but that's dead, well X [physiotherapist] found that out straight away."

Health professionals have power over the patient in the area of inflicting pain and discomfort as well as alleviating it. Respondents have experienced pain as part of their treatment which is viewed as being acceptable and therapeutic. They are not complaining about the medical treatment they have received, but describing the processes of their treatment. The therapist is both the tormentor and the deliverer to health. It is acceptable to put her through this pain because it is part of the healing process and acts for the greater good of the individual. IW describes the physiotherapy process as forcing him to confront and get through the pain which subsequently accelerates the therapeutic process. IW also sees himself as weak for not confronting the pain and the fact that the physiotherapist is stronger and forces him to do it is seen as a positive thing. DP has sympathy to the therapist for having to inflict pain as part of the treatment as it must be difficult for her to inflict pain on another person. However, she has complete faith in the treatment process and believes it will deliver her to more mobility in her arm in the future. For this respondent the exercises represent an extension of this painful treatment. DP described her physiotherapy treatment using words such as "torture" and "purgatory" to describe the process of treatment, which powerfully covey her feelings towards the treatment and how she hates it. Another respondent describes his appointment with a consultant whose examination caused him pain. GW "nearly blacked out" because of the pain. He does not criticise the consultant but indicates that his physiotherapist found "that" out straight away but without inflicting pain on him.

Pain is not looked on in a positive way by some respondents, who feel that experiencing pain has discouraged them from certain treatments and therapists. They indicate that they are weighing up the risks and benefits of having pain and deciding that treatment which causes it is not helpful.

PM describes how she did not like the treatment which she received from a physiotherapist who caused her to loose mobility.

> **PM:** "Sometimes when I used to come for physiotherapy before I used to be in more pain afterwards and I used to think I can't go back because after one session it was like three days I couldn't move."
> ***JM:** "Was this the man that you saw?"*
> **PM:** "Not X [physiotherapist], yes. He really did twist me into knots; obviously he knew what it was doing."
> *JM: "Was that like hands on as opposed to not being hands on?"*
> **PM:** "Yes it was like sports therapy to me, you know what you see them doing to footballers and things. And I said to him look I've had four days where the

> physio was going to help me but I couldn't do anything as I was in pain, so he said it is like that sometimes but I don't know, anyway, it just wasn't doing anything for me at all."
> ***Field notes:*** *PM's facial expressions and hand gestures showed that she was unhappy with the treatment. She also described this event as having put her off going to the physiotherapist again when recommended by her doctor, however she was persuaded by her doctor when she was told that the therapist would be female and offer a different approach that the previous physiotherapist.*

AJ and IM describe their painful treatment for a frozen shoulder which has discouraged them from future treatment.

> **AJ:** "After I had fallen, I was in that much pain but that [cortizone injection] was worse than the pain."
>
> **AJ:** "I have had a Cortizone injection. I'm not having another."
> *JM: "It wasn't helpful?"*
> **AJ:** "Very painful, very painful indeed."
>
> **IM**: "The doctor seems to think carry on with the physio and time, apparently there is an injection that could do the trick but a couple of hours after you've had the injection the pain is excruciating and it carries on for quite a long time, all the way through the night, severe pain and then it starts getting better after that. I don't want to have that if its not going to do any good do I?"

IM describes how his acupuncture treatment was painful without perceivable benefit.

> **IM**: "it felt as though he was sticking a red-hot needle into me ... that was the kind of reaction he was looking for".
>
> **JM:** "*So that indicated where the problem was really?*"
> **IM:**"Yes and there was some needle he was sticking in and it was swinging like a pendulum, it must have been the blood circulating or something."
> **JM:**"*As if it was twitching?*"
>
> **IM:**"Yes twitching like, the whole time it never stopped. But most of the needles do just nothing, he was just sticking them everywhere. I can't remember exactly where, it wasn't just in the arm he was sticking them other parts of the body as well but they didn't do anything."

Risk of excruciating pain is a very strong disempowering factor, and for some respondents not worth the perceived risk. PM shows that when pain is inflicted within the remit of the physiotherapist role she was willing to accept it as a legitimate part of the role in treating her problem. PM says the physiotherapist "twisted me into knots" and perceives this to be part of the treatment process and indicative of expertise on the part of the therapist. Less pain in the future did not offset the cost of experiencing the pain during treatment, so there was no benefit to having endured the pain. Another striking image is shown by IM who underwent acupuncture. The pain is necessary, because it did not have perceived benefits. AJ and IM also echo these sentiments and do not want to repeat the experience of a cortisone injection for their frozen shoulders. The benefits, an end point where there is no pain have not outweighed the harms, intense pain and the possibility that it may not work.

Other respondents describe how they found relief through their therapists with and without pain.

AT discusses an experience with a previous therapist, which provided immediate relief for his back pain without pain.

> **AT**: I don't remember exercises it was simply an occasional visit and he gave treatment, an instant cure.

AC describes how her physiotherapist forced her to confront her pain which was beneficial to her in helping her arm to recover.

> **AC:** "because I was made to face the pain that the early movements were causing. I was made to put up with that, but it was very short lived, it was only momentary until we actually got it going and she freed me very very quickly on position that I couldn't achieve by taking the weight of my arm and lifting it."

AB describes his pain was relieved with treatment.

> **AB**: "I've had this before so in a matter of three sessions of physio it has disappeared but this time it seems to be quite persistent so I don't think a few more weeks will… and a couple more visits maybe"
> **AB**: "The pain disappeared, but the ache seemed to stay for a long time"

ID describes her reliance on the physiotherapist to help her with her pain.

> **ID:** "Well I felt a lot better with it and I said to, I forget her name now and I said "I do feel better" and she said see how you go. But after I'd finished with her it seemed to come back again, I don't know. So I went back again for the first time last Friday, I think and I go again tomorrow afternoon. As I say I can move it more, I mean, to say well I couldn't lift it or do anything but I can now, but it seems to "oh here" you know. She put the ultraviolet on it and sometimes the pain goes here to here but as I say it's not near as bad as it was. I am better with it still, but it's still not 100% so I don't know."

GW also demonstrates how treatment has relieved his condition.

> **GW:** but last week she was doing some manipulation and I did feel quite better."

The relief which patients feel is welcome and it also informs how they perceive future treatments. Relief from the condition is not only caused by an absence of pain but also increased mobility and the downgrading of a pain to an ache. In some cases relief is short-lived and does not have lasting benefit.

7.4.1 Conclusion

Pain played a significant role in the patient's experience of treatment for their condition and the meaning that they attached to it. Respondents recounted that treatment for their problem can at times be painful and that this was useful in aiding their recovery. It was perceived that therapists who inflicted pain were doing so in the interests of a longer-term gain for their patients and in this cases pain must be good. It was possible that painful treatment for the condition may be worse than the pain of having the condition and respondents had to decide whether they wanted to accept the risk of having this, for some it was acceptable while for others it was not. Treatment was also shown to be beneficial without being intensely painful. Table six summarises the main points in this theme.

Table 6. Findings Summary for "Treatment and pain"

Perception of Treatment and pain
Treatment may be painful
Pain is good
Pain leads to greater relief later
Therapist legitimately administers pain
Risks and benefits of painful treatment

7.5 Discussion

The theme of pain comments on how individuals interpret their bodily pain and how it influences their body's function in the medical and social world. Respondents described their pain differently in different situations and how it influenced their emotions and psychology as well as their social world. Different means of articulation of their pain occurred in different environments. The theme also reflected how treatment by health professionals is viewed and how these encounters are perceived in the respondent's eyes. The exercises played a role in the experience of pain of individuals and acted as a tool to allow individuals to negotiate their pain.

7.5.1 Interpreting pain and discomfort

Bendelow and Williams (1998:155) described pain as defying the Cartesian mind body divide and data in this theme underline this. The manifestation of individual pain experiences cuts through physical, social and emotional boundaries. In experiencing pain individuals are learning about forces which exert power over everyday actions, thoughts and internal selves and their expression of it in this study reflected this. Respondents demonstrated an emotional expression of their pain through interpretation and how they described the pain they experienced. Language used showed that participants were referring to mental experiences rather than purely physical sensations. Their understanding and response to pain demonstrated that it can be considered that as well as exerting power over the individual, it was also socially constructed. Mastery over pain and stoicism were also demonstrated and viewed as desirable. Data show that responses are socially as well as emotionally ingrained and that individuals applied them in certain situations such as with the therapist and in everyday situations. Therefore emotions can be seen as products of culture rather than merely being influenced by culture and can be analysed on a social level. From a

Foucauldian perspective this determination to gain mastery over pain through not expressing it verbally in certain situations, demonstrated the ability of a discourse to influence behaviour in certain situations. This discourse shows that it can subjugate pain at the level of language and controlling its free circulation in speech. Data showed that individuals were able to articulate pain differently in different situations. Hence interpretation is also influenced. In certain spheres such as the medical, pain is not voiced because it may stigmatise individuals. Exiling it from things which are said through extinguishing the words which rendered them too visibly present means that silence or censorship is imposed over the condition (Foucault, 1998:17). However, the voice of pain is not silenced in all spheres and it is often played out through the emotions and through the meanings which individuals give it. Averill described the expression of emotions as playing out a role in society, that is, "a socially prescribed set of responses to be followed by a person in a given situation" (Averill, 1980:308). The socially defined rules associated with particular emotional roles give coherence to the diverse components of emotion. For example, it can be seen in the data that emotion is expressed in relation to pain and discomfort, but it is expressed differently in different contexts. Interpretation of pain is reflected through the language used to describe it and is an everyday experience which is rooted in the lived structures of embodiment and the emotional modes of being and self (Bendelow and Williams, 1998) as well as being a medical problem. Respondents concern with pain may not always be centred on the actual physical sensation, but rather the impact of how the sensations restrict their daily lives. Respondents also used metaphors to communicate their experiences of pain, such as how it consumed and inhabited the body that leads to some visual language. This conveyed a stronger image of their emotional response to the condition such as the idea of pain as a malignant entity like a cancer again detaches it from the "normal" bodily function. Research carried out by Beecher (1956) demonstrated the interaction of context and environment on the experience of pain. Emotional responses play out social roles and represent the temporary enactment of prescribed responses. A person may be seen as following a set of rules that indicate what they should be doing, for example, the proper way to appraise a situation, how to behave in response to the appraisal, how to interpret their bodily reaction to pain and so on. Central to the notion of the "rules" in this case, is the idea that the rules are learned through being socialised into a particular culture or in the Foucauldian sense, being subject to a certain set of discourses.

Data showed how the way individuals perceive pain affects how they respond to it. If individuals perceive that experiencing pain will lead to greater mobility and freedom from pain, then they will be more inclined to confront it to try and overcome it, or endure it as a means to recovering their former healthy social selves. However, if they believe that experiencing pain will lead to more pain, then they will try to avoid (fear-avoidance, Klenerman et al, 1995). Data showed that strategies to help regain control over the pain, such as the exercise programme, were beneficial and allowed the formerly healthy physical and social self to re-emerge. The prevailing societal discourse of the healthy individual prevailed over behaviour. Respondents downplayed their pain by comparing themselves with others who are worse off than themselves. However, when their social self could no longer carry on as normal with the pain and show a stoical public face, they felt they had to justify their behaviour for fear of being stigmatised. The social-self influenced the way people behaved and responded to their pain. This has also been discussed with regard to *section 7.6.3,* where issues relating to individuals' treatment and the role of the therapist is discussed.

The role pain played in the lives of the respondents is varied and pain is something to be mediated and addressed in a variety of different ways reflecting the social costs and benefits in revealing or not revealing it (Kotarba, 1983: 134-5). There is merit for the patient in behaving stoically and not giving voice to pain in certain contexts. This did not just mean talking about their pain, but expressing it publicly through how they moved and the steps they had to take to try and combat it in different everyday settings. It was important to respondents that health professionals recognised that they were experiencing pain however they found it hard to verbalise to them. However voicing it to others outside this social context, such as the researcher, was acceptable. This may be bound up with the power of the therapist in relation to *giving* as well as *relieving* pain (*see section 7.3).* As being a medical problem, pain is also an everyday experience and whilst the medical voice is a valid one, other voices especially those of the patient are often neglected (Morris, 1991). Respondents were aware of the medical approach to pain and may feel unwilling to trouble the medical professional with their lived experiences, thinking that they will find it irrelevant to their approach to the condition or they may choose not to articulate them. Perhaps they may perceive that the clinician values stoicism and restraint and so do not wish to displease their therapist by voicing their pain or invite stigma. Respondents would rather not express their pain if it were not culturally acceptable because they may risk being stigmatised by the health professional. If they bore the pain the therapist would think of them as good and worthy patients as they perceive the medical profession values such qualities along with the desire to "get better" and hence give them better treatment and approval than they may experience otherwise. Goffman (1968) argues this can be the basis for the "stained" identity that forms the basis of stigmatisation.

There is an unspoken trust of the therapist to do their best for their patients; however the voice of pain is also suppressed on both sides. From the respondent's point of view, the therapists "know" what levels of pain they are suffering but neither side articulates it. Language is key, as it provides the framework around which our individual selves are created and developed (Fox, 1993).

Foucault underlined the interdependence between knowledge and power (Foucault). Foucault (1989a:59) also stated that there can be no power to know without words, discourse and articulation, which is how knowledge is constructed (Foucault, 1998:18). In this case however, power may be gained by not revealing information to certain people [the therapist - medical], but revealing it to others [the interviewer - social]. This implied that individuals are refusing to be controlled and regulated by the medical profession, as Foucault might suggest, without violating the "rules" of the sick role (Parsons, 1951). It also implied that individuals were able to mediate the role of "patient" when in the medical environment and subject to discourses of a medical nature and one of "ill person", when in a "social" context and subject to discourses in this situation (this point is also explored in *section 8.5.3*). Neither role is violating the social "codes" of how they should behave when within different settings, but conflict could arise where the discourses are competing with each other. An example of this is given by Eckerman (1997:151), who adopts a Foucauldian perspective, and described the experiences of individuals suffering from anorexia. Medical discourses and discourses such as instruction to *put on weight* and *not eating is bad* compete with social discourses such as *my body should be thin therefore I must control my eating.* Medical discourses attempt to overwrite the social discourses here, which compel the individual to behave in a certain way; however their success may be limited, as social discourses may be stronger. This aspect of my study demonstrates that the individual is far from docile and subject to relentless cultural inscription (Fox, 1993:27) but a degree of individualism exists in terms of individual behaviours, particularly in relation to the experience of pain.

7.5.2 Pain and exercise

The exercise programme played a role in how respondents experienced their pain. It provided a means of power to address the problem and take a proactive approach to pain and mobility and prevent more pain in the future. Data showed that the reactions and perceptions of the respondents to their pain are important considerations when introducing exercises to a patient. They also showed that giving respondents the means to reduce their pain allowed them to return to function and to contribute to the desired societal norms. Videotaped exercises played a role in assisting people to cope with the pain and emotional discomfort that they are feeling as a result of their disability. It can also act as a psychological support to motivate them to achieve mastery over their condition. In some cases it might be of little use where the social self and their perception of pain undermine the medical view of completing exercises.

The experience of pain is something which respondents desired to be overcome, which allows a proactive approach to be taken to exercise and the opportunity to carry this out with the videotape is embraced. Respondents talked about "unlocking" the pain through movement, which epitomised the urgent need to be free and their belief that there might be a key to deliver them from the pain and this might be done through the exercise programme. However, respondents also talked about "obeying" the pain in terms of lessening activity accordingly. This is interesting in light of the evidence in *section 7.6.1*, where pain is described in terms of an invading entity which consumes and inhabits the body which might suggest a certain fatality and lack of power in responding to it. Pain must be obeyed, but can also be unlocked through the powerful therapist and their videotape tool. Conversely, although the videotape is the therapist's tool, power is transferred to the individual as a result of using it, through a release from pain. The videotape may be one way which therapists might address individuals' problems and attempt to empower them. However the videotape as the therapist's tool may also have the ability to inflict pain on individuals. How individuals interpret this is interesting – the videotape could be seen as a validation of the professional power of the therapist which allows personal meanings to be reframed in light of using the videotape. If this does happen (I do not have data from before the use of the videotape so I cannot be sure) the influence may not be exerted over all individuals.

Explanations of pain and interpretation of pain through lived experiences which informed the interpretation of data are important in the discussion of how pain and experience and response to it remained individual. The exercises played a role in the interpretation of how individuals experienced pain and the response to health professionals and their endorsement of the videotaped exercises, was subject to medical discourses. For example individuals may view themselves as *having* to do the exercises to get better – they had no choice, even though they may not like doing them. This suggested again that the partnership between therapist and patient may not be (or is expected to be from the patient's point of view) patient centred but one where the clinician is paternalistic for the "good" of the individual and the patient may expect this. Further evidence of this would have to be sought from the point of view of the clinician as they may be working to provide patient-centred care while the patient does not expect or want it. This may not be a beneficial relationship to inspire self-help or enduring positive behaviour, but a certain reliance on the therapist is necessary for the consultation to proceed. Hence the videotape becomes a tool of the therapist, rather than a tool for the patient. For Foucault, this type of scenario demonstrated discourse and the forces they exert over individuals' views of what is true and real at any given time (Foucault, 1989a). It also demonstrates medical power which has the ability to exert its influence over individuals' lives. This undermines current discourse in the national agenda for the UK NHS in relation to *Choice* and patient-centred care.

Data from the larger study (see *appendix 2*) indicated that there was little functional benefit for patients from having videotaped exercises over face-to-face taught exercises. However it is clearly demonstrated in this study that value was gained from having the exercises. This added value as is demonstrated here was having a tool to mediate and reinterpret the pain. The exercises may offer individuals an opportunity to realise their potential for recovery and influence their ability to feel better emotionally and reinterpret the pain as therapeutic. However the exercises may not be useful for all individuals and is imposed on them as part of the research study. Those that have a fixed interpretation of what pain means to them may not wish to redefine it and view it as therapeutic or normal. Therefore the exercises may be of limited usefulness as their social and cultural discourse which mediates how they view pain will override the medical discourse which dictates they should use the videotape and do exercises to get better.

7.5.3 ***Treatment and pain***

The role of the therapist and their relationship with the respondent's pain is ambiguous as pain could be seen as good pain (aiding recovery) and bad pain (denoting injury and a signal to stop activity). There was also the role of treatment which is intended to aid recovery but might also give pain. Therapists have a specific role in society and the medical system to relieve symptoms with patients and to improve their health and well-being and hence their function in society (Parsons, 1951). Data showed that it was perceived by respondents as legitimate for therapists to give their patients pain in their pursuit of the legitimate activity of improving health in the long term. Respondents accepted that pain might be inflicted so that longer-term benefits might be gained. In terms of individual's place within the sick role, as described by Parsons (1951), individuals are expected to co-operate with the medical profession as part of their "duty" to get well. In this study, health professionals are shown to be powerful individuals in the experience of pain: they are viewed as individuals who are experts in pain and therefore pain may be concealed from them by the patients for fear of stigmatisation (Goffman, 1968). Individuals tolerate what they describe as considerable discomfort without feeling they can articulate it to the therapist (this is discussed in *section 7.6.1*).

Health professionals are looked upon as healers but not necessarily as individuals who take away pain. They are described in strong and sometimes violent terms, but are accepted by respondents as people who inflict pain for the greater good of the individual. Foucault (1989a) described the power of the medical profession in disciplining bodies through the wielding of power through their presence within the discourse of medicine. Foucault also described the surveillance of individuals through the medical profession as *le regard* or "the gaze". Those with the knowledge have the authority to increase their knowledge through *the gaze* – thus making the person visible to an observer. This control may be extended to the manipulation and administration of pain to gain more information from the patient (Foucault, 1989a).

This pain is seen as only part of the set of signs and symptoms which make up the "case" or patient. Pain is "disciplined" or subjugated by the therapist. A health professional has the means of gaining and sustaining power from knowledge which has been accrued and which is legitimised in every interaction between patient and health professional. Hence we might view the participants in this study as agents who have been subject to this disciplinary power and subjected to the *medical gaze*. Pain in the course of a treatment is accepted as part of this process, however pain is something that the patient can try and conceal from the *gaze*.

There are gains to be derived from bearing the pain for the patient. Certain mastery can be gained over the condition if it is borne stoically and independence rather than dependence can be maintained (Nettleton, 1995:92-3). Also when the pain is given voice, at a more acceptable time, that is, when pain is not being experienced and there was less emotion, more description attached to it, there are additional positive values to be accrued the sufferers. This underlined the earlier interpretation of the medical profession subjugating the voice of the individual's pain. Personality traits such as stoicism and coping are viewed favourably by society and this may set individuals apart from other patients and even give them a greater status in the eyes of the therapist. It also gave the impression that they are able to exert mastery over the body.

Individuals viewed therapists as significant and powerful individuals in their experience of illness. Foucault commented that power is a strand that runs through society and has the capacity to cross disciplines and societies (Foucault, 1980:134). Foucault placed power and its symbiotic partner, knowledge, at the centre of understanding medical institutions. People such as therapists are powerful, because they have knowledge and expertise; therefore they may try to be coercive through constraining activities and exercising surveillance over them. In this study the lack of verbal acknowledgement of the individuals' pain by therapists led respondents to believe that they "knew" how much pain they were experiencing and could tolerate and that it was "normal" to experience it in relation to some treatment procedures. By isolating pain from emotion they subjugated it. In this sense it could be said that being in a position where you can coerce, means you exert a directing authority because your coercive character is often masked by normative involvement in the individuals' condition (Foucault, 1991:177). These practices may be coercive and normative (unintentional on an individual level), but they are also voluntary, therefore the individual chooses to subject themselves to their influence. This subjection leads to self-governing behaviour (Foucault, 1991:184). The question is does this help the patient's condition? The respondents are comfortable, accepting pain as part of treatment. Data in this study did not explore clinical factors in each case.

However data also show that the rules within the medical environment and outside it are different - individuals behave differently. In the medical environment respondents expect therapists to know how the condition is progressing and the amount of pain the individuals might be experiencing from the condition. Therefore the issue of pain may not be mentioned even when treatments are in progress. It is acceptable to describe pain to the researcher and others in the social sphere; however, the way individuals display and bear their pain and the emotions associated with it to health professionals is different. In this study, individuals report their behaviour according to the social rules within the consultation, but when they leave medical territory, they are subject to their own social and emotional forces which may be suppressed in the consultation.

7.6.4 Conclusion

Pain is perceived as normal and although unpleasant, it is part of their illness experience. Individuals interpret their pain in physical and emotional ways that in turn influences their social behaviour. The videotape is viewed as a strategy that offers an opportunity to try and gain a release from the pain and is viewed positively by respondents. However the relationship between pain and the therapist is a complex one. Individuals may not want to articulate their pain to their therapist and the literature presents a number of different explanations for this behaviour including perceived stigmatisation of individuals by therapists who do not think they are dealing with their pain appropriately. Respondents also judge when to articulate their pain and when to conceal it and are flexible about what they feel is appropriate to express in different settings.

Chapter 8: Support and the videotape

> "The world of everyday life is not only taken for granted as reality by the ordinary members of society in the subjectively meaningful conduct of their lives. It is a world that originates in their thoughts and actions, and is maintained as real by these".
>
> Berger and Luckman, 1966

8.1 Introduction

In this chapter the role of support is explored in the patient's experience of shoulder or back pain. Support is used as a general term, which encompasses the resources gained from the social and physical environment that aid the individual during the illness episode and provide support for the videotape. It also explores how the videotape is "legitimised" through the eyes of others and how the videotape itself acts as a concrete means of support. Social and psychological support for the videotape and the exercises can be drawn from those networks in the immediate social proximity, the workplace and the therapist. This theme is also concerned with looking at the medical system and respondents' interaction with it examining their use of it in relation to their problems and the support they feel they derive from it. It looks at how they perceive the treatment and advice given and how they assimilate it into their models and understanding of illness and daily regimes. Three sub-themes were identified *finding space, remembering and doing, and physiotherapy.*

8.2 Finding space

This theme demonstrates the relevance of time and place to the ability to perform and complete the videotaped exercises. Time may refer to when the individual actually performs the exercise, or it may refer to the time-point in individuals' life where they are motivated or not to perform the exercises. The theme also explores individuals' sense of how the exercises are placed in the present or now may impact on support in the future. Participants also expressed views about their physical environment – either work or home, and how these affected their ability to perform their exercises at the appropriate times. This pursuit of exercises was relevant in their experience of their condition. The workplace and home environment are places where respondents spent significant periods of time and would therefore experience their condition. Subsequently their experiences in these environments and their ability to perform their exercises regularly played a role in their condition and their perception of the videotaped exercises.

Respondents noted that they were often constrained in doing their exercises and these constraints did not allow them to complete them as often as they were asked to. This might be due to social and psychological factors. The issue of risks and benefits of not completing their exercises was also considered.

AB knows what should be done. He acknowledges that if he put more effort into the exercises rather than his computer, his condition might get better more quickly.

> **AB:** "Well mainly because of time constraints, I'm not exercising as often as I should, but at least I know what I should be doing, and it is improving when I did do the exercises, the next day, I found that the back's a bit looser. So, it will work, it's probably just a case of putting the time in."
>
> **AB:** "I have not really done as much of the exercises as have been told perhaps that I should be doing, but I feel that if I forced myself a bit more into doing it more often, then I think that they might work a bit quicker...I'm a bit of a computing buff so I'll spend less time on the computer and more time exercising."
> ***Field notes:*** *AB was sighing in this part of the interview as if he found it hard to resolve himself to carry on with the exercises I got the impression that my probing was being construed as encouraging him to develop an exercise plan.*

AH describes personal problems which overcame his resolutions with completing the exercises.

> **AH:** "Yes, but then other things happened in my life and the exercise program"
>
> **AH:** "Oh I did I started a regime and I did them more than was recommended for a few weeks but then other things happened. Basically I was made compulsory redundant and my mind was focussed on trying to fight that situation than doing the exercises went by the by."

SG also finds that she was unable to complete the exercises and completing them is influenced by her mood.

> **SG:** "I was supposed to do them 10 x a day but it just wasn't possible, I did it as many times as I possibly could."
>
> **SG:** "...as I say the last 4 weeks I haven't really used the video, to be honest I'm just not in the mood to do that."

PH views the exercises as preventative of future conditions.

> **PH:** "Well, I would do them even if I only did them once a day, I do not want, I don't want that back again you know. When you live on your own that's what I said to X [physiotherapist]... well rather than be trouble to other people you must persevere on and do these things to make you feel, keep well."

This shows that prioritising exercises is influenced by other psychological factors. It is important to consider respondents' life experiences and mood with respect to finding the time to complete exercises. There is the opportunity cost of not doing them as often as they have been recommended which might mean that pain stays for longer which AB notes. AH worries about his work which adds stress to his life and interferes with him concentrating on doing his exercises. Being made redundant meant that his energies were focussed on trying to "fight" the situation rather than think about his shoulder condition. Although he attends physiotherapy, he does not comply with the exercise regime in between. SG also found that her mood affected her ability to complete her exercises. Participants also expressed feelings that time spent now completing the exercise videotape would be beneficial to their future comfort in relation to their condition. That is, it is worth investing time *now* to reap future benefits in terms of recovery and well-being.

Family responsibilities may also influence individuals' time and place to carry out the exercises. In some cases it can hinder completion of exercises, but with others it can be supportive.

> **RB:** "I didn't watch it straight away to see what exercises I needed to do and it was really just the finding the time to do the exercises that I had the problem with not the video. It was just one of those things because I work part time and I have Isabelle [baby] as well to look after, I was just too distracted really I suppose to concentrate on it that was the only reason...That's the thing isn't it, it's making time. I think one of the exercises was every hour or so or ten times a day and its very difficult to set aside that time...I suppose its like anything really, you've got to actually make the time up yourself to do the exercises."

> **IW:** "With having two young children so when I get home from work I get them bathed, have my tea and its quite late evening when I do them and try and catch half an hour at lunch time at work to do them but they only take a few minutes anyway."

> **AB**: "I live in a very small house, which doesn't help because it's finding floor space, and the family commitments and so on, yes that can be an interference trying to find an empty space, but that would be the case if no-one was out. It just depends what night"

GSo and IM echoe these sentiments when their spouses are watching the television.

> **GSo:** "it was difficult actually to use it [the videotape] because either my husband wanted to watch television or he was recording something so that was the difficulty with that actually being able to use the recorder and I imagine it would be difficult if somebody had got young children as they always want the telly on but during the day time when I was at home it was fine and once I'd memorised them it was okay."

> **IM:** "I watch it, do a few of the exercises and then most of the time I can't watch it when I'm doing the exercises because she's got something else on, watching a silly soppy film on Sky."

AB, RB and IW described how her family duties impinge on their time and space which influences how rigorously they carried out the physiotherapist's instructions. Respondents decide that everyday family activities take priority. For some respondents the need for privacy is also important.

JJ also expresses a sense of self-consciousness in doing her exercises and prefers to do them alone in the privacy of her room.

> **JJ:** "When I've got time like when I get up in the morning, I get up first in the morning, so I do them then and I have time when I'm by myself before I go to bed at night, so I do them and then there's nobody, I've got four children with grandchildren, and there's nobody coming in and catching Nana on the floor."

PH shows how having the time and privacy to complete the exercises as instructed was beneficial to her compliance with them.

> **PH:** "I've done the exercises as you know she taught me, showed me and I did them, I do them a couple of times a day, I mean perhaps I'm lucky because I'm here on my own, I've got nobody bothering me you see to do it. I just do it."

> **DP:** "I have got to say in all honesty I don't enjoy it but I wouldn't dream of saying I'm not doing them, it's not worth it...I want to get right, that's the burning factor that keeps me going."
>
> ***Field notes:*** *DP lives alone and has had to give up work due to her shoulder injury. A large focus of her life is on getting better, staying fit and completing her exercises.*

> **AW:** "I know I'm improving because I do them religiously everyday, ... I must do them to get mobile, there aren't any short cuts."

> **CS:** "Well if I don't do them and I don't make a conscious effort to do something about it then I'm just going to get worse and worse"

PH and DP have prioritised the exercises, and also have the time and space available to carry them out. AW and CS indicate that they prioritise their exercises in the desire to improve their conditions.

Significant others within the family can also provide positive support for individuals. JA describes the positive support she receives from her son when he completes the exercises with her.

> **JA:** "...like I said some of the exercises are similar to what you do in my Mr Motivator video so he would get down on the floor and do them with me, because we do Mr Motivator together, I mean he's nine but he's a really big lad, and we would do Mr Motivator video together so he would do the back one with me, its some of the things we do together."
>
> ***JM:*** *"Well that's nice that he does it with you."*
>
> **JA:** "Yes, he's funny. He does it in the fun way and I say you do it your way and I'm doing it mine, you know like children never get it right do they but we do it together he doesn't mind doing it together."

GS demonstrates that his partner supports the ethos of the videotape.

> **GS**: "there's no problem doing it in the evening. I would just pop it on and Jackie [partner] doesn't mind at all because she's doing her exercises as well and she was also keen on seeing the video, seeing what was on it"
>
> ***JM***: *"What did she think of it?"*
>
> **GS**: "She thought it was good as well, a good idea because she's into aerobic videos and that"

DL describes how he wants to stay physically fit to keep up with his grandson. Exercise fits into his efforts to keep healthy.

> ***DLField Notes****: DL's grandson is four years old. DL's son died when his grandson was a baby, three years ago. DL found the grief of loosing his son very hard to come to terms with and subsequently indulged heavily in drinking and smoking as a way of coping, for about a year after his death. He stopped using this as a coping method because he felt it was important for him to be healthy and fit to be around for his grandson as much as possible. DL and his wife maintain close contact with their grandson.*
>
> ***JM:*** *"do you think you will carry on doing them?"*

> **DL:**"Oh yes, I've got to. I mean, I've got to keep fit just for the little fellow he keeps us going doesn't he?"

JA demonstrates that she has incorporated her exercises into her life and also uses that time to spend with her son who does the exercises with her. Using the videotape together is an enjoyable experience for them both rather than a chore that has to be completed. He may not be doing it in what JA would say is the correct way, but the "fun" and companionship is emphasised in this case. Another respondent GS, who has a young baby, shows how his partner showed a keen interest in his exercise videotape. His partner is supportive in giving him the time to watch the video as well as approving of the ethos of exercise videos. It is important for DL to play an active role in his grandson's life and to do this for as long as possible, he must be fit and healthy, especially as his grandson (now fours years old) is very energetic. This keeps him doing the exercises. Part of playing a role in his life involves maintaining a strong body that can engage in energetic activities such as helping him ride his bicycle and running around with him. This will sustain the body by enabling him to live longer, be fitter for longer and subsequently play a paternal or influencing role in their grandson's life for longer in the absence of his father. It is his duty as a grandfather to take on some parts of the role his grandson's father would have played in his life.

A number of respondents describe how they are supported in completing their videotaped exercises through family.

> **AM:** "Yes he's [husband] seen the video… he thinks its good."
>
> **AM:** "My husband just taped for me the one that X [physiotherapist] marked. I took the video back anyway, she marked it on a sheet the ones I need to do and my husband he just done them five or six for me".

This may include support and interest whilst watching the videotape.

> **AJ:** "...my husband said it was very good because he watched it with me, it was very good."

> **ID:** "My daughter was here on Saturday and I asked her if she wanted to see the video. Oh yes she said that's interesting and she was watching it with me you know. She said it was very good."

There might also be encouragement and support in actually doing the exercises.

> **AW:** "My husband bosses me and makes sure I do them right."
>
> *JM: "That's good."*
>
> **AW:** "Oh yes, he's very helpful is my husband. I think y'know some people perhaps need someone else to push them a little bit more."

This demonstrates how family members and partners play an integral part in the illness experience of individuals, which includes the activities they have been asked to do as homework by their physiotherapists. Comments regarding the videotape are conveyed as mostly positive or indifferent – there was no negativity from significant others. There is evidence that the use of technology freely available to individuals was valued and value was added by the engagement of partners and family members. Although some respondents did not receive support either due to lack of interest or living alone, this did not adversely affect their response to the videotape.

Work commitments and illness can also effect how the exercises are performed.

> **AC:** "Well in as much as with Christmas and flu striking me I haven't hit it with this enthusiasm and time allowed as you might expect, because it was quite busy at work as well like I said to you this morning, before Christmas, so I literally collapsed when I had finished work. And I did spend quite a bit of time in bed with this 'flu but having said that it has been useful to slip it in and just remind myself and actually progress on."

Due to illness AC could not perform her exercises.

Work commitments influenced the time AMa had available to perform his exercises.

> **AMa:** "I do them once a day, actually I'm supposed to do them twice but I get up about 6.15 am and the last thing you want to do is have any delay then because I drive to Manchester you know and the Motorway is horrendous."

AH describes some of the barriers that he feels are associated with doing exercises in the workplace. AH also mentions some of the practical aspects involved with completing exercises at work and the environment as well as his perception of how work colleagues might perceive the exercises.

> **AH:** "I think a difficulty would be, if you were in a work situation and some of the exercises in front of colleagues might be a little difficult to achieve and a little bizarre, unless people knew what you were up to, then I suppose in some places if you were undertaking these activities on a regular basis then they would be concerned about your efficiency as a worker. I think that's another aspect to look at and the people might say well it's alright if you're in a chair bound job where you can sit and do a few, you can't do that if you're on an assembly line."
>
> ***JM:*** *"Yes, that's true."*
>
> **AH:** "You certainly can't lie on the floor and do this sort of exercise you'd have to find a quiet space."
>
> ***Fieldnotes:*** *AH expressed bitterness at his employer's decision to make him redundant, which might have influenced his comments about the sympathy of employers to accommodate individuals performing exercises.*

GS can find some privacy at work to carry out his exercises.

> **GS**: "I've been doing the exercises at work because I work nights, so I hide in the office and do it then"

AB also emphasised the need for privacy and what others think of the exercises.

> **AB**: "Bending backward [one of the exercises] you can do anywhere, but the others are lying down so it's a bit awkward really in an office full of females!"

DL shows how he has integrated the exercises into his workplace.

> **DL**: "I've done them, I don't do that one [showing me the exercise on the videotape] but sometimes I can do that one in work when I'm sitting at my desk. And I find that during the day, you know, especially in the other office that I'm doing a lot of them and just through the day really, you know, turning and twisting, just keeping the back, the bottom of the back really, on the move sort of thing, all the while."

> **IW**: "...I worked round it, I have a break in the morning about ten o'clock and would sit down and do that one, the lying down one I probably missed out more because I couldn't lie down anywhere really."
>
> **AMa**: "I do them all the time in work that's when I do most of them, there's only two of us in a big area and I can walk up and down and I've got my stick behind me and a cushion behind me and I can swing on that bench and do the exercises, I haven't got anything to worry about...I've got a mark on the wall in work you see..."

There is again the understanding that privacy is important for individuals and how carrying the exercises out at work might influence how others perceive them. AH is self conscious that others might perceive doing the exercises as "bizarre" behaviour. He also mentions that employers might also question his productivity if he is seen as carrying out a non work related activity. GS also sees exercises as a personal activity to be done privately at work. There is something very personal for him in completing his exercises and not something he wants to share with others in the workplace. AB echoes this and is flippant when he talks about work and jokes that he could not do the exercises in front of women. This again suggests self consciousness in that completing the exercises is a private matter and it might cause him particular discomfort to perform them in front of the opposite sex. DL on the other hand, shows no reluctance about doing his exercises at work and finds that it helps him to cope with his job that involves sitting at a desk for long period of time. IW also did not have any problems with carrying out his exercises regularly at work. AMa shows no discomfort at completing exercises at work, and has a measure of how well he perceives he is doing in gaining mobility in his arm on the wall. He also adapted his workplace and added props of a stick and a cushion to help him complete the exercises. However there are still some that are unsuitable for the workplace, such as lying down.

Participants were also mindful that their use of the videotape was also saving physiotherapists time in the consultation and potentially themselves in having to attend fewer consultations.

> **AB:** "No I think that it is a sound method of approaching it. But I suppose it relieves the physio's time"

SG acknowledged the physiotherapist's expertise is a scarce resource and as such should be used efficiently.

> **SG:** "I mean the thing is that the physiotherapist needs to be there initially to show you and she's got to decide which ones you're going to do but I am sure it's cut down on the length of time that the physiotherapist's time applies to one person if you like."

AMak described how he felt the videotape save time in the therapists doing demonstrations of exercises in the consultation and employed their expertise better elsewhere.

> **AMak:** "I think it's very good – an easier way of doing it and I suppose it saves lots of time and lots of money as well...I'm a believer in the savings and all that, but the benefits are there for the physical treatment...give them a video rather than having to spend lots of time showing them how to do things...I can't really use the word economical, but that's the most practical way of doing it"

AC noted that for some individuals saving time and effort in getting to the consultation would be beneficial to their health and allow the benefits of physiotherapy for those who might not otherwise be able to receive it.

> **AC:** "I mean if anybody is terribly housebound or doesn't have a car ...if its bad weather it saves you waiting in the surgery and it is quite good..."

IW described how aspects of time saving in the consultation suit him with regard to the nature of his employment.

> **IW:** "I am one of these people who can't really afford to take time off work because I don't get paid for being off work, so I couldn't afford to come here

> twice a week or whatever or my boss wouldn't be very happy so its ideal for me."
>
> *JM: "So it's useful from the perspective of saving you time off work?"*
>
> **IW:** "That's right. Where I'm working now I would lose a complete day and I couldn't really do that."

Respondents described the home environment as being comfortable and conducive to learning with the videotape. They were able to find the best place to complete their exercises as well as having the opportunity for privacy.

> **RL:** "…you can refer back to the video at home in comfort"

> **PH:** "I tried it on the bed first of all you know myself after I'd watched the tape, but then I thought well it's best for me to have the tape on here and lie on the floor, so that's what I did. And that was how I did it so, I mostly do it go on the floor and do it now."

> **DL:** "…we've got a television and video upstairs"
>
> *JM: "Oh right, so that's good"*
>
> **DL:** "So that's handy because I found it, when I first started on the floor that was solid… where it would just help lying on the top of the bed, the bed itself without the quilt on, and there was just that little bit of give which did help and you've got more room to swing back and to."

> **JJ:** "I get up first in the morning, so I do them then and I have time when I'm by myself before I go to bed at night"

Individuals favoured carrying out their exercises somewhere which was both private and comfortable. The home environment – especially the bedroom - was thought to be best for this either first thing in the morning or last thing at night.

8.2.1 Conclusion

Respondents' perceptions of space, time and the social context in which they carried out the exercises came to the fore in this theme. A number of factors competed with individuals' abilities to carry out their exercises. Participants demonstrated an acute awareness of not only their own time and circumstances, but also the physiotherapist and the burden on their time and expertise. It was notable that many people in the study were *time poor* as a result of working or looking after family members. This did not adversely affect their performance of videotaped exercises although it did inhibit the amount of time they exercised or the number of exercises they did. Respondents perceived the videotape as a tool, which enabled them to save time in the long run, and also save the physiotherapist time, which they also viewed as being important. The physical environment of respondents had a considerable influence on their performance of videotaped exercises mainly due to how others would perceive them if they carried them out. Privacy was also important in the home environment but here comfort was also a factor. There are a number of factors that inhibit and enhance the regular performance of exercises in the home and the workplace and these are summarised in table seven.

Table 7. Environmental factors inhibiting and enhancing the performance of videotaped exercises.

Environment	Inhibitors/enhancers	Type of inhibitor
Home	Lack of space	Space
	Lack of access to TV & video	Space
	Comfort	Space
	Lack of privacy	Social
	Family responsibilities	Social
	Family support	Social
Work	Visibility/privacy	Social
	Self consciousness	Social
	Perception of superiors and other colleagues	Social
	Lack of access to TV & video	Space
	Lack of space	Space
	Nature of the exercise	Space

8.3 Remembering and doing

Respondents expressed concern about the power of their minds and their capacity to cope with information and instruction in the context of the treatment they received from health care professionals. This in turn has an effect on their perception of how they can use their bodies to complete tasks that the physiotherapist has set for them. This theme examines how individuals perceive their memory skills and how knowledge is transferred to them by the videotape. The videotape has a positive effect on respondents' ability to complete their exercises between consultations. Respondents' perception of the videotape as a means of communication in supporting them in their experience of illness is described.

Respondents have concerns about their ability to retain information and worry about their ability to remember what the physiotherapist has instructed. The videotape allows them to negotiate this potential barrier to performing exercises or complying with the physiotherapist and gain control of this aspect of their consultation. Their perceived inability to remember is a very real barrier for communication within the consultation. One respondent describes her insecurity in relation to her perceived memory skills, which in turn influences her ability to enter into a partnership with the therapist.

> **AM**: "I've got such a bad memory, I think, oh God, she thinks 'I am wasting my time', she thinks I haven't got any problem because if you got a problem you're supposed to pick it up quickly, but brain doesn't work the same for everybody"
> ***Field notes:*** *AM relied heavily on the videotape and even watched it before I arrived just in case I wanted to test her on it.*

JA describes how the reinforcement from the video is still important for her to be able to follow the physiotherapist's instructions.

> **JA:** "You can come to the physiotherapist here and they could tell you what to do but when you get home you're completely lost and you can't remember at least when you've stuck the video in you know exactly what to do and which one and then you keep going over it until you actually know what you've got to do everyday so you definitely do benefit and it is a better idea to have the video at home and be able to watch the video instead of just being told what to do and going home and you'll forget because I do, I've got a mind like a sieve sometimes."

> **IW**: "I think the whole video on the whole was very, very good, I don't think you could put it any simpler for anybody really, you know I'm not the worlds quickest at picking things up."
> ***JM**: "Not many people are, are they!"*
>
> **IW**: "So it did me well. Especially since it's a long time since I've been at school!"

The videotape demonstrates its value in transferring skills, for another respondent who expresses lack of confidence as a learner.

> **MP**: "I would say very good, the way that video was made because when you're here [with the physiotherapist] you sort of try and listen to everything the physio's saying and by the time you walk out you could have very easily forgotten what you're supposed to be doing. If you've got it ticked off that list with the exercises that you've got to do you can keep playing it over and over again and watch and do it at the same time, I think it's very good, super."

As well as reinforcing memory, it helps support confidence within the consultation. The respondent can concentrate more on other parts of the discussion. Many respondents related that their poor memories acted as a barrier to achieving the goals of the physiotherapy consultation. AM thinks the physiotherapist might think she is a time waster, purposively disregarding expert advice. Lack of control over her mental ability leads her to feel less power over her body and relationship with the physiotherapist. IW, JA and MP also think that the learning part of the consultation is difficult. The videotape serves to strengthen the links between the therapist and the respondent. This allows them to exert control and retain partnership with the health professional where they want to comply with instructions but forget what to do. IW equated learning physiotherapy exercises with academic ability and having an agile mind. He notes that simplicity is important for him in order for him to learn and retain information, which enables him to learn at his own pace.

Completing the exercises correctly is viewed as very important by respondents and the videotape supported them in giving them confidence that they were complying with the physiotherapists' instructions and would be able to refer back to it if they were unsure. It also provided them with a reference to safe limits in their exercises.

IW mentions his worry about not performing the exercises properly without the videotape.

> **IW**: "If you didn't watch the video I tended not to do them properly, it's easier with the video and does help you watching a video."

PH expressed the need for help to perform the exercises properly and accurately through practice, especially the more complex ones, which the videotape gave her.

> **PH**: "It was very, very good, very good that tape, and you know the exercises, and once you've done them one of them, the one's on your hands and knees that she give, that was a bit difficult, but now I'm getting into it. But the others you know they came after a few times and you get used to doing them you see so they're very good, yes they're very good on video."

> GS was reassured through the videotape of safe limits on the exercises.
>
> **GS:** "...with a video you get some sort of like limit as to how far you've got to go which is good and your shown them all properly which was nice, and they're always there for reference. I think I played it twice because I had to go back for the next session and I took it back and left it in my car while I was having a session"
> ***Field notes:*** *GS is very worried about hurting his back and has a family history of back problems*

RL finds that the videotape provides him with reassurance to be able to check the exercises when he was feeling unsure.

> **RL**: "...after two or three tries I became used to the sequence of exercises and I could just go through them now thinking of the video, and how they were performed and the position of the hands too. So I don't really need it now, although I have put it on recently just to check myself in case I had forgotten something... you can take it home, look at it if your memories not so good, you can refresh your memory over the exact performance of the actions in the exercises ...however, your doing it, on the bed, on the floor and say, perhaps no, I was doing that a little wrongly and correct yourself"

RB notes that being able to look at the finer details of the exercise was important.

Other respondents noticed that there were other physiological advantages in the videotape supporting them to do the exercises.

> **RB:** "When I did first see the video I thought oh yes I would have remembered that if X [physiotherapist] had shown me how to do it but I think its only when you redo the video and you sort of remember things like straighten your elbow or stretch your arm, its things like that, little tips, that you remember. Because it's not straightforward, like lift your arm above your head, it's those extra little bits that were taped so it was helpful."
> *JM: "So it was the finer points of the exercise that enabled you to get the benefit from having the video?"*
> ***Field notes:*** *RB was initially cynical on the telephone when I spoke to her about discussing the videotapes. In the interview she had changed her mind*

AC recognises the importance of the videotape allowing individuals to be flexible and providing them with the discipline to do their exercises.

> **AC**: "It's a better discipline, if you actually watch it, it does remind you more accurately what the exercise should be, you know what you should be doing, if its bad weather it saves you waiting in the surgery"
> ***Field Notes**: AC is initially sceptical about the videotape and views it as a cost cutting exercise from the NHS however as we discuss it further she also expresses the view that it has a role to play especially in rural areas.*

RB shows that reinforcement in carrying out the exercises is important.

> **RB:** "Yes. I think you would remember if someone showed you the exercises but it really just reinforces it for you, making sure you are doing them the correct way by watching the video."

A level of support can be given easily through the videotape in remembering the exercises and performing them correctly. The importance of "reference" is highlighted and having the videotape allows the respondent to perform the exercise properly which adds to confidence in carrying out the exercises. It also allows the respondent to complete the exercises and their regime and gives them the opportunity to become proficient in doing their allotted exercises being able to refer back if necessary. Some respondents find that they are unable to complete the exercises properly without the videotape, and some exercises take a while to get used to. Again the aspect of reinforcement is brought out, and doing the exercises correctly is important. This emphasises the fact that thinking you know how to do the exercises does not necessarily mean that you do in practice. Not all respondents were immediately receptive to being given a videotape and one respondent expressed reservations about the motives behind giving out exercises in this way. AC is initially sceptical about how a videotape might support her but changes her view, when she realises that the personal element of the physiotherapy consultation is not being replaced, but supported by the videotape. Respondents are expressing positive practical points in relation to the videotape.

Videotape was viewed as being superior to other ways of communicating exercises, such as on paper. Respondents make it clear that they view it in a positive light as a supportive device.

GS indicates that his mother found diagrams unsatisfactory in helping her carry out back exercises.

> **GS**: "I thought it was very good, it was a good idea rather than just... my mum had some problem with her back and she was given Physio at the same place and she was given a diagram and she found that she couldn't follow it, cause it was like flat drawings and also there's no limit on drawing just to how high you have to go or how you've got to bend, it's just to your pain or discretion I suppose."

AB shows how he finds the video useful in helping him to retain information as well as being efficient in saving time in deciphering information.

> **AB**: "Well I find it's more useful in that format [the videotape], because, it's easier to work out what you're doing, other ways say having to look at a book and say work out what you're supposed to be doing takes, well a) it takes longer and b) it can, it can interrupt the exercise itself because you have to break off and check that you are doing it properly, whereas seeing somebody do it is much easier and you retain it better. And I'm finding that I'm learning the four or five that I've got to do very quickly just by watching the video twice. I don't really need to watch it every time. As I think that getting the same number of exercises from a book would take longer."

JA talks about the realities of being given exercise instruction on paper and how it might get lost or thrown away.

> **JA**: "If somebody gave me the piece of paper I would stick it somewhere at home and eventually go back to it maybe when I've got pain but with the video you just stick it in and watch it, you automatically do that, but the piece of paper you'd lose it won't you, it would get lost or thrown out with rubbish and things like that. Well that's what I do any way, I've got two drawers in my house where everything goes in and then they get cleared out and everything goes and then I realise I shouldn't have thrown that out or my son would write on it things like that. No I don't think paper would be beneficial definitely the video is a lot better."

AH describes the possibility of misinterpretation of exercises given on paper.

> **AH:** "Well I was asked to complete some exercises that were shown on the videotape and also some exercises that were on a sheet given to me, with things like sitting exercises…I think the videotape is much more helpful in that respect so you can actually try and model yourself on the person whose doing the exercises on the videotape."
>
> *JM: "And how did you get on with the ones that were on the sheet of paper?"*
> **AH:** "Oh, they were fine as well but I think that sometimes diagrams and words can be misinterpreted and the videotape presentation is less likely to create problems in one's thinking about what you should be doing."

> **DL**: "… because you can forget and you can't always follow a piece of paper so you put it on and you know - I don't do that one, I do that one, but I've tried some of the others that I… some of the others that she hadn't put down for me you know, I try a few of them."

Watching someone visually perform the exercise, as opposed to looking at diagrams is valuable in facilitating the process of completing exercises and memory as well as adding to continuity in exercising and using time efficiently. The ability to go over points again for clarity is also important to respondents. Other means of communication are viewed less favourably by respondents, it is important that the videotape shows them easily and they do not have to do much work in following it. A distinction is made by the respondents of "being shown" something and "being told" something, that is, the physiotherapist is in the role of teacher, but not of demonstrator. It also makes the distinction between paper instructions as being inferior and open to misinterpretation whereas the videotape is not as it shows how to carry them out. The solid physicality of the videotape can prompt action that might not take place if it was presented in another form such as on a sheet of paper or taught in the consultation. The videotape can be used by respondents in a proactive way rather than a reactive way in response to the condition and it gives the respondent the ability to take control immediately over the condition, rather than ignoring it or responding inappropriately. Using other media of communication might create more difficulty in interpretation and lead to more time spent on doing them, doing them wrong or not doing the exercises at all. Misinterpretation might potentially lead to frustration and possibly hinder concordance with the physiotherapists' instructions. Other respondents describe how a paper method of transferring information is less satisfactory, because of the inability to demonstrate exercises, which leads to lack of continuity.

Simplicity enhanced the ability of respondents to gain mastery over their exercises.

IW: "...you know I'm not the worlds quickest at picking things up.

> …it did me well…especially since it's a long time since I've been at school. As I say the old method [paper instruction] I can imagine I don't think I would be able to do it anyway."
>
> **DP**: "Well I think you see the actual person doing them and that does help. Some of them are similar, but it does help to see someone doing them"
> **DP:** "…once I've done them a few times I find I can memorise the exercises and how they are done, you know I do them in strict rotation"
>
> **RL:** "After 2 or 3 tries I became used to the sequence of exercises and I could just go through them now thinking of the video. And, and how they were performed and the position of the hands too, so I don't really need it now, although I have put it on recently just to check myself in case I'd forgotten something.
>
> **JA:** "Sometimes I still need to watch it now, I've had it for quite a while but I do it in the order that they do and sometimes I forget and get it mixed up but I prefer to do it in the order that it is and sometimes I'll forget and then I'll go back and put the video and I'll remember which is the ones I've got to do from that way, I've still got a mind like a sieve now but it is helpful."

Respondents showed how the essence of simplicity and sequence of the exercises supports them. The videotape can also be used as a point of referral when they forget or are unsure of their exercises. It also provides them with a point of reference.

The videotape also provided individuals with psychological support which both encouraged and motivated them as well as giving them a visual focus.

> GeS and AW are encouraged by seeing the exercises performed on videotape.
>
> **GeS**: "I think it's been very good because actually seeing somebody doing the exercise is encouraging and it helped me to remember to do them and I just like to watch things' being done as it sort of encourages me to do them."

Using the videotape has enabled this respondent to memorise exercises.

> **AW:** "you are watching someone else doing them instead of just looking at a wall, you are actually seeing someone doing them and it, it does encourage you to do them. Definitely does, particularly if you had to do a lot of exercises more than I'm doing and I know mine off by heart, I don't need to watch it

> but… and someone whose doing the full process of all of them I think it would encourage them to do them all, doing them with the person."

Respondents described how they felt supported by the expertise in the physiotherapy department in completing their exercises and how it could help them overcome embarrassment and gain confidence.

> **AT:** "The video could be more effective, for me I believe anyway, more effective than being taught by a physiotherapist because you can be slightly self conscious and slightly embarrassing not for any reason but just because of the relationship and I think that the tape is more effective."

> **CS:** "You sometimes feel a bit stupid doing them but if you feel like someone is doing them with you then its not too bad you will actually do it whereas some people will think I'm not going to do it."

> **JA:** The video really has made a difference, the whole of the physiotherapy has but the fact is that I've got the video at home and I can do it from that, that is a really good thing."

Respondents express a view that using videotape is important in learning exercises due to self-consciousness about doing exercises in front of the therapist. It allows them some privacy and dignity. Respondents note that they find the videotape may strengthen relationships with the physiotherapist in providing continuing care.

> **GS**: "because it's the same physiotherapist in the video, you um, tend to break down a lot more barriers, you seem to be a lot more relaxed when you go back to physiotherapy and it's not like a doctor-patient thing. It's a bit more relaxed, that's what I found anyway, I found it a lot more relaxed"
>
> ***JM**: "In that you build a rapport?"*
>
> **GS**: "Yes, it's a lot more friendly, it's a lot more… you probably get to see X [physiotherapist] a lot more on the video, like, the more times you play it then."
>
> **ID:** "You felt you was there and you gotta do them. Yes, it was almost like she was watching over you. Are you doing them properly?!"

> **DP**: "I think it's a good thing [the videotape] because obviously there are people caring about you getting better."

Support is embodied in the act of giving the respondents something to take away from the consultation. This represents the notion of caring shown by the therapist, which in turn is reciprocated by the respondent. The therapists are not just showing support during the consultation, but there is a physical reminder that support is ongoing in between consultations, which increases motivation. JA notes that she has received more ongoing benefit from the videotape than the physiotherapist because she can view it every day and it provides continuity. DL shows that he feels able to attempt some of the exercises that he might otherwise not have attempted from the videotape. IW has completed more exercises from the video than he was told to do, and draws help from the videotape between consultations.

8.3.1 Conclusion

Respondents valued the videotape highly and the role it played in supporting them in their experience of treatment for and management of shoulder or back pain. There were two key aspects to their perceptions of support in being able to remember and carry out their exercises - practical support and psychological support. Respondents pointed out that the videotape did not replace the therapeutic benefit of visiting the physiotherapist, however in some cases respondents felt comfortable with not visiting their physiotherapist again but carrying on with the exercise videotape alone. This theme underlines the important role that videotaped exercises play in respondent's illness and looks at how it is supportive of individuals in helping them to complete and learn their exercises correctly, as the physiotherapist intended. Control is given in that exercises may be completed accurately. Accurate recall of exercises leads to giving individuals power over performing them accurately and complying with the physiotherapist's instructions. Respondents found the videotape a favourable way of delivering exercises and specifically noted that other ways such as giving exercises on paper and demonstration in the surgery were less favourable. The videotape was novel and interesting to respondents which added to their motivation to complete their exercises. Respondents noted that they felt more confident and motivated as well as compliant with the physiotherapists instructions as a result of this aid. Table eight summarises the key elements of this part of the findings.

Table 8. Providing support

Videotape Support	**How the is Support Achieved**
Practical	Enables continuity in completion of exercises
	Supports memory of exercises
	Enables respondents to see videotape in three dimensions to enable better understanding of the exercise
	Minimises misinterpretation of instructions from physiotherapist
	Supports privacy and dignity of respondents
	Supports discipline and routine
	Supports the successful completion of set exercises
Psychological	Confidence
	Supports perception of therapist caring
	Enhances relationship with therapist
	Less fearful
	Perception of more continuity of care

8.4 Physiotherapy

This theme describes how physiotherapy acts as a support for the respondents. Participants demonstrated that their particular needs and expectations from the physiotherapist were quite different. Issues emerged relating to the physiotherapy relationship and treatment received. For some the relationship is highly valued and placed to the fore of the consultation. Without a good relationship, the treatment, advice and instruction is undermined and the quality of interaction with the therapist can enhance the therapeutic process or detract from it. For others this relationship is less important and emphasis is placed on using the physiotherapist to facilitate a self-help approach to the problem and for others a poor relationship can be unhelpful and perhaps damaging.

For many the need for a rapport with the physiotherapist is an essential part of the treatment process. For some individuals the quality of the interaction in the consultation was very important. Respondents described how they gained benefit from their relationships with their physiotherapists.

PM demonstrates that she did not feel physiotherapy treatment had impacted on her particular problem but her relationship with her physiotherapist has provided her with much needed support.

> **PM:** "It helps even because you are coming to some one who understands and knows, you know someone you can talk to and I just said to Karen when I come in here it's as if you're my analyst instead of the physio. But yes, as I say you get benefit out of it especially if feel that you've got some empathy with them or whatever so you do get something out of it obviously."

> **PM:** "I don't think I have made much [progress] but it's nothing to do with the physiotherapy, X [physiotherapist] been great..."
>
> ***Field Notes**: Although PM seems to be resigned to taking the tablets for her ongoing problem – she has derived psychological benefit from the physiotherapy in that she feels better from having talked to someone who*

> *understands. She denies any psychological component in her chronic low back pain.*

AH indicates that the physiotherapist's empathy with his work problems and allowing him to talk is important.

> **AH:** "Like it's one of those things [redundancy] that can happen to us all and I'm trying to get over it as X [physiotherapist] will tell you, I spent lots of time talking to her about it because her husband was made redundant."
>
> ***Field Notes:*** *AH demonstrated that it was important for him to talk to his physiotherapist about his redundancy which he felt was hindering his recovery. AH felt he had psychological support from the physiotherapist because her husband had been in the same situation and she was happy to talk with him about it.*

DP shows how she values her relationship with her physiotherapist and how it boosts her morale.

> **DP:** "She's very good X, very, very good, I get on with her. She's there to help you, but she's also sort of kind in her way. She thinks about your welfare I suppose."
>
> **DP**: "...seeing X that does help as well."
>
> *JM: "How do you think that helps?"*
>
> **DP**: Usually she does boost your morale, I'll say I don't think I've got very far this week and she says you have and yesterday I think she thought I was a bit despondent about it all and she was saying that, I don't know how old these ladies were or if they were ladies or not, she said one lady couldn't lift her arm up off the bed.

MM found that encouragement, plain speaking and personal attention were beneficial to the consultation.

> **MM:** "She is a lovely young lady and I knew her and she was perfectly plain and no condescending manner and assured us that you might think you're not going to do it but eventually you find you can, encouraging, yes I thought that was good."
>
> **MM:** "Perhaps I'm old fashioned but I don't think there is any thing like the personal attention from a physiotherapist that's' my conclusion."

GW noted that a friendly relationship and his view that his physiotherapist works hard and cares for her patients added to his satisfaction with the consultation.

> **GW:** "Yes I'm quite happy with what I'm getting here I'm really happy, she works very hard doesn't she X [physiotherapist]."
>
> ***Field notes:*** *GW laughs at this point which indicates he is happy with their relationship. He also relates a story at the end of the session where he has joked with her about the content of the videotape.*

PH also notes that she is very happy with the personality of her therapist.

> **PH:** "she's very good and she's a lovely person, yes she is, yes."

GS noted that reassurance and advice on activities was important to support him with his back pain.

> **GS:** "it's just that it's a case of feeling my way back into it now. But I needed that reassurance from X [physiotherapist] to say "yes, as long as you don't do these particular things" which is good of her."

DL shows that his adherence to a rigid exercise regime was also motivated by his desire to become healthier and loose weight. The physiotherapist supported him with this.

> **DL:** "But I've gone up now again to about 15st 8lb, 15st 9lb and some of the exercises I sat down and said I can't do them because of, over this [weight]. I couldn't, I was struggling and it was really racking [stressing]me out that I couldn't... So I thought there's only one thing so she [physio] said well high fibre diet."

DP shows how her physiotherapist helped her negotiate the NHS system and gain the support she needed to stay at her local surgery for treatment.

> **DP:** "She said, when you're finished, get them to refer yourself to me, so I knew then that I could do that and I thought, ooh good, I don't have to go to the hospital, as I much prefer to go there [the GP Surgery] as its more person to person"

Respondents are more likely to perceive the physiotherapy encounter as being positive if they have had a good rapport with the physiotherapist although some respondents value the relationship with their physiotherapist more. PM and AH make the connection that they value their physiotherapists as someone they can talk to about personal matters which are effecting their lives. Emphasis in the physiotherapy consultation is not just on functional increase for respondents, but also on the psychological side through empathy and understanding. As well as offering support and motivating respondents, physiotherapists also offered other advice above what is expected of them in relation to their patients' welfare and quality of life. DP has received physiotherapy from the same physiotherapist twice and views her as someone who can boost her morale and give her psychological support as well as being a caring person.

A respondent (PM) also recounted when she had had a negative relationship with a physiotherapist which was underlined by the fact that there was no common understanding with him.

PM indicates that a good relationship with the physiotherapist is important in allowing the patient to feel comfortable and respected in a vulnerable position. Lack of good communication with a physiotherapist led her to abandon her physiotherapy treatment.

> **PM** "...there was no rapport with him, and I think if you are seeing somebody under those circumstances I don't mean friendly, but you've got to feel comfortable and whatever and I just didn't feel at all comfortable with him and I just thought he wasn't very nice and he was probably good at what he was doing, but his whole personality came into it and I didn't feel comfortable with him...because you are actually quite vulnerable aren't you because you're undressed and especially if it's a man and if your overweight or anything like that it can be quite an uncomfortable situation anyway and he didn't put you at your ease, he didn't at all."

Others do not place as much emphasis on the relationship with their physiotherapist. They are pressured by home or work commitments or even an independent nature which means that they do not wish to attend the physiotherapist for many visits.

JA notes that she finds that her progress is more due to continuing exercise than visits to the physiotherapist.

> **JA:** "I think may be the physiotherapy was alright but the video has benefited me because the fact that I'm doing it every day you know so I don't think my progress would have been so quickly if I was just coming to the physiotherapist once a week."
>
> ***Field notes:*** *The physiotherapist who treated JA told me that JA had broken several physiotherapy appointments and would not be given another chance to attend. JA is a single parent and very busy, but she did attend our appointment for the interview and appeared very co-operative. She had lots of positive things to say about the videotape, but I got the sense that the physiotherapist who was discharging her was frustrated by the fact that she had not returned for her follow up appointments and she might possibly be viewed as non compliant by her.*

AT also emphasises his view of self-help due to ongoing management of his lifestyle by himself.

> **AT:** "what I would get to do would be to see someone like a physiotherapist who would recommend some exercises that's really what I thought would happen in the beginning… it was just simply the exercises which I thought is actually what it needs in the longer term. So I think that's exactly what you need to do because we do sit around too much and this lifestyle doesn't help your back"
>
> ***Field Notes:*** *AT comes across as being very independent – he likes to exercise and lead a healthy lifestyle. He cannot remember the name of his physiotherapist which suggested to me that he did not see the need to have a personal relationship with her. He is pleased that he is being given a means of helping himself through exercise.*

IW notes that his visits to the physiotherapist are restricted by the amount of time he can take from work. IW does not want to rely on the physio because of work demands and has already cancelled one appointment.

> **IW:** "I couldn't afford to come here twice a week or whatever or my boss wouldn't be very happy"

Respondents demonstrated that they held certain expectations about their physiotherapy treatment which were not always realised. They might also be supported or denied by explanations about their treatment from their physiotherapist. Explanations about treatment and the role of physiotherapy were also important in the patient's understanding of what was wrong with them and what they might expect from treatment. Sometimes patients' understanding were at odds with the physiotherapist.

AMa describes how he perceived his physiotherapy treatment did not address the problem which led him to discontinue treatment.

> **AMa:** "I've been to physio before…it doesn't seem to resolve the problem. May be you can't resolve the problem maybe it just a case of making it as manageable as humanly possible."
>
> ***JM:*** *"What happened when you had physio before?"*
>
> **AMa**: "I had physio some years ago in a hospital down in Matlock, a hospital there I used to go each week. I don't, it didn't, I don't think it helped."
>
> ***JM:*** *"Oh I see"*
>
> **AMa**:"It's difficult to say. It didn't exactly resolve the problem I was looking for a cure you know but maybe it's just a case of making it as easy and less painful as you can. So I just stopped going in the end and stopped doing the exercises as well."
>
> ***Field notes:*** *However, the fact that AMa has attended for a further course of physiotherapy indicates that he still has hope that this course of treatment will be beneficial.*

SG showed that she seemed to have more optimism about her back problem than her physiotherapist.

> **SG:** "She [physiotherapist] was saying it doesn't look like it'd doing much good and I said what you must bear in mind is that this has been going on a long time and I don't expect it to disappear overnight"

AM shows how her explanation from her physiotherapist has become confused.

> **AM:** "I think most of it she done for my pelvis because really I went there for [referred to the physio for pelvic floor], you know, because my back if you don't lift anything, I know this sounds silly, if you don't lift anything or be careful when I bend I'm okay with it."
>
> **AM:** "But at the moment the one I do on the floor I think it is very very good because that's where I want more than anything because I'm not really worried about my back."
>
> ***JM:*** *"It's more the water problem?"*
>
> **AM:** "Yes. If I can get rid of that because I'm only forty-nine and I don't want to get stuck wearing the pad."
>
> ***Field notes:*** *AM has attended physiotherapy for a continence problem. The physiotherapist has given her exercises for back pain which she does suffer from but she thinks the exercises are for her continence problem.*

> **DL:** "When I first went to physio because she gave me a questionnaire to fill in and it was all about back ache, back problems. Well, I haven't got a back problem it was me leg"

Respondents show that in some cases there is confusion about their conditions and the reasons why therapists carry out treatments and the effects they are supposed to have. AMa also shows that he is not very optimistic about his back problems and this has made him apathetic towards physiotherapy treatment and disempowered about completing courses of treatment. AM demonstrates that her physiotherapist has misunderstood her problem and she thinks that the videotape has been prescribed for her pelvic floor rather than her back pain. SG remains more optimistic than her physiotherapist as she has adopted a different approach to her back problem, viewing it as a problem which will not respond immediately to treatment as her physiotherapist thinks it should. DL shows that he was confused about his leg pains being treated as back problems. This demonstrates that the explanations for why courses of action are taken are important in how individuals construct understanding of their condition.

Respondents may have received physiotherapy previously and have certain expectations of the process. Their prior expectations did not influence their outcomes although some were looking to confirm their preconceived views.

AT shows that he has a perception of what his back needs but shows he is also expects to have to do exercises.

> **AT**:"She did it with a type of massage I suppose. Pressure. Pressure and different moves and I found it very helpful, and I think I needed the same type of thing on my back."
> **AT**:"There was no real manipulation of my back done it was simply the exercises, which I thought is actually what it needs in the longer term so I think that's exactly what you need to do because we do sit around too much and this lifestyle doesn't help your back although I'm quite active really as I say."

AB also demonstrates satisfaction with physiotherapy treatment, but no real understanding of why it may have been helpful.

> **AB:** "back manipulation and heat treatment and exercising and after about three or four weeks it seemed to disappear"

AC shows how she perceives support from physiotherapy treatment has prevented a frozen shoulder.

> **AC:** "I was babying this shoulder so much, unconsciously babying it so much, I think I was on the verge of a frozen shoulder really so I think we started the physio just in time, I really do."

CS GS and IM also show how physiotherapy supports them in terms of postural advice and physical help.

> **CS:** "The physio has just told me it's the way I hold myself really. Just by doing little exercises I can straighten my posture and ease some of the pain that I've got, not all of it but ease it a bit better."
>
> **CS:** "X [physiotherapist] says some of my muscles have wasted away so I've got to try harder to get them back."

> **GS:** "Physio's good as well because I've been shown what my posture should be like and everything. I'm probably not sitting properly now but I am usually aware of it. X [physiotherapist] was very good though, when I went to the Physio she showed me a skeleton of the back/spine and how that works and I though that was very good because you actually get some sort of like, physical evidence of what your backs doing and all the muscles and that."

> **IM:** "The physio is more muscle toning sort of thing getting a release of the muscles in the back because she seems to think that's where the pain in stemming from, from the vertebrae as apparently the X-ray showed two slipped discs in the neck and that's causing muscles in the back and shoulder to be out of place and very stiff and she's getting them going where the exercises are seeming to getting my arm going again."

Respondents tended to use their past experiences of physiotherapy to divide physiotherapy into sections and types – hands on, hands off, acupuncture, exercise, massage etc. Their increased contact with the medical system has not necessarily made them more knowledgeable about their physiotherapy treatment and the nature of their problems. Some expectations of physiotherapy are quite rigid, previous experience suggests it takes a certain number of physiotherapy sessions to make it the pains subside. Others show how valuable information is about posture and information about muscular toning is helpful. The issue of preventing further harm and addressing wasted muscles provides respondents with meaningful information about addressing a problem in the body. As well as pain, the mobility and range are shown as being important.

8.4.1 Conclusion

The personality of the physiotherapist was important and a good rapport was valued highly along with respect for individuals. There was a complex balance for the therapist to ensure that they were in control of directing the session and providing expert advice and yet also ensuring that they cultivated a relationship with the patient which made the patient felt comfortable. The therapist was motivating and reassuring for many individuals. However, a strong relationship with the physiotherapist was not always needed or wanted. In cases where individuals preferred to self-treat the personality of the therapist was not overly emphasised and the opportunity given by the videotape embraced. Respondents showed how they experienced physiotherapy treatment and how they are influenced by both past experience of the condition and their past experience of physiotherapy treatment. Their beliefs about their particular problems are not necessarily reconciled with the explanations they receive, however the physiotherapists were perceived to play a key role in supporting them in their recovery. A summary of this theme can be seen in table nine.

Table 9. Physiotherapy

Nature of the relationship valued	Good rapport
	Positive
	Respect
	Treated as an equal
	Motivation
	Reassurance
	Quality interaction
	Allow patients to self treat at home if they prefer
Treatment	Explanations are important
	Misunderstanding can undermine treatment
	Valued when benefits are evident

8.5 Discussion

This theme is important when considering how individuals complete the exercises prescribed by the physiotherapist between consultations. The theme focuses on how the videotape plays a role in the support system in the wider social context of individuals' lives, such as family, work and environment. It can be seen from the data that the videotape plays an important role in supporting individuals with the exercises that they need to complete, however there are many other factors or discourses which influence support for individuals such as their relationship with their physiotherapist. For Foucault discourses are bodies of knowledge which underpin the rationality of talk and action and he takes a 'social constructionist' (Armstrong, 2000) position on truth. In Foucault's examination of what is real and true, truth is constructed through different discourses that exist within different frames of knowledge at different times. In this theme we can examine some of the apparatus which underpins the understanding of how the individual derives their attitude and response to the videotape and the role it plays in their condition.

8.5.1 Finding space

Finding the space to complete exercises represented the physical spaces in which respondents carried out their tasks as well as the mental spaces in which they constructed the time window in which they could carry out the exercises. Respondents demonstrated how they managed their time to use the videotape and complete their exercises. Time is considered to be an important factor in how often individuals carry out their exercises and respondents showed a strong awareness of this concept. Time available is competed for and it is often a case of prioritising exercises over other activities. The spatial context of where the exercises were performed also gives us insight into how the videotape can support the individual. The exercises were designed to be for home use, and this is where all respondents used the videotape. However a number of individuals completed their exercises in other locations such as at work or outdoors. Different environments may present a number of different barriers to doing the exercises as well as challenges from social networks such as the family, work colleagues and friends. Both time and place can be viewed as issues which place competing pressures on individuals when they are suffering from a condition.

Time can be viewed as a sociological construct because although we all have equal amounts of time, for many people their perception of time is shaped by others. These might be organisations or the family as well as others who demand individual's time and which they may feel socially or contractually obliged to divide their between. Studies have demonstrated that while time has been investigated from the therapist's point of view (Gavin, 2004) it has not been looked at from the point of view of the patient and their therapeutic activities. In describing aspects of time individuals indicated their perception of where the exercises held a place in their world. Ways in which they use and prioritise their time gave important data on how they give meaning and priority to their illness and the concept of having "homework" through exercises to complete. For some it was easy to prioritise while for others their exercises were less of a priority which was demonstrated in how individuals noted the barriers to carrying out the exercises. In placing a time demand on patients before their next appointment, physiotherapists are moving to an area outside the consultation and therefore outside their control. In the consultation the therapist dictates the pace and flow of the activities which take place, however in the external world, the pace and flow is dictated by the patient. Hence, priorities are shifted and activities are subject to the discourses of the everyday world. A Foucauldian perspective can be given in that the societal view of the body as a means to an economic end is reflected in the priority which might be given to a health problem and in an area where there are competing demands on time. Foucault (1979) discusses the art of government, in allocating people's time which involved the excise of power but protects individuals and the population to ensure security in wealth, resources, health and happiness. Institutional activity is complemented by individuals who engage in practices of the self or self government. Individuals shape their own lives as well as react to the influence and actions of others.

> "the subject constitutes himself in an active fashion, by the practices of the self, these practices are nevertheless not something that the individual invents by himself. They are patterns that he finds in his culture and which are proposed, suggested and imposed on him by his culture, his society and his social group." Foucault, 1988:11.

Where individuals are working, the economic self might prevail and where individuals were older, retired or time rich, priorities of the body might prevail. These priorities in turn influence prevailing notions of the self and it's welfare. At certain times of life we are subject to certain obligations, in later life the role of the body takes more priority (see also Chapter six, *section 6.3* and *6.5.2*). There is also the need for the self to take care of itself (Greco, 1993:361) in order to perform these functions, but if it can perform them without the necessary care, this may become less of a priority.

A gap between rhetoric and pragmatic reality is highlighted and what constitutes a "proper" role in relation to these issues. However the home-life versus work-life factor reminds us of the competing discourses which also remain for patients along with their homework to use the videotape. The changing natural and social worlds are penetrated by the individual's experience of time and this study echoes Delanty's comments that time is replacing space as the dominant cognitive and normative frame of reference (Delanty, 2000:128). However in this study both time and place were interrelated in that they were both products of the social environment of the individual. The new ontology of time can be related to societal responsibility – sometimes the obligations to society outweigh the obligations to the individual body. Hence it might be perceived by the individual that the risks of not performing the activity are less than the risks of not performing the other behaviour in its place (Castel, 1991). While "consumerism" dictates to professionals their obligations to the patients and their ability to make choices and be informed, there is also a similar obligation on the part of the patient (as shown in this study) to co-operate with advice and instruction given on the videotape. However the relative power in these positions is not equal (which is also shown later in *section 8.4 and 8.5.3*) and the therapist is more powerful due to increased knowledge. The patient may find that they are unable to carry out the prescribed activity and in this study there is no evidence of the physiotherapist offering them the opportunity for negotiation. Current societal discourse in relation to managing chronic diseases is attempting to reverse this situation and give more power to the patient to allow them to negotiate self management (DoH, 2001) for example the *Expert Patient Programme*.

Despite the competing tensions of work and family, there is strong evidence that individuals do spend time completing their exercises and use the videotape. This demonstrated that respondents are showing commitment to the physiotherapists' instructions, however compliance was varied in terms of the amount of time they spend doing them. There is also evidence that the videotape helped individuals negotiate the time and space barriers by giving respondents the ability to carry out exercises correctly even if they are on an ad hoc basis rather than as often as they have been instructed. Individuals perceive that having the videotape does save them time as it is simple and easy to watch and therefore they are more inclined to complete the exercises than if they did not have it. Consequently the videotape attempts to provide a solution to mediate the perception of the time needed to complete the exercises. By allowing them to do the exercises when it was convenient for them (that is they could pick them up after a few days if they did not get time to do them previously), patients were given the power to negotiate some of the barriers they experienced in terms of competing demand on their time. Foucault indicates that discipline imposed by another authority to achieve specific ends over the body can be called "disciplinary power" (Foucault, 1977:149) and begets self-discipline in individuals. The obligations of the individual to keep well and self manage (discipline) was facilitated by the videotape and supported by the physiotherapist. This compliance allowed respondents to achieve partial compliance where they might not have achieved any compliance.

Individuals are not only concerned about their own use of time, but also the physiotherapist's and their fellow patients. Resources in the health service are scarce and patients often have to wait a number of weeks to see a physiotherapist, so in the interests of others, it is important not to over-consult. Respondents in this study were altruistic in their consumption of health resources. The view of the therapist as a scarce resource of expertise reminds us of again Foucault's knowledge and power. By conserving this resource (power) patients are being good citizens for themselves, the physiotherapists and ultimately other patients. Ethical consumption of health resources also ensured that society as a whole can be better served; the videotape provided a means for them to do this. In addition to this individuals wanted to save their own time through fewer consultations with the physiotherapist. They perceived that the videotape can support them in this endeavour – they are continuing physiotherapy but without having to visit the surgery. Hence they are maximising their own resources as well as the physiotherapists although this is not negotiated in the formal sense. In essence, power is being given to them through the supporting videotape to enable them to make choices. These factors are important when considering patient choice (DH, 2004) which might include offering patients an evidence-based alternative to a longer course of treatment.

Respondents identified aspects of their environment conducive to performing their exercises as being space, comfort and privacy. How place effected individuals perception of the environment in which to complete home-based exercises has not been the subject of previous research. This study shows that this is important for individuals who choose to carry out their exercises in non-home environments such as the workplace. As the amount of times individuals performed the exercises often spans the course of a day, this is an issue for those who work or spend periods of time outside the home. Issues regarding the continuity of exercises and the adherence to exercise programmes are of concern to physiotherapists because often there are activities which are carried out between consultations. This videotape is part of the power being passed to the patient by the medical institution (Foucault, 1977:152) but mediated by the individual.

Similarly, the space in which exercises took place was influenced by individuals who were present and whether they could be "trusted" to be supportive. Data revealed that individuals are self-conscious about completing exercises in public places such as the work environment. They were also wary of allowing superiors seeing them carrying out exercises, for fear that it might lead to unwarranted scrutiny of performance or give the impression that their health is jeopardising their role in the organisation. That is, it might be viewed by others as a sign of weakness and perhaps lack of economic productivity. This again demonstrates how competing discourses such as that of economic activity and of healthy behaviour plays a role in influencing individuals.

The perception of being observed or subject to the *gaze* of outsiders in their illness played a role in their behaviour and operated as a confining aspect of the condition to a certain area (Foucault, 1991:198). Individuals wanted to carry out their exercises in private and retain dignity. A more public approach to the condition might invite unwanted speculation and perhaps the opportunity to stigmatise the individual or expose weakness. It also demonstrated how the competing discourses in relation to an individual's illness play out. Legitimisation by peers and others in the social sphere played an important part in influencing respondents' approaches to new regimes. Spatial context enters into the psychology of completing exercises and hence plays a part in the therapeutic process.

Physical space had the effect of being both potentially facilitative or not to completing the videotape, as did significant others (such as in respondent's social spheres, such as friends, relatives and work colleagues). Receiving a videotape of exercises acted as concrete evidence that individuals are seeking help in their condition and therefore legitimising the condition. This validation of the condition is important for social relationships as well as for the individual - by seeking and accepting the appropriate help, individuals can show that they are actively seeking to alleviate their condition and return their body to its "normal" state – hence moving back from "deviance" to "normality" (Parsons, 1979). Spouses range from supportive and introducing their partner to other exercises and activities, to ambivalent (or absent), or dismissive of problems and uninvolved. Similarly in the workplace the culture can range from very supportive where it is acceptable to take steps to address the condition, to one where respondents have to become furtive in their management of the condition and they feel uncomfortable. Social relationships are important because they empower individuals by making them feel part of a larger social order (Scambler, 1997:171) and this gives them a source of self-validation and a sense of personal security (Pilisuk and Parks, 1986). The concept of social power implies that the will of one individual or group can prevail over that of others – the individual is a receptor rather than a generator of social meaning (Scambler, 1997:171). In this way Foucault too would describe individuals as being docile or passive respondents to prevailing societal discourse (Foucault, 1991:138). Society and those around us provide a type of *panopticism*, (Foucault, 1991:195, see also *chapter 5.11.1*) whereby our daily lives are watched by others which form part of the discourses and hence lead to the disciplining of the self in line with accepted thinking. This inevitably influences where the exercises can be completed and sometimes even trusted individuals such as relatives might be excluded from the illness experience.

Data in this study showed the importance of the social elements that encourages the continuity of exercises in between physiotherapy appointments – for example enjoyment of the videotaped exercises, when exercising with others and supported by spouses or work colleagues. The support for the tool as an extension of medical discourse was evident in the study. This demonstrated that the videotape does not exist in isolation from other members of the family and also that support and encouragement fosters motivation and enjoyment. House et al (1988) argued that emotional support is one of the most important ways social support empowers individuals. Researchers have reported that while the effects of social contact may not be acknowledged, they may still have and impact on our bodies (House et al, 1988). Recent local research in the Halton area (one of the areas where the study took place) shows the importance of social capital in communities (Pooley et al, 2003), which enhanced the well-being of residents. Social support is also a mechanism for encouraging the capillaries of prevailing societal discourse, although it also offers the means for creating other discourses which might prevail within that particular culture. Evidence in this study showed that those who were supported in completing exercises were also supporting the videotape and the physiotherapist in accordance with medical discourses.

The study showed that social support was broadly facilitative in motivating respondents to carry out the videotaped exercises, however individuals who did not have social support also had motivation to carry out the videotaped exercises. This showed that the videotape is a powerful tool and may support the individual without added support given for it from friends and family. Therefore, where there is an ambivalent response in the social sphere, there are also resources to draw upon from the videotape. The videotape can operate as a technical support to provide a means to supplement their lack of immediate social resources in completing exercises. One aspect that respondents drew attention to was the ability of the videotape to provide practical help in ensuring successful completion of the exercises through showing, facilitating continuity and flow of the exercises and by instilling a routine. This demonstrated a way for the therapist to respond to the needs of patients (Rose et al, 1999). The videotape provided a practical way of being able to continue and complete correctly an exercise routine at home. Having a supportive tool such as the videotape will enhance compliance to home-based exercise programmes and can also be extended to other areas. In one of the Trusts where this study took place videotapes were also developed for carers as part of the work of the Rehabilitation Link Team.

8.5.2 Remembering and doing

Understanding the response to the videotape is complex and respondents emphasised this in processing and accommodating information into their world, belief system and lifestyle. If a treatment is not viewed as helpful or legitimate, then compliance won't be maintained (Young, 2004, Osmotherly and Higginbotham, 2004). Respondents' recall of the physiotherapists' instructions was important to the process of getting well and regaining function. The videotape was the vehicle of information and provided respondents with the expertise to carry out exercises at home which is demonstrated through the respondents' comments regarding their value of the videotape in providing information to them. The physical presence of the videotape also reminded the patient of their obligations to the therapist and treatment process. Individuals were ensured that the integrity of the mind was supported through the gift of the expert and the desire to comply was facilitated. Contact with the medical system is maintained by the presence of the physiotherapist on screen. The medical *gaze* is brought into the home. Hence the videotape had a role to play in providing support to respondents and continuity of care and also motivating, encouraging, and valuing them. This contributes to the patient's *continuity of care* (DoH, 2001) which supported the caring role of the physiotherapist and enhanced the therapeutic relationship.

Individuals used the videotape in different ways and many used it as an ongoing reference. Enhanced knowledge gives the respondent power over their condition and gives them some of the power of the "expert" or health professional.

This allows them to enter into a partnership with the physiotherapist. Foucault saw power as being inextricably linked to knowledge so that any extension of power required an increase of knowledge (Foucault 1980:52). Power and knowledge are bound together and reliant on each other for their existence as they actively feed off each other. In effect, power and knowledge make each other possible. Being able to exert power gives rise to opportunities to increase knowledge and increased knowledge may create the opportunity for increased power. Therefore individuals in the study used the videotape as a means of locating and utilising power within them. The videotape allowed knowledge to be released to individuals and in turn allows them to exert power over their condition.

Data showed that the video is easy to follow, with the three dimensional image unlike other methods such as paper diagrams that were described as being inferior. Evidence from the literature (Chapter 3) showed that prior to this study videotapes were not often used as a means of ongoing support for individuals but mainly as a vehicle for providing information in a single session. Videotape in this study enabled respondents to also have control through gaining expert knowledge when it suited them. They can stop and start and review the material, at will and also had a guide to safe limits of their regime. The role the videotape played in how respondents performed exercises, varied: from individuals who relied on it heavily; to those respondents who only used it a few times to aid their memory. However, even in those respondents who did not rely heavily on the video, it still fulfilled an important function in allowing them to check they were performing the exercises accurately. This was particularly important if they did not start doing the exercises straight away. This aspect of videotaped instruction is echoed in the literature which emphasised the ability of videotape to provide greater enjoyment (Sewell & Moore, 1980), increased learner attention (Miller & Irving, 1988) and increased comprehensibility of content (Burwell, 1991). These factors enhance the performance of exercises through active discovery and application (Hamilton & Taylor, 1992). It allowed them to concentrate on the minutiae of doing the exercises, paying attention to detail and helping them to complete the exercises accurately. Having the videotape at home also give them support in complying with the physiotherapist advice and instructions and allowed them continuity in successfully completing the exercises (if they chose to do them) in between their visits to the physiotherapist.

The role the videotape played in enhancing the memory of the recipient was important, even for those who only used it on a few occasions in terms of imitating the exercise precisely - looking at a person doing exercises is important for accuracy and hearing the physiotherapists' instructions. It is easier to misinterpret diagrams and words, which require respondents to interpret visual representations from a diagram and then perform an exercise; this may also interfere with continuity. Having it "shown" makes it easier to interpret for respondents. Furthermore having to recall a demonstration from the physiotherapist also might present more severe problems for the respondent. Evidence from the data indicated that respondents felt in control and positive about doing exercises.

When entering a consultation with a medical profession, large amounts of information are given to the respondent at any one time in an environment that they are not always familiar with or comfortable in (den Hond, 2003). This can lead to confusion and sometimes interfere with the individuals' capacity to absorb information (Vasey, 1990). Subsequently individuals could fail to complete their course of physiotherapy as well as being subject to the 'white coat syndrome' (Marcia *et al*, 1987) where patients are adversely affected by a professional and behave in ways that are not usual for them. Respondents in the study reported that the inability to take in all the information was problematic. Data show that aspects of absorbing and translating information into action were important to respondents and the videotape played a major role as a source of information. This enabled them to perform the exercise in the correct way, without having the pressure of remembering the exercise and instruction. The importance of the correctness of the exercises is central to the physiotherapy treatment (Thomas et al, 2002) and accurate representation of the exercises offered individuals the ability to be good at the exercise from a therapeutic sense and in turn promoted the relationship with the therapist and also their confidence in completing the exercise.

This showed that there has not only been a transfer of knowledge, but also a transfer of power to the respondent through their accessibility to this knowledge (Foucault, 1982:52). It would follow that the increased knowledge and hence power in individuals completing exercises enhanced the individual's partnership with the physiotherapist and their role as an active and equal partner in healthcare rather than a passive recipient. This has important implications not only to the balance of power within the therapeutic relationship, (a more knowledgeable respondent is also a more powerful one) but also having more power to be compliant and adherent to instruction. The physiotherapist has given the patient a portion of their expertise to address their condition. Data show that the videotape often increased confidence in individuals to complete their exercises effectively and gave respondents a sense of power over their ability to perform their exercises and hence carry out their part of the patient-physician contract (Parsons, 1979).

8.5.3 Physiotherapy

Respondents showed that they had mixed feelings about physiotherapy support and its role in their illness both in the relationship with their physiotherapist and in the treatment provided. There were some respondents who relied heavily upon the physiotherapist, valuing the psychological benefits of a good relationship with him or her and finding the treatment key to their recovery. There were also those who did not value an ongoing relationship with their physiotherapist, but wanted to have the freedom to address the problem themselves without the commitment of attending the surgery for regular appointments. The consultation which constituted treatment was viewed with mixed feelings by respondents; again for some it was integral to them getting better and they were prepared to endure discomfort to do this, while for others it produced a lack of understanding of their problem due to inadequate explanations or did not meet their expectations.

Respondents valued the physiotherapy treatment they received and those who did experience past treatments negatively were reluctant to attribute it to any lack of expertise on the part of the therapist. A concept of power of the therapist emerged in this theme, which is acknowledged by the respondent and this concept is also explored in Chapter 7 (*section 7.6.3*). For many the power of the medical profession is acknowledged through the acquiescence of the patient (Watson, 1994:136) embedded in the upholding of certain social codes that apply to illness behaviour (Parsons, 1951), which show what is acceptable behaviour and what is not in this context. Foucault's analysis of power was useful in illuminating the understanding of the functions of the medical profession (Foucault 1973) and their ability to influence their patients. Foucault saw power as a relationship that was localised, dispersed, diffused and typically disguised through the social system, operating at a micro local and covert level through sets of specific practices (Foucault, 1980:146). Power is embodied in the day-to day practices of the medical profession, as well as other institutionalised professions. These high offices are characterised by a specialised education with regard to knowledge that underpins their status and power. The view of those in the medical profession might act as a barrier for asking questions and discussing things openly with their health professional (Bissell et al 2004) which is a barrier to trust within the consultation on both sides.

Consequently, individuals' wishes and desires about their treatment were not brought out fully in the consultation and although individuals felt it was appropriate to appear to comply, they may feel that outside the consultation different matters take priority. Foucault provided an explanation of how institutions (such as the institution of medicine) behave with regard to exerting influence over individuals. Institutions may exert normative coercion (Foucault, 1991:304) over individuals. They are coercive in the sense that they discipline individuals and exercise forms of surveillance over everyday life in such a way that actions are both produced and constrained by them (Driver, 1994:113; Gastaldo, 2000:113). They provide a moral authority and social control over behaviour by "explaining" individual problems and providing solutions to them. Their coercive nature is disguised and masked by their normative involvement with the troubles and problems of the individual and the voluntary engagement of the individual. Their authority emerges because of their greater knowledge and the language which conveys this. Such institutions are readily accepted as normal and legitimate at the everyday level, however this may discourage individuals from challenging difficult language or explanations. Hence it may sometimes be difficult for individuals to express their views and negotiate a suitable partnership with their therapist or to contextualise explanations.

The physiotherapist provided social support, a potential mediator of the effects of negative events on health through listening and being supportive, in addition to the therapies provided in the consultation. There is evidence in this study that individuals responded well to what might be perceived as some of the "softer" side of the medical role in that the communication skills of the therapist were rated very highly. Evidence from Moore et al (2004) shows that participants who felt their physicians listened more to their concerns were less likely to avoid treatment for both medical and psychological problems during the previous twelve months.

Data in the study show that sustaining activity as requested by the physiotherapist for therapeutic benefit is accepted and embraced. A combination of two factors interacted to form therapeutic benefit to patients (Thomas et al, 2002), the psychosocial effect of the consultation and the therapy. This study showed that the personal relationship with the therapist is not necessarily important for all participants rather than the "doing" of an activity. Some patients in the study did not mention specifically their relationship with their physiotherapist or even remember their name. The levels of engagement needed with different patients indicated that the relationship is not always central to the ongoing health problem of an individual. This is an area which should be investigated more fully in the future especially as the Government drives forward the collaboration with health models such as that of Kaiser Permanente (www.kaiserpermanente.org) which have Bandura's theory of self-efficacy (Bandura, 1997) at its heart.

The relationship with the therapist could have a beneficial effect on the perception of the videotape as it is seen as an extension of their therapeutic instruction. The personality of the therapist and the meaningful explanations that they give to the patient – including the use of the videotape, played a role in concordance.

Anecdotal evidence from this service suggested that physiotherapists did not place a high value on the therapeutic nature of communication skills or even understand the range of communication tools that they use in a consultation (Pinnington M, personal communication, July 04). This remains an area to be addressed through education and culture change. Discourses on health presuppose a person that is able to react to and challenge expert knowledge. Power is only effective if the subjects of power are able to react in a variety of different ways (Foucault, 1982). Individuals are not told how to behave but are given the tools to make choices about their health. They can only do this if there is a range of options open to them.

Respondents did not view the therapist in the same way that they viewed the therapy treatment therefore the respondents accepted the therapists as individuals who wanted to support them with compassion and caring, but on the other hand their role as therapist and therefore healer also gave them the ability to become the opposite to this. That is, caring, reassuring and motivating and friendly becomes authoritative, powerful and manipulative of the body – this is demonstrated strongly as well in Chapter 7 *Pain* (section 7.4). There is a divorce from the pleasant, friendly individual who greets them and discusses the problem to when they put on the medical "mask" and become the "therapist". Evidence here suggests that respondents accept that this is the way things happen in the medical arena. The Foucauldian "*gaze*" where individuals are scrutinised dispassionately in order to categorise and assess them, means that their individuality is subjugated during certain parts of the consultation. This is where the person becomes the patient. Similarly the therapists' individuality may similarly be separated from their medical duties during certain parts of the consultation and this is where the personality of the therapist is superseded by the role of medical professional. The "therapist" becomes the "clinician". This indicated that as well as the professionals having the ability to view the patient as a set of medical symptoms, the patient also has the ability to view the professional as a technician in separation from their role as an individual. Hence the role of the therapist and the treatment they provide are seen as separate and the patient is not a passive recipient but someone who has the ability to adopt strategies to shift or reframe power into their own domain.

8.5.4 Conclusion

The theme has shown that there are a number of factors that inhibit and support individuals in completing exercises as part of their physiotherapy programme. The role of social support is important along with the physiotherapist and the treatment they receive. It has been shown that the videotape plays an important role in supporting patients in their efforts to comply with the physiotherapists' instructions through supporting their memory and allowing them more flexibility, potentially saving them time. The sub-themes which concentrated on the respondents experiences within the medical environment, specifically the physiotherapy consultation and treatment do not feature the videotape as its support does not feature in these settings although it does imply that the videotape needs to be actively supported by the physiotherapist as a useful tool. It was important for individuals to derive support for their condition from a variety of other sources as well as the videotape and the physiotherapist. There is evidence that the presence of the videotape as a physical entity enhanced and empowered individuals to complete exercises which they might otherwise not complete.

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Chapter 9: Conclusion

> "The whole curiosity of our thought now resides in the question: What is language, how can we find a way round it in order to make it appear in itself, in all its plenitude?" Foucault (1970:334)

9.1 Introduction

This study explored the experiences of individuals suffering from shoulder and back pain and looked at the role videotaped exercises used between physiotherapy consultations played in the management of their condition. The study considered how the videotapes became an alternative means of communicating with patients experiencing a debilitating musculoskeletal problem and how they may inform the future development of innovative tools in treating patients. However there were a number of tensions in the study between health services research (HSR) where the study originated and was funded, and the area of sociology where some of the ideas and concepts helped form the interpretation of the study.

This chapter will explain how the objectives set out in Chapter 1 (*section 1.3.*2) have been achieved: discussing firstly, how the theoretical framework (hermeneutic approach and Foucauldian interpretation) facilitated the development and interpretation the study, and my own reflections on the implications on what was achieved in the study; and secondly, the utility of a small qualitative study exploring patients perceptions complementing a larger randomised control trial. This chapter will also consider the study's limitations, implications for clinical practice and areas of further research.

9.2 Tensions between health services research and medical sociology

Upon reading the thesis it may become apparent to the reader that there were a number of tensions in the study. As part of the hermeneutic approach it is important to reflect on the study and why the study developed and concluded in the way it did, to provide the reader with a balanced view of what influenced the presentation of the thesis. It is also useful to reflect upon the ontology and how a version of reality was created. This section will discuss the study's contribution to HSR and medical sociology and explore some of the tensions which emerged.

This study originated as a "spin off" qualitative study from a larger DH funded randomised controlled trial to examine the effectiveness of videotape in physiotherapy; hence the scope of the study was dictated by the larger study, which thus influenced both the research question and the nature of the inquiry. The study sample was dependent on the recruitment of individuals who had already been through the main trial; and the qualitative study was designed and executed to add depth to data that had already been obtained. Hence the design and execution of my study were influenced considerably by the main trial. Essentially, a major research question was answered through this population and the externally funded trial, without which the development of the videotapes and this study could not have taken place. The relationship was clearly unequal in terms of resources and number of patients involved in the RCT and this qualitative study. In having a symbiotic but unequal relationship with the main trial a number of issues could have potentially biased my study and the main trial might also have eclipsed the qualitative findings. The issue of interviewing patients during their physiotherapy treatment could also be potentially confounding due to the fact that they were actively engaged in an ongoing relationship with a physiotherapist and this additional constraint was due to the main trial feeding the smaller qualitative study. Reflections, coming to know the data and allowing the data to speak were an important part of this study and the hermeneutic philosophy. My thoughts and feelings were noted in a reflective log including during the data analysis stage. In addition, field notes and observations provided additional data to enhance the robustness of the qualitative study sufficiently for the findings to stand alone. Presenting the study as a PhD helped to ensure that the study was developed rigorously enough to make a meaningful addition to research in this area. This led to considerable attention being given to the theoretical framework and academic work which included the use of a relevant set of theories (Foucault) to interpret data and provide the potential to extend the academic literature and knowledge in this field. Carrying out this work in partnership with academia and as part of a higher degree added an extra dimension to the study which prolonged it and also added to the academic rigour with which it was conducted and reported. Conversely this study always posed the risk to the health service that it ended up adding more to "academic" research than to developing the service.

The study was originally located within the domain of primary care HSR which is concerned with relationships between need, demand, supply, use and outcome of health services; however as data emerged it became clear that sociological concepts and theories on health and illness might play a role in the understanding and interpretation of the data. Another major influence was academic supervision in which I had three supervisors, two with a speciality in medical sociology (one retired) and the other with a background in clinical research and HSR. Inevitably, I had to mediate both interests.

Findings were generated using a hermeneutic approach to design and data collection and analysis and a Foucauldian interpretation of the data. In the findings (summarised in tables 11 and 12), it can be seen that two of the chapters (6 and 7) develop an understanding of the individual's pain and perceptions of their body in relation to their physiotherapy experience and the exercises generally rather than to the videotape specifically. This area becomes more focussed on the illness experience and physiotherapy exercises, rather than developing and adding to theory regarding the role of the videotape. The eighth chapter focuses more on the practicalities of using the videotaped advice and exercises and the role of physiotherapy in relation to this, with messages for the health services field regarding the use of videotapes to convey information about exercises. The implications for medical sociology are also relevant in all three themes. Table 10 provides a summary of the study's contribution to HSR and Table 11 addresses the area of medical sociology. It can be seen that a contribution is made to both spheres.

In reflecting upon the dual approach I realise that the dichotomy between medical sociology and HSR may have developed for a number of reasons. As a researcher and manager working in the NHS, the origins of HSR in the study were important to me. A sociological approach might fit well with the interpretation of the data but may not be as useful or accessible to members of the health services in informing practice. In reading round the subject the contribution which medical sociology could make to the thesis was evident. It is important to note that I did not consciously make the decision to put a foot down in either camp, and this tension was experienced unconsciously until the thesis was considered as a whole. If a purely sociological approach had been pursued, perhaps the concept of the videotape (the original main focus of the study) would have been subjugated and similarly a health services approach might have overlooked a valuable contribution to the sociological understanding of health and illness within this sphere. In tables 11 and 12, I have attempted to distinguish distinct features of how the study contributes to HSR, and medical sociology. It is notable that there is overlap in both areas and it is difficult to

Table 10. A Summary of findings and their relevance to health services research.

Theme	**Key findings (informed by hermeneutics)**	**Meaning to Health Services Research**
Power and the body		
Responding to loss of control	Ways people respond to loss of control • Emotional • Pragmatic • Avoidance • (mixture of the three) Often response is based on their family history of illness, perception of illness and what they perceive others think of them.	• How individuals manage and categorise their condition will effect how they respond to treatment and advice • Individuals may not be emotionally receptive or ready for physiotherapy or exercises • There are influences from society which will affect how individuals respond to their illness from their immediate family to their wider social network. • Individuals may be frightened of the power of their body and feel out of control • Individuals want to regain control of their bodies. Control can be gained with help • Individuals will present a "public face" of their condition to the physiotherapist
The decline of the body	Type of response to the decline of the physical body • Psychological • Physical/biological • Social	• Responses to a musculoskeletal conditions are learned • The illness might threaten a patient's economic or social power and their ability to be a provider/nurturer • Patients appearance to others is important – especially the ageing process. Ageing is viewed negatively. • Exercises have the potential to halt decline. • Language used indicates how the decline in the body affects patients.

Theme	Key findings (informed by hermeneutics)	Meaning to Health Services Research
Regaining the body	Exercise helps regain former function • Advantages • Disadvantages • Mixture	• Exercises may be useful to regain function. Motivation is increased if individuals have a goal and increases when tangible benefits emerge e.g. in increased fitness. • Exercises might help regain an individual's status at home or work. • Explanations and solutions from the medical profession are important to patients • Exercises may be tiresome and painful • Videotaped exercises could give patients the power to feel their body is their own again.
Pain		
Interpreting pain and discomfort	• Physical discomfort • Emotional discomfort • Language used to express pain is rich and varied with vivid imagery. • Fearful of pain • Release from pain is freedom • Coping with pain through humour and stoicism	• Individuals want to talk about pain • It is important to discuss pain in the consultation to make it real to the physiotherapist • Physiotherapists must be open to discuss pain and not judge • Patients often try to be stoic, perceiving that these values are rated highly. A positive identity may be maintained if not "whinging".

Theme	**Key findings (informed by hermeneutics)**	**Meaning to Health Services Research**
Pain and the exercises	• Advantages • Disadvantages • Pain can be "good" expected sign of healing • Pain can be "bad" a sign that something is being damaged	• Exercises completed at home mean that the physiotherapist is exerting influence in the home between consultations. • Exercises may make people "feel better" • Exercises will be influenced by the pain and discomfort the patient feels • Pain during exercises is interpreted in different ways • Pain can be an investment – experience now but relief later • Pain can be "bad" restrictive and an indication to stop activity • Pain alienates individuals from their experiences
Treatment and pain	• Therapist legitimately inflicts pain and this may be good • No pain no gain • Pain may discourage future treatment • Treatment and relief of pain may be mysterious with no explanation.	• Therapists are trusted to be able to distinguish "good" and "bad" pain • Therapists may have to inflict pain during the course of treatment to the greater good. • Patients assess the risks and benefits of pain • Pain in treatment is accepted but not always talked about • Patients might not talk about pain for fear of disapproval from the therapist • The "social rules" of the consultation are important • Individuals need explanations for pain and how it is relieved

Theme	**Key findings (informed by hermeneutics)**	**Meaning to Health Services Research**
Support and the videotape		
Finding space	Influences on doing exercises • Environment • Visibility • Privacy • Lack of space and access to videotape • Perception of others and support • Family responsibility	• Videotape helps prioritise time and space to enable patients to complete exercises. • Patients feel obligation to keep well through doing the exercises. • Individuals are active in trying to find space to complete the exercises. • Exercises can be confining for individuals. • Other people observing them whilst exercising might be difficult • Other responsibilities often prioritised, but the videotape ensures that they can participate irregularly
Remembering and doing	• Practical • Memory • Better understanding and learning • Accuracy • Supports privacy and dignity • Discipline • Confidence at home with the videotape • Caring professional • Less fearful	• The therapist's expertise is brought into the home through the videotape • Having access to knowledge helps patients' confidence • Patient becomes a more equal and supported partners in healthcare • Exercises are completed accurately • Videotape supports a routine

Theme	**Key findings (informed by hermeneutics)**	**Meaning to Health Services Research**

Physiotherapy	• Valued relationship (on a continuum)
	  o Personality
	  o Rapport
	  o Motivation
	  o Reassurance
	• Treatment between consultations is important
	• Very influential
	• Misunderstandings can undermine treatment
	• Valued when the benefits are evident
		• Communication with patients is important and misunderstandings undermine treatment
		• Some patient's value the relationship and the therapy while others want the option to carry on with exercises alone
		• The physiotherapist has the ability to give patients the tools to carry on without them (either between consultations or after physiotherapy has stopped).
		• Patient's may view the physiotherapist's status as a barrier to communication
		• Relationship with the physiotherapist has a beneficial effect on perception of the videotape.
		• The physiotherapist can support patient choices about treatment
		• Patients may judge their physiotherapist.
		• Professional and personal trust is important

Table 11. Summarising the findings and their relevance to medical sociology

Theme	**Key findings (informed by hermeneutics)**	**Meaning to medical sociology and development of Foucauldian theory**
Power and the body		
Responding to loss of control	Ways people respond to loss of control • Emotional • Pragmatic • Avoidance • (mixture of the three) Often response is based on • their family history of illness • perception of illness • what they perceive others think of them.	• Individuals manage the social body through normalisation and beliefs are shaped by societal obligations. The social face of their condition important • The body more than a surface without depth • Demonstration of self-governance and discipline • Disciplinary forces of discourses (societal and medical) but individual agency can override this discourse (ie individuals do not want to comply). Agency denied to some and given to others • Body is out of control and contributes to individuals feeling they may not be able to act under their own volition. • Body is amenable to technical control (constraints, disciplines and obligations) • Link between medical and social systems

Theme	**Key findings (informed by hermeneutics)**	**Meaning to medical sociology and development of Foucauldian theory**
The decline of the body	Type of response to the decline of the physical body • Psychological • Physical/biological • Social	• Docile bodies, blueprint for bodies imposed at an early age • The mechanics of power. Bodies are a means of economic power, decline means a decline in economic and social power • Discourses of social roles and economic usefulness • Socially acceptable image of the body. Appearance, preservation and management of self can represent organisation and surveillance of disciplined bodies in a social space • Videotaped exercises are a means of disciplining the body • Language of ageing pertinent. Public and private body, illness makes ageing public. Unable to "grow old gracefully"
Regaining the body	Exercise helps people regain their bodies • Advantages • Disadvantages • Mixture	• Exercise help disciple bodies (as collapse is threatened by illness) and regain social power. • Medicine might discipline individuals to view their bodies in certain ways • Explanations and solutions from the medical profession are important • Power is masked through normalisation and individuals choose to be subjected to it. • Exercises given on videotape can give power to patients, and individual agency is denied to some and given to others.

Theme	**Key findings (informed by hermeneutics)**	**Meaning to medical sociology and development of Foucauldian theory**
Pain		
Interpreting pain and discomfort	• Physical • Emotional • Language used to express pain is rich and varied with vivid imagery. • Fearful waiting for pain to pass • Release from pain is freedom • Coping through humour and stoicism	• Emotions can be analysed on a social level • Importance of making pain visible through language and gesture and translating a private experience into a culturally understood vocabulary. • Subjugating pain at the level of language and controlling circulation means individuals power is taken from the individual. Pain may be controlled and regulated by the medical system. Voicing pain giving medical stigma. Medical discourse values stoicism and restraint • Power regained by revealing pain to others. Refusing to be controlled and regulated. Positive identity maintained if not "whinging". • Interpretation of pain through language rules are learnt in different settings. Mediating social and medical contexts • Social pressure not to talk about pain

Theme	**Key findings (informed by hermeneutics)**	**Meaning to medical sociology and development of Foucauldian theory**
Pain and the exercises	• Advantages • Disadvantages • Pain can be "good" expected sign of healing • Pain can be "bad" a sign that something is being damaged	• Exercises are a means of exerting control over patients by regulating their activities in between consultations. • Exercises are an investment in mediating pain at a future time • Some will use the exercises in different ways than others i.e. will be subject to different societal discourses. • Pain is private – there is no focus outside the body • Pain alienates from daily life
Treatment and pain	• Pain in treatment may be good. Pain given by the physiotherapist may be good • Therapist legitimately inflicts pain • No pain no gain • Pain may discourage future treatment • Treatment may remain unexplained for patients	• Power in being able to inflict pain legitimately. Clinician is trusted by the individual and as such powerful. • Surveillance and manipulation through the legitimacy of the "gaze" of the clinician • Pain disciplined or subjugated by the therapist – professional paradigms of how individuals should live with illness. • Pain and emotion concealed from the therapist to add to positive values and prevent stigma from the therapist • Therapists are coercive through constraining some activities and exercising surveillance over them and isolating pain from emotion. There are social rules of consultation medical consultation. • Therapists are coercive and normative which leads to self-governing behaviour

Theme	Key findings (informed by hermeneutics)	Meaning to medical sociology and development of Foucauldian theory
Support and the videotape		
Finding space	Influences of doing exercises • Environment • Visibility • Privacy • Lack of space and access to videotape • Perception of others and support • Family responsibilities	• Videotape helped prioritise time and negotiate space (coercive) makes it easier to do. Disciplinary power imposed by one authority over another. Confining aspect of doing exercises Institutional activity complemented by individuals who practice self-government (patterns which are imposed by culture) • Individuals mediate power (agency) for some it will be more governing of behaviour than others. Not docile passive respondents. • Daily lives subjected to the "gaze" of others
Remembering and doing	• Practical • Memory • Better understanding and learning • Accuracy • Supports privacy and dignity • Discipline • Confidence at home with the videotape • Caring professional • Less fearful	• Medical "gaze" brought into the home • Extension of power of having the "expert" in your home – passing of knowledge. Power and knowledge are bound together and feed off each other • Locating and utilising internal power • Physiotherapist becoming a more equal partner in healthcare as the individual's power increases • Technologies can manipulate the body.

Theme	**Key findings (informed by hermeneutics)**	**Meaning to medical sociology and development of Foucauldian theory**

Physiotherapy	• Valued relationship (on a continuum)
	  o Personality
	  o Rapport
	  o Motivation
	  o reassurance
	• Treatment between consultations is important
	• Very influential
	• Misunderstandings can undermine treatment
	• Valued when the benefits are evident
		• Power of physiotherapists through acquiescence of the patient. Good communication is the key to realising this power.
		• Power localised dispersed and diffused system operating at an individual level through a specific set of practices
		• Barriers to open discussion through differences in power
		• Moral authority in explaining situations and finding solutions Greater knowledge and language conveys this.
		• Therapist's ability to pass on their power depends on the individual. Power is only effective if subjects of power are able to react in different ways – given tools to make health choices
		• The "gaze" reversed and focussed on the clinician. Professional trust and personal trust.

disentangle the two as they both provide a contribution in different ways. One distinction is the language used to communicate phenomenon in the two discipline. In HSR the language of the clinician prevails, however in medical sociology, or in my case, interpretation through Foucauldian theory, a different language creates different understandings. It is important that the study which has the potential to inform both areas is published in both fields, with attention being paid to the acceptable language of the relevant discipline. The different language can be demonstrated if the meaning to the health service and meaning to medical sociology aspect of Tables 11 and 12 are compared. Being able to communicate across this traditional divide may break down barriers. In order to develop an area of work or discipline such as the health services, it might be necessary to "borrow" from other disciplines without transposing them, so that these "old" tried and tested concepts can be explored and add new meaning to a fresh area of work. It can be seen from the tables that the work has direct implications for the health service and also offers a contribution to providing empirical support for theory in medical sociology. The two concepts have become two parts of a whole in this thesis.

The tension between HSR and a traditional medical sociology approach can be seen earlier in the thesis. In Chapter 2, I presented the theoretical framework in which the study will be couched and described the hermeneutic approach and in Chapters 3 and 4 I reviewed trials and other quantitative studies and introduced some of the theories from the educational tradition which informed the development of videotapes. The literature review might have developed a different focus if the study had been presented as sociology, perhaps looking more at the sociological aspects of pain and individual's perceptions of illness and its effect on the body. This would have inevitably been relevant to later discussions, but some of the key findings of the literature review discussed in Chapter 3 which are interesting to health service researchers, might not have been explored. For example, how videotape effects performing tasks, anxiety, behaviour change, sharing issues with a spouse and motivation to carry out exercises. I felt it was important not to lose this focus and therefore made the choice to present the literature review in this way. I also felt the study should inform the development of practice and that research question of the sponsor and host of the study (Chester and Halton Community NHS Trust and later Halton Primary Care Trust) should be addressed.

Although the thesis may appear to be a hybrid, it provides a contribution to both HSR and medical sociology. If the HSR aspect of the study had been adhered to slavishly, rich and illuminating data regarding sociological concepts in this area would have been lost and the PhD would have been poorer for this. Consequently concentrating on either one of these areas exclusively may have led to a different thesis where some data might have been discarded or ignored. In allowing a full exploration of sociological constructs while keeping the study's HSR aims and objectives in focus, the study has achieved its aim of exploring the phenomenon in question (the role of videotaped exercises and instruction). By writing up the study in this way understanding is extended as to how patients with shoulder and back pain who consult a physiotherapist and are given videotaped exercises, perceive the role of pain, their bodies and exercise. The specific role of the videotaped exercises in their experience of illness and how individuals perceive them is also addressed. The following section will look specifically at the theoretical frameworks of Foucault and hermeneutics and discuss their strengths and limitations in the study.

9.3 Reflections on the theoretical framework

Hermeneutics and Foucault's theories played major roles in informing my study. This section will examine the practical applications of using this theoretical framework, its limitations and its role in the furthering of knowledge in this area. The section will also outline the tension created by the "agency" versus "structure" debate that the combined approach engenders. A summary of the findings generated by the hermeneutic approach to study design and data collection which juxtaposes the findings generated from a hermeneutic approach and the interpretation of the structural interpretation (Foucault) can be seen in table 11.

Turner (1991:18) suggested that reconciling social constructivism with the individual nature of the lived body is difficult. These two perspectives have different concerns and the perspective adopted depends on the level of analysis. Interpretative approaches (eg hermeneutic) are traditionally strong on action and weak on institutions, and a structural approach (eg Foucault) is traditionally strong on institutions and weak on action. In this study I used both these approaches. As well as providing information to inform at a therapist level, about individual experience, I also wanted to provide comment at a societal level. After all, how can data which has been generated specifically within a particular institution (medical), ignore the wider influences of that institution on its interpretation? Turner acknowledged the argument for providing an analysis on one level or the other but argued that sociology is hindered if we remain in dualisms about the body's ontological status. He advocated epistemological and methodological pragmatism which accepted the twin issues of the body in that it is both concurrently *socially constructed* and *organically founded* (Turner, 1992:17). This study reflected both these issues therefore it supports the view that studies can be designed and carried out using an interpretative philosophy, whilst engaging with a theory founded in a post-structural genre. The theory used to explain findings was not predetermined by the methods, or the underpinning philosophy of the study. For example, my findings explain how society's reaction to the physical body impact upon the lived body, and in turn how the actions of the latter affect the former (see *section 6.2 and 6.3*). In this study human embodiment is not equated exclusively with action or structure but is looked at as a distinct phenomenon which whilst outside the exclusive control of society is crucial in providing a link between individuals and their environment. My findings show that individuals are driven by discourses in the medical and social arena which mostly over-ride the body, however there are distinct areas where individuals exert their own agency, for example in *regaining the body* through exercise, agency can be given to some individuals and denied to others (see table 11 *meaning to medical sociology and development of Foucauldian theory*). In looking at meaning and behaviour, it was appropriate to adopt an interpretative framework to collect and analyse the data as it examined meanings behind behaviours. The emerging themes from the data demonstrated relationships between individuals and institutions or prevailing discourse which were uncovered alongside an individual view of how their illness was constructed and relationships with wider society. These findings, which do not easily fit into existing traditions, should not be ignored or shoehorned into them.

Foucault built theories from historical perspectives of powerful institutions such as those inherent in the penal system, medicine and the Church (Chapter 2, *section 2.15*), while hermeneutics insists it is not possible to view the truth or a version of the truth without gaining the perspective of individuals (see Chapter 2, *section 2.4*). The two approaches although apparently holding different perspectives also have a number of things in common. For example both place an emphasis on the essentials of expression through language – Foucault through discourses and the way knowledge/power is expressed through language (see *section 2.15.3*) and hermeneutics through the view of language as the medium for individuals to express their essences or Being (see *section 2.6*). Foucault and Heidegger also did not believe in any one structure explaining the human condition and realised the impossibility of having a truly objective view of the world as everyone exists within the world, (hermeneutics, *see section 2.9*) or within the definition of a discourse (Foucault, *see section 2.15.2*). Meaning was discussed by Foucault and Heidegger as constantly shifting, and that capturing it will give a snapshot and subsequently no one defining truth exists (Heidegger, 1962:78; Foucault, 1970:55). Foucault tried to explore power at an individual level and his lack of attention to individual agency is a criticism of his early work (Foucault, 1973). In his later work Foucault attempts to address this in acknowledging that the self is autonomous and able to extricate itself from normalising judgements and disciplinary processes (Foucault, 1982;1987). This study underlines this point. Foucault's description of discourses and the way they influence society like capillaries in the body, may indicate human agency and yet his overall historical perspective appears to deny this (Fox, 1999:105). Hence, although the theory and methodology do not appear to concur on a basic structure versus agency level there is a degree of commonality in the approaches.

This study is not the first work situated in the sociology and HSR field to try and mediate the structural and individual approach. Sociologists such as Crossley (1996, 1997) have sought to bring together the insights of Merleau-Ponty with theorists such as Foucault and Habermas. Bourdieu (1984) also combined phenomenological interest in experience within a more structural account of the reproduction of social fields and class relationships. Hermeneutics allows the individual's experience to take priority, and the experience is explained through the use of theories of society and the way it operates, to illuminate individual concerns. In this thesis I have demonstrated that data can be analysed satisfactorily within an interpretative tradition, and draw on a structural theory to look at the wider implications of the data within the framework of society. This study showed that the dualism of agency and structure can manifest itself within the interpretative, and structuralist schools of thought, effecting at the same time how we deal with issues such as power on an individual level.

Specifically, value is added from using a hermeneutic methodology alongside Foucauldian theory in a two areas, quality and relevance. The methodology and theory allows the study to bridge the gap between quality and relevance in qualitative research, which is carried out for and with the health service. This in turn leads to the potential for research to be more translational. Qualitative HSR tends to range from being over simplistic where it is not robust and therefore not reportable or useful as as evidence base, to highly theoretical, where data and study design are very robust but it is difficult to draw specific conclusions which are relevant in a clinical setting. Clearly there needs to be both relevance and quality in these activities, with robust designs with theoretical underpinnings informing the development of research questions and the ability to interpret the conclusions in line with theory which is relevant to the issue in question. Hence this study, adopts a hermeneutic approach and interprets data in line with Foucauldian theory with a result that can be viewed as academically robust, empirical data, but able to be interpreted and used by clinicians. As HSR is an emerging cross cutting discipline it may not have found its feet yet with regard to how to achieve the maximum impact of its activities in the arena of academia and the health service. This study helps support HSR in achieving impact with a thesis (and subsequent papers) which provides findings which will be relevant to both the academic community and the health service.

9.3.1 Contribution to physiotherapy research

A summary of the relevance of the findings to health service research of the study can be seen in table 10. The study was carried out in the context of the physiotherapy consultation while complementing a larger trial looking at the efficacy of the videotaped exercises. Gaining insight into patients' perceptions and issues which effect them is important in HSR to try and meet individuals' needs. The study helped reveal patients' understandings to enable physiotherapists to reflect on their practice and better understand the perspectives and needs of patients. A common understanding and meaning between health professionals and patients will provide the most effective base for helpful patient-professional relationships within the profession, therefore the research highlights aspects of the physiotherapists' role which can be reflected upon and discussed within the profession. Clinicians may be interested in the practical aspects of using videotapes, however, information about how the patient experiences pain and their loss of power over the body is also useful. This study also reports how patients might view physiotherapists and behave in response to their conditions in particular questioning the patient professional partnership. Understanding the issues where the physiotherapist adds value in the therapy process and areas where this may be undermined is informative to the profession. Further research to explore these issues might focus in more depth work on this patient-professional partnership and communication and how this influences self care.

Modern Western medicine has emphasised therapies that are performed on patients (Sakauye, 2002) instead of recognising that for many conditions it is what patients do for themselves that is the most effective (Jensen *et al*, 1991). Participants in this study have demonstrated that they need to fulfil their perceived responsibilities to society as well as themselves. The study showed that physiotherapists could transfer power to patients by giving them the means to undertake home-based exercise regimes to complete their treatment effectively between consultations. Insight was gained for physiotherapists in how individuals experienced a musculoskeletal condition and how the influences of the condition are manifested in the patient's thoughts, feelings and behaviours. This knowledge has the potential to add value to the professional-patient relationship. Data also showed how the videotaped exercises played a role in supporting patient's illness experiences and hence the study informs physiotherapists how it may be of use in practice as an addition to the consultation. In addition, the main study (the RCT) indicated that patients who are given a videotape showed significantly more improvement in their pain on and SF-36 score than the control group (Miller et al, 2004) and this study showed that exercises made individuals pain feel better (see table 10). In general respondents in the study described themselves as "feeling better" from the exercises, so this evidence when placed with evidence from the RCT indicates that the videotape supported patients to complete the exercises better and more often which leads to them feeling better and having less pain.

Patient's views about the videotaped exercises within the context of the consultation and how individuals' personal feelings and family circumstances affected their use of it were revealed - which provides information about how the individual's environment also plays a role in the treatment-illness process. The study indicated that some patients may benefit from structured support and others may prefer a less guided approach. Further research in this area might focus on physiotherapist's views are sought to add to the picture of giving and using videotaped instruction and perhaps exploring other multi-media options such as DVD. Further research questions which physiotherapists and other researchers may want to ask are, “how do physiotherapists view patients’ abilities to carry out exercises in the home environment?” or “does delegation of exercises to patients influence the physiotherapist’s role as health care practitioner?”

It is useful to reflect on how Foucault’s theory was used in interpreting the data and how this study contributes to knowledge as well as the limitations of this approach. A summary of the key contributions of Foucault to our understanding of the role of videotaped advice and instruction can be seen in table 11. One of the key findings from this study is way power is transferred from professional to individual and the role of the videotaped exercises. Foucauldian theory illuminates how power is harnessed and mediated by individuals and the therapist and the interplay of power between them. The minutiae of how threads of power are grasped and flow are highlighted and allow us an insight into how society might perceive use of videotapes as a means of “disciplining” the body through carrying out videotaped exercises and instruction. This study uncovered patient’s psychological concerns about how their bodies are perceived and the control they have over them in relation to their musculoskeletal condition. Individuals have encountered a shift in power over their bodies and moved from being independent to being more dependent. For many the desire to regain power and former independence is a priority and the videotape may be viewed as an appropriate tool for allowing the power they receive from the therapist into the home setting. The role of the videotape is to delegate some responsibility from the therapist to inform a shift from dependence to independence. The study demonstrated that the videotape achieved this in that it delegated some of the physiotherapist's power and expertise and allowed the patient the security of complying with instructions in their home. This delegation of responsibility in the consultation coupled with the means to support patients in carrying out exercises through the videotape was beneficial. By having access to the extended "gaze" of the therapist through the videotape, the individual (and in some cases other family members) could carry out the exercises as instructed. The videotape provided individuals with a reassuring, empowering type of surveillance, which enables them to feel they are doing the best for their recovery. The clinical gaze was positive and supporting and extending the "gaze" within the consultation had benefits for patients. Those who externalise their condition and attribute it to factors such as family predisposition may also receive benefit from the videotape, but the role of the therapist is essential for challenging or negotiating underlying beliefs which may not be helpful to the therapeutic process. The therapist is the main agent in allowing individuals to address their condition, so this is where a major transfer of power lies and the videotape plays a supporting role in allowing patients to achieve the aims of their consultation. Extending the "gaze" outside the medical setting might be alien for some therapists and they may feel uncomfortable about responding to this extended role (Charles-Jones, 2003). Knowing the patients suggests more than just a rapport within the walls of the surgery and is also a main part in the reorganisation of clinicians in primary care (Charles-Jones, 2003). Data indicates that respondents found the videotape comforting and reassuring in a positive way and it supported and encouraged them. The therapeutic effects of videotape on different types of individuals might be the subject of further work to ensure that the videotape is targeted appropriately. Studies in the literature review Chapter 4 (*section 4.11*), confirm this view and describe how certain individuals benefit more from therapist interaction whilst other are confident when left to complete tasks (e.g. Dracup *et al*, 1998). Future research might also usefully explore the potential for audio-visual material to support patient power within other disciplines or areas of chronic illness.

9.4 Conclusion.

The hermeneutic tradition accepts data as snapshot version of events, thoughts, perceptions; ideas and behaviours that are frozen in time through the interaction of the researcher and the participant. Hence, the features of me, the researcher and my professional background played a defining part in influencing the way data were collected and analysed and how the thesis was developed and presented. A defining role was also played by the environment and context of the study, in being a qualitative study complementing a larger clinical trial. The intellectual influences of health services research and sociology played a role in interpreting the findings of the study and the meaning attached to them. A pragmatic approach was taken to mediating these influences on the research to ensure that the study has contributed to both the health service and academia.

This study has shown how the role of videotaped exercises and advice is received by patients with low back pain or shoulder pain who have been referred to the physiotherapist. It provides an insight into individuals' using the videotapes perceptions of illness and how the videotape played a part in this experience. The hermeneutic approach is a potentially useful tool to illuminate data and for physiotherapists to gain insight into their work practices and how patients behave. The study has achieved its aims in that it is able to report the experiences of individuals given a videotape by their physiotherapist and the role the videotape played for patients. The study showed that there are positive and negative aspects for physiotherapists to consider in using videotaped exercises as a support for their patients between consultations.

This study showed that carrying out a health services research study and drawing on philosophies and theories from medical sociology and interpretative traditions is problematic but difficulties can be negotiated to answer this health service research led research question. Contributions can be made to both the health services and academic theory.

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Appendix 1

How do we achieve 'best practice'? Seeking local professional consensus on exercise instruction for patients.

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How Do We Define 'Best Practice'?

Seeking local professional consensus on exercise instruction for patients

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Summary

Background It is implicit in professional freedom that tensions will arise in professional practice between generally accepted standards of care and individual practitioners' experienced-based understanding of what constitutes 'best practice'. The advent of clinical governance in the NHS has opened up the debate about professional standards by making management accountable, overall, for the quality of care provided by NHS trusts.

A research study into the effectiveness of videotaped exercise instruction for patients with two common musculoskeletal conditions involved the participation of all practice-based physiotherapists in a single NHS community trust. We outline the rationale for the study, its setting and factors in the study design which made explicit agreement between the physiotherapists a prerequisite. In discussion with them, significant and strongly held differences in approach to exercise for the two conditions emerged, and called for a method of arriving at a consensus.

Method Following a review of consensus development methods, we adopted an *ad hoc* approach incorporating three stages: motivating involvement; identifying and respecting diverse views; and peer-led resolution of conflict. We describe the process of developing a working consensus derived from the existing practice of the physiotherapists.

Findings Although agreement sufficient to proceed with the research study was obtained, the compromises made and the limitations of the consensus achieved are recognised. Professional freedom and the individuality of patient care emerged as the issues which concerned many of the physiotherapists.

Conclusions The experience of gaining consensus in this context can be related to the impending professional challenges presented by clinical governance. We review current ideas on the development and the limitations of professional consensus on 'best practice'. For physiotherapy departments electing to lead clinical governance by attempting to develop local professional consensus on 'best practice' for specific conditions or groups of patients, we suggest a number of strategic approaches.

Introduction

The Nature of Professional Freedom

A profession can be defined as a group of people sharing a body of knowledge, a constellation of skills and a set of values (Richardson, 2000). 'Professionalisation' (Wilensky, 1964; Richardson, 2000) of new recruits begins in undergraduate education, is influenced by contact with established practitioners and formally acknowledged by membership of the relevant professional society. Thereafter, continuing membership and professional development involve adherence, enforced and voluntary, to common standards of practice. Such standards are slowly but continually evolving in the light of research and changing expectations of the public, other professions and government. Peer-reviewed journals play a key part in documenting and disseminating this evolution of a profession's unique knowledge, skills and values.

However, individuals practising within this general framework mature and develop in their chosen professional context, influenced by their immediate peers and shaped by their own experience of practice (Richardson, 2000). Such experiential learning may reveal valuable insights into practice which are unsupported by research data and, sometimes, shortcomings in generally accepted standards of professional practice (Bithell, 2000). Thus tensions, small or large, can develop between what individual practitioners believe to be best practice and generally accepted standards of care for specific conditions or categories of patients. It is recognised that these tensions are more likely to arise where practitioners are geographically and professionally isolated (Miller *et al.* 1998).

Clinical Governance

The recent publication of *A First Class Service* (DoH, 1998) draws together many of the issues influencing the quality of care received by patients, including professional development and regulation, audit and clinical governance.

As foreshadowed in the White Paper (DoH, 1997), a key element of clinical governance in NHS trusts is that 'processes for assuring the quality of clinical care are in place and integrated with the quality programme for the organisation as a whole'. Thus aspects of care which, until now, have been almost exclusively a professional responsibility are tied into the overall management of quality in NHS trusts. This introduces into the ongoing debate among healthcare professionals about the nature of best practice (Allen, 2000), wider economic and risk-management issues of concern to managers (Huntington *et al*, 2000), who are accountable for the quality of care to a new national body, the Commission for Health Improvement. Valid research evidence, where this is available, will of course remain sovereign but this leaves large areas of clinical practice in which professional experience, illuminated by audit data, will continue to form the only basis upon which best practice can be defined (Hammond, 2000; Bithell, 2000).

In 1998, the Department of Health (DoH) funded a research project on the comparative effectiveness of different methods of communicating exercise instruction for patients referred to physiotherapy with two common musculoskeletal conditions. The project required a group of community physiotherapists to agree on the content of instructional videotapes for use by patients at home. The present paper outlines the study context and describes the process of defining a working consensus. During this process significant issues emerged between professional colleagues which foreshadow some of the challenges of clinical governance.

Outline of the Study

Rationale

The study arose from a widely recognised problem: that the demands on physiotherapy services from an ageing population (OPCS, 1995), the rising level of musculoskeletal problems presenting in primary care (McCormick *et al*, 1995), and technical advances in orthopaedics are outstripping the profession's capacity to respond (Palastanga, 1995; CSP, 1998). One proposed strategy, delegating to patients greater responsibility for self-treatment (Watson, 1996), raises fundamental questions about the feasibility of motivating and transferring skills to patients. The current mainstay of patient teaching is face-to-face instruction, sometimes supplemented by explanatory booklets or leaflets. However, research evidence (Worsfield *et al*, 1996; Burnard, 1997) suggests that for a variety of reasons instruction is largely ineffective, resulting in half-hearted or ineffectual self-treatment and default from follow-up (Ley, 1997).

In the UK, with up to 20% of the population functionally illiterate (Basic Skills Agency, 1998), television is the medium of mass communication *par excellence*. Moreover, the UK has, at 84%, the highest level of domestic video recorders among developed nations (ONS, 1999). The potential of the medium to inform, motivate and enable is reflected in the popularity of factual programmes on do-it-yourself or gardening; and the effectiveness of instructional videotapes is borne out by research evidence (Gagliano, 1988; Tongue and Stanley, 1991; Shiroyama, 1997). In the absence of suitable, commercially available videotapes, a decision was made to seek research funding in order to create videotapes illustrating current exercise instruction by NHS physiotherapists, and to test their comparative effectiveness.

Setting

Chester and Halton Community NHS Trust relates to a socially diverse urban-rural population. Ten experienced physiotherapists, of senior I grade or above, provide practice-based and domiciliary physiotherapy services for 80,000 people in 15 local general practices.

Study Design

Valid comparison of videotaped with traditional face-to-face instruction requires both clinical conditions in which self-treatment plays a significant part and clear-cut outcomes. We chose two common musculoskeletal conditi[illegible] low back pain and painful shoulder, and

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adopted a range of quantitative and qualitative outcome measures. In order to isolate the contribution of the medium of instruction to outcomes, patients were to be randomised between face-to-face or videotaped instruction, the latter featuring either an unknown or the treating therapist. Thus achieving explicit agreement among the participating physiotherapists on the content of exercise instructions for the chosen conditions (the 'message') formed an essential preliminary to the study.

Method

Choosing a Consensus Development Method

Consensus development methods, although widely used in the health service, have not been subject to rigorous research within this field (Black, 1994). Other disciplines, for example behavioural science (Parente and Anderson-Parente, 1987) and social forecasting (Rowe *et al.* 1991) have given evaluation a considerable amount of attention, but this has had little impact on consensus development in healthcare.

The use of formal consensus development methods has been viewed with mixed feelings, ranging from enthusiasm (*Lancet*, 1997) to concerns around group domination (Diehl and Stroebe, 1987) and limitations of time leading to premature decision making (Janis, 1982).

At a local level, attempts to establish a collective approach to professional practice inevitably raise emotive issues, complicated in this case by the research context. It is in the nature of research that ideas for a study usually originate with an individual or emerge from a small group. Prior to seeking funding for the present study, 'soundings' were taken from among the trust's physiotherapists about their participation: these were positive and supportive of the application. However, to achieve external funding it was necessary to submit an unambiguous protocol which *anticipated* their participation.

Taking these factors into account, and in the absence of firm evidence to support any one formal method of achieving consensus, it was decided to adopt an approach based on three sequential stages: motivating involvement in the process; identifying and respecting diverse opinions; and peer-led resolution of conflict.

Developing Consensus

Motivating Participation

Once funding for the study had been achieved, all practice-based physiotherapists in the trust were invited to an exploratory meeting at which those who had prepared and submitted the protocol began by outlining key features of the study design.

In responding to questions, emphasis was placed on factors perceived to be motivating: experience in research would be beneficial to the individual's professional development; pooling of ideas about the management of the chosen conditions would benefit patients; improving skills transfer to patients offered widespread advantages to physiotherapy and other clinical services; and undertaking nationally-funded research would provide 'kudos' for physiotherapy within the trust.

At the same time, demotivating factors were acknowledged and explored. They included anxiety that the study, through a standardised approach to individual patients, involved some loss of professional freedom; fears that videotape instruction diminished a central role of the therapist; and a perception that management in the trust (and the DoH) supported the study because it offered an opportunity to change physiotherapy practice through a reduction in consultation length and cost.

While they were not openly voiced, two other issues became apparent at this initial meeting. First, despite the peer-review process through which the protocol had passed in gaining external funding, there was understandable criticism that it had not been agreed with all the physiotherapists before submission. Secondly, some people were anxious about being featured on videotape, a phenomenon which, in another context, has been described as video 'phobia' or 'allergy' (Campion, 1992).

Although absolute reassurance on a number of points could not be given (for example, the protocol could not be rewritten or the motives of others known), agreement to proceed was obtained on the following basis:

- Therapists were to be free to conduct treatment sessions in their normal way with the videotape as an adjunct to and not a replacement for therapy.

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- Any time saving which arose from use of videotape instruction was to be used as therapists saw fit.
- Although the protocol was fixed in outline, crucial aspects of the study were to be decided in negotiation with the therapists, including the key issue of videotape content.

At the close of this meeting, all ten practice-based physiotherapists agreed to participate in the study and to seek agreement to recruit patients from their GP colleagues. For their part, the grant holders undertook to obtain from trust management enough protected time for physiotherapists to attend planning meetings and, in due course, to participate in the recording of videotapes.

Identifying and Respecting Differences

A number of meetings about the proposed content of the videotapes followed; these involved all ten practice-based physiotherapists, the grant-holders and those with an interest in physiotherapy research based in the trust. From the outset, strongly held and divergent views about exercise in the two conditions were apparent. Agreement was sought and obtained from participants to proceed by a two-stage process of listening and then selecting. First, all of the ten physiotherapists presented, without interruption, their approach to prescribing exercises for back and shoulder problems. Secondly, from the presentations a selection was made of exercises, reflecting all stages of rehabilitation, in regular use by not less than two therapists. In discussion, this inclusive list was then reduced in number through agreement that certain exercises achieved the same end result.

Peer-led Conflict Resolution

Subsequently, the physiotherapists split into two groups, each with a nominated professional leader and each given the tasks of 'finalising' the list of shoulder and back exercises respectively. In these groups, the individual merits of each exercise were discussed and agreement reached on a short-list. Finally, the decisions of both groups were presented to a plenary session of all ten physiotherapists. In discussion, the lists of exercises were further modified or substituted until a short-list of 25 agreed exercises for both back and shoulder problems had been created. However, when the chosen exercises were converted to a 'story board' and subsequently to a script for shooting, we were advised by the TV director that further reduction in the total number was necessary if they were to be made accessible to patients on a domestic videotape. Those who had led groups in the short-listing process were asked to confer with colleagues in order to reduce the lists still further, to 16 exercises for back problems and 17 for shoulder problems. (See appendix 1 for the exercises chosen.)

Subsequent Modifications

Prototype videotapes (featuring KM) demonstrating the final list of exercises were recorded, piloted among patients and viewed by all the physiotherapists involved in the study. While the feedback from patients was uniformly encouraging, it became clear that the professional consensus remained fragile. In particular, a number of physiotherapists felt constrained by what they perceived to be the limited range of exercises available on the videotapes and their inability to 'customise' videotape instruction to particular patients' needs. In response to these strongly-held views a number of modifications to the study design were agreed:

- A prescription form would be included with each videotape, enabling the therapist to specify for a patient which exercises were to be undertaken.
- Each exercise on videotape would be identified on screen with a number in large type corresponding to the number on the prescription sheet.
- If they wished, therapists could supplement videotape instruction with face-to-face instruction in exercises not present on the videotape.

Nature of Consensus Achieved

On this basis all the physiotherapists were prepared to proceed to the next stage of the study, recording their individual videotapes. However, it was also clear that this decision, while easy for some, involved much heart-searching for others. A number felt that the study challenged the personalised nature of their relationship with clients, one or two held divergent views on the value of exercise early in the chosen clinical conditions, and some felt that the grant-holders should not be researching physiotherapists' clinical practice when they were not practising clinicians. However, the discussion also revealed a unifying dynamic -- acceptance of the need to research the effectiveness of client instruction. The result was agreement to proceed based on a 'virtual' rather than true consensus.

Discussion

The process reported here sought to achieve professional consensus among a group of physiotherapists and to capture agreement in the form of standardised instructions to patients for self-treatment of two common conditions. That this process formed a necessary preliminary to a research study was both a weakness and a strength. While it was driven by the need to achieve working agreement within a matter of weeks, the study also provided a framework within which the consensus could be monitored and problems of adherence identified and explored. What the process revealed about variations in professional practice for two common conditions and the strong attachment of individual therapists to their own patterns of working, is almost certainly generalisable to physiotherapy services elsewhere in the UK. Whereas it is hard to reconcile such variation with the notion of 'evidence-based practice' (Bithell, 2000; Richardson, 2000) it is encouraging that an agreed content for patient instruction was obtained in a relatively short period of time and adherence to it maintained over a period of 19 months. Despite the atypical context, we suggest that issues which emerged during the process of negotiating this, albeit limited, local consensus may have wider importance for professional practice.

In recent years a growing body of literature has addressed consensus management of clinical conditions through the development of algorithms, protocols and guidelines (Murphy *et al*, 1998). Often building on meta-analysis of published research (Roter, 1989), such approaches also attempt to incorporate valid evidence derived from professional experience, for example through the use of consensus conferences (Clemmer and Spuhler, 1998). In addition, a range of national and regional bodies (DoH, 1997) produce reviews of and guidance on significant clinical problems or areas of practice. For example, in the physiotherapy profession, Specific Interest Groups (eg 'Agile') provide national guidelines and standards (Simpson *et al*, 1998).

However, as *A First Class Service* points out 'there is currently no coherent approach to the appraisal of research evidence and the production of guidance for clinical practice'. This statement reflects concerns about the variable quality of current guidelines (Adams *et al*, 1999) which the creation of a National Institute for Clinical Excellence (NICE) aims to remedy (DoH, 1998). However, the potential agenda of NICE is so massive that for some time to come it is likely to be preoccupied with high-profile (emotive, costly or prevalent) issues in healthcare rather than the content of much day-to-day professional practice. It is the latter which is now the concern of each NHS trust's local arrangements for clinical governance. In physiotherapy, as in other clinical services, the development of consistent approaches to practice will require local negotiation and compromise, both within the profession and with management.

Like its precursor clinical audit, clinical governance has emerged, largely in the USA (Blumenthal, 1996), from the need to contain the costs of health care and to forestall negligence litigation in the era of 'managed care' (Royce, 1997). That it breaches a traditional barrier between management of the organisation and professional freedom is indisputable. One of the key questions is 'Does it deliver better or simply more uniform care?' This issue of whether the care of individual patients would be reduced to formulae, the equivalent of 'painting by numbers', lies at the heart of professional fears, which loomed large in the present study.

Reassuringly, evidence from the UK suggests that consensus cannot be imposed; the compliance of clinicians is strongly correlated with their participation in developing guidance (Adams *et al*, 1999; NHS Centre for Reviews and Dissemination, 1994). A recently reported method of local guideline development would appear to impart this sense of ownership (Adams, 1999). Roberts *et al* (1998) have produced a short 'Guide to

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Contribution

Authors contributed to the development of the consensus process (IS, KM, PM, JM) and the writing of this paper (IS, JM, KM and JH).

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Guidelines' which, although addressed to doctors, provides an accessible summary of their strengths and weaknesses. Finally, guidelines can never be more than guidance. The professional role embodies legal responsibility for care, including the duty to depart from guidance where, in the case of an individual patient, valid reasons exist.

While the move away from individually determined, and potentially idiosyncratic, practice will never be painless, the responsibility of each profession to lead the process of defining best practice is clear. Our experience suggests a number of approaches which might be taken by leaders of physiotherapy services in NHS trusts wishing to take the initiative in clinical governance by defining local consensus on best practice for the care of particular conditions or groups of patients (see box on right and appendix 2). Some of the approaches embody techniques familiar to group decision making in other contexts (Pruitt, 1981; Rubin and Brown, 1975) but which are less well known in the clinical arena. For a comprehensive review of available techniques the reader is referred to Murphy *et al* (1998).

We do not claim that professional consensus achieved for a specific purpose and time limited (in our case, by the duration of the study) is an exact parallel with the challenges of defining more consistent practice which lie ahead. Nevertheless, our experience should alert professional colleagues to some of the challenges which are likely to arise in physiotherapy services now that clinical governance in the NHS has become a reality.

Approaches to achieving local consensus

Respect experience provided it has been critically reviewed.
Establish a trusted forum.
Understand the origins of diversity.
Negotiation not confrontation.
Incremental progress.
Open up the debate to an outside view.
Negative feelings are natural.

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Appendix 1: Exercises selected for video

Back Exercises

Introduction – General back care advice, getting on/off bed, comfortable lying position

1 Prone lying – 5 minutes
2 Prone lying forearm support – 3 to 5 minutes
3 Extension in lying holding 10 – 30 seconds
4 Prone kneeling, transversus
5 Crook lying, pelvic tilt – hold for 5 seconds
6 Crook lying, knee rolling side to side
7 Crook lying, head and shoulder raise
8 Supine lying, single passive hip flexion/lumbar stretch
9 Supine lying, bilateral passive hip flexion/lumbar stretch
10 Crook lying, single hamstring stretch
11 Crook sitting, active abdominals, eccentric then concentric
12 Prone lying, arms by side – active extension
13 Prone lying, arms stretched above head – opposite arm and leg raise
14 Sitting on a chair – controlled slump to extension
15 Sitting on a chair – thoracic stretch
16 Extension in standing

Shoulder Exercises

Introduction – General advice, using heat and ice

1 Shoulder shrugging
2 Shoulder circling
3 Pendular: forwards/backwards
side/side
circles
4 Supine – auto assisted flexion through elevation with hold
5 Supine – abduction through elevation and external rotation, with hold
6 Sitting – flexion through elevation
7 Sitting – short lever abduction to 90°
8 Sitting – long lever abduction through elevation and external rotation
9 Standing facing the wall - stretch against wall, flexion through elevation
10 Standing affected side facing wall, stretch against wall, flexion through elevation
11 Standing holding towel behind back horizontally – pull towel side to side
12 Standing holding towel behind back vertically – 'back drying'
13 Standing with weight in hand – diagonal movement (PNF type)
14 Standing with weight in hand – flexion through elevation
15 Standing with weight in hand – abduction through elevation and external rotation
16 Supine lying with weight in hand – internal rotation
17 Side lying with weight in hand (affected arm uppermost) – external rotation

Appendix 2: Approaches to achieving local consensus

Respect individual experience provided it has been critically reviewed
In the absence of research evidence, we all tend to respect the wisdom of experience. However, not all experience results in experiential learning: reflection on practice (Schon, 1983) and other media of self-directed learning (Stanley *et al*, 1993) are important in consolidating experience in the form of lessons generalisable to the professional practice of others.

Establish a trusted forum
There is no point in stimulating dialogue among a group of professionals which merely encourages the sterile exchange of settled opinions ('I just know it works for me'). On the other hand, a journal club (Krogh, 1985), or a programme of visiting speakers should enable issues to be considered broadly, and at one remove from individuals' professional experience. Once such a forum is perceived as constructive and supportive, individuals may be prepared to share problems in their professional practice.

Understand the origins of diversity
Among a group of therapists, often working alone, under pressure and with limited access to professional journals, it is normal for opinions to be diverse, strongly held and based rather more on experience than on published evidence. Physiotherapists, perhaps more so than other healthcare professionals, show strong attachment to one of a number of incompatible 'schools' of practice.

Negotiation not confrontation
Even with skilled facilitation, trust is slow to build and is easily damaged. Discussion of emotive professional issues like guidelines must not isolate individuals but highlight areas of agreement and identify ways of exploring differences of view. Anticipate that finding common ground will not usually be a linear process: some participants may withhold conflicting opinions until agreement appears close.

Incremental progress
Consensus is likely to emerge in steps over a period of time and is likely to be conditional. Recognise and consolidate each step and be prepared to accept a conditional or working consensus. Make explicit that agreement is temporary and subject to review in the light of evaluation. In this way, without abandoning cherished views, individuals may accept the discipline of a collective approach for a defined period in the knowledge that it is to be evaluated. Ensure that the evaluation is broadly-based by using, for example, the framework proposed by Kirkpatrick (1967).

Open up the debate to an outside view
It can be useful to ask the adherents to minority views to present their positions to a neutral but informed outsider invited to join the group. This should lead to clarification of evidence *versus* opinion, identify opportunities for audit or research and help to lure individuals from entrenched positions.

Negative feelings are natural
Reaching consensus will not be easy and at times the journey may become fraught. While it is natural to feel downcast when a minority of colleagues are intransigent, try to remain outwardly calm and optimistic. Concentrate on highlighting points of agreement, however few and far between. Remember that differences which loom large today may subsequently prove to be transient or insignificant.

Appendix 2.

Videotaped Exercise Instruction: a randomised controlled trial in musculoskeletal physiotherapy

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Videotaped exercise instruction: A randomised controlled trial in musculoskeletal physiotherapy

Julia S Miller, Ian Stanley, and Karen Moore

Rising demand for physiotherapy services suggests the need for strategies which delegate greater responsibility to patients for their own care. The transfer of self-treatment knowledge and skills by face-to-face instruction or in writing have both practical and theoretical disadvantages when compared with instructional videotapes for use by patients at home. Advice and exercise instruction on videotape has not been formally evaluated in clinical practice. The present study compared the effectiveness of videotape with face-to-face instruction for two common musculoskeletal conditions. Primary care patients referred to physiotherapy were randomly assigned to one of three types of instruction. Two of the groups were provided with instructional videotapes—one featuring the treating physiotherapist, the other an anonymous physiotherapist; the third group was instructed using traditional face-to-face methods. Outcomes were assessed at 4–6 weeks using a range of measures. Patients in the videotape groups were prescribed more exercises and were more skilled in performing them than were the face-to-face group. However, in terms of clinical progress, instruction by videotape was no more effective than face-to-face. Videotaped instruction proved popular and appeared to help motivate patients to continue self-treatment but produced no detectable saving in physiotherapist time in consultation.

INTRODUCTION

Current models of consultation style, rightly, emphasise the importance of listening and negotiation in achieving outcomes satisfactory for patients (Pendleton, Schofield, Tate and Havelock, 1984; Ong, de Haes, Hoos and Lammes, 1995). However, the health care consultation usually includes an element of professional advice and instruction, relating to the patient's role in prevention, compliance and self-treatment. Research evidence suggests that the setting of the consultation (Tod, Read, Lacey, and Abbott, 2001), patients' natural anxiety and their unwillingness to appear 'stupid' (Gardner and Chapple, 1999), results in many leaving the consultation without a firm grasp of their part in achieving recovery or preventing relapse. Despite the attention now given in professional education to communication skills, this combination of factors may well account for 'communication' remaining a

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major criticism of health professionals in the UK (Leinster, 2002).

Moreover, in some health care settings, instruction may be so technically complex as to be beyond the capacity of most patients to retain in sufficient detail to put into practice (Rastall et al, 1999). Attempts to address the problem have ranged from instructional leaflets (Little, Somerville, and Williamson, 2001), patient libraries (Varnavides, Zermansky, and Pace, 1984), telephone help-lines (Carlsson, Strang, and Lindblad, 1996) and specialised advisors/counsellors (Morrell, Spiby, Stewart, Walters, and Morgan, 2000). Only the first of these has been subject to widespread critical scrutiny. Often the assumptions made and the language used in leaflets are inappropriate to a mass readership (Godolphin, Towle, and McKendry, 2001; Kinrade, 2002; Mumford, 1997). Moreover, with 25 per cent of the population in some parts of the UK 'functionally illiterate' (Basic Skills Agency, 1998), written instruction is inevitably restricted in its impact. The medium of television, on the other hand, is both an accessible medium and, in the form of programmes and videotapes about cooking, exercise, gardening, DIY and so forth is the general public's *chosen* method of instruction. Among developed nations the UK has the highest rate of domestic ownership of video recorders; some 90% in 1999 (Office for National Statistics, 1999). There is good evidence of the effectiveness of videotape in education and behaviour change in a variety of settings (Knowles, Kinchington, Erwin, Peters, 2001; Krouse 2001; Thomas, Daly, Perryman, Stockton, 2000; Weeks et al, 2002), but we could find no published studies evaluating its use as an adjunct to the physiotherapy consultation for common conditions in clinical practice.

Prescribed exercises form a significant element of self-treatment for patients attending musculoskeletal physiotherapy, and effective instruction in them is both challenging and time-consuming for the therapist. Recent evidence (Powell, Bentall, Nye, and Edwards, 2001), which suggests that outpatient physiotherapy is more effective where it adopts an educational/advisory role alongside physical therapy, reinforces the need to find ways in which self-treatment skills can, reliably, be transferred to patients. Moreover, physiotherapy is under considerable pressure to provide prompt access for primary care patients with musculoskeletal problems (Lock et al, 1999) but its capacity to respond is limited by workload pressures and recruitment difficulties (Chartered Society Physiotherapy, 1998). Thus musculoskeletal physiotherapy represents an ideal setting in which to compare media of instruction in terms of clinical effectiveness, patient acceptability and efficient use of therapist time in consultation.

The present paper reports and findings of a study designed to test the hypothesis that exercise instruction by videotape is superior to face-to-face instruction in terms of clinical effectiveness, patient acceptability and efficient use of therapist time in consultation. Following consultation with a community physiotherapist, patients with two common musculoskeletal conditions were randomly assigned to groups featuring exercise instruction on videotape for use at home or to traditional face-to-face instruction by the physiotherapist. The groups were compared four to six weeks later using a range of outcome measures.

MATERIALS AND METHODS

Choice of clinical conditions

Low back pain (LBP) and shoulder pain (SP) are among the commonest musculoskeletal problems presenting to physiotherapy services (Croft, 1993). For the physiotherapist, their clinical management includes a significant element of exercise instruction to patients with the aim of encouraging self-treatment between consultations. Finally, validated measures of clinical severity exist, making quantitative comparison of outcomes feasible.

Study design

A potential confounding variable in comparing videotaped with face-to-face instruction is variability in the level of communication skills of individual physiotherapists. This led to a study design in which patients with SP or LBP were randomly assigned to one of three regimes of instruction:

(a) videotape featuring the treating physiotherapist (therapist video group);
(b) videotape featuring a physiotherapist unknown to the patient (anonymous video group); or
(c) face-to-face during the consultation with the physiotherapist (control group).

Setting and ethical approval

The study was based on a Community NHS Trust with a diverse urban/rural catchment population in the North West of England, UK. Prior to the study, approval of its design and methods had been obtained from the relevant local District ethical committees.

The exercise videotapes

Preliminary discussion among community physiotheraapists in the Trust revealed significant variation in their approach to the chosen conditions. Thus an essential preliminary element to the study was achieving consensus on the content of patient exercise instruction for SP and LBP. The consensus development process adopted, the outcome of the process in terms of the content of exercise instruction and details of videotape recording have already been published (Miller, Moore, Hall, Stanley, and Margrave, 2001).

Inclusion criteria

All patients with SP or LBP over the age of 16, referred by local general practitioners (GPs) to 13 community physiotherapists employed by the Trust were eligible for inclusion, provided that: they had access to a video recorder at home; and irrespective of the study, they would have received physiotherapy for their condition. The physiotherapists were asked to note clinical grounds for exclusion of any patients with the two conditions. Patients were excluded by the physiotherapists if they could not demonstrate the ability to give informed consent for example due to a learning disability; if they were not suitable for physiotherapy due to a condition needing specialist referral, such as nerve root compression; and if the pain was thought to arise elsewhere, for example, shoulder pain referred pain from the neck.

Randomisation

Sealed, sequentially numbered envelopes containing the type of instruction to be undertaken were prepared by the research assistant, JM, using computer-generated random numbers. In the field, randomisation was achieved by requiring the treating physiotherapist to open the next envelope in the sequence *after* gaining patient consent and administering base-line questionnaires.

Data gathering and outcome measures

Five parameters, reflecting both client and professional perspectives, were used to assess outcomes:

1. Clinical progress of the condition;
2. Changes in well-being/disability;
3. Physiotherapist contact time;
4. Patients' experience and perceptions of videotaped instruction; and
5. Level of patients' self-treatment skills.

The present paper is principally concerned with data from 1–3 above.

Clinical progress of the condition

The measures of clinical severity and function used were the Shoulder Disability Index (SDI; Croft, Pope, Zonca, O'Neill, and Silman, 1992) for patients with SP and the Roland and Morris Disability Questionnnaire (RMDQ; Roland and Morris, 1982) for patients with LBP.

Changes in well-being/disability

The Short Form 36 (SF-36; Ware and Sherbourne, 1992) provided a generic quality of life measure comprising eight discreet dimensions: 1) physical function, 2) social function, 3) mental health, 4) energy and vitality, 5) pain 6) general health perception, 7) physical role, and 8) emotional role; and one supplementary question, change in health. Patients completed the SF-36 and either the SDI or RMDQ at presentation and again at follow-up 4–6 weeks later.

Follow-up questionnaires were either completed at the time by patients still being treated or sent by post with a self-addressed envelope to those who had finished their treatment. Among the former, the response rate was maximised by allowing patients to complete their questionnaires immediately after their physiotherapy appointments. Postal requests for completion of the questionnaire were accompanied by a personalised letter from the physiotherapist. Where this failed to elicit a response, the research assistant (JM) telephoned patients on at least two occasions requesting completion of the questionnaires.

Physiotherapist contact time

In all patients seen at follow-up, the number and duration of consultations with the physiotherapist between presentation and follow-up were used to calculate a total clinical contact time in hours.

Patients' experience and perceptions of videotaped instruction

Patients' experience, and perceptions of this method were obtained, from a sub-sample of those receiving videotaped instruction at interview by a research assistant (JM) using qualitative methods of interview and analysis. These findings are in preparation and will be published elsewhere.

Level of patients' self-treatment skills

In a 10 percent random sub-sample of all patients recruited to the study, assessment was made of patients' ability to undertake key features of prescribed exercises without prompting; and their knowledge of the number of repeats and the frequency of each prescribed exercise. The assessments were undertaken by a senior physiotherapist from outside the Trust, blind to the method of instruction, using a scale (Measure of Patient Self-Treatment Skills, MOPSS) devised for the purpose, there being no suitable existing measure. A description of MOPSS, including the principles underpinning its design, and data on patients in the present study are in preparation and are to be published elsewhere.

Methods

This involved comparison of mean scores in the three limbs of the study for both LBP and SP where data were normally distributed; otherwise, data transformation was undertaken. We used a number of statistical tests to examine quantitative data collected in the study. When analysing parametric data over time periods we employed a repeated measures approach using two-way analysis of variance (ANOVA). One way ANOVA was employed to look at changes between groups in parametric data. Non parametric tests such as Chi-square or a McNemar were used to examine non-parametric data such as threshold score comparisons and the age and gender of patients. A Kruskall-Wallis test was used to examine physiotherapy contact time. Quantitative data analysis was undertaken using SPSS version 9.

Power

The power of the study to detect significant differences in outcome for SP patients required 327 patients—109 patients per group in a three-way comparison (therapist video vs. anonymous video vs. control). This gave a 80% chance of detecting a difference of 2 points in SDI scores (*sd* 5, with α at 0.05, two sided). Recruitment to this group in the study was much slower than expected and recruiting was stopped after 165 patients, with 130 completing follow-up. This smaller sample has reduced power to detect differences to 70%.

For LBP patients, the study required 264 patients—88 patients per group for a three-way comparison of outcomes. This gave an 80% chance of detecting a difference of 2.2 points and α at 0.05, two [illegible] insufficient comparative data on SDI and RMDQ from community sources to make hard and fast statements, smaller differences in outcome using these measures are unlikely to be of *clinical* significance.

For a two-way comparison (video vs. non-video) using SF-36 scores, 200 patients are required—100 per group. This gave us a 80% chance of detecting a difference of 8 points (*sd* of 16, with α at 0.05, two sided.

FINDINGS

Sample characteristics

The numbers of patients with LBP and SP recruited to the study, and their age and gender characteristics by type of instruction are shown in Table 1.

Exclusion

A total of 14 patients (2.5%) were excluded from the study because they did not have access to a videorecorder. In addition, a total of 29 patients (5.3%) were excluded from the shoulder pain group because assessment indicated that their problem was not intrinsic to the shoulder but represented referred pain.

Randomisation and follow-up

Table 2 shows the numbers of patients with LBP and SP at randomisation to control and the two video groups, and the percentage in each group providing follow-up data.

Differences developing within groups between presentation and follow-up were slight: SP patients who completed follow-up questionnaires showed a significant difference from non-completers in age, $\chi^2 = 74.2$; df $= 54$; $p < 0.05$, but not in gender, $\chi^2 = 0.19$; df $= 1$; $p = 0.6$; in the LBP group, there were no significant differences between those who did and did not complete the follow-up questionnaires. In terms of clinical severity (i.e., initial presentation RMDQ and SDI scores), ANOVA showed no significant differences between those who did and did not complete follow-up questionnaires: SDI,

Table 1
Summary of patients recruited to the study

Condition	Group	Male	Female	Age Range (Years)	Mean Age (Years)	Sd
	Control	28	44	20–79	52.70	14.29
SP ($n = 165$)	Therapist video	8	28	17–88	52.41	16.54
	Anonymous video	21	36	21–86	55.09	13.85
	Total	57	108	17–88	53.84	14.52
	Control	70	80	16–78	44.88	16.22
LBP ($n = 385$)	Therapist video	37	61	16–84	44.08	14.86
	Anonymous video	62	75	16–79	43.67	15.40
	Total	169	216	16–84	44.32	15.50

Table 2
Numbers and follow-up rate of patients randomised between control and video instruction

Group	Shoulder Pain (n)	Follow-up n (%)	LBP (n)	Follow-up n (%)
Control	72	55 (76.4)	150	90 (60.0)
Therapist video	36	29 (80.5)	98	66 (67.3)
Anonymous video	57	46 (80.7)	137	95 (69.6)
Total	165	130 (78.8)	385	251 (65.2)

[illegible]; RMDQ, $F=0.16$; [illegible]

Outcomes: Shoulder pain

Comparing outcomes in the three groups (personalised videotape vs. anonymous videotape vs. control)

Table 3 shows SDI scores at presentation and follow-up for the three categories of instruction. ANOVA showed no significant differences, $F=1.2$; $df=2$; $p>0.31$.

There were no significant differences in SF-36 scores in patients with SP by categories of instruction.

Comparing outcomes in two groups (video vs. control)

When the two video groups were merged ($n=.93$) and compared with the control group ($n=72$), ANOVA revealed no significant differences between groups in the change of SDI scores between presentation and follow-up, $F=0.01$; $df=1$; $p=0.9$.

Likewise, comparison of these groups showed no significant differences in the change of SF-36 scores between recruitment and follow-up.

Threshold scores on the Shoulder Disability Index

Taking an SDI score of 5 as the threshold between significant and server shoulder pain, the distribution of patients with shoulder pain above and below this threshold at base line and follow-up for the three categories of instruction can be calculated. Scores of 6 and above at initial presentation and follow-up respectively (Control = 41 vs. 33; Therapist = 24 vs. 16; Anonymous = 39 vs. 22). Scores of 5 and below at initial presentation and follow-up respectively. (Control = 14 vs. 22; Therapist = 5 vs. 13; Anonymous = 7 vs. 24).

Comparison of the proportions above and below the threshold score at presentation and follow-up was undertaken using the McNemar test. No significant differences were found when all three groups were compared, $\chi^2=5.7$; $df=2$; $p=0.06$ and when the video groups were combined and compared with controls, $\chi^2=3.5$; $df=1$; $p=0.2$.

Outcomes: Low back pain

Comparing outcomes in three groups (personalised videotape vs. anonymous videotape vs. control)

Table 4 shows patients' RMDQ scores at presentation and follow-up by the three types of instruction.

Although ANOVA revealed significantly greater improvement in RMDQ scores in the therapist video group than in the anonymous video group, $F=4.0$; $df=2$; $p<0.05$, neither video group improved significantly more than the control group, $F=1.2$; $df=2$; $p=0.6$.

An ANOVA test on the dimensions of the SF36 revealed that the therapist video group, but not the anonymous group, showed significantly greater improvement in the dimension of *pain* than the control group, $F=4.9$; $df=2$; $p<0.005$. In the dimension *energy and vitality*, the therapist video group showed sig-

Table 3
Shoulder Disability Index scores at presentation and follow-up in the three groups

Type of instruction	Mean SDI scores at initial presentation (95% confidence interval)	Sd	Mean SDI scores at follow-up (95% Confidence Interval)	Differences between groups of SDI scores (follow-up initial presentation)	*Sd*
Control	9.75 (8.58–10.91)	4.69	7.64 (6.12–9.15)	−2.11	5.61
Therapist video	11.17 (9.73–13.10)	4.81	7.93 (6.13–9.73	−3.24	4.74
Anonymous video	9.98 (8.64–11.23)	4.58	5.94 (4.48–7.24)	−4.34	5.06

Table 4
Roland and Morris Disability scores at presentation and follow-up in the three groups

Group	Mean RMDQ scores at initial presentation (95% confidence interval)	*Sd*	Mean RMDQ scores at follow-up (95% confidence interval)	Differences between groups of RMDQ scores (follow-up-initial presentation)	*Sd*
Control	9.77 (8.58–11.11)	5.98	7.30 (5.95–8.73)	−2.47	6.62
Therapist video	8.45 (7.16–9.75)	5.23	4.87 (3.84–6.01)	−3.58	4.37
Anonymous video	10.15 (8.98–11.23)	5.53	7.15 (5.95–8.55)	−3.00	6.24

nificantly more improvement than the anonymous video group, $F=3.1$; df$=2$; $p<0.05$, but not significantly more than the control group.

Comparing outcomes in two groups (video vs. control)

In LBP, when the two video groups were merged ($n=235$) and their RMDQ scores compared to controls ($n=150$) using ANOVA, no significant differences emerged, $F=0.9$; df$=2$; $p=0.5$. In terms of SF-36 scores, the merged video group showed significantly more improvement than the control group in one dimension, *pain*, $F=5.2$; df$=1$; $p<0.005$.

Comparison of threshold scores on the Roland and Morris Disability Questionnaire

Taking a score of 12 on the RMDQ as the threshold between significant and severe LBP the distribution of patients with scores above and below this threshold at presentation and follow-up can be calculated. Scores of 13 and above at initial presentation and follow-up are respectively (Control = 30 vs. 21; Therapist = 20 vs. 5; Anonymous = 41 vs. 21). Scores of 12 and below at initial presentation and follow-up are respectively (Control = 60 vs. 69; Therapist = 46 vs. 61; Anonymous = 54 vs. 74). A three-way analysis (McNemar's test) showed a significant difference in favour of the therapist video group compared to the two other groups, $\chi^2=21.4$; df$=2$; $p<0.05$. However, two way (video vs. control) comparison using the chi-sqaured test showed no significant differences in improvement between the groups, $\chi^2=8.2$; df$=2$; $p=0.09$.

Overall outcomes (combined video groups vs. controls)

Use of SF-36 scores in both clinical conditions makes it possible to apply a single over-arching question to out data: in terms of disability and well being are there significant differences at follow-up compared to initial presentation between patients (irrespective of their clinical condition) who received video instruction (irrespective of type) and patients who received face-to-face instruction?

When data from patients with LBP and SP were combined ($n=550$) an ANOVA test revealed no significant differences ($p=0.27$) in the dimensions of the SF36 between merged video groups ($n=328$) and control group ($n=222$).

Physiotherapist contact time and number of exercises

Table 5 shows the average number of sessions attended and hours of contact with the physiotherapist with the percentage of missed sessions by method of instruction.

A Kruskall-Wallis test was used to compare physiotherapy contact time in the groups. No significant differences were found between the physiotherapist contact times or *did not attend* (DNA) rates of the three groups for either LBP, $\chi^2=1.2$; df$=2$; $p=0.4$, or SP, $\chi^2=3.1$; df$=2$; $p=0.3$.

Loss of videotapes

Eight videotapes were lost during the study as a result of patients failure to return them, and

Table 5
Number of physiotherapy sessions attended, time spent with patients, and Did Not Appear (DNA) and cancellation rates

Condition	Group	Mean number of Exercises Prescribed	Mean number of sessions	Mean physiotherapy time (hours)	% Sessions missed (DNA or Cancellation)
Shoulder Pain	Control	3	4.0	1.65	11.65
	Therapist video	4	4.6	1.86	12.67
	Anonymous video	4	4.4	1.85	10.82
Low Back Pain	Control	3	3.8	1.61	26.76
	Therapist video	6	4.4	1.81	22.68
	Anonymous video	5	4.2	1.72	24.09

four became unserviceable due to wear and tear. This represents an overall attrition rate of approximately 3% per annum when distributed by physiotherapists from the 14 community sites involved in the study.

DISCUSSION

This study mirrors current clinical practice in assuming that self-treatment in the form of exercises prescribed by a physiotherapist is an effective intervention in SP and LBP. It follows from this premise that patients who comply with the exercise prescription (in terms of accuracy and frequency) should show greater clinical progress than those who do not. In interpreting the findings of the present study not only the study hypothesis, that videotape is more effective than face-to-face instruction in the transfer of self-treatment skills, but also this assumption should be kept in mind.

We did not attempt to differentiate between the musculoskeletal causes of either SP or LBP. In each case, patients had been referred to physiotheraphy by their general practitioner and a decision made by an experienced physiotherapist that self-treatment with exercises formed a part of the management of the condition. In line with the physiotherapists' usual follow-up practice we assessed clinical progress at a single time point 4–6 weeks following first presentation to the physiotherapist. While this timing has considerable theoretical support in the literature on LBP (VonKorff, 1994), the natural history of SP is less well documented. Clinical experience of SP suggests that assessment of progress would be more discriminating between interventions if undertaken at a somewhat longer interval from presentation.

Of the five groups of outcome measures, three showed little or no evidence of benefit (or of any disadvantage) from using videotaped exercise instruction—clinical progress of the condition, changes in well-being/disability, and physiotherapist contact time. Using well validated clinical measures and a single assessment point (4–6 weeks), that the type of exercise instruction is not shown to influence clinical progress or general well being/disability. In part this reflects shortcomings in the present study: inability to detect significant differences between the three types of instruction in patients with SP may reflect failure to recruit a sufficient number to satisfy the power criteria. However, by the same token, we can be reasonably certain that no significant differences were present between video and control patients using two-way comparisons in *both* conditions. Moreover, using SF-36 scores, a well-validated outcome measure, marginal benefits in favour of videotaped instruction tended to disappear when patient numbers were increased by combining video groups and by merging conditions. Thus, our findings do not support the hypothesis that in terms of clinical improvement over the ensuing 4–6 weeks videotaped instruction is superior to face-to-face instruction in LBP and SP.

It was also shown that there was not any significant saving in physiotherapist contact time as a result of their use of videotapes for exercise instruction. However, this finding should be interpreted with caution. The pattern of booking initial and follow-up appointments for community physiotherapists was inflexible and not sensitive enough to reveal time saving *within* individual consultations. Thus comparison was only possible between the numbers of follow-up appointments. Moreover, in a service under pressure, staff may have used the time made available by delegating instruction to videotape for other facets of the consultation that they perceived to be hurried in routine practice. The potential of instructional videotapes to save therapist time in the consultation appears self-evident, and merits further investigation now that videotapes have been shown to be clinically at least as effective as face-to-face instruction.

Moreover, two findings of the present study suggest that videotape instruction conveys advantages over face-to-face instruction (MOPSS and patient interviews—papers *in preparation*). Patients not only welcomed videotaped instruction and found it motivating but also were judged by an independent observer to be significantly more skilled in a greater number of exercises 4–6 weeks later than were those instructed face-to-face. Although the ability to demonstrate exercises successfully and to recall their recommended duration and frequency does not necessarily mean they were adhered to, our findings on skill levels and motivation are supported by other recent work on videotaped instruction (Weeks et al, 2002). Studies of video-based interventions in other disciplines also indicate benefit in education and behaviour change (Clark and Lester, 2000; Krouse, 2001). Clearly, this raises a question mark over the assumption underlying both the present study and current clinical practice: if more skilled self-treatment using a larger number of exercises does not lead to improved clinical progress, is self-treatment by exercise in the two conditions worthwhile? The single follow-up interval chosen for the present study was too short for us to be able to draw any firm conclusions on this issue. Further research in other conditions and/or therapies, where self-treatment skills are already known to be beneficial to outcome, may have greater scope to demonstrate measurable clinical benefit from videotaped instruction.

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Appendix 3 Summary of studies included in the literature review (Chapter 3)

Study	Country	Design	Group	Aim	Sample size	Group	Outcomes
Addy *et al*, 1999	UK	2 Phase, Single-examiner-blind, randomised, cross-over study.	Healthy volunteers	To determine whether video instruction in the use of an electronic toothbrush could promote efficient use of it	24	1) Video (n=12) 2) Instructional booklet (n=12)	Plaque removal was superior in the video group
Agertoft & Pedersen, 1998	Denmark	A single-blind, randomised, parallel group trial	Children aged 305 years	To study the impact of videotape and nurse training on the use of budesonide Turbuhaler in preschool children	72	1) Individual training+ videotape+ leaflet (n=36) 2) Videotape + leaflet (n=36)	Training at home is needed to support 4&5 yr olds in using a Turbuhaler correctly rather than audiovisual information and leaflet. Few 3 yr olds can learn these skills

Study	**Country**	**Design**	**Group**	**Aim**	**Sample size**	**Group**	**Outcomes**
Bondy *et al* 1999	US	A prospective randomised study	Patients scheduled for total knee or hip arthoplasty	To evaluate the effects of material sent home on patients preoperative anxiety	134	1)Videotape = pamphlet (n=65) 2) Usual care (n=69)	Significant differences in anxiety levels between the groups. Group 1 was less anxious
Brown *et al,* 1996	US	Population-based RCT with 3 month follow-up	Over 75 year olds	To compare effectiveness of written materials only and written material with a videotape	1,302	1) Educational brochure(n=683) 2)Videotape = brochure (n=619)	Videotape did not increase the use of advanced directives, but did allow older people to make more informed choices.
Browner *et al,* 1996	US	Comparative study	Pregnant women	To compare delivering a message on prenatal screening by videotape and information booklet and booklet alone	130	1) Information booklet (n=65) 2) Information booklet + videotape (n=65)	Those who saw the videotape remembered more about the information. Information retention varied significantly with educational level and ethnic group

Study	**Country**	**Design**	**Group**	**Aim**	**Sample size**	**Group**	**Outcomes**
Callaghan *et al*, 1998	China	Controlled study	Men due to undergo transurethral resection	To examine the effects on post-operative anxiety and satisfaction of two modes of information transfer	30	1) pamphlet + videotape (n=15) 2) Videotape (n=15)	Group 1 showed higher levels of satisfaction and lower levels of post-operative anxiety. The videotape is less effective on its own
Carpenter *et al*, 1994	US	Comparative study – groups balanced for gender and need for information	Adult patients consulting for routine dental care	To examine the effectiveness of a videotaped behavioural treatment program in reducing dental anxiety	66	1) Intervention Videotape (n=22) 2) Placebo videotape (n=22) 3) No treatment control (n=22)	A preparatory videotape is effective at decreasing dental anxiety when patient characteristics are matched with the characteristics of the intervention
Caulderfield *et al*, 1998	US	Comparative study	African-American women at 24 weeks gestation	To evaluate the single and combined effects of using a videotape and peer support	242	1) Motivational videotape (n=64) 2) Peer support (n=55) 3) Peer support + videotape (n=66) 4) Control, usual support (n=57)	Intention to breastfeed and initiating breast feeding was significantly higher in all three intervention groups, however effects were lost at 7-10 days. Peer support (2) was more effective than group 1) and group 3)

Study	Country	Design	Group	Aim	Sample size	Group	Outcomes
Davis *et al,* 1998	US	Randomised intervention study with 6 month follow-up	Women aged over 40 yrs	To study the effects of 3 approaches of increasing mammography screening	445	1) Personal recommendation(n= 147) 2) Recommendation + brochure (n=147) 3) Recommendation + brochure + videotape (n=151)	30% increase in mammography utilisation in group 2). No significant differences in groups 1 & 3.
Done & Lee, 1998	Australia	Prospective, randomised, single-blind trial.	Patients about to have ambulatory surgery	To assess the effectiveness of a preoperative videotape as a source of additional information	127	1) Video (n=60) 2) No video, usual care (n=67)	Videotape group had better recall of information. No significant differences in anxiety between the groups
Dracup *et al*, 1998	US	Randomised trial	Parents of infants at high risk of cardiopulmonary arrest	To compare 3 methods of teaching CPR.	480	1) Instructor-taught class (n=160) 2) Instructor with social support (n=160) 3) Videotape (n=160)	Videotape fared significantly worse than groups 1&2.

Study	**Country**	**Design**	**Group**	**Aim**	**Sample size**	**Group**	**Outcomes**
Hui *et al*, 2000	Hong Kong	Randomised, controlled, parallel study	Patients with obstructive sleep apnea	To compare basic support for continuous positive airway pressure with augmented support on compliance and quality of life	108	1) Educational brochure + therapist support (n=54) 2) Brochure, education, telephone support, therapist support (n=54)	The augmented education group had greater improvements in quality of life but there were no differences in compliance between the two groups
Holzheimer *et al*, 1998	Australia	Randomised contol trial	Children 2-5 yrs requiring daily asthma medication	To assess the effectiveness of a videotape and picture book to teach children about the prevention and management of acute episodes of asthma	80	1) Video (n=20) 2) Video + Book (n=20) 3) Book (n=20) 4) Materials viewed which were unrelated to asthma (n=20)	Children in the intervention groups had significantly greater knowledge of asthma than controls. Children in group 2 showed the greatest increase in knowledge
Janda *et al*, 2002	Netherlands	Randomised trial with 3 month follow-up	Premenopausal women	To assess the efficacy of breast self examination (BSE) skills taught by videotape	251	1) Video group (n=130) 2) Non Video group (n=121)	The use of videotape increased the frequency of BSE.

Study	Country	Design	Group	Aim	Sample size	Group	Outcomes
Jorgensen *et al* 1998	Denmark	Comparative study	Downhill Skiiers	To reduce risk taking behaviour which may lead to accidents	685	1) Instructional videotape (n=219) 2) No video (n=466)	Less injuries were experienced in the videotape groups
Karl *et al*, 1990	US	Questionnaire study	Parents of children having to undergo anaesthetic	To decrease anxiety	31	No comparative group	No evidence to indicate that videotape reduces anxiety in parents, however it does increase interest and prompt questions
Leiner *et al,* 2004	US	Randomised controlled trial	Parents of children being vaccinated	To look at if videotaped cartoon is superior at delivering a health message	60	1) Videotape group 2) Printed materials	Videotaped information was more effective at delivering information about the polio vaccine
Lin *et al*, 1997	Taiwan	Non randomised, quasi experimental study	Patients with total knee arthoplasty	To compare effects of pre and post admission educational programmes on anxiety, knowledge and compliance with post operative instructions	60	1)Videotape + instruction booklet + teaching (n=30) 2) instruction booklet + teaching (n=30)	Group 1 showed greater adherence to post operative instructions and exercises and had a higher level of knowledge. There was no differences in preoperative anxiety in the two groups

Study	Country	Design	Group	Aim	Sample size	Group	Outcomes
Luck *et al*, 1999	Australia	Randomised controlled trial	Patients scheduled to undergo colonscopy	To assess whether a videotape can improve knowledge and decrease anxiety about colonscopy	150	1) Video (n=72) 2) No video (n=78)	Group 1 was significantly less anxious before surgery, had fewer worries about the procedure and recovered faster
Meade *et al*, 1994	US	Randomised controlled trial	Over 50 yrs	To assess which method of information delivery is the most successful in assisting information retention	1100	1) Booklet (n=370) 2) Videotape (n=374) 3) Control (n=356)	Significantly increased knowledge demonstrate in groups 1&2 compared with 3. Group 2 demonstrated the greatest knowledge
Miller *et al*, 2004	UK	Randomised controlled trial with 6 week follow-up	Physiotherapy patients with shoulder or low back pain	To assess if a videotape of exercises improved clinical outcomes and quality of life	550	1) Face-to face instruction (n=222) 2) Exercise videotape featuring own therapist (n=134) 3) Exercise tape featuring and anonymous therapist (n=94)	No clinically significant differences between groups. Some evidence to support increased quality of life of low back pain patients in with their own therapist videotape

Study	**Country**	**Design**	**Group**	**Aim**	**Sample size**	**Group**	**Outcomes**
Onel *et al*, 1999	US	Before and after study	Men with newly diagnosed localised prostrate cancer (48-83 yrs)	To assess the feasibility of using videotape to present information on treatment options for men with prostrate cancer	111	Knowledge assessed before and after the intervention	Significant increases in understanding treatment options and potential treatment outcomes
Pignone *et al*, 2000	US	Randomised controlled trial	Adults (50-70 yrs) with no family history of colon cancer	To test whether an educational videotape and chart marker improved uptake of colon cancer screening	249	1) Videotape + brochure + chart marker (n=125) 2) Control videotape + control brochure (n=124)	A videotape, brochure and chart marker increased the uptake of cancer screening
Robertson *et al*, 1991	US	Randomised controlled trial	Adults who present with the need for emergency oral surgery	To assess the effectiveness of videotape in reducing dental anxiety	60	1) Intervention videotape (n=20) 2)Placebo videotape (n=20) 3) No intervention (n=20)	Videotape significantly reduced anxiety in group 1. The placebo videotape had a significant effect for women

Study	**Country**	**Design**	**Group**	**Aim**	**Sample size**	**Group**	**Outcomes**
Roth-Isigkeit *et al*, 2002	Denmark	Controlled trial	Males who are undergoing elective cardiac surgery	To examine the effects of a videotape on endocrine stress responses on patients prior to surgery	101	1) Realistic videotape (n=51) 2) Control videotape – general information (n=50)	Realistic videotape does not decrease anxiety in patients who are about to undergo surgery. Patients in group 2 had significantly lower stress levels
Schapira *et al*, 1997	US	Before and after study	Men (50-85 yrs)	To assess how well a videotape allows individuals to recall treatment options for prostrate cancer	32	Knowledge and attitude assessed before and after the intervention	Participation in treatment decisions enhanced, significantly increased knowledge
Scott *et al*, 2001	UK	Controlled trial with permuted block design with allocation by date of referral	Parents of children with antisocial behaviour	To see whether a behaviourally based group parenting programme is an effective means of treatment for children with anti-social behaviour	141	1)Parenting group with videotape (n=90) 2)Control (waiting list) (n=51)	Group 1 reduced anti social behaviour in children

Study	**Country**	**Design**	**Group**	**Aim**	**Sample size**	**Group**	**Outcomes**
Todd *et al*, 1998	US	Prospective randomised controlled trial with 6 month follow-up	First yr medical students	To examine the effects of a videotape to teach CPR skills	91	1) Videotaped instruction (n=43) 2) Face-to-face instruction (n=48)	Group 1 demonstrated superior overall performance with significantly superior performance on many of the tested domains
Van der Palen *et al*, 1997	Netherlands	Randomised controlled trial with 9 month follow-up	COPD sufferers	To assess which method of instruction is superior for patients in using their inhaler	148	1) Personal (n=40) 2) Videotape (n=38) 3)Group instruction (n=37) 4) Control (n=33)	Groups 2 & 3 were significantly better at using their inhalers. Group 3 was significantly better that all 3 other groups
Volk *et al*, 1999	US	Randomised controlled trial	Men (45-70 yrs) with no history of prostrate cancer	To evaluate a patient-educational approach to shared decision making fro prostrate screening	158	1) Videotape (n=78) 2) control (n=80)	The videotape group showed significantly greater knowledge and less desire to have a PSA screening test for prostrate cancer

Study	**Country**	**Design**	**Group**	**Aim**	**Sample size**	**Group**	**Outcomes**
Weeks *et al*, 2002	US	Randomised trial	Students	To compare the effect of dynamic modelling (videotape) with static modelling (still photograph illustrations) on performance of exercises	20	1) Videotaped exercises (n=10) 2) Illustration of exercises (n=10)	The videotaped group performed significantly better than group 2. Group 1 was also significantly more motivated and confident in performing exercises
Weston *et al*, 1997	Canada	Randomised controlled trial with 2-4 week follow-up	Pregnant women between 19 and 33 weeks gestation	To evaluate the effect of a patient information video to gain informed consent into a clinical trial	86	1) Videotaped information (n=42) 2) Written information (n=48)	Group 1 showed a significantly increased retention of information 2-4 weeks later and a significantly greater desire to be included in the trial.

Appendix 4. Hermeneutic phenomenology used in health services research.

Title	Author(s)	Methods	Country	Participants
Family-nurse co-construction of meaning: a central phenomenon of family caring	Meiers SJ	Semi-structured interviews	USA	4 families of critically ill children and the 4 nurses working with them
Meanings of giving touch in the care of older patients: becoming a valuable person and professional	Edvardsson J, Sanderman PO, Rasmussen BH	Interviews	UK	12 health care professionals
The lived experiences of families of children who are failing to thrive	Thomlinson EH	Interview	Canada	21 mothers, fathers and grandmothers
A hermeneutic study of the experiences of relatives of critically ill patients	Walters AJ	Interview	Australia	15 female family members visiting a critically ill patient
Living in the shadow of fibromalgic pain: the meaning of female partners' experiences	Paulson M	Interview	Sweden	14 female partners of men with fibromyalgic pain
The experience of pregnancy: a hermeneutical/phenomenological study	Lundgren I, Wahlberg V	Diaries	Sweden	12 pregnant women

Title	**Author(s)**	**Methods**	**Country**	**Participants**
Perspectives of collaboration/ non-collaboration in a mental health inpatient setting	Sharkey VB	In depth interview	UK	1 individual with enduring mental health problems
A place of ones' own. The meaning of lived experience as narrated by an elderly woman with severe chronic heart failure. A case-study	Ekerman I, Skott C, Norberg A	2 in-depth interviews	Sweden	1 Elderly woman with heart failure
'Understanding and being understood' as a creative caring phenomenon – in care of patients with stroke and aphasia	Sundin J	1 Video-interview with stroke patients and 3 interviews with health care workers	Sweden	5 Stroke Health care workers 3 Stroke patients
You can do it if you set your mind to it: a qualitative study of patients with coronary artery disease	Bergman E, Berterő C	Interview	Sweden	8 participants with coronary artery disease
The recovery mosaic: older wonen's lived experiences after a myocardial infarction	Kerr E, Fothergill-Bonnais F	In-depth interview	Canada	7 women with a first time myocardial infarction

Appendix 5 Interview Schedule

Experiencing Place – Experiencing Events over time – Ways of talking and expressing experiences

1. **Experience of illness (historical, setting illness into context)**

   Place, time

   Convenient/inconvenient

   Personal Issues

2. **Experience of health professionals (historical, setting experiences with health-care services into context)**

   Relationships

   Positive/negative

   Facilitative

3. **Experience of physiotherapist (setting this illness episode into context)**

   When was the tape received?

   Explanations given

4. Personal response to the videotape (focusing on specific experience)

What did they think about getting one

In what way did they view it

Relationship to health benefit (helping/waste of money?)

How did it compare to other ways of being taught exercises?
Leaflets/Face-to-face etc.

5. Experience of the video-tape

How often used

When used

Where used

6. Exercises

Perception of video-exercises

How can they be done?

7. Significant Others

Relationship to video-tape

Influence in illness experience

Facilitating/challenging use of the videotape?

8. **Everyday activities**

Perception of self

Work

9. **Outcome of experience**

10. **Perceptions of the future**
    Activities

    Condition

11. Opportunity for more feedback
12. Summing up
13. Debriefing

Appendix 6. Brief Biographical details

Personalised videotapes

1. RL

RL aged 68 years, was a retired insurance man who lived in Chester, with his wife. He has experienced low back pain on and off for many years

2. MP

MP was a retired cook who lived in Chester aged 61 years. She has experienced low back pain for several months. She is married.

3. DD

DD was a grandmother who lived in Chester and did voluntary work in a charity shop as well as look after her grandchild (aged 67 years). She experienced low back pain recently, when picking up her grand child. She is a widow.

4. ER

ER was a farmers wife who lived near Chester. She has back pain, which is hindering her in her daily work. Her problems are sporadic. She was 55 years old. He husband also experiences back pain and has his own physiotherapist who visits the house.

5. EP

EP was a school teacher living near Chester. She had experienced shoulder pain for a number of months and was aged 48. She is divorced

6. GL

GL was a female bank worker from Chester who has started having shoulder problems in the last few weeks. She was 43 years old. She is married with 2 school age children.

7. KR

KR was a bus driver living in Chester who has been off work for a few weeks with low back pain. He was 45 years old and married with two children.Personalised videotape

8. SG

SG was aged 45 years, lives near Runcorn and runs her own business. She has had low back problems for a couple of years which significantly effect the quality of her life. She is divorced and has 2 adult sons.

9. AB

AB was an office worker in Chester, who has experienced low back pain on and off for several years. He is aged 45 years. He is married.

10. AMa
AMa lived and works in Chester as a mechanic. He is married with two small children. He has had low back pain for a number of years which has forced him to give up playing football. He is aged 32 years. He is originally from North Africa.

11. DP
DP aged 66 years was on sick leave from her job in a factory. She was facing the prospect that she may have to give up her job, having tripped on a paving stone and severely damaged her shoulder. She was interviewed at home and is divorced with 2 chldren. Her son suffers from Schizophrenia and her daughter lives in the Lake District with her husband and baby.

12. MM
MM is 83 years old, she is widowed and lives in Chester. She is an active member of her Baptist church and has many friends who visit her. She injured her shoulder twice through falling.

13. JA
JA was 39 years old who is separated from her boyfriend and has a nine-year-old son who lives with her in Chester. Her back pain prevents her from working although she is doing a college course at the moment in hair dressing.

14. DL
DL was a 62-year-old worker for a car company. He is married and has 2 grown up sons – one of which died recently and left a grandson. He and his wife enjoy gardening. He has low back pain.

15. ID
ID was a retired widowed lady, aged 67 years and lived in Chester. She suffers with shoulder problems.

16. GS
GS was a 34-year-old factory worker living in Chester with his girlfriend and 10 month old son. He has suffered from low back pain for a number of years. He was interviewed at home.

Anonymous videotapes

17. MH
MH was a retired lady from Chester who has been experiencing low back pain for a number of years. She was 58 years old. She is divorced with grown up children.

18. AW
AW was recovering from an operation on her shoulder. She was retired (aged 69 years) and a keen golfer. She is married with 4 grown up children.

19. AH
AH was a college lecturer, who has been made redundant. He has experienced intermittent pains in both shoulders for a number of years. He is aged 53 years. He acknowledges that the stress of his redundancy may have had an effect on his condition. He lives alone.

20. JJ
JJ was a retired lady aged 68 years, who lived on the outskirts of Chester. She requested to be interviewed at home with her husband. She has suffered from low back pain for a number of years.

21. AJ
AJ is a 59 year old care assistant with shoulder trouble. She lives in Buckley, North Wales and Welsh is her first language. She is married with 3 grown up children.

22. CS
CS lives with her boyfriend and 3 children, in north Wales. Her youngest is a baby of 6 months. She is in constant pain from her back which she injured in a car accident 3 years ago. She was 36 years old.

23. PM
PM is a 44 year old divorced lady with chronic low back pain. She lives alone in Runcorn and is on long term sick leave. She has one adult daughter.

24. GSo
GSo, aged 52 years, is a part-time librarian who is married and lives in Chester. She has 2 grown up children. She has suffered from a frozen shoulder twice.

25. AT
AT was an energetic ex-businessman who has taken early retirement to refurbish a house in rural Cheshire. He was 59 years old and enjoys walking and yoga. He has experienced severe low back pain several times before. He was interviewed at home.

26. AM
AM was 49 years old, lives in Chester and runs a bed and breakfast business with her husband. She has 3 daughters, two of which have left home. Her and her husband are originally from Italy. She has had back pain for over 10 years. She was interviewed at home. She describes her back problems as linked to her continence problems.

27. AC
AC works in a garden centre. She is divorced with 2 children. She lives in rural Cheshire. Her shoulder problems are the result of a fall. She is 45 years old.

28. IW
IW was a 49 year old an engineer who works contract. He is married and has 2 young children. He has experienced shoulder problems for the past 6 months. He lives in rural Cheshire.

29. RB
RB is a part-time clerical worker living with her husband and baby in rural Cheshire. She has shoulder problems and is 32 years old.

30. LG
LG is an 18-year-old college student with low back pain. She works part-time at B&Q and lives with her parents in North Wales.

31. JJo
JJo lives with her husband in North Wales. She was retired and aged 68 years. She was suffering from severe low back pain which is effecting her mental health.

32. PH
PH was interviewed at home. She was 68-year-old widow and lives alone in a flat in Chester. She works in a charity shop and helps out at the local play group. She has low back pain. She has a daughter who also experiences back pain.

33. GW
GW was a retired retailer, aged 69. He is a widower and lives alone near the Cheshire North Wales border. He likes walking which his low back pain has prevented him from doing. His wife died of cancer.

Average age 53.2 years	**Range** 18 – 83 years
Shoulder Problems n=12	**Back Problems** n=21
Personalised Videotape[1] n=16	**Anonymous Videotape**[2] n=17
Male n=9	**Female** n=24

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[1] Featuring the patient's own physiotherapist at beginning and end and narrating the videotape

[2] Featuring an anonymous physiotherapist at beginning and end and narrating the videotape

Appendix 7. Patient Information Sheet

Exercise Instruction Project

Physiotherapists in the Trust are exploring additional ways of helping patients who have shoulder and back problems.

As part of a research project you may be asked to use a videotape at home demonstrating the exercises which your physiotherapist has asked you to carry out.

If you do receive a videotape

The exercises which are shown on the videotape have been specially chosen for patients like you who are having discomfort from shoulder or back pain.

Your physiotherapist will write the exercises you should do inside the cover of the video cassette box.

It is important for the physiotherapy department to know how useful you find the videotape. For this reason we are asking you to complete the enclosed questionnaires **on the day of your first appointment** so they are ready to hand to your physiotherapist. You will be sent similar questionnaires to complete and return four weeks later to see if there is any change in the scores.

You may also be asked to take part in an **interview** with a research assistant to discuss how you found the experience of using the videotaped exercises. If you are selected, your physiotherapist will ask you if this is OK first and if it is the researcher will contact you shortly afterwards.

If you do not receive a videotape

We have to make a judgement about whether using the videotapes is useful for helping patients. It may be that you do not receive a videotape. Instead, at your appointment you will be shown how to do your exercises by the physiotherapist. To assess your progress we would like you to complete the enclosed questionnaires **on the day of your first appointment** so they are ready to hand to your physiotherapist. You will be sent similar questionnaires to complete and return four weeks later to see if there is any change in the scores.

You do not have to take part in this research study. If you choose not to take part, your treatment will not be effected and will continue in the usual way.