“I really dislike taking painkillers; I would rather weather the storm”:

Using Interpretative Phenomenological Analysis to Make Sense of Patients’ Use of Analgesics Following Day Case Surgery.

Claire Grace Older

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Abstract

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Day case surgery is expanding in the UK and is the favoured approach to elective surgery by the Government and patients alike. However studies have revealed patients' experience unacceptable postoperative pain when they return home after day surgery, leading to a variety of negative consequences, stemming many years, affecting many lives, with emotional and financial cost. It is imperative that pain is adequately controlled following day surgery to reduce these consequences and ensure the potential of day surgery is reached. Previous research has investigated barriers to pain management in this area, one barrier that has received little attention is that posed by the patient, and it has been suggested that patients may not utilising their analgesics appropriately with papers calling for further research in this area.

Employing Interpretative Phenomenological Analysis (IPA) this study explored patients' use of analgesics on returning home following day surgery. Using IPA for analysis, interviews with twenty eight patients revealed many to avoid analgesics enduring severe postoperative pain during their recovery, and provided new understanding showing patients' use of analgesics to be as a result of a complex intentional decision making process based on a matrix of beliefs they held surrounding pain, analgesics and day surgery. These beliefs were found to be influenced by past experience, and cultural context, with this research being the first to identify many of these beliefs and make further sense of them by producing an explanatory framework illustrating how they exert their influence upon patients' decisions regarding analgesic use.

One implication of these findings is that day surgery is not as straightforward as suggested, and simply providing patients pain management information and effective analgesics underestimates the complexity of the patient's experience when they return home. Further research is now required to identify alternative ways to reduce pain following day case surgery. One recommendation is to overcome erroneous beliefs held by patients. In particular the explanatory framework produced by this research provides a unique insight into the mechanism by which these beliefs may exert their influence upon patients' analgesic use, and may prove a useful tool to achieving this, overcoming pain and its negative consequences, paving the way for day case surgery to reach its full potential.

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In loving memory of Alfred Thomas Nash

and Betty Elizabeth Horne.

Introduction

The Beginnings of this Research

The purpose of this introduction is to provide an initial orientation to this research by giving a brief background to its beginnings and how it originally developed, along with a summary of the broad research aim. The first chapter of this thesis will then go on to give a more detailed background, and by discussing relevant literature will provide further rationale for the study along with the specific questions to be addressed by this research.

Day case surgery is argued to be the way forward for planned surgical procedures, and is where patients are admitted to hospital, undergo surgery and return home on the same day. However, over many years it has been well documented that patients experience unacceptable levels of pain when they return home after undergoing day case surgery, leading to a number of negative consequences for both the patient and the health care provider. Improvements in pain management practices have been implemented, but despite this, patient reports of moderate to severe postoperative pain continue to prevail. Consequently, research was required to explore this problem further, and as a result in late 2004 Bournemouth University advertised for a full time PhD student to work closely with a local day surgery unit to investigate the issue of pain, along with any opportunities to improve its management in this rapidly expanding field. I was particularly interested in this post, as having a degree in Psychology and masters in Health Psychology, I was familiar with research surrounding pain, especially the psychological component of the pain experience, and was keen to learn more. Consequently I applied and was successful in being awarded the studentship.

To help facilitate this research, ensure clinical relevance and close the gap between research and practice, a steering group based at a local hospital day case surgery unit was established. Many members of the group had previously undertaken research in collaboration with Bournemouth University, and comprised of two acute pain specialists, two senior day case surgery nurses, an

anaesthetist and my supervisor. Prior to their involvement in this study, members of the group had been anxious to improve patients' pain after day case surgery, so following recommendations they introduced a multimodal analgesic regime combining oral morphine, paracetamol and ibuprofen for patients to take home with them after their operation, and were one of the first day surgery units in the United Kingdom to do this. Although clinical audit found some improvement in postoperative pain, it also revealed patients may not to be using these analgesics as recommended. Discussion with the steering group also uncovered similar anecdotal evidence (that patients may not be utilising the analgesics sufficiently), gained from experience of working within this field. This quotation from one group member summarises very well the feelings of the steering group at the time.

> Quite early on it was becoming obvious that patients may be the greatest sabotages of our efforts to improve pain relief. A greater understanding of just why they do this when the long-term consequences for some will be extremely unpleasant, will give us a greater insight into how to overcome some of these problems. Patients bless their hearts will always do their own thing, even when it can be detrimental.

Consequently the focus moved away from clinical barriers to pain management such as effective analgesics and pain assessment, and fell upon the patient and the barriers to pain management that they may pose. Considering my background in psychology this was an area worthy of further investigation. Psychology has been defined as the 'study of people, how they think, how they act, how they interact. Psychology is concerned with all aspects of behaviour and the thoughts, feelings and motivations that underlie such behaviour' (British Psychological Society 2007). Consequently, focussing on the patient and exploring their behaviour in terms of analgesic use, what underlies this behaviour and whether this is in fact a barrier to pain management after day surgery, was of great interest to me and the field in which I have studied. Taking these ideas forward I began to scope the literature and found patients' use of analgesics following day case surgery had received little attention by previous studies. It also revealed that taking a psychological rather than clinical perspective to this

problem offered a unique insight that could potentially uncover a significant barrier to the management of pain in this field. As a result, the initial aim of this research was to explore further the impact of the patient upon pain management following day case surgery.

The following chapter will now go on to provide further background and rationale for this study, along with insight into specific research questions to be addressed.

Chapter 1

Background and Initial Literature Review

1. Chapter Outline

The purpose of this chapter is to provide further background to this research in order to situate it within the wider research context and illustrate its importance within the field of day case surgery. This chapter will also provide an insight into the initial literature review undertaken at the start of this study, which aimed to primarily identify a gap in the previous research, along with any concepts and ideas to be taken forward and developed. It must be noted that the review at this stage was not all inclusive, a qualitative methodology (rationale for the use of qualitative methods will be considered in this, and the next chapter) was employed to investigate the area, hence the findings of this exploratory research went on to provide direction for a more comprehensive consideration of relevant literature to be discussed later in the findings chapter. Finally, based on this initial review this chapter concludes by providing a summary of the focus of this study along with final research aims to be addressed.

2. Definition and Growth of Day Case Surgery in the UK

The Audit Commission (2001 p.3) has defined Day Case Surgery as 'the admission of carefully selected patients to hospital for a planned surgical procedure, returning home on the same day, with 6.6 hours being the average length of hospital stay (Pfisterer et al 2001). In recent years the performance of surgery without an inpatient stay has rapidly grown. In 1985 less that 15% of all elective surgery was performed as day case in the United Kingdom (NHS Management Executive 1991), however, the National Health Service Plan aims to achieve a target of three quarters of all operations to be carried out as day surgery by 2010 (Department of Health 2000), and according to Coll et al (2004a) many day surgery units have already achieved this goal. There are a number of reasons as to why day surgery has become popular; it is cost effective as there is no overnight stay, and as a consequence waiting lists are reduced. Also improvements in technology have allowed more and more

operations to become suitable for day surgery, with the Audit Commission (2001) identifying twenty five procedures suitable for day surgery (see Appendix I). As well as benefiting the National Health Service, patients are also said to prefer day case surgery as they receive treatment sooner, recover at home, and experience fewer cancellations than inpatient surgery (Gosh and Kershaw 1991, NHS Management Executive 1991, Audit Commission 2001).

Although there are many advantages of day case surgery (Gosh and Kershaw 1991, NHS Management Executive 1991, Audit Commission 2001), it is not without its disadvantages, among other things concerns have been expressed about the effect such a rapid increase in day surgery has had on the level of pain experienced by the patient (Boey 1995, Marshall and Chung 1997). Before moving on to outline research exploring the incidence and level of pain experienced by patients following day case surgery, it is important to firstly provide a definition of pain.

3. A Definition of Pain

Early theories of pain originated in the seventeen century by the philosopher Decartes, and basically linked the experience of pain directly to the stimulus causing it. For example, a cut finger would send a signal straight from the skin to the brain leading to the pain experience. It was not until numerous years later this simplistic stimulus response model began to be questioned, one major flaw was that it failed to explain why different individuals have different pain experiences despite similar tissue damage. An important theory challenging the straightforward assumptions of this early model was Melzack and Wall's (1965) Gate Control Theory of pain, and since its development the understanding and study of pain has changed considerably. With the Gate Control Theory the brain is said to play a huge role in modifying sensations and exerting an influence via downward pathways (Sullivan 2001). Therefore the perception of pain is not only as a result of physiological and sensory factors, but also psychological and social factors are said to play a part (Melzack and Wall 1965, Adams and Field 2001). Consequently this model can explain why different individuals with similar tissue damage experience different levels of pain.

More recently the Neuromatrix Theory of Pain (Melzack 1999, Melzack 2005) has built upon this work and further illustrates how pain is a multidimensional experience.

Relating this to the experience of acute postoperative pain, the role psychological and social factors play have been widely researched, and are said, along with tissue damage caused by the operation, to influence the patients actual pain experience (Wallace 1985, Taenzer et al 1986, Walmsley 1992, Bachiocco et al 1993, Kain et al 2000, Nayak et al 2000, Sheffield 2000, Feeney 2004, Arntz and Claassens 2004, Carr et al 2005, Logan and Rose 2005, Bruehl et al 2006). Hence this research subscribes to the definition of pain used by International Association for the Study of Pain (IASP) as

> 'An unpleasant sensory or emotional experience arising from real or probable tissue damage...Many people report pain in the absence of tissue damage or any likely pathophysiological cause; usually this happens for psychological reasons. There is usually no way to distinguish their experience from that due to tissue damage if we take the subjective report. If they regard their experience as pain and if they report it in the same ways as pain caused by tissue damage, it should be accepted as pain. This definition avoids tying pain to the stimulus.'

Therefore when aiming to explore the impact of the patient upon pain management following day case surgery it was important to recognise that although many patients had the same surgery and similar tissue damage, that they may experience different levels of postoperative pain and require different levels analgesia. Such an understanding of pain also influenced this research in terms of finding a sufficient methodology to measure such a subjective, unique and individual experience. These issues will be discussed again further in chapters to follow.

Now a definition of pain to be used in this research has been given the subsequent section will go on to consider patients' reports of pain after day case surgery, highlighting how this is a significant problem in this area.

4. Incidence of Pain after Day Case Surgery: The Scale of the Problem

It has been suggested that pain experienced by the patient after day case surgery ought to be minimal, if not, non existent, and should not interfere with their normal activities once they return home (Hitchcock and Ogg 1995, Mackintosh and Bowles 1998, Tong and Chung 1999). However, many published studies have been carried out assessing the incidence and level of pain experienced by patients after day case surgery, and time and time again unacceptable levels of pain are being reported. These studies were identified by searching the following databases throughout this research (Nov 2004 -Nov 2007); CINAHL, Cochrane, Ingenta Connect, Medline and PubMed, using the search terms 'pain following day case surgery', 'pain management following day case surgery' plus other interchangeable words such 'ambulatory surgery' etc..., and are outlined in further detail below.

Firstly, a literature review carried out by Coll et al (2004a) has identified twenty four papers published since 1983 which have assessed the duration and level of pain reported by patients after day case surgery. Coll et al (2004a) argue that inconsistencies between studies make it impossible to gauge an exact level of pain experienced after day case surgery within and between different operative procedures and specialities. Such inconsistencies result from the fact that some research has examined specific procedures such as 'laparoscopic sterilisation' (Burumdayal and MacGowan-Palmer 2002), whilst others have looked at specialities such as 'general surgery', 'gynaecology', and 'orthopaedics' (Stockdale and Bellman 1998). Different pain level categories and descriptors have been employed, for example Osborne and Rudkin (1993) have looked at any 'postoperative pain' where as others such as Petticrew et al (1995) focused on categories such as 'fair amount' or 'great deal of pain'. Also studies have used a variety of data collection methods such as telephone interviews (Oberle et al 1994), face to face interviews (Thatcher 1996) and questionnaires (Agboola et al 1999), with sample sizes ranging from 6 (Thatcher 1996) to 250,287 (Lewin and Razis 1995). As well as this some research collected data up to day seven after surgery (Khan et al 2002) whilst the majority collected data up until day three postoperatively (Rawal et al 1997, de Beer and

Ravalia 2001). Inconsistencies may also be due to the individual nature of pain (as previously outlined), consequently differences between and within different surgical procedures may be inevitable.

That said, although Coll et al (2004a p.61) feel research is unable to provide a clear indication of exact pain levels experienced after different surgical procedures, they conclude from these studies that 'it is clear that severe pain continues into the third postoperative day and beyond'. For example, considering Coll et al (2004a) summary table of studies included in their review a number have reported high, and unacceptable pain levels experienced by patients after their surgery e.g. Callesan et al (1998) found a large 66% of patients to report experiencing 'moderate to severe' pain after hernia repair surgery, and Burumdayal and MacGowan-Palmer (2002) found 55% patients they questioned to report 'moderate to severe' pain after laparoscopic surgery.

Another review carried out by Wu et al (2002) has focused, among other things, on incidence of pain after outpatient surgery and shows that from the thirteen studies fitting their criteria, on average 45% of day case patients experience pain after surgery. Other studies not included in the two reviews outlined above also indicate patients are experiencing unacceptable levels of pain, Hawkshaw (1994) found that of the 1008 patients who took part in their study, 21.4% reported 'moderate' pain, and 11.4% reported 'severe' pain following day case surgery. And things are no better over ten years later in research conducted both in the UK and internationally, for example, in Canada McGrath et al (2004) found that up to 30% of the 5,703 patients examined in their study to experience 'moderate to severe' pain after surgery. In Australia Cox and O'Connell (2003) noted 38.8% of patients to have pain following gynaecological day case surgery, and another Australian study found 69.5% of women to have pain following a variety of day case surgery procedures (Bandyopadhyay et al 2007). In Finland Mattila et al (2005) found that of the 2732 patients who took part in their study up to 21% had moderate to severe pain following day case surgery, and finally in the UK Coll and Ameen (2006) found

between 42-59% of patients to experience unacceptable pain following hernia repair, laparoscopic sterilisation and varicose vein surgery.

This pain has also been found to continue for a number of days following day case surgery. McHugh and Thoms (2002) found 'severe' pain to be a problem for 21% of patients two days after surgery with a significant number experiencing pain up to four days postoperatively. A study by Horvath (2003) found pain increased considerably once the patient was at home with 40.7% reporting 'moderate' and 15.4% reporting 'severe' pain on postoperative day one, on day three 27.5% had 'moderate' pain and 5.5% 'severe' pain, and on day five 12.1% had 'moderate' and 4.4% had 'severe' pain. Beauregard et al (1998) also found pain to be a problem for patients for sometime after surgery with 26% experiencing 'worst pain' on day seven postoperatively. As well as this a concerning study by Callesan et al (1999) argues 33% of hernia repair patients had pain on day six postoperatively, and 11% still had pain on day twenty-eight.

Overall it is clear from published studies that too many patients are suffering from pain for sometime following day case surgery, and there appears to have been little improvement in these reported pain levels over the last fifteen years. This pain may not only be unpleasant for the patient at the time but can also result in a number of serious consequences, some of which can continue for months or even years after surgery. These negative consequences will be considered next.

5. The Consequences of Uncontrolled Postoperative Pain

Inadequate pain management after day case surgery can result in a number of negative consequences for both the patient and the National Health Service. Firstly pain can lead to a reduction in mobility increasing the likelihood of problems such as deep vein thrombosis and chest infection (Royal College of Surgeons and the College of Anaesthetists 1990). The Royal College of Surgeons and the College of Anaesthetists (1990) also argue that postoperative pain may be linked to tachycardia and hypertension, and could also increase the likelihood of myocardial infarction in

susceptible patients who have a history of heart disease.

Other concerning physiological consequences include the development of chronic pain, which has been found to occur in approximately 10% of patients following hernia repair surgery (Poobalan et al 2003, Aasvang and Kehlet 2005), and is argued to be potentially impacted by acute postoperative pain (Callesan et al 1999, Aasvang and Kehlet 2005). For example, in a study by Callesan et al (1999) of 466 patients who had undergone day case groin hernia repair, those patients who had a high pain score one week after their operation, or had moderate to severe pain four weeks after their operation, were significantly more likely to have moderate to severe pain on follow up at one year. The authors conclude that 'chronic pain is a significant problem' and 'may be predicted by the intensity of postoperative pain' (Callesan et al 1999 p.1528). Hence effectively managing acute postoperative pain could potentially lead to a reduction in the development of chronic pain.

The biological mechanism involved in the development from acute pain to chronic pain adds further weight to this argument. Basically, painful sensations (like those caused by surgery) can change the way in which the central nervous system functions causing central sensitisation, and according to Allcock (2000) sensory signals not normally experienced as painful become painful to help protect damaged tissue, and can then lead to chronic pain states. Therefore 'poor pain relief in the early stages of acute pain may result in heightened pain experiences and increasing the potential for the development of chronic pain' (Allcock 2000 p.397). Consequently, effective pain management is vital in order to prevent sensitisation and reduce the risk of developing chronic pain after surgery (Allcock 2000). Pain associated with surgery can also have other serious long term physiological consequences. A recent report by Page (2005) based on animal studies argues that pain during the postoperative period may impair immune system activity which is important in cancer resistance, hence poor pain control may promote tumour growth after an operation. It is argued that human evidence also backs up this hypothesis, strengthening the view that 'pain relief is not simply a high priority, but a

fundamental human right' (Page 2005 p.4).

Another problem associated with pain following surgery is postoperative nausea and vomiting (PONV) (Mitchell 2004a). According to research by Pfisterer et al (2001) PONV occurred in 17% of their sample upon waking after surgery, 14% travelling home after surgery and continued for 3% into the fifth postoperative day. Other studies have found PONV in up to 35% of patients following day case surgery (Stockdale and Bellman 1998 and Carroll et al 1995). Postoperative nausea and vomiting can result in a number of negative consequences, for example, it can slow recovery through dehydration, wound dehiscence, and haemorrhage (Andrews 1992). It also results in patients and their families becoming distressed and anxious, particularly if further surgery is ever needed (Pfisterer at al 2001).

A further consequence of inadequate pain management following day case surgery is that a return to normal activities takes much longer than expected, impacting both the patient and those responsible for their care. Horvath (2003) argues that on day three postoperatively only 27.5% of their sample scored positively on the Katz Index of Activities of Daily Living and Instrumental Activities of Daily Living (1987) measuring self care activities such as eating, bathing, dressing etc… and activities of daily living such as cleaning, shopping etc… This is despite the fact that that all these patients were advised they would be able to perform these functions sufficiently by this time (postoperative day 3). In terms of return to work Beauregard et al (1998) found that pain interfered with work for 68% of patients two days after their surgery, and for 47% up to seven days after surgery. Pain after surgery can also affect sleep with 24% stating pain was still interrupting their sleep at day seven after surgery (Beauregard et al 1998), Rawal et al (1997) and Cox and O'Connell (2003) also note patients to have difficulty sleeping due to pain following day case surgery.

Poorly managed pain after day case surgery can also result in financial implications for the National Health Service due to unanticipated GP contact (Stockdale and Bellman 1998) and delayed discharge from the day case unit (Marshall and Chung

1997). Also, although rates of readmission back to hospital are low (Tham and Koh (2002) argue that 1.5% of all day surgery patients are readmitted, and in their three year study of 3,502 day case patients Morales et al (2002) put this figure at 4.1%) one of the main reasons for this readmission is uncontrolled pain (Mitchell 2004a).

In conclusion, patients are experiencing unacceptable levels of pain after their surgery that can lead to a variety of negative consequences. Issues surrounding adequate pain control need to be addressed if we are to prevent pain and its negative consequences, and if the full potential of day case surgery is to be reached. The following section will go on to explore some of the reported reasons for inadequate pain management, particularly focusing on the proposal that patient under use of their analgesic regime may play a significant role in the high levels of pain continuously being reported.

6. Barriers to Effective Pain Management following Day Case Surgery

A number of barriers have been proposed that are said to stand in the way of effective pain management after day case surgery. (Identified from the original literature search for papers considering pain following day case surgery. See page 15 for databases searched and terms used). Firstly it is important that pain is adequately assessed whilst the patient is in the day unit (Coll et al 2004b, Coll and Ameen 2006). Also during their surgery, and postoperatively, the patient should receive adequate analgesics to alleviate pain, resulting in a faster discharge home (Marshall and Chung 1997) and them leaving the day case unit with pain well under control (Kamming et al 2004). However, a common time patients will experience pain is when they arrive home when analgesics provided within the day unit begin to lose their effect (Horvath 2003, Mitchell 2004a). Studies addressing the incidence of pain and its management following day case surgery have highlighted two barriers said to be causes of ineffective pain relief once the patient returns home. The first barrier is a lack of adequate analgesics for the patient to take home after surgery (Doyle 1999, Mitchell 2003, Mitchell 2004a). Analgesics said to be most effective at managing postoperative pain are multimodal, this is where two or more drugs are

used synergistically resulting in reduced side effects and increased pain relief (See Huang et al 2001 for a review, McQuay et al 1997, Rawal 2001, Kamming et al 2004), and it is argued that patients should be provided with such analgesics to take home with them after surgery in order to effectively manage their pain (Mitchell 2003).

A second barrier highlighted in research is a lack of information surrounding pain management, with many papers recommending better information to be provided to patients (Doyle 1999, Stone 1996, Henderson and Zernike 2001, McHugh and Thoms 2002, Mitchell 2003, 2004a). According to Castoro et al (2006) representing the International Association of Ambulatory Surgery, patient information and preparation are essential for the achievement of successful outcomes of care, this is because responsibility for the vast majority of care after day case surgery falls to the patient and they therefore need to be adequately equipped to manage this. Information also reassures the patient and reduces anxiety (Mitchell 2004a), which in turn reduces pain (as anxiety is one psychological variable that has been linked to an increase in pain experience). So to conclude, 'patients who have undergone day case surgery should be given effective analgesics to take home and straightforward instructions about their use' (Royal College of Anaesthetists and The Pain Society 2003 p.8).

However, in spite of recommendations for good practice, studies continue to report patients experiencing high levels of pain. According to Apfelbaum et al (2003p.539)

> despite the increased focus on pain management over the last several years and the development of formal standards and guidelines for the management of acute pain, a significant number of patients continue to experience unacceptable levels of pain after surgery and after discharge. This fact is alarming, considering the trend towards ambulatory surgery and shorter hospital stays.

This is further illustrated in work carried out by Mackintosh and Bowles (1998) who followed best practice guidelines and introduced nurse led pre-assessment clinics, dedicated take home analgesic packs, and patient education regarding pain management, but were disappointed to find that the changes they made had little

impact on patients' reported pain levels. Before the initiative 20% of patients interviewed experienced 'more than discomfort' after their surgery, after the introduction of education, information and take home analgesic packs a second study showed little difference, with 17% of patients' reporting pain above the level of discomfort. It has been proposed by Huang et al (2001 p.11) that the lack of success found by Mackintosh and Bowles (1998) 'could be due to (patient) noncompliance to regimens, which was not assessed in the study'. Similarly the steering group for this research also found that despite effective multimodal analgesics and the provision of information as to how to use them, that some patients appear not follow the advice they receive. The following section will now go on to consider this suggestion in greater detail and will provide further evidence that patients' limited use of analgesics may be a significant barrier to pain management in this field.

7. Patients' Limited Analgesic Use as a Barrier to Pain Management

The suggestion that patients may not be utilising their analgesics as prescribed may be an important barrier to the management of pain after day case surgery. Nevertheless, this barrier had received little attention within the day surgery literature. A number of reasons for this lack of attention exist; Firstly, researching other barriers to pain management such as information and the provision of adequate analgesics appear to have taken precedence. Also patients continuously report being satisfied with their care despite poor pain management (see Huang et al 2001, Dawson et al 2002). As well as this it is difficult to imagine that patients may willingly decide not to take their analgesics as there appears to be the assumption that if a person is in pain then they have a strong motivation to follow their medication regime (Becker 1979), 'of all the barriers to providing adequate pain relief the strangest may be the patients themselves' (McCaffery 2001 p.18).

However, although there is no research in this area with the sole purpose to study patients' use of analgesics following day case surgery, some papers have looked at this as part of broader research aims, usually addressing the incidence and level of

pain experienced after surgery, and provide evidence that patients may avoid analgesics despite pain. Again these papers were identified from the literature search for studies addressing pain following day case surgery as outlined on page 15. In Canada Beauregard et al (1998) carried out a study aiming to, among other things, assess the intensity, duration and impact of pain along with analgesic practices following day surgery procedures (laparoscopy, knee arthroscopy, shoulder arthroscopy, carpal tunnel decompression). They concluded that overall medication use was low with 32% of 84 patients not taking any analgesics during the first 24 hours after their surgery despite almost half of these (46%) scoring their pain as a level 4 or above on a 0-10 scale. Also on day two 25% of those with a pain score over level 4 did not take any analgesics, and on day seven 20% of those with a pain score over level 4 did not take any analgesics.

Another Canadian study undertaken by Watt-Watson et al (2004) has looked at pain, adverse events, complications, recourses utilised, discharge information and analgesics used after day case surgery. They found that 50% of patients undergoing laparoscopic cholecystectomy, shoulder or hand day case surgery stopped taking their analgesics at 72 hours regardless of pain, and conclude that 'despite considerable pain reported across all time periods, analgesic use and other interventions were minimal' (Watt-Watson et al 2004 p.153). Again in Canada, Dewar et al (2004) explored patients' pain after day case surgery and found some patients were reluctant to use medication even though they had pain after hernia, mammary reduction /enhancement, arthroscopy and anal day case procedures. Cox and O'Connell (2003) assessed women's experiences after gynaecological day surgery in Australia and found that a number of patients had pain, and when asked how they respond to this pain participants reported that they "used pain killers" however other answers included "applied heat", "rested" "did nothing" or "gradually let it disappear by itself". Although Cox and O'Connell (2003) do not provide figures in order to determine how many of the 80 women who took part fall into each category, it does provide some evidence that when faced with pain some patients may choose not to take analgesics. Finally, also in Australia

Bandyopadhyay et al (2007 p.22) found 19.2% of patients 'did nothing' to cope with pain and this was said to be as a result of patient 'individual preference'.

Studies have also been carried out assessing the efficacy of, and satisfaction with, analgesics prescribed following day case surgery. In order to measure this efficacy these studies take note of the amount of analgesics consumed by patients following surgery, and although it was not their goal to focus on patient analgesic use, and little reference is made to this, they do inadvertently suggest that not all patients utilise their analgesics after surgery. For example, in the UK Hawkshaw (1994) found that of the 1008 patients telephoned the morning after surgery 69.8% experienced some sort of pain and 46.4% did not use any medication. In Finland Kangas-Saarela et al (1999) found that of the 203 patients studied, 57% reported an average pain score of 4 or above on a 0-10 scale over the 24hours after surgery, and one third of patients did not take any pain medication at all during this time. And in Canada Rocchi et al (2002) carried out a survey of 168 participants from the general public who had experienced outpatient surgery in the previous 3 years. Seventy four percent of participants stated that they remembered experiencing pain in the two weeks after their surgery, with the highest level of pain being severe or extreme for 28% of participants questioned, however, 26% of them said they did not take any pain medication at home at all.

Overall these studies suggest that many patients do not always take analgesics, however, as the aim of these studies was to assess analgesic efficacy they give little insight into whether or not those patients who did not take medication were actually in pain, and if so why they decided not to use their analgesics. Also these studies do not count doses or how regularly the patient uses their painkillers, only that they have used them at some point after their surgery. Consequently there may be many patients marked as 'using their medication' who may have only taken, say one dose, and have therefore not utilised them to full effect. As well as this it must be noted that patients have been found to be reluctant to report pain (Ward et al 1993), and over report medication use (Spector et al 1986), so the number of patients not using

their analgesics after day surgery despite pain may in fact be higher.

Researchers have also actually stated that patient under use of analgesics could potentially be a contributing factor to poor pain management after day case surgery, and is something that needs further consideration in future studies. For example, Rawal et al (1997) aimed to assess the incidence of pain after day case surgery along with quality of pain relief, and found that up to 62% of day case patients studied in Sweden experienced moderate to severe pain after their surgery, and that better analgesic techniques are required. However, they also state that their research does not allow 'us to draw conclusions regarding appropriate use of analgesic drugs by patients at home, and the possibility that patients did not take the maximum allowed analgesic doses cannot be excluded' (Rawal et al 1997 p.1020). Similarly, Oberle et al (1994) looked at the informational needs of patients undergoing day case surgery in Canada and found that some patients had severe pain at home on the third and fourth day postoperatively due to inadequate pain control. Oberle et al (1994 p.1021) argued this may have been as a result of 'inappropriate prescription for analgesic, inadequate teaching, or **patient preference'.** Likewise, in the USA Horvath (2003) assessed patient recovery at home after day case surgery and found that pain control was not sufficient and that patient 'compliance with discharge instruction also needs to be studied as factors contributing to pain control' (Horvath 2003 p.333). Also in the UK Mitchell (2004a p.37) notes that 'patients taking drugs intermittently might be a major issue', and Huang et al (2001) review of research states that issues surrounding patients' use of medication may be important to pain management and are worthy of further consideration. Finally, as previously suggested, the steering group for this research also found, through clinical audit (see Appendix II), that patients may not be using their analgesics as recommended.

In summary it can not be assumed that the experience of pain, along with the provision of information and effective analgesics is sufficient to ensure optimal pain management following day case surgery. In spite of recommendations to the contrary, and studies to suggest patients may be avoiding analgesics despite pain,

the barrier surrounding patients' use of analgesics had received no specific attention within the day case literature. We really had little insight into what happens once the patient returns home in terms of their analgesic use, which was of particular concern considering the level of responsibility the patient has over their own recovery and self management of pain, and the governments push in the UK to expand the use of day case surgery in order to reduce waiting lists and make savings (which could be a false economy considering the costs surrounding the management of chronic pain resulting from uncontrolled postoperative pain).

Hence this barrier required further investigation, and by taking a psychological perspective in terms of focusing on the patient (rather than clinical barriers as in the past) offered a unique insight that could potentially uncover a significant barrier to the management of pain in this field. Having established this would be the way forward for this research I began to explore literature, mainly from the social sciences, aiming to understand what was already known about patients' use of medicines in other patient groups.

8. Patients' Use of Medicines: What is Known

In order to investigate previous research surrounding patients' use of medicines the following databases were searched; CINAHL, Cochrane, Ingenta Connect, Medline, PsycArticles, PsycInfo and PubMed, along with Bournemouth Universities library catalogue and the British Library's record of previous PhD research. Search terms used included: 'compliance/adherence/concordance to medicines', 'compliance/adherence/ concordance with analgesics ', 'compliance, adherence, concordance' plus a number of other interchangeable words such as 'pain medications' instead of 'analgesics' etc… The search was initially undertaken during the first months of this study starting in November 2004. It was then suspended until after data collection and findings had been established, and was then re-conducted using search terms triggered by the findings. Rationale for this will be provided later in this chapter.

From these searches I found this area to be extensive with thousands of studies investigating patients' use of medicines (Horne 2005). Along with many important reviews (Vermeire et al 2001, Carter and Taylor 2003, DiMatteo 2004, Krueger et al 2005, Haynes et al 2002, 2005), scoping exercises (National Co-ordinating Centre for NHS Service Delivery 2005) and reports (World Health Organisation 2003), crossing a range of disciplines; pharmacy, medicine, nursing, epidemiology, anthropology, psychology and sociology. The main aim of this vast body of research is to describe and explain patients' use of long term therapies for a number of chronic illness conditions (asthma, psychiatric illness, diabetes, allergy, hypertension, CHF, epilepsy, coronary heart disease, hormone replacement therapy, Parkinson's disease, renal disease, HIV and arthritis). Issues surrounding the use of medication for chronic conditions has quite rightly received a huge amount of attention as up to 50% of prescribed medication is not used as recommended in the developed world (World Health Organisation 2003) and 'is a critical issue in population health both from the perspective of quality of life and health economics' (World Health Organisations 2003 p.13) However, because of the strong focus long term conditions, research surrounding patients' utilisation of pain medication in an acute setting such as day surgery, has largely been overlooked. For example the National Institute for Health and Clinical Excellence has commissioned a clinical guideline to be developed surrounding medication due for completion in December 2008, but medicines prescribed for acute short term conditions will not be covered.

That said, the history of this research surrounding patients' use of medication for long term chronic conditions, and what it has discovered over many years and thousands of studies, cannot be neglected, and provides a good platform and direction for this PhD study. The remainder of this chapter will therefore provide further insight into this research, the headway it has made, and the concepts to be taken forward and developed.

8.1 The Compliance, Adherence, Concordance Debate

Because the literature surrounding patients' use of medication is vast and complex as

a result over the years there has been much debate regarding the terminology, along with the concept, to be used to appropriately describe patients' mediation taking. The three main concepts surrounding this debate are; 'compliance', 'adherence' and 'concordance', each of which has a different ethical and philosophical position. Consequently before going any further it is imperative to outline the concept taken forward in this PhD research, as it had a significant impact upon the way in which patients' use of analgesics was studied. The following section will therefore describe each concept along with the position to which this research subscribes.

Firstly, the term 'compliance' was commonly used within the medical and pharmaceutical literature to describe the extent to which the patient follows the advice of the health care professional prescribing their medication. Therefore patients who do not follow the advice provided, according to this model, are viewed as 'noncompliant'. This term dominated much early work in this area, however, in recent years it has been subject to much criticism. It has been suggested that the 'compliance' approach, and the research that surrounds it, has provided 'little consistent information other than the fact that people do not always follow doctors' orders' (Morris and Schulz 1992 p.295). This model is also criticised for placing the health care professional in a position of power, that they know best and should make decisions on behalf of the patient and if the patient 'fails' to follow this advice provided then they are to blame. According to Coulter (1999 p.719) such a concept 'should have no place in modern health care'.

In 1997 the Royal Pharmaceutical Society of Great Britain published a report based on the work of a steering group headed by Professor Marshall Marinker, the report was called 'From Compliance to Concordance: Achieving Shared Goals in Medicine Taking' and had a huge impact on the studying of patients' medication use. The concept of 'concordance' aims to overcome the problems identified with compliance models, and respects and recognises the role of the patient in health care decisions.

> Concordance is based on the notion that the work of prescriber and patient in the consultation is a negotiation between equals and therefore

the aim is a therapeutic alliance between them. This alliance may, in the end, include an agreement to differ. Its strength lies in a new assumption of respect for the patient's agenda and the creation of openness in the relationship, so that both doctor and patient together can proceed on the basis of reality and not of misunderstanding, distrust and concealment (Royal Pharmaceutical Society 1997 p.8).

Therefore the patient's views and opinions are encouraged and treatment decisions are made through partnership between the patient and health care professional, and are not merely seen as the patient following instruction as in the earlier compliance model. Consequently 'concordance' is more than a politically acceptable term, but is said to be a 'radical change in culture', 'a new balance in the relationship between prescribing and medication-taking, between the patient and prescriber' (Marinker 2004 p.3). The concept of concordance is in line with current ideas surrounding shared decision making and patient-centredness being promoted by the NHS. Consequently, the concordance model has been taken forward wholeheartedly within the UK leading to the Department of Health in 2002 creating a Medicines Partnership Taskforce to promote this concept.

However, although the concept of concordance has become popular and overcomes pitfalls identified with a compliance model, there is some controversy and confusion surrounding its use. Firstly, it is argued by some that the patient's view is still not respected enough, and that concordance could be worse than compliance as 'the notion of compliance is at least explicitly coercive; the danger of concordance is that the coercion remains but is concealed' (Heath 2003 p.856). Alternatively, if the patient's choice is given complete primacy as argued by Heath (2003), and the patient chooses a treatment that is lacking in evidence and is not recommended, this may leave the health care professional 'with a burden of responsibility that is hard to manage emotionally, ethically and legally' (Marinker and Shaw 2003 p349). Marinker and Shaw (2003) also argue that health care practitioners are urged to be both 'patient centred' and 'evidenced based', however it is clear that this is not always possible and frequently the two can conflict.

Concordance is also often misunderstood with research merely replacing the term 'compliance' with 'concordance'. According to Horne (2005) compliance refers to how far the patient's behaviour corresponds with the prescribers advice, where as concordance relates to the **process** or partnership between the patient and prescriber. Therefore the term concordance should not be used when describing the behaviour of an individual (Horne 2005), it can not be said, for example, the 'patient was non concordant'; this is a 'triumph of political correctness over common sense' (Horne and Weinman 2004 p.122). As a result of all this confusion it is argued that further clarification is required as to how the concept of concordance relates to patients' medication use and the ethics of prescribing, before it can be taken any further (Horne and Weinman 2004).

With regard to this PhD research the concept of concordance, despite its limitations, was initially very appealing to me, the strong focus on the patient and respecting their views seemed to fit nicely with this research exploring analgesic use after day surgery where the patient is central, and appeared to be in control of their own pain management. However, it soon became apparent that this concept was not something that could be taken forward. Firstly, a rather practical factor, as suggested concordance is a process through which the patient and health care provider build 'therapeutic alliance', however, within day case surgery patient contact with the health care provider is extremely limited, as a result building an alliance in such a short time frame is near impossible. According to Stevenson (2004 p.43) concordance is better suited to chronic illness where there is 'opportunity to develop an understanding of the patient's perspective over a number of consultations'.

Secondly, I began to have mixed feelings regarding the relationship between concordance and this research. Within the concordance model the patient's perspective should be given primacy (Horne and Weinman 2004) and the health care professional should agree to differ even when this goes against medical evidence. However, in this study although the patient was central as they are responsible for their analgesic use, ultimately the aim is to reduce patients' experience of pain after

surgery and prevent the many consequences of this pain. Therefore this research is caught between two positions, that of concordance in valuing the patient perspective and authority, and compliance in that it is in the best interest of the patient to follow their analgesic regime and control their pain. According to Horne (2004 p121) in order to research ways in which patients can get the most out of their medicines, as this study proposed to do, we 'may need to move back a little along the road from compliance to concordance', and the concept of 'adherence', appears to sit between 'compliance' and 'concordance' and may provide a useful alternative.

The concept of adherence first emerged a number of years ago mainly in psychological and sociological literature, and has, in many papers, been categorised as a similar to that of 'compliance' and the two are often used interchangeably. However, according to Horne (2005 p.29) adherence and compliance 'reflect **different** perspectives of the same phenomena: the degree to which patients' behaviour matches the prescriber's advice', and if we are to 'understand and optimise the use of medicines, we need to assess what people actually do with medicines and the degree to which this matches the recommendations' (Horne and Weinman 2004 p.122). Consequently this fitted well with this research as there was a need to investigate what patients actually do with their analgesics following day case surgery, to see if this matches recommendations, and if not to provide opportunities to optimise this analgesic use.

Unlike a compliance model 'adherence' respects the patient's decision and right to choose, and does not blame them when they do not follow recommendations (Horne 2005). However, this model would argue that it may sometimes be inappropriate to give the patient's perspective complete primacy if it is based on misinformation (Horne and Weinman 2004). It is on this point that Horne and Weinman (2004) combine the model of adherence with the concept of 'informed choice' resulting in 'informed adherence'. The model of informed adherence therefore suggests that the patient is left to decide if they would like to follow the advice given to them, however, the health care professional must ensure that the decision the patient makes

is a truly informed one. Therefore the model of 'informed adherence' takes a middle ground. It respects and gives primacy to the patient's decision as in 'concordance', though it is essential that this decision is informed, and ultimately it subscribes to a medical model with the goal to achieve some level of 'adherence' so the patient gets the most out of their medicines. This model fits well with the drive of this research, respecting the patient as they themselves have responsibility to manage their own pain, but hoping to ensure patients are getting the most from their analgesic regime in order to reduce pain and its unwanted consequences following day case surgery. Hence the term 'adherence' (representing informed adherence) was employed in this study, when making reference to the patient's level of analgesic use.

The concept/terminology debate described above on the whole reflects the transitions through which research aiming to understand patients' use of medicines has travelled over the numerous years and thousands of studies. The remainder of this chapter will now go on to further outline the history of this area and other key concepts /ideas important in this extensive literature to be taken forward and developed by this PhD research, before outlining the final research aims.

8.2 Research Aiming to Understand Patients' Use of Medicines

8.2.1 Unintentional Non Adherence

Early quantitative research surrounding patient use of medicines aimed to highlight the frequency of non-adherence, along with sociodemographic (age, gender, education, social status) and clinical factors that could distinguish between those who are adherent or not. However, although much work has been carried out assessing such variables it has been concluded that their influence upon adherence is weak and inconsistent (Horne 2005). Research (also mainly quantitative) has also considered other unintentional factors arising from

> capacity and resource limitations that prevent patients from implementing their decisions to follow treatment recommendations and involve individual constraints (e.g. memory, dexterity etc) and aspects of their environment (e.g. problems accessing prescriptions, cost, competing demands etc…) (Horne et al 2005 p.11).

Such individual constraints surrounding memory and recall appear to have received a great deal of attention in the literature. With regard to memory 'forgetting' has been commonly reported by patients with a variety of chronic conditions as a reason for not taking their medications (Dunbar-Jacob and Schlenk 2001), with many studies aiming to reduce this by providing patients with various reminders such as telephone calls, special pill packets, and ways in which to build their medication use into a daily routine (Haynes et al 2002, 2005). In relation to pain, forgetting may be relevant to patients advised to use analgesics pre-emptively. However, as previously outlined, patients do not always take analgesics despite experiencing pain. Consequently one would assume that if the patient has pain this would be a sufficient reminder, making it unlikely that they would 'forget' to use their pain medication.

A second unintentional variable to be frequently studied is recall. Less than 50% of prescription information is recalled by patients (Anderson et al 1979), which is of concern as patients need to be able to understand and remember the instructions given in order to adequately follow their medication regime. In order to overcome this barrier it is thought that effective communication is needed between the patient and provider, along with clear information so the patient fully understands what is expected. Hence there is a vast amount of research, based on patients prescribed medications for a variety of chronic illness conditions, assessing the quality of information provided to patients along with numerous interventions studies aiming to increase adherence with information and knowledge (Haynes et al 2002, 2005)

Applying this to the field of day case surgery, it is similarly argued (as previously suggested in this chapter) that patients do not receive adequate information surrounding pain management, and that this failure can account for uncontrolled pain after surgery (Mitchell 2004a), with studies spanning many years stating in their concluding paragraph that more patient information is required in order to reduce pain following day case surgery (Stone 1996, Doyle 1999, Henderson and Zernike 2001, McHugh and Thoms 2002, Horvath 2003, Dewar et al 2003, Mitchell 2004a,

Pearson et al 2004). Although the provision of information is important, within the majority of studies calling for more patient information exactly how this information will actually influence pain after surgery is rarely considered. Within much of this research it appears to be implicitly assumed that giving patients information on how to manage their pain, that they will automatically follow this advice and adhere to their pain medications, and that 'explanation will encourage compliance with the plan of care' (Doyle 1999 p.374).

However, there is research to suggest that increasing patient knowledge does not necessarily lead to increased adherence; 'people appear to find it difficult to believe that providing information will not automatically have a positive effect on adherence' (Raynor 1998 p.98). Haynes et al (2002, 2005) have carried out a number of Cochrane reviews over the past few years assessing interventions to improve adherence to medications for chronic conditions, the majority of which focus on overcoming unintentional non adherence by providing patients with knowledge and reminders. Haynes (2005) conclude, however, that such interventions do little to improve adherence to medicines. With regard to day case surgery, as previously mentioned, research by Mackintosh and Bowles (1998) found that despite providing patients with information surrounding pain management there was little change in reported pain with a second audit. Also, Dewar et al (2003) provided an intervention group with pre-operative teaching about postoperative pain along with written information regarding how to manage their pain, and nurse led follow up telephone calls after their day surgery. However, they found that there was no difference between the two groups (with and without information) regarding the amount of medications consumed. Similarly, a study by Watkins (2002) showed patients to avoid pain medications following day case surgery despite being provided with information (which the patient appeared to understand) about how to manage their pain. As well as this, as previously outlined, clinical audit undertaken by the steering group for this research found patients not to be taking analgesics as recommended even though they were provided with written (see Appendix III for patient information sheet) and verbal information explaining the regime. It would

appear therefore that explaining to patients how to manage their pain, along with the provision of written information does not necessarily increase analgesic use, and that patients seem to understand the advice provided but choose not to follow it. The following section will consider the influence of intentional non adherence and how this may provide an insight into patients' analgesic use.

8.2.2. Intentional Non Adherence: The Role of Decision Making and Beliefs

Research particularly based on unintentional non adherence as outlined above has been subject to much criticism. It is argued that in spite of thousands of studies little progress has been made in terms of improving patient adherence to medication regimens (Donovan and Blake 1992, Haynes et al 2005, Horne and Kellar 2005, Scherman and Löwhagen 2004). As stated by Pound et al (2005 p.134) 'during three decades of quantitative research into non-compliance more than 200 variables have been studied but none can be considered as consistently predictive of compliance`. One reason may be because much of this early research is based on a 'compliance' model where the patient is seen as a passive. Such research is said to wrongly assume that patients are 'too ignorant to understand medical instruction or forget large portions of what they are told', instead it is suggested that the patient makes intentional decisions regarding their medications, and have the ultimate ability 'to decide what will happen to doctors' orders: whether or not they will take the drugs prescribed and in what quantities' (Donovan and Blake 1992 p.508).

This concept therefore views the patient as an individual decision maker rather than a follower of instructions, and it is argued that research should not only consider unintentional factors leading to non adherence, but also intentional ones (Horne and Kellar 2005), acknowledging the role of the patient in decision making. Hence this shift in focus can be linked to the move from compliance to concordance, as outlined earlier in this chapter, along with a national and international agenda that sees the patient perspective as central.

In terms of day case surgery this could explain why, as outlined above, providing

patients with effective analgesics and information as to how to manage pain appears to have had little impact on pain scores and analgesic use among some patients. It is likely that these patients are making active intentional decisions regarding their analgesics, they know what to do but perhaps, for whatever reason, chose not to. (This also fits with the model of informed adherence to which this research subscribed which respects the patient and acknowledges their role, particularly relevant in the field of day case surgery where patients are largely responsible for their own pain management when they return home). Hence the idea of the patient as an active decision maker was taken forward in this research.

After focusing upon the potential influence of patient decision making upon analgesic use I began to explore the literature further (again mainly based on adherence to medication for a variety of chronic conditions). From this literature I found that this patient decision making was likely to be as a result of the beliefs they hold, which are said to 'influence patients' motivation to begin and persist with a treatment regimen' (Horne et al 2005 p.12), with a number of papers making the link between patient beliefs and decision making regarding medication use (Donovan and Blake 1992, Britten 1996, Horne 1999, Horne et al 1999, Horne and Weinman 2002, Morgan and Horne 2005, Pound et al 2005). In psychology beliefs are seen as internal representations or 'cognitive constructs that serve as a lens for interpreting the meaning of events and making decisions about how to react to them' (Jensen 2003 p.453). Such beliefs, however, do not stand alone separate from the world in which we live, but the beliefs we have about medicine are said to be grounded in, and are as a result of, the context in which we live (Donovan and Blake 1992). For example, our beliefs regarding treatment regimens are said to be impacted by the health care arena (Donovan and Blake 1992) the media (Donovan and Blake 1992, Britten 1996, Bissell 2001, Morgan and Horne 2005) and are also engrained in our culture (Horne et al 2004). Cultural beliefs have also been found to be especially important in relation to pain and suffering (Moddeman 1995, Skevington 1995, Nayak et al 2000, MacLachlan 2006).

In terms of day case surgery, although no research had specifically addressed the barriers posed by the patient in terms of analgesic use, three studies undertaken in Canada (briefly outlined earlier), have, as part of much broader research aims, suggested that patients may not be utilising their analgesics appropriately following day case surgery and also indicate that patient beliefs may play a role. These three studies will be considered below, along with why further research is required in this area.

Firstly, ten years ago Beauregard et al (1998) carried out a quantitative study to assess the intensity and duration of pain, along with predictors of pain severity, analgesics practices and satisfaction after day case surgery (laparoscopy, knee arthroscopy, shoulder arthroscopy, carpal tunnel decompression). As part of this study they measured analgesic use and found that overall this was low with 32% of the 89 patients who took part not taking any analgesics at 24 hours after surgery, and 25% not taking any at 48 hours despite the experience of significant pain (see earlier in this chapter page 23 for more on this). Among many other measures (pain intensity, expectation of pain, impact of pain on daily functioning, satisfaction with pain management, clarity of pain management information), Beauregard et al (1998) also employed the Barriers Questionnaire (BQ) developed by Ward et al (1993) originally designed to assess patients' attitudes and misconception towards cancer pain management. From the BQ Beauregard et al (1998) found that 62% of patients agreed with the statement that 'they could become addicted to pain medication', 49% said that it is 'easier to tolerate pain than side effects', 44% agreed that pain medicine should be 'saved in case the pain gets worse', and 31% agreed that pain 'medicine cannot really control pain' and that the 'experience of pain is a sign the illness has gotten worse'. Twenty two percent of the sample agreed with the statement 'that good patients avoid talking about pain', and finally 17% agreed that 'complaints of pain could distract the physician from treating the underlying illness'.

It is clear from this study that patients hold beliefs regarding pain and pain management following day case surgery. However, Beauregard et al (1998) did not

test for any association between these beliefs and actual medication use, so the claim that these beliefs influenced patients' decisions and their use of analgesics following day case surgery unfortunately could not be made. It must also be noted that the Barriers Questionnaire (BQ) employed by Beauregard et al (1998) was originally designed based on beliefs held by patients regarding their cancer pain management. And although many of the items upon the BQ may be relevant to patients following day case surgery, as no studies had previously been conducted in this group the validity of this questionnaire for day case patients may require further work. Also by employing this focused questionnaire (designed with cancer patients in mind) other important beliefs perhaps specific to day case surgery patients may not be given the opportunity to arise. As suggested by Wissow (2004) there is a need to gain a better understanding of the meaning **specific** medications for **specific** conditions have for patients. This suggests that patients with different conditions needing different medications may have different issues, and therefore why, providing day case patients with a questionnaire designed for cancer patient, may not be sufficient.

Another quantitative study carried out in Canada by Watt-Watson et al (2004) measured pain, adverse events, complications, recourses utilised, discharge information along with analgesic use after laparoscopic cholecystectomy, shoulder and hand day case surgery. This study found that 50% of 180 patients stopped taking their analgesics at 72 hours despite pain, and that analgesic use was overall low. Watt-Watson et al (2004) note that several patients did not fill their prescription due to fear of adverse effects associated with analgesics such as constipation and nausea, with some patients also stating that they would be reluctant to take more analgesics due to fear of addiction. Again this suggests patients hold beliefs, and in this case it is argued that such beliefs may influence analgesic use with Watt-Watson et al (2004) calling for further research in this area to study this.

Finally, another study by Dewar et al (2004) also highlights how beliefs held by day case patients may influence their decision to utilise their analgesics as prescribed.

This paper outlines some qualitative data collected as part of another quantitative piece of research assessing a patient educational intervention. In this study 104 patients who had undergone anal surgery, hernia repair, arthroscopies, and mammary reductions / enhancements, were assigned to an intervention group and were telephoned for the first three postoperative days by a nurse in order to provide advice regarding the management of their pain. Telephone calls lasted approximately 5 minutes, and from talking to patients a number of beliefs about pain and pain management were identified, including fears regarding the side effects of medication, concern that they would 'overdo it' if they were pain free, and the belief that pain is to be endured. All of which potentially led to a reluctance to use analgesics.

From reading this paper it appears that this qualitative component of the study may have been rather unintentional at the start. Originally nursing staff were asked to provide patients with information regarding pain management over the telephone as part of an intervention to increase patient understanding of how to manage their pain, the intention was, however, not to interview each patient, particularly considering the large sample of 104. Nevertheless, this research had begun to uncover what may be an important barrier to pain management following day case surgery, and I began to consider what a great insight in-depth interviews with a smaller sample of participants may have achieved.

Overall, taking these three studies together (the only to consider why patients may not use analgesics following day case surgery), there was evidence to begin to suggest that patients' use of analgesics may be as a result of beliefs they hold. However, the first two studies outlined above have employed a quantitative methodology, and considered analgesic use as part of a broader research aim investigating a variety of other variables. As a result they revealed little in terms of an in-depth understanding of the patient's experience and beliefs that may influence their decisions regarding analgesic use. Therefore an exploratory qualitative methodology starting with the patients themselves was thought to be more

appropriate, before jumping in with quantitative scales like those designed for use with cancer patients (as used by Beauregard et al 1998), whose concerns and issues may be considerable different to patients following day case surgery. The final study outlined by Dewar et al (2004) had begun to do this, however, the qualitative component of this research appeared to be rather unintentional, and with a sample of 104 patients inevitably lacked depth. This research did, however, suggest this was an area worthy of further investigation, and how with a smaller sample and in-depth interviews, a greater understanding of patients' use of analgesics following day case surgery may be achieved. As well as this all three studies were conducted in Canada, whose health care system is different to that of the United Kingdom, so further research was required in the UK, particularly in the day surgery unit where this research was undertaken which was at the time leading the way in pain management in this area by being of the first to provide patients with a multimodal analgesic regime to take home with them following surgery.

9. The Aim of This Research

Taking note of all the evidence presented in this chapter the aim of this research was to employ a qualitative methodology to explore patients' use of analgesics following day case surgery, with particular focus on patient decision making regarding this analgesic use, and the beliefs that may influence this decision making. It was envisaged that by doing this a significant barrier to pain management in the field of day case surgery would be illuminated, leading to opportunities to reduce pain and its unwanted consequences, and helping day case surgery to reach its full potential.

Before concluding this chapter however, it must be noted that other research has previously been undertaken assessing patients' beliefs and their relationship to adherence in a variety of chronic illness groups such as asthma, hypertension etc… And other studies have also looked at the influence of patient beliefs upon pain management, particularly in cancer pain, hence the Barriers Questionnaire (Ward et al 1993) briefly outlined earlier used by Beauregard et al (1998), again suggesting patients' beliefs to be important to their medication use. However, this literature

will not be reviewed at this stage. The main reason for suspending the review here was because, as previously outlined, an exploratory qualitative methodology was to be employed starting with the patient. Hence although some review had been undertaken to identify the area and find a gap in research, as suggested by Brocki and Wearden (2006 p.92) 'it seems unlikely that researchers could embark upon a project without having at least some awareness of current literature and issues surrounding the area'. Reviewing all literature in depth was suspended to avoid steering the research in a wrong direction and producing findings that have little relevance to day case patients, whose use of analgesics, and factors influencing this analgesic use, were until now yet to be fully explored. Once this research had been undertaken another review was conducted triggered by findings, to be discussed in detail in the later 'findings' chapter of this thesis.

10. Chapter Summary

Day case surgery is rapidly increasing in the UK, and with reduced waiting times and length of hospital stay this is a favoured approach to surgery by the government and patients alike. Yet, many patients have been found to experience unacceptable levels of pain when they return home after day surgery which can lead to a number of negative consequences stemming many years, affecting many lives, with an emotional and financial cost. If the full potential of day case surgery is to be reached then it is important that this pain is effectively managed. Previous research has investigated barriers to pain management in this area, particularly the provision of analgesics and patient information surrounding pain management, but pain continues to prevail. One barrier to pain management that has received little attention is that posed by the patient, and it has been suggested that patients may not utilising their analgesics appropriately with many studies calling for further research in this area.

Having decided this was the chosen route of this research this chapter then went on to explore literature surrounding patients' use of medications. The result of this review highlighted a large body of work, particularly within the social sciences, aiming to understand patients' use of medications prescribed for a number of chronic

illness conditions. Although this research was not directly related to the present study, it provided evidence that non adherence to medication regimes is a significant problem in other patient groups, and gave insight into how understanding surrounding patients use of medicines has progressed over many years of research.

One significant finding in this literature was that non adherence to a medication regime by the patient is not always unintentional, but may be as a result of an intentional decision made by the patient based on the beliefs they hold e.g. the patient understands how to use their medication but decides, based on their beliefs, not to take it. Relating this to the field of day case surgery, this may explain why when overcoming barriers surrounding unintentional non adherence, such as the provision of better patient information and analgesics (as in current recommendations), patient reports of pain continue to be documented. Adding further weight to this argument three earlier studies have also identified patients to hold beliefs following day case surgery that may influence analgesic use, however, these studies had may limitations, and only addressed this as part of broader research aims and in little detail. This research therefore proposed to employ a qualitative methodology to:

Explore patients' use of analgesics following day case surgery, with particular focus on patient decision making regarding this analgesic use and the beliefs that may influence this decision making.

By investigating this area in depth, as no research had previously done, it was envisaged that a significant barrier to pain management following day case surgery may be uncovered, with findings making a considerable impact in the field by providing an opportunity to reduce pain and its many negative consequences. The following chapter will now go on to consider the methodological considerations surrounding this research, and provide further insight into why a qualitative methodology for investigating patients' use of analgesics following day case surgery is suitable and required.

Chapter 2

Methodological Considerations

1. Chapter Outline

The aim of this study was to explore patients' use of analgesics following day case surgery, with particular focus upon the influence of patient decision making and beliefs upon this analgesic use. This chapter begins by arguing why, in order to achieve this aim, that an in-depth insight into the individual experience of using analgesics following day case surgery was required, going back to the patients themselves and employing a qualitative inductive approach. This chapter then goes on to explore the variety of qualitative research methodologies that were available, and outlines why the chosen approach of Interpretative Phenomenological Analysis (IPA) was best suited to the goals of this research. Following on from this IPA will be explored in greater detail in terms of its theoretical underpinnings, development within health psychology, and epistemological and ontological position, providing further insight into this relatively new methodology and its appropriateness for this study.

2. A Qualitative Approach to Make Sense of Patients' Use of Analgesics following Day Case Surgery.

As illustrated in the previous chapter when undertaking this research there was little understanding of patients' experiences surrounding the use of analgesics following day case surgery. One reason for this was that there was no research specifically addressing this area. The other was that research that had come close, addressing patients' analgesic use as part of broader research aims, was quantitative in nature employing closed questionnaires, numerical pain ratings scales to quantify pain levels after surgery, and numerical reports of analgesics used. One study had identified itself as qualitative, but a large sample of 104 patients took part in short interviews not allowing for an in-depth insight, and leaving many avenues unexplored (see previous chapter). According to Crossley (2000) quantitative methods have little place when exploring subjective experiences such as pain and illness (see earlier chapter page 14 for a discussion of the multidimensional nature of pain). She argues, simple reductionist

measurements do not capture this complex human experience and are 'unable to provide in-depth insight into the way in which individuals actually experience, give meaning and reflexively orient towards phenomena such as pain, stress and disease' (Crossley 2000 p.72). And such methods also 'fail to address a crucial, perhaps the crucial psychological dimension of pain, stress and disease: how humans experience, interpret and live with them' (Crossley 2000 p.77). Consequently a qualitative methodology was felt to be better suited to provide an in-depth understanding of the patient's experiences surrounding the use of analgesics following day case surgery, that could not be captured with closed questionnaires, pain scales or pill counts.

Placing the participant at the centre and taking an exploratory inductive approach would allow the voice of the participant to be heard, enabling understanding to be built bottom up, from the patients themselves. This was central to this research as it is the patient who experiences the pain, and within day case surgery it is the patient who has the analgesics and, as outlined in the earlier chapter, it was likely that it is the patient who ultimately makes the intentional decision regarding their utilisation. Placing the patient at the centre was also important to this study where little is already known and therefore no alternative starting post other than the participant. Hence the weakness of previous quantitative research, such as that of Beauregard et al (1998) who employed the Barriers Questionnaire (designed to use with cancer patients), which appears to move too quickly to impose hypothesis and structure not grounded in the patients themselves.

Having established that a qualitative method was required, the remainder of this section considers which of the many qualitative methodologies available was most suitable based on the following four requirements felt to be central to meeting the aims of this research. Firstly, coming from a background in psychology, and with the aim to focus on the patient themselves, I wanted a qualitative methodology that enabled exploration of the individual's psychological world. Secondly, undertaking the research hoping to eventually overcome uncontrolled pain following surgery, and based in clinical setting with a steering group of health care practitioners, the findings needed to be relevant

and applicable in this field, to make a difference. Thirdly, based on the concept that the patient is an active decision maker (as outlined in the previous chapter page 35), the chosen methodology needed to provide not only understanding, but an explanation as to why patients in this study made the decisions they did regarding analgesic use e.g. explain how beliefs, said to be important to decision making may actually influence this decision making. Finally, the beliefs patients may hold and the decisions they make, are argued to be influenced by context and culture (see previous chapter page 36). A methodology was therefore required to investigate these beliefs along with how they emerge within the world in which we live.

The first qualitative methodology considered was Discourse Analysis (Potter and Wetherell 1987) as I had successfully used this to undertake research in the past. The appeal of Discourse Analysis for this research was that it allows an in depth insight into the social and contextual factors that influence the way in which participants' construct their use of analgesics, therefore partly fulfilling the fourth point on the list of requirements. However, Discourse Analysis takes a relativist position in which it is viewed that ourselves, and the world around us are all socially constructed through language, we therefore do not have an enduring core set of beliefs or cognition, but everything is a construction. Hence, such an epistemological position is at odds with this research which aimed to understand patient decision making, and explore this decision making by looking at the beliefs patients hold. The position of Discourse Analysis is also at odds with the second requirement, that of the application of findings to make a difference in real terms, difficult to achieve if a strong relativist position is taken where it is argued that there is no enduring 'reality' to change.

Another consideration was Grounded Theory, first developed by Glaser and Strauss during the 1960's (Bluff 2005) this approach takes a symbolic interactionist perspective and could say something about the social and contextual influences upon patient decision making, and therefore satisfies the fourth criterion. It also enables a theory or explanation to be built surrounding patients' decisions to use analgesics and, depending on the type of Grounded

Theory to which you subscribe, can say something real about the world and therefore findings can be applied in practice, thereby satisfying points two and three. However, it was my understanding that the Grounded Theory approach was developed 'to allow researchers to study basic social processes' (Willig 2001 p.69), and although I wanted to explore social context that may shape participants' decision making (e.g. patients' beliefs), the focus on the individual's psychology was of importance, therefore it is my understanding that to a certain extent the first requirement could not be completely filled.

This led me to explore the use of phenomenology in which the focus is on the individual with the aim to understand their experience or psychological world, thereby fulfilling the first requirement. Phenomenology is a large body of philosophical work dating back many years, from which a number of psychological phenomenological methods / methodologies have been developed. I began by considering the methodology developed by Giorgi during the 1960's (see Giorgi and Giorgi 2003a, 2003b) based on Husserl's (the founder of phenomenology) phenomenological philosophy (1900/1970). However, the concept of bracketing, and stepping outside ones subjectivity in order to view the world from an objective position, which is important to this approach, was for me a complex concept that I personally felt to be unachievable (I will talk further about this later in this chapter). I also wanted to find out about patients' decision making in the world in which they live, and to consider the impact of contextual influences upon this understanding, but this methodology did not seem able to deliver this aim if such subjectivity is to be bracketed. An alternative was to employ the phenomenological philosophy of Heidegger (1927/1962) which takes an ontological perspective and maintains that the we are in the world, bound up in it, there is no way of standing back and making 'pure' descriptions (the work of Husserl and Heidegger will be considered in further depth later in this chapter). Based on the work of Heidegger and his follower Gadamer (1960/1997), van Manen (1990) created a method (or guide to practice as he would rather see it), that enabled the researcher to put these philosophical ideas into practice. Van Manen considers pre-understandings (gained from the individuals history, context, culture etc...) important to the understanding of text

(or participants' experience), and it is my understanding that recognising this subjectivity allows for an exploration of contextual factors that may influence the participants' experience, therefore satisfying the fourth requirement.

However, this method does not completely suit the exploration of patients' analgesic use after day case surgery. Firstly, hermeneutic phenomenology as proposed by van Manen (1990) investigates 'experience as we live it rather than as we conceptualise it' (Langdridge 2007 p.122). It would aim to interview participants regarding their experience directly after they experience it, before they make sense of it. However, I wanted to understand decision making and subscribe to the belief that decisions are not made implicitly without any pre-reflection. If the patient is in pain, then surely they will reflect on the decision to use, or not to use analgesics before I interview them. Similarly this would be problematic when aiming to gain an insight into the beliefs (or cognitions) that are said to influence patient sense making as this phenomenology aims to capture the unmediated experience before this sense making takes place. Secondly, this hermeneutic phenomenology takes the view within a broader hermeneutic debate, that interpretation seeks the meaning of text and can not go beyond this to tell us about the meaning of the author (Smith 2007). But, this research aimed to understand the decisions patients make regarding their analgesics and therefore need to investigate and say something about the participant in order to do this. Finally, Hermeneutic phenomenology, as with other forms of phenomenology, mainly employ the hermeneutics of empathy or meaning recollection (Larkin et al 2006) and aim to get as close to the participant's phenomenological experience as possible. In doing this phenomenological research is said to be purely descriptive, and not able to provide explanation (Willig 2001). Consequently such methods were unable to provided explanation surrounding patients' decision making regarding their use of analgesics following day case surgery, and therefore did not satisfy the third requirement of a methodology to meet the aims of this research.

Finally, this debate led to the method of Interpretative Phenomenological Analysis (IPA). The qualitative approach of Interpretative Phenomenological

Analysis (IPA) was first introduced by Jonathan Smith (a reader in psychology at Birkbeck College, London) over ten years ago and has flourished in the field of Health Psychology and beyond. As indicated by its title IPA is both phenomenological and interpretative. IPA is phenomenological in that it is 'concerned with an individual's personal perception or account of an object or event' (Smith et al 1997 p.69). IPA argues however, it is impossible to get direct access to this personal perception or account, insights can only be achieved through the interaction between the researcher and participant, along with a process of interpretation, hence IPA's interpretative facet (Smith 1996, Smith et al 1997, Smith and Osborn 2003).

In brief the methodological approach of IPA was particularly suited to this research and satisfied the four requirements for a methodology as outlined earlier. Firstly, the phenomenological side allowed for an in-depth exploration of the patients' experience with their analgesics when they return home after surgery. With this 'insider perspective' being important to IPA, the focus is therefore upon the patient and it is they who take centre stage, important to this research because, as previously suggested, it is the patient who is provided with the analgesics, and it is ultimately the patient who takes the decision as to whether or not to use them. Also, the empathetic and descriptive understanding provided by IPA's phenomenological component is particularly important when investigating the subjective experience of pain and previous studies have employed IPA to explore this experience. For example, Osborn and Smith (1998) and Osborn and Smith (2006) have used IPA to investigate the experience of chronic low back pain, and Osborn and Smith (1998 p.67) note that 'if the meaning of pain to the patient is to be fully explored then we would argue such an intensive qualitative approach *(IPA)* is required'.

Secondly, IPA maintains that human beings makes sense of their world through a process of interpretation and self-reflection (Smith et al 1997), and aims to 'explore in detail the processes through which participants' make sense of their own experiences' (Brocki and Wearden 2006 p.88). Hence IPA's double hermeneutic, where it is said that the 'participant is trying to make sense of their

world; and the researcher is trying to make sense of the participant making sense of their world' (Smith and Osborn 2003 p.51). IPA acknowledges, however, that this sense making activity on behalf of the participant and researcher does not occur separate from the world in which we live, but an understanding of contextual, social and historical factors are required for this sense making activity to take place. Such recognition therefore satisfied the fourth requirement specified earlier by enabling an exploration of context and culture and how this may shape participants' beliefs and decision making. IPA also takes this further and talks of the influence of symbolic interactionism and hermeneutic theory to explain how our meanings come to exist through the use of language within our world (I will talk more about such influences later in this chapter).

Another important feature of IPA is that is aims to go beyond a phenomenological description of experience to develop a deeper understanding. In order to do this further interpretation is required and the researcher can draw upon an array of interpretative resources (Larkin et al 2006). For example, Smith 2004, Larkin et al 2006, and Smith, IPA conference, July 5th 2007 argue IPA should employ the hermeneutics of suspicion (Ricoeur 1970), enabling the researcher to see things that the participant may not. Going this step further enabled the opportunity for explanation to be built, thereby achieving the third requirement of a qualitative methodology for this research, which was to have the ability to produce an explanatory account of analgesic use in order to understand why patients may make the decisions they do. Previous research has also employed IPA to understand the decisions people make, and it is argued IPA is particularly suited for this purpose (Reid et al 2005), for example research has looked at 'decision-making in candidates for genetic testing' (Smith et al 2002), the 'decision-making process in lesbian parenting' (Touroni and Coyle 2002) and 'gay men's sexual decision making' (Flowers et al 1999). IPA also makes a connection between cognition e.g. patients' thoughts and beliefs, and language e.g. patients' talk about these beliefs (Smith 1996), hence, by talking to patients IPA enables an exploration of beliefs and how such beliefs may influence this decision making, meeting the fourth requirement for a methodology.

Overcoming limitations of other hermeneutic phenomenological approaches, drawing on ideas of Schleiermacher (1998) IPA recognises that the text can say something about its author (Smith 2007), important to this research as we wanted to ultimately say something about, or understand the analgesic use of the person behind the text. (It is recognised that much of this may diverge from phenomenological ideals and such discussion will take place later in this chapter). Finally, IPA's position in health psychology allows its findings to be related to other forms of knowing such as mainstream quantitative psychology, and it is argued it's findings can also be easily applied within a health care setting and 'even a single case can lead to reflection on current practice' (Smith et al 1997 p.87). Therefore the results of IPA can make a difference thereby satisfying the second requirement outlined earlier. Such issues be discussed again later in this chapter when exploring the epistemological and ontological position of IPA.

Now an overview of why IPA is suited to this research has been provided, as IPA is a relatively new methodology this chapter will now go on to explore its theoretical underpinnings and outline further why this approach was most suited undertake this research.

3. The Theoretical Underpinnings of IPA

IPA is a relatively new and developing methodology within health psychology, according to Larkin et al (2006 p.104) by prescribing a 'relatively small core of defining concepts Smith et al have ensured that IPA has developed quickly, imaginatively and co-operatively'. It is also said that such a fluid outlook has allowed IPA to modify its methods according to the object of study, as opposed to defining the object of study by the methods used (Smith 1996) something that Smith, the founder of IPA, was keen to do. However, IPA is increasingly in the last few years, coming against criticism for its underdeveloped theoretical underpinnings with authors such as Langdridge (2007) noting that so far there has not been enough consideration of IPA theoretical grounding, and as a result IPA is starting to become known as a purely thematic and simplistic approach

(Willig 2001, Larkin et al 2006). The following section explores the theoretical underpinnings of IPA, piecing together, and in some respects developing, the work of Smith and colleagues to try to better understand the theoretical basis of IPA and overcome such criticism.

Tracing the work of Smith and colleagues through the development of IPA from the first proposition paper in 1996 a number of theoretical touchstones for IPA have been brought to the fore. In early work two important theoretical stances influenced IPA: Phenomenology and symbolic interactionsim (Smith 1996, Smith et al 1997, Smith and Osborn 2003). More recently Larkin et al (2006) have considered in greater depth the relationship between IPA and phenomenology, something that has been lacking, and Smith (2004, IPA conference, July 5, 2007) has focused his attention in particular away from symbolic interactionism towards hermeneutic philosophy. This movement reflects the developing nature of IPA and the change in position or horizons of Smith and colleagues as different texts influence their interpretation of IPA. Each of these will now be considered in detail in terms of what they mean for IPA and also for this research study.

3.1 The Influence of Phenomenology

3.1.1 The Influence of Husserl

Husserl (1859 –1938) is known as the father of phenomenological philosophy whose ideas moved away from the positivism found in science and philosophy with the aim to explore the subjective experience. Husserl (1900/1970) argued that the discipline of psychology (among many others) was flawed with its objectification and quantification of human experience, and that the 'scientific ideal of positivism would sever science from the everyday world, ultimately resulting in the dehumanisation of society' (Dahlberg et al 2001 p.43). Husserl suggested that we needed to 'go to the things themselves' as experienced, and see them as they are, before positivists labelled and quantified them.

At the 'core of any piece of IPA research lies a clearly declared phenomenological emphasis on the experiential claims and concerns of the

persons taking part in the study' (Larkin et al 2006 p.104). Therefore, following Husserl, the first aim for IPA researchers is to 'understand their participants' world and describe what it is like' (Larkin et al 2006 p.104) and such a move away from quantification to explore the 'things themselves 'is important to IPA. However, it would appear that IPA diverges from Husserlian phenomenology or descriptive phenomenology as to how we should study these experiences. Husserl's phenomenology focuses on epistemological issues and the way in which we gain knowledge. He argues that in order to go back to the things themselves one must transcend or move away from their subjective experience (or natural attitude) in order to see the phenomenon from a objective position and provide a pure, accurate description free from subjective influences (Dahlberg et al 2001). On this issue it appears that IPA would align itself with Heidegger (1927/1962) who developed phenomenology that focused on issues of ontology and interpretation (Larkin et al 2006).

3.1.2 The Influence of Heidegger and Gadamer

Heidegger (1889 –1976) was a student of Husserl and later became an influential German philosopher best known as the author of Being and Time (1927/1962). Heidegger took phenomenology in a different direction to that of Husserl, arguing that we live in the world, we are a part of the world and are embedded in it, consequently our understanding comes from our interpretations, based on past experiences and pre-understandings from this being in the world (also known as forestructures, prestructures and preconceptions). Therefore it is impossible to stand back from subjective influences and provide an objective, pure description as suggested by Husserl 'we can not occasionally jump in and out of an isolated subjective sphere to impose meaning on a world of otherwise meaningless objects' (Larkin et al 2006 p.106). It is this point that separates the transcendental phenomenology of Husserl and the interpretative phenomenology of Heidegger. However, it must be noted that the distinction between them is not always as clear cut as we are led to believe, both Husserl's and Heidegger's phenomenology acknowledge that there is not pure description per se and both agree that we are 'always experiencing the world as something, the world is always presenting itself to us in the form of meaning' (Dahlberg et al 2001 p.93)

Therefore, we all have our own meanings and a pure description of a phenomenon that is universal and objective is impossible as the 'daffodils are indeed different for the wandering poet than they are for the hard-pressed horticulturist' (Ashworth 2003 p.13).

Moving on from the debate surrounding the distinction between the two approaches, it is clear from Larkin et al (2006), that it is the persons-in-context taken from Heidegger's philosophy that is important to IPA. 'IPA is concerned with understanding the person in context, and exploring persons' relatedness to, or involvement in the world' (Larkin et al 2006 p.110). However, true to its phenomenological origins Heidegger argues that though pure transcendence (as suggested by Husserl) is impossible, we should try to allow the object to show itself as 'itself', and although we can not escape our context or life-world, we should try to see a phenomena in its own terms, the best that we can without pre-understandings (Larkin et al 2006). Heidegger realised that these pre-understandings gained from being in the world can never be made completely explicit, but argued that we need to 'work out' these pre-understandings in terms of the phenomenon we are investigating (Geanellos 1998a).

Relating this to IPA there appears to be little talk of how such pre-understandings should be 'worked out' which is of concern considering IPA's commitment to Heidegger's phenomenological philosophy. It is clear that if IPA subscribes to Heidegger's philosophy then bracketing (as in Husserl) them is impossible, I was left wondering, what else can I do with them? The philosophy of Hans-Georg Gadamer (1960/1997) may provide a solution. Gadamer followed Heideggers move to a hermeneutic phenomenology and argues that the way pre-understandings can be 'worked out' and used to understand a text (or participants' account) is through the fusion of horizons in order to gain a mutual understanding between the text and the researcher (Gadamer 1960/1997). It is to my understanding that this is a process that involves the researcher making clear and recognising their preconceptions, history (our past) and culture that may influence the interpretative process, this is their horizon which at the time limits how far they can see. However, they must adapt and change their horizon

according to the new understanding presented in the text (participants' account), hence a fusion of horizons between those of the researcher and text. According to Rapport (2005) Gadamar argues that this fusing of horizons takes circular motion with no end, hence the term 'hermeneutic circle'. For example, the researcher enters the circle aware of their pre-understandings, they then encounter the text and these pre-understandings (which are initially required to make sense of the text) are then adapted and changed in light of the new understanding (fusion of horizons). The researcher then has a new understanding, which is again, when moving further around the circle, adapted and changed when encountering another horizon and so on.

Although to date IPA papers are yet to mention the concept of fusing horizons. It is my understanding that this is what the 'P' in IPA is trying to achieve, and is similar to Larkin et al (2006) argument that when trying to get close to the participant's experience IPA researchers should be willing to adapt and change their views in light of the participant's responses, and when Smith (2007 p.6) states in his paper exploring the link between hermeneutics and human sciences 'priority should be given to the new object rather than to ones preconceptions'.

However, it is my understanding that IPA would diverge from Gadamer in his argument that when interpreting text little or nothing can be said of the author behind these words e.g. from the participant's account we can say little about the participant (Smith 2007). A recent paper by Smith (2007) talks of linking hermeneutics with the human sciences (however IPA is not considered) and argues that the hermeneutics of Schleiermacher (1998) are particularly relevant, where the aim is to 'understand the writer as well as the text' (Smith 2007 p.4). As Smith (2007) notes, the researcher is trying to not only make sense of the words, but also the person who said them and 'that what the participant says is at least in part a reflection of what he/she thinks about the topic' (Smith 2007 p.5). Therefore this view could have some utility for IPA which aims, in my understanding, to use the words of the participant in order to say something about the participant themselves.

Reflecting back to this research study, the phenomenological component of IPA allowed an in depth description of the participant's experience surrounding their use of analgesics, and this could be aided by employing the concept of fusing horizons by enabling this research to get as close to the participant's experience as possible, bearing in mind the epistemological limitations of 'being in the world'. Also taking the position of Schleiermacher's hermeneutic theory (as argued by Smith 2007), enabled the study to say something about the participant themselves and their analgesic use. But, taking this understanding further and using phenomenology to find an explanation for participants' decisions surrounding analgesic use may be difficult.

> 'While it is able to generate detailed rich descriptions of participants' experiences of situations and events, such research does not tend to further our understandings of why such experiences take place' 'That is, phenomenological research describes and documents the lived experience of the participants but does not attempt to explain it' (Willig 2001 p.64).

However, it is my understanding that IPA aims to take this initial phenomenological description a step further, and may therefore be said to diverge from phenomenological ideals. It is here, in the second stage of IPA, that the researcher plays a key role, interpreting the description in greater detail enabling the production of 'a theoretical framework which is based upon, but which may transcend or exceed the participants own terminology and conceptualizations' (Larkin et al 2006 p.113). Therefore the researcher employing IPA is able to go further than that of phenomenology to make sense of or find an explanation for the participant's experience. In terms of this research an explanation surrounding patients' analgesic use may be formed that goes beyond the original phenomenological account.

3.2 Using Interpretation to Provide Explanation

This greater interpretative element, or second stage of IPA, which aims to move beyond a description to produce a theoretical framework or explanation (Larkin

et al 2006) has come under criticism due to its lack of clarity, with Brocki and Wearden (2006) pointing out in their critical review that this is a key feature of IPA that needs further consideration. As a result of this ambiguity it is argued that research employing this methodology has failed to go beyond the initial phenomenological account leading to a misconception that IPA is a 'simply descriptive' approach (Larkin et al 2006 p.103). To overcome this limitation, Larkin et al (2006) aimed to shed more light on the interpretative aspects of IPA in their paper. Also, Smiths (2004) paper has provided further insight into the levels of interpretation possible, and at a recent IPA conference (July 5, 2007) Smith has talked more about this, however, this interpretative element is still not always clear. The following section uses these resources and aims to further piece together this second stage or interpretative component of IPA.

Firstly, Smith (IPA conference, July 5, 2007) argues that while it is of value to get an insider's perspective as gained in the phenomenological descriptive account (as outlined above), it is also of value to be alongside the participant or apart from them to provide an explanation. In order to be alongside the participant Smith (2004, IPA conference, July 5, 2007) and Larkin et al (2006) argue for the use of hermeneutics of suspicion (Ricoeur 1970). According to Langdridge (2007) the hermeneutics of suspicion arose as a result of an argument between Gadamer and another philosopher Habermas, both of which were said to be involved in a long term debate (Moran 2000), with exchanges between them largely occurring during the late 1960's early 1970's (Scheibler 2000). As already stated Gadamer argues that it is important to get as close to the participant's experience as possible to find a mutual understanding, as, in my understanding, does the majority of phenomenological work. However, Habermas has argued that this is somewhat naïve. Moran (2000) sums up this argument when noting that

> a society which has convinced itself that the earth is flat may be a well regulated harmonious society with full agreement; unfortunately it simply does not have knowledge, a point Habermas has made forcibly against Gadamer.

As a result Ricoeur (1970) proposes a 'dialectical relationship between participating in tradition and taking a critical distance' (Langdridge 2007 p.51). Hence a relationship between the hermeneutics of empathy (as in Gadamer) and suspicion (as in Habermas).

It appears that IPA would employ this relationship suggested by Ricoeur (1970), and use the hermeneutics of empathy, true to many forms of phenomenology, to get as close to the participant's account as possible, as outlined earlier, and then move beyond this to employ critical hermeneutics (Smith 2004, IPA conference, July 5, 2007, Larkin et al 2006) . Langdridge (2007) proposes two types of hermeneutics of suspicion, depth and imaginative. Depth hermeneutics would appear to be important to IPA research as they argue that the researcher needs to 'dig beneath the surface for a deeper meaning, often, although not always, concealed from the subject who is the focus of the investigation' (Langdridge 2007 p.136). Therefore this allows the researcher to get an insight that perhaps the participant is unaware of or unwilling to see (Smith 2004), and ask questions such as,

> What is the person trying to achieve here? Is there something leaking out here that wasn't intended? Do I have the sense of something going on here that maybe the participants themselves were less aware of? (Smith and Osborn 2003 p.51).

something that IPA advocates claim this approach should do (Smith and Osborn 2003, Smith 2004).

However, Langdridge (2007) notes that with such hermeneutics the deeper meaning is determined by the analyst rather than the participant, and it is here that IPA may diverge slightly. Smith (IPA conference, July 5, 2007) proposed that the 'thing' is there, ready to shine, but detective work is needed in order for this to happen. Hence the researcher should not be over analysing and seeing things that they may want to see, but are not there, for example, IPA would not take interpretation to a level as found in psychoanalysis (Smith 2004). To overcome this possibility IPA researchers must always ensure that interpretation is grounded, and although a number of interpretative resources can be employed

and are required, the original phenomenological description is central. Also, if the researcher wishes to utilise a more theoretical position and engage with existing theoretical constructs in order to make sense of the participant's experience (Larkin et al 2006), 'this would be clearly marked by a difference in tone and as more speculative because of the distance between text and interpretation' (Smith 2004 p.46). As well as this it is argued that the participant's account would lead the researcher to draw upon this theoretical position rather than vice versa, for example, in his research on transition to motherhood, Smith (1999 p.412) argued that he had been influenced by a theoretical position, however, 'this had been derived from and grounded in, rather than predates and constrains, the body of data'.

Overall, IPA researchers must perform a difficult balancing act between the hermeneutics of empathy / recollection and those of suspicion (Larkin et al 2006), reflecting the 'distinction between phenomenology (revealing something 'as it is in itself') and interpretation which instead demands that something is (very deliberately) revealed as something else' (Larkin et al 2006 p.116), both important to IPA approach. In terms of this research being able to move beyond the participant's experience and employing the hermeneutics of suspicion to do this, gave a deeper understanding and explanation of patients' decisions regarding analgesic use after day case surgery, something that traditional phenomenology may have been unable to do.

Although IPA appears to perform this balancing act and aims to ground this further interpretation in the participant's subjective experience, it may come under criticism from other phenomenologists who would say that any use of critical hermeneutics mark a break with phenomenology which 'privileges consciousness and understanding of the lived world of the participant as experienced' (Langdridge 2007 p.136). However, it is my understanding that IPA does not claim to be purely phenomenological, but brings together a number of theoretical positions (see Smith 1996). Moving away from IPA's interpretative facet, IPA has also been subject to criticism from the phenomenological world for its apparent fascination with cognition. The

following section will now explore the connection between IPA and cognition, why this connection emerged during IPAs development within the field of health psychology, and why it has been criticised. This section will also consider what IPA means by cognition, and how this may still be compatible with its phenomenological aspect.

3.3 Cognition and Meaning Making

In order to understand why cognition has become important to IPA it is necessary to explore how IPA has developed within the field of Psychology. When IPA was first introduced in 1996 there was great debate within the field of psychology between two opposed positions; social cognition based on the traditional quantitative paradigm and those advocating qualitative research namely discourse analysis (Smith 1996).

The social cognitive paradigm is popular in the study of psychology and takes a cognitive approach in order to measure the mind and mental processes or cognitions. Throughout its history the field of psychology has been based upon the natural sciences, and social cognition is no different in its aim to quantify the human experience, reducing it to independent and dependent variables, measuring the relationship between them and aiming to make law like predictions (Langenhove 1995). Today mainstream health psychology is based upon this social cognitive paradigm and traditional quantitative research methods that dominate psychology as a whole.

An important and high profile methodology challenging the popular cognitive paradigm was that of discourse analysis offered by Potter and Wetherell (1987). Potter and Wetherell (1987) question the existence of underlying cognitions or attitudes. Instead it is suggested that what we say and do is based upon the situation we are in and the language we have at our disposal, and it is argued that we do not have a core set of beliefs, cognitions or attitudes as traditional psychology would suggest, our world is constructed through language and changes depending on the occasion. Consequently, discourse analysis takes a strong relativist position and does not go

> beyond the verbal statement to seek relationships to other behaviours or underlying cognitions…this has clear implications for health psychologist attempting, for example, to understand and predict the relationships between beliefs about health status and behavioural change' (Smith 1996 p.263).

It is here that IPA came into its own and offered a solution.

Unlike discourse analysis, IPA recognises that we have underlying mentalism or cognition that influence the way we talk about things and our behaviour, and therefore has a strong commitment to cognition as a central analytic concern (Smith and Osborn 2003). However, it also acknowledges the impact of context upon these and disagrees with traditional quantitative ways in which to study such processes (Smith 1996). Using qualitative methods IPA elicits a rich account from the participant, and can get an insight into reasons and meanings participants give for their actions and experiences neglected by quantitative approaches (Langenhove 1995). Therefore, IPA is able to 'mediate between the opposed positions of social cognition and discourse analysis' (Smith 1996 p.264). Its commitment to mentalism allows it to draw upon existing quantitative work, and provide rich micro detail underlying more macro social cognitive models and enrich areas of research which may have only been studied quantitatively. However, the 'recognition of the importance of context and language in helping to shape the participant's response means IPA can also engage in a fruitful dialogue with discourse analysis' (Smith 1996 p.264). This mediating position of IPA has ensured a place within psychology and can explain its popularity in the field.

Reflecting back to this research study, as outlined in the previous chapter, it was thought beliefs may be important to patients' decision making regarding their analgesics, and that such beliefs are not isolated but influenced by context. By acknowledging some underlying cognition that is communicated through language, along with a recognition of social and contextual influences, enabled an exploration of these beliefs and how they influence patients' analgesic use, thereby meeting two important requirements for an appropriate methodology for this research (as outlined earlier).

However, as previously suggested this commitment to mentalism has been subject to criticism from a phenomenological view point. Langdridge (2007 p.108) notes that

> a desire to focus on cognition is at odds with phenomenological philosophy and the rejection of mind-body dualism…the concern with experience comes about as a result of the focus on the intentional relationship between the noma and noesis, rather than between mental processes and behaviour.

And Willig (2001) has also noted this apparently uneasy relationship between cognition and phenomenology,

> phenomenology is concerned with knowledge that is non prepositional, in other words its objective is to capture the way in which the world presents itself to the individual in an immediate (unmediated) sense (Willig 2001 p.65).

This criticism seems to be at the centre of some debate within IPA, and appears to be something researchers using IPA are currently reflecting upon. At a recent IPA conference (July 5, 2007) Virginia Eatough, a colleague of Jonathan Smith, spoke of how the self reflecting thinking individual may in fact be compatible with phenomenology if we are to understand what IPA means by cognition. It is true that a traditional cognitive perspective sees the mind as an isolated disembodied information processing machine. However, Smith (2004) links IPA with the original conception of cognitive psychology by Bruner (1990) as a science of meaning and meaning making not information processing. It is proposed by Eatough (IPA conference, July 5, 2007) that this meaning making is an aspect of lived experience, and is so much more than in traditional cognitive psychology with its linear processes. She argues that meaning making is 'messy' and complex, and for 'IPA cognitions are not isolated and discrete functions/processes but an aspect of Being-in-the-World' (Personal Communication, 23rd April 2007). Using the hermeneutics of empathy and suspicion to carry out this meaning making, as previously suggested, IPA can capture this complexity with a 'multi layered textual understanding' enabling an understanding of how the persons perceives and feels and thinks, the actuality of being in the world.

Therefore, as previously argued, this enabled an understanding of beliefs (used for meaning making) thought to be important in decision making regarding patients' analgesic use, but also recognises that such beliefs are not isolated or disembodied (as in cognitive psychology), but emerge as a result of being in the world.

In terms of Willig's (2001) point, that phenomenology is concerned with pre-cognitive aspects of experience, from my understanding this may be true of Husserl's transcendental phenomenology, or that which aims for pure unmediated description of experience. However, as previously argued, IPA draws upon interpretative phenomenology as proposed by Heidegger, who argues that the individual is always in the world, and can not be separated from the world and therefore it is impossible to get direct unmediated access to pre-cognitive experience as pre-understandings are required to make sense of the world. Also a feature of Heidegger's being in the world includes 'the way in which we all live in time (temporality) in a verb-like way, as meaning making machines seeking to realize ourselves.' (Langdridge 2007 p.39). This appears to be similar to what IPA understands as meaning making. We experience the world and then make sense of it in terms of our pre-understandings, context, and culture in which are immersed, therefore IPA's commitment to cognition in the sense of meaning making, in my understanding, could be said to be phenomenological in the Heideggarian sense.

The following section will now go on to consider the way in which such meanings are said to come to exist focusing on symbolic interactionism and hermeneutic theory, two other theoretical influences upon IPA (Smith 1996, 2004, 2007, Smith et al 1997, Smith and Osborn 2003).

3.4 Symbolic Interactionism and Hermeneutics

In his early work Smith and colleagues (Smith 1996, Smith et al 1997, Smith and Osborn 2003) highlight the symbolic interactionism as another important

theoretical touchstone for IPA. More recently it seems that Smith has moved away from this with no mention of symbolic interactionism in his 2004 paper reflecting on IPA as an approach, and at a recent IPA conference (July 5, 2007) in which he spoke of the theoretical underpinnings of IPA. Today hermeneutic thought appears to be becoming more and more important to IPA, and it is my understanding that this is beginning to fulfil the position that symbolic interactionism once did. This development is a clear illustration of how IPA is an early approach, and its theoretical basis is growing when horizons expand through engagement with other texts. But it should not be the case that symbolic interactionism is not to be mentioned at all, as it was obviously an important influence upon IPA and at one stage, and was something that attracted me to IPA when first considering the approach back in late 2004. The following section will now explore the role of symbolic interactionism in IPA and how hermeneutic thought may be seen as an alternative more in keeping with IPA's theoretical underpinnings.

Symbolic interactionism originated from American pragmatism and the work of George Herbert Mead (1863-1931), according to Mead (1934) the individual's world is constructed through their relationship with society and socially shared linguistic symbols. Ashworth (2003 p.17) describes Mead as an early social constructionist where

> individual selves and mental processes arise in a social context, and the 'content' of 'thought' and selfhood is to be understood in light of the meanings available within the culture in which the person is immersed.

It is my interpretation that IPA took from symbolic interactionism its ability to explain how our meanings come to be constructed within a social world through socially shared symbols such as language (Smith 1996). By acknowledging how the individual's world is constructed and that these constructions influence the individual meaning making this enabled IPA, after is conception in 1996, the ability to engage with other important methodologies such as discourse analysis (Potter and Wetherell 1987) important in psychology at the time. And as previously suggested this helped IPA to achieve the position within psychology

it holds today. Like other researchers, this focus on symbolic interactionsim was something that attracted me to IPA, as I wanted to gain some understanding of the contextual factors that may have influenced patients' beliefs and decisions surrounding their use of analgesics following day case surgery.

Although it is true that symbolic interactionism takes an early constructionist position, it does not go as far as post-modern thinking. Mead suggests that once the individual has developed the capacity for mind through interaction, then they are able to develop their own individual selfhood and thought, consequently, 'people are constructed and also are constructors' (Ashworth 2003 p.17). This is something important to IPA as it is clear that with its concern with 'meaning making' the individual is said to have their own underlying meaning making processes, and therefore their worlds are not completely constructed. However, it is my understanding that symbolic interactionism still sees the self as social rather than psychological and is a stance mainly employed in sociological research.

Therefore to satisfy the need for IPA to explain how individuals' meanings arise from social interactions it may be more appropriate for IPA to draw upon the hermeneutic phenomenology of Heidegger and Gadamer. Both Heidegger and Gadamer take an existentialist position, recognising that 'human beings are embodied creatures beyond language' (Langdridge 2007 p.43). But both also argue that it is through language that we gain understanding of the world, with Gadamer in particular, noting how through conversation shared and new understanding can be achieved (Langdridge 2007). If we look at Gadamer's fusion of horizons, where the horizon of the individual changes or is adapted through its fusion with another person's horizon, this can explain how understanding is developed through language and communication. Hence for IPA this would be an alternative way to that of symbolic interactionism to explain how understanding is socially constructed whilst still placing clear emphasis on the individual meaning maker who is psychological rather than social, and who themselves are not constructed through language but pre-exists it. It is my belief that this is position that IPA theorists may be considering in

their move away from symbolic interactionism. As noted by Eatough and Smith (2006 p.118)

> in accord with hermeneutic enquiry, IPA recognises that the social worlds of individuals are shaped by social processes and cultural and living practice, but asserts that these worlds can not be reduced to them.

They also note that experience is more than a social activity, it is 'private and psychologically forceful' (Eatough and Smith 2006 p.118)

3.5 Summary of IPA's Theoretical Underpinnings

In summary, IPA can be divided into two parts that represent both the 'I' and the 'P' in IPA, and it is said in order to do the 'I' one must do the 'P' (Larkin et al 2006). Therefore the first stage of IPA is representative of the 'P', aiming to be true to phenomenology in order to gain an empathetic account of the participant's experience. However, IPA acknowledges that direct unmediated access to this account is not possible (as in the philosophy of Husserl) and draws on the phenomenology of Heidegger and Gadamer recognising the limitations posed by ones being in the world. Heidegger and Gadamer both argue that one should still try to get as close to the participant's experience as possible bearing in mind such limitations, and, it is my understanding that the first stage of IPA aims to stay true to this endeavour by employing the hermeneutics of empathy to get as close to the participant's account.

The second stage of IPA then goes a step further and aims to explain, as well as describe the participant's experience, representing the 'I' in IPA. In this second stage there is more emphasis on the meaning making process, hence IPA's double hermeneutic, where the participant is making sense of their world and the researcher is making sense of the participant making sense of their world (Smith and Osborn 2003). In order to aid this sense making activity IPA can draw on the hermeneutics of suspicion, and can also use existing theoretical literature and context to provide an explanation that exceeds the participants own conceptions and terminology (Larkin et al 2006). However such accounts must ultimately be

grounded in the participant's phenomenological experience gained in the first stage of IPA (further detail regarding measures to aid credibility and rigor within this approach will be considered later in the analysis chapter 4). Finally IPA draws upon symbolic interactionism and later, in my interpretation, hermeneutic phenomenology to acknowledge how our meanings or sense making comes to exist through language within our social worlds.

IPA's theoretical underpinnings were important in relation to this research. The first stage stays close to phenomenological ideals allowing for an in-depth description of the participant's experience, and as previously suggested, this focus on the individual was important to this research as it is the participant who feels the pain and it is they who may decide whether or not to use their analgesics. Then, moving away from descriptive account and employing critical hermeneutics IPA enables this initial description to be taken further in order to provide an explanation of patients' analgesic use, with particular focus on why patients make the decisions they do regarding analgesic use. Also, recognising the role of individual beliefs or meaning making, and the chain of connection between this and language, IPA could be used to explore with the patient such beliefs and how they may exert their influence on this decision making. Finally, acknowledging that we are context bound (as in Heidegger's phenomenology), IPA allowed for an exploration of the contextual factors that may influence this meaning making, and, with symbolic interactionism or hermeneutic theory, to consider how such meanings may come to exist within a social world.

The following section will now go on to explore IPA's epistemological and ontological position and what this means for this research.

4. Epistemological and Ontological Position of IPA.

The epistemological and ontological position of IPA has not always been clear, Larkin et al (2006) argues that it would indeed be the safer option for some researchers to go with a qualitative method that offers greater epistemological certainty, however, by providing a core set of ideas along with epistemological flexibility has resulted in IPA developing through practice (Larkin et al 2006),

akin to other qualitative approaches that 'evolve over time and modify their epistemological assumptions accordingly' (Willig 2001 p.149). The following section aims to piece together the position IPA should take given its theoretical underpinnings that have evolved during its development, and discuss what this means in terms of this research.

As outlined in this chapter IPA is an interpretative approach where a double hermeneutic is employed; the participant is interpreting and making sense of their world and the researcher aims to make sense of the participant making sense of their world (Smith and Osborn 2003). In order to interpret or make sense of these experiences it is argued that both the researcher, and participant, will draw upon pre understandings or prestuctures held at that time within that context (Smith and Osborn 2003). Hence each person will make sense of the experience differently depending on the context they are in, and their own personal previous experiences. Therefore IPA takes a contextualist epistemological position (Willig 2001, Larkin et al 2006) which argues that each person has their own individual reality. Consequently, there is not one reality which we can discover through the correct methodology as in a realist perspective used in mainstream psychology, but multiple realities exist, and as a result, `all knowledge is local, provisional and situation dependent' (Madill et al 2000 p.9). However, although IPA recognises the contextual influence upon knowledge, it does not go as far as relativism which questions reality itself. IPA is said to take the ontological position of Heidegger termed 'minimal hermeneutic realism' (Larkin et al 2006). This position argues that 'what is real is not dependent on us, but the exact meaning of reality is.' Therefore the world exists regardless of us, but things are only revealed when they are encountered and interpreted by us, consequently context will influence the meaning we give.

In terms of this contextualist position and the application of findings to a clinical setting, important to this research, the findings can easily be applied to the context in which the research was undertaken. According to Smith et al (1997), even a single case can lead to reflection on current practice. With regard to generalising beyond the specific context of this research, it is argued that IPA can

make these over time through different studies with different participants, researchers and settings (Chapman and Smith 2002). However, within this position is it acknowledged that a 'truth' will never be found as this does not exist, and knowledge will always be changing, plural and incomplete (Geanellos 1998b, 2000), dependent on the individual researcher and context in which they are immersed. Hence the findings of this research, should be viewed as the best understanding of patients' analgesic use following day case surgery produced so far (Laverty 2003), where a place of sensible meaning, free from contradictions has been obtained, for the moment (Kvale 1996).

5. Chapter Summary

This chapter has provided the reader with an understanding of four requirements of a methodology felt to be central to meeting the aims of this research, and how IPA successfully met these requirements. IPA, among other things, is able to provide an in depth phenomenological insight into the individuals experience, particularly important when studying the subjective experience of pain. Taking a middle ground between social cognition and discourse analysis, it is able to explore cognitive constructs (or messy meaning making processes) such as beliefs, said to be important to patient decision making regarding medicines, along with acknowledging the contextual influences upon such beliefs. As well as this IPA can take this understanding further to provide an explanatory account as to how such factors may influence analgesic use, and finally, findings can be applied to practice, to make a difference.

It is also anticipated that from much critical exploration and piecing together that the theoretical underpinnings and epistemological position of IPA have not only been explained, but advanced in light of the latest developments in the field and my own understandings. And also that such a consideration goes some way to answer disapproval in terms of IPA's cognitive commitment, as well as helping to overcome much criticism that IPA is merely a thematic approach with no theoretical grounding, illustrating further how this methodology was most suited to meet the aims of this research. The following chapter will now consider how IPA was applied in practice in order to explore patients' use of analgesics

following day case surgery.

Chapter 3

Methods

1. Chapter Outline

Over the years since its conception Smith and colleagues have produced detailed practical guidelines in order to aid the undertaking of studies employing IPA (Smith and Osborn 2003 and Smith et al 1999). Such guidelines have increased IPA's accessibility due to their apparent ease of use, and as a result this appears to have contributed to the rapid growth and popularity of this approach within the field of health psychology. This chapter will explore in detail how these guidelines have been put into practice to undertake this research, from design, ethical review and deciding on a sample, to constructing the interview schedule and carrying out interviews with patients. In terms of analysis of the data collected, although first order empathetic analysis, the 'P' in IPA, are explained by these guidelines, guidelines for the second order analysis, the interpretative component, or the 'I' in IPA, are somewhat lacking. This may explain why many studies have not taken their analysis beyond description, something that IPA has been criticised for (Larkin et al 2006). In an attempt to overcome such criticism I have examined in depth how I employed IPA to analyse the data from this study, and particularly how I used it to undertake a second order interpretative analysis. However, this was quite a lengthy process, and as a result the analysis of data will not be considered in this chapter, but chapter 4 to follow will be dedicated solely to this purpose.

2. A Note on Reflexivity

Before starting to discuss the undertaking of this research, I thought it would be appropriate to begin by briefly considering the issue of reflexivity. It is recognised within qualitative research that the researcher is not objective and able to stand back from the research setting, but plays a role in the co-production of knowledge between the researcher and the participant. Researchers 'are themselves participants in the inquiry with their own identities and personal stance; they do not merely retell the experience, feelings and behaviours of those whom they study' (Holloway 2005 p.279). Therefore, the choices the researcher makes in terms of research design e.g.

the questions they ask, and the intersubjectivity between the researcher and participant are important and will inevitably affect the outcome of research.

Reflexivity refers to the examination of the effect of the researcher within the research process. Reflexivity is important within qualitative research as it enables transparency, so the reader can understand the position of the researcher and the impact of this upon the study, increasing the credibility of research. However, according to Langdridge (2007) reflexivity is rarely taken seriously within qualitative studies. Similarly, IPA research has previously been criticised for not theorising reflexivity

> IPA recognizes the importance of the researcher's perspective but it does not actually tell us how to incorporate this insight into the research process and it does not show us how exactly the researchers own conceptions are implicated (Willig 2001 p.67).

Therefore this chapter aims to illustrate clearly and openly the way in which this study was undertaken, with particular attention being paid to the co-production of knowledge, and the impact of myself, the researcher, and the questions I ask upon the knowledge obtained (particularly during the interview stage). Where appropriate this chapter will also consider the input of the steering group for this research (see page 9 for group membership), who met regularly throughout the data collection process, and were particularly fundamental to the recruitment strategy and gaining access to a suitable patient population.

3. Overview of the Research Design

Although this research can, and should, be viewed as an ongoing exploratory process, it is able to be divided into two stages loosely based on Smith et al (1999) two separate approaches to IPA. The first stage employed an approach to IPA used with a larger sample of participants in order to explore shared themes, and is said to be particularly useful for 'evolving explanations from the data' (Fade 2004 p.650). This entailed the undertaking of semi-structured telephone interviews with twenty-one day case patients aiming to understand their use of analgesics following day case

surgery, and was chosen as there was little understanding in the area and an explanation of patients' use of analgesics was required. A number broad themes emerged from these interviews giving an insight into this area. A second stage of data collection was then undertaken based on IPA's idiographic case-study approach with a smaller sample of seven participants. This enabled the research to take the initial understanding to another level using a focused lens providing greater depth and detail.

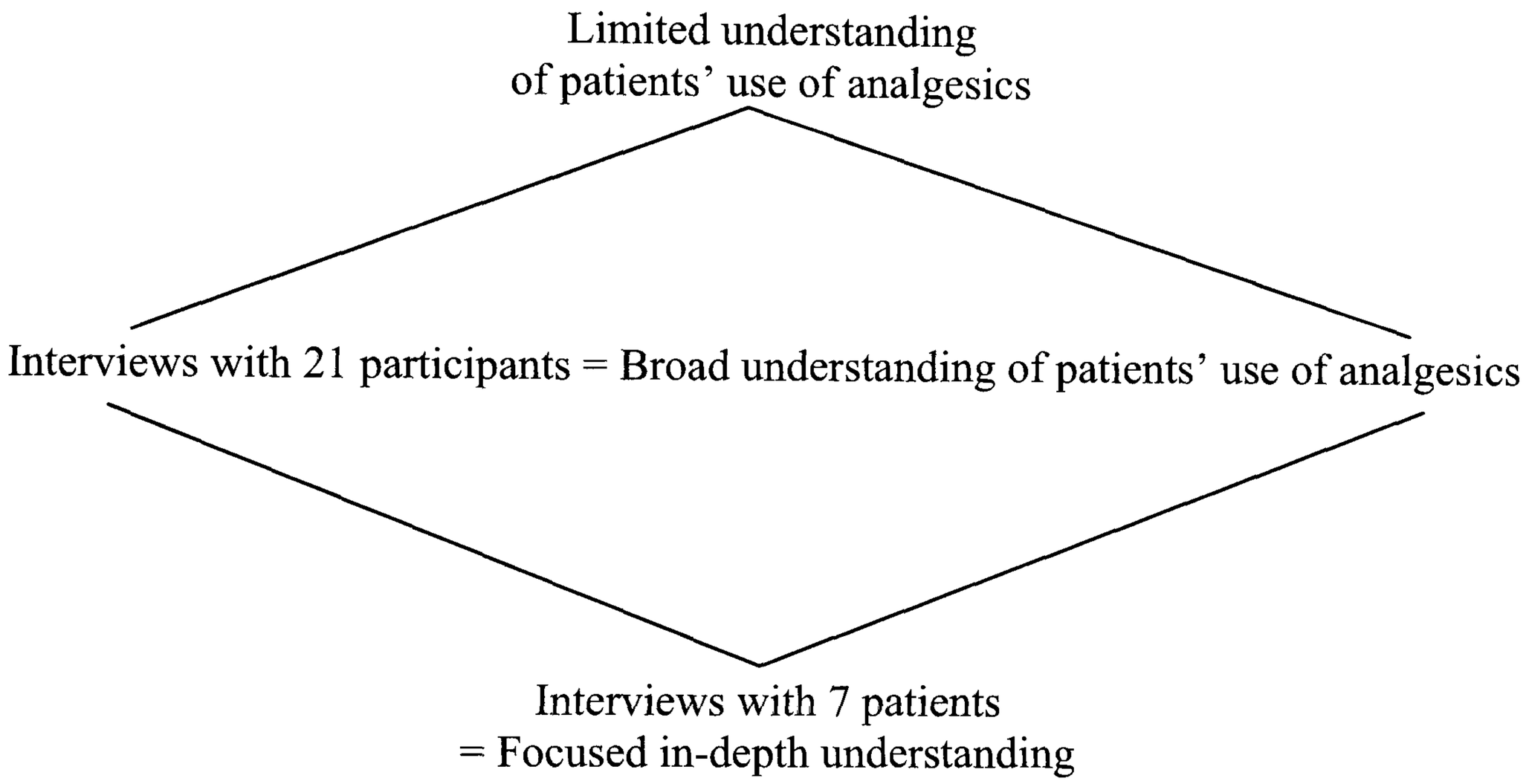


Figure 1: Study Design

Carrying out research based on both approaches to IPA has not been previously undertaken, however, it was required in this study as the first set of interviews provided a broad understanding and explanation of patients' analgesic use, and further detail and depth into some of these initial themes was then felt needed. One important initial concern when doing this was how far using a second set of interviews based on the first would move away from the inductive commitment of IPA, which aims to avoid the testing of a predetermined theory or hypothesis (Smith and Osborn 2003). A concern also considered in the earlier background chapter where a complete all inclusive literature review was not undertaken, as the aim was to use a exploratory qualitative approach starting with the patient, building from

bottom up (see page 39).

That said, a number of IPA studies have been carried out 'often designed on the basis of theory or existing writings' (Brocki and Weadern 2006 p.91). Brocki and Wearden (2006) highlight work by researchers such as Swift et al (2002), Flowers et al (2000), Michie et al (2004), Turner and Coyle (2000), Turner et al (2002) who all based their IPA study on previous theory or research. According to Brocki and Wearden (2006 p.91) 'there is little reason as to why either an inductive approach or otherwise, is incompatible with the use of IPA', and that, it is not the case that using a pre-existing framework 'is prohibited by the desire of IPA advocates to maintain flexibility and avoid coming to the analysis with preconceived ideas' (Brocki and Wearden 2006 p.92). Hence earlier work has indicated that it is not out of the question to undertake IPA research based on a previous understanding or even a theoretical framework, therefore carrying out a second stage of interviews based upon the first was not problematic in terms of IPA ideals.

I also discussed this issue with Professor Jonathan Smith in terms of the implications for IPA (personal communication, 6th September 2006). He argued that it is quite possible and feasible to interview further participants in light of initial analysis, and it is up to the researcher where they enter the hermeneutic circle. The hermeneutic circle (Gadamer 1960/1997) argues that understanding is circular, for example as outlined in the earlier chapter, we start with one understanding (based on pre-understandings) which is then adapted and changed in light of new information (which is given priority), then this understanding may be changed in light of more information and so on. Hence, what Smith (personal communication, 6th September 2006) suggests it is possible to enter anywhere in this circle, which in this case is when a previous understanding has been gained from earlier interviews, which is then adapted and change in light of new interviews etc... (The hermeneutic circle and how understandings were adapted and changed will be discussed again in detail in the following 'analysis' chapter). Furthermore if this research is re-conceptualised as an on-going process of exploration rather than two stages, similar to the hermeneutic circle, it begins to fit within IPA's inductive ideal. After all the second

interview was constructed from, and embedded in, the first and ultimately grounded in the original participants' experiences, and therefore ultimately 'bottom up' not hypothesis driven.

4. Ethical Considerations

The study was given a favourable review by a Local Research Ethics Committee (LREC) on behalf of the National Health Service who ensure that research is conducted to high ethical standards (see Appendix IV for letter confirming favourable ethical opinion), and was also carried out adhering at all times to the ethical guidelines published by the British Psychological Society (2006). Consequently all participants were fully informed of the study using a standard format for producing participant information required by LREC (see Appendix V for a copy of participant information pack) and written consent was given by all participants (see Appendix VI for copy of consent form). Data was kept anonymous by allocating patients with pseudonyms, with any identifiable information such as names and telephone numbers locked away during the study and then destroyed when no longer required. Also in accordance with Bournemouth Universities Code of Practice, Research Governance and Ethics in Postgraduate Research, data will be stored securely for five years, at the end of which all records will be disposed of, including interview tapes and transcripts, consent forms and applications for ethical review.

It is widely documented that undergoing surgery can be a traumatic period for patients who are at this time are feeling highly anxious and vulnerable (Mitchell 2004b refers to four decades of research highlighting the preoperative anxiety patients feel), hence care should be taken at all times to be sensitive to patients' needs. One particular ethical consideration related to this involved the timing of recruitment, as due to the fast moving nature of day case surgery opportunity to provide patients with information and invite them to participate in the study at a non emotionally charged moment was limited.

After much discussion with the steering group (which included two senior nurses

working in the day case unit), it was decided that the only opportunity for contact with the patient to invite them to participate was when they arrive at the day case unit for their preoperative assessment appointment (where the patient is assessed as to their suitability for day surgery). Although the pre-assessment appointment occurs a number of weeks prior to surgery, this is still an emotional time as often patients have only just discovered surgery is required, and have been sent directly to the day case unit for their appointment following a consultation in the same hospital that day (the following section will discuss the patients' journey in greater depth). Consequently, an information pack detailing the study (see Appendix V) was provided to the patient on checking in for their pre-assessment appointment which they could read whilst they waited. A letter was also included stating that if they were interested in taking part in the study then to leave their telephone number with the pre-assessment nurse and I, the researcher, would call them back at a more appropriate time to discuss the study further. This provided the patient with the opportunity to reflect on whether they wanted to take part in the research outside of the stressful situation, and discuss the study with family and friends. A contact telephone number was also available so the patient could take it away and decide at a later time if they were interested in participating.

Following on from this, a second ethical consideration was finding an appropriate time in which to see the patient face to face in order to gain written consent to participate. After discussing with the steering group the only opportunity to gain consent was when the patient arrived at the day case unit for their surgical procedure. Again this was inevitably an anxious period and care was taken at all times to be sensitive to the patients' needs. Firstly, from our previous discussion on the telephone, the patient knew that I would be there to enable them to sign a consent form and so this came as no surprise. Secondly, I ensured that patients had been seen by the nurse and were settled in their beds before approaching them, and finally I checked again with the patient that they were happy for me to be there before discussing the study, answering questions and asking them to sign a consent form.

Other ethical issues considered before the start of data collection surround the

concern that in some instances reliving adverse experiences may be distressing. To minimise this the phrasing of questions were carefully considered (see Appendix VII for interview schedules used), and after the interview I endeavoured to leave the patient in a positive frame of mind by asking them to suggest ways in which care could be improved on in the future. All patients seemed happy to talk about their experiences and none became distressed when re-living them. If this had occurred, or at anytime the patient highlighted a medical problem or appeared to be in pain then the offer to stop the interview would have been made. This was not necessary, however, despite informing participants that I was a PhD student with a psychology background, on a few occasions some participants asked me quite personal medical questions regarding their recovery. To overcome this I informed them that I was not medically qualified and that if they had any concerns that they should contact their General Practitioner or call the day surgery unit. Although at the time this put me in a difficult situation, on reflection it illustrated that a comfortable and open environment had been created during the interview where patients felt free to voice their concerns.

5. *Participants and Recruitment*

The aim of this research was to explore patients' use of analgesics following day case surgery so, following successful Research Ethics Committee review, participants were recruited from a local day case unit (where the steering group for the research were based), which is part of a large district hospital on the south coast carrying out 400 operations per month. After discussion with the steering group it was decided that participants would to be invited to take part in the research if they were to undergo the following day surgery operations; Orthopaedic (removal of metal work), laparoscopic intervention/diagnostic (gynaecological), cholecystectomy, and hernia repair. These surgical procedures were selected as they are often undertaken at the day surgery unit where this research was carried out, have been associated with moderate to severe pain after surgery (Callesan et al 1999, Burumdayal and MacGowan-Palmer 2002, Cox and O'Connell 2003, Coll and Ameen 2006), and for which the use of a multimodal analgesic regime is deemed appropriate.

'There are no right answers as to the question of sample size' surrounding the number of participants to be recruited to a study employing IPA' (Smith and Osborn 2003 p.54), with the average number of participants in previous IPA research being 15, ranging from 1-42 (Reid et al 2005). As outlined earlier this research was carried out in two stages, the first was used to understand shared experiences and produce a broad explanatory account surrounding patients' decisions regarding the use of their analgesics, and a larger sample (for qualitative research) is usually required for this (Smith et al 1999). Hence a larger sample of twenty one patients participated in line with other research also exploring decision making using a similar number. For example, Flowers et al (1999) used a sample of 20 to explore gay men's sexual decision making, Smith (2002) used a sample of 17 to look at genetic counselling decision making, and Touroni and Coyle (2002) used 18 participants to explore lesbian parents' decision making. For the second stage, where an idiographic understanding was required, a smaller sample of seven participants was recruited to gain depth as opposed to breadth.

Working closely with a steering group, particularly with two senior day surgery nurses, was extremely useful in order to gain access to suitable patients for this research. They introduced me to members of staff on the day case surgery unit, and provided opportunity to discuss the study with these members of staff and how they may be involved in the recruitment of patients. In terms of recruitment strategy, during steering group meetings the patient journey from initial referral to their actual operation was considered. Following this journey was critical in order to determine when the recruitment of participants should take place and to inform decisions regarding participation and consent, along with any ethical considerations surrounding approaching patients and interviewing them at this difficult time (see earlier section). In the majority of cases the patient will come to the hospital stemming from a GP referral for an outpatient appointment with a consultant. If it is recommended that they undergo day case surgery the patient is asked to make their way along to the day case unit where they wait for a pre-assessment appointment. During the pre-assessment appointment the patient's weight, height and blood

pressure is measured and the nurse spends some time discussing the operation, what to expect, and also suggests that they have some paracetamol at home to use to control pain after their operation. The nurse then arranges a suitable time for the surgical procedure to take place within the following three weeks to three months depending on urgency.

Due to the small window of opportunity for recruitment inherent in day case surgery where patient contact is limited (see patient journey above), the chance to invite suitable patients to participate occurred only when they arrived for their pre-assessment appointment. Hence an information pack (see Appendix V) was provided to patients (who were having one of the operations highlighted on page 76) when they attended for their appointment which they could read whilst waiting their turn. If the patient was interested in taking part the pack advised them to leave their name and telephone number with the pre-assessment nurse, and I would telephone them at a later pre-arranged time in order to discuss the study further. If the patient agreed to participate (when later telephoning), then I asked them when their surgery was scheduled and met them at the day case unit when they arrived at this time. On meeting the patient I answered any questions they had, asked them to complete a consent form (see Appendix VI), and agreed a convenient time on the fourth postoperative day for the telephone interview to take place (a reminder letter was given to the participant to confirm this, see Appendix VIII). All patients who met the recruitment criteria who left their contact details with the pre-assessment nurse agreed to participate, approximately five patients fitting the recruitment criteria did not leave their contact details during their pre-assessment appointment.

Details of the twenty-one participants recruited in the first stage, and seven recruited in the second stage can be found in Appendix IX. The majority of these patients were provided with six 10 mg vials of oral morphine and nine 400mg tablets of ibuprofen to take home on discharge, and were expected to have paracetamol at home as advised during the earlier pre-assessment appointment. All were given an information sheet detailing how they should use their analgesics in order to manage their pain once home (see Appendix III). However, different from anticipated, two

patients had an overnight hospital stay (due to complications), three were not provided with oral morphine to take home (due to a negative reaction or preference), and three patients had both an overnight hospital stay (in one case 3 nights) and did not receive oral morphine to take home. This information was not available until the participant informed me when I telephoned them to carry out their interview four days after their surgery. However, despite not fully meeting the recruitment criteria, which was to recruit patients who had day case surgery e.g. returning home on the same day, and had received a multimodal analgesic regime (as recommend), all of these patients were still keen to take part. These patients' interviews proved very valuable not only giving a realistic understanding of patients' experiences of day case surgery at this time in this unit. But also illustrate how no matter how much planning and streamlining, day case surgery is not as straightforward as anticipated or desired, and there appears to be no such thing as a 'typical' day case patient.

6. Data collection

6.1 Telephone Interviewing

Telephone interviews were used in order to explore patients' experiences surrounding their use of analgesics after day surgery. Telephone interviews are increasingly being employed in qualitative research and are argued to be an equally valuable method of data collection as the face to face interview, with Sweet (2002), having difficulty distinguishing telephone interviews from face to face interviews based on written transcripts. Previous research has successfully employed the telephone interview to gain an understanding of patients' experiences surrounding pain following in-patient surgery (Carr 1999, Carr and Worth 2001). Carr (1999 p.197) concludes that the telephone interview 'as a method of collecting data regarding the experiences of patients suffering pain surpassed expectations eliciting a richness and depth not achieved with face to face semi-structured interviews'. In terms of compatibility with interpretative phenomenology, Sweet (2002) successfully used the telephone interview within this methodological position. They have also been successfully employed in previous IPA research carried out by Turner et al (2002), and are currently being used in IPA research aiming understand parental loss and intellectual disability by Reilly at the university of Wales.

One important reason telephone interviews were chosen over face to face interviews in this study was for practical purposes, for example, in the past when investigating postoperative recovery the researcher would visit surgical wards and recruit and interview patients there, however, the 'traditional researcher friendly post-operative period of inpatient recovery and convalescence, once extremely conductive to adequate data collection, is fast disappearing' (Mitchell 2004b p.70). With the rise of day surgery patients are in and out of hospital in one afternoon, so talking to participant on the telephone when they return home is a useful way of overcoming the time constraints for data collection within this arena. As well as this telephone interviews may also be considered more ethically considerate in this area, as by talking on the telephone the researcher reduces the impact upon the participant's privacy when they are recovering at home from their surgery, Sweet (2002) also notes how she found the telephone interview less intrusive.

Telephone interviews also allow for a level of anonymity (Carr and Worth 2001), the patient is distanced from care and are therefore said to be less concerned with how what they say may influence their treatment (Carr 1999), and there is also said to be a lower tendency for participants to give a socially desirable response (Robson 1993). This was important for this study as previous research has illustrated how self reports of levels of medication use are often exaggerated by patients wanting to exhibit socially desirable behaviour (see Horne 2005). Hence giving distance, and a level of anonymity, patients were less likely to give a socially desirable response, and were encouraged and enabled to talk openly and honestly about their analgesic use.

It is recognised that one possible limitation of the telephone interview is that the researcher is unable to 'tend reflexively to their own and participants' bodies' (Langdridge 2007 p.70) during the interview, by analysing the movements or non verbal communication of the participant, themselves as the researcher, and the bodily intersubjectivity between both the participant and researcher. However, when using the telephone I feel that you can still be in-tune with some of these signals, I found

that particularly the tone of the participant's voice and the way in which they spoke gave a strong sense of what the participant's bodily demeanour would be like. Meeting the participant face to face previous to the interview also aided this visualisation. Carr and Worth (2001) also note how not seeing the participant during the interview can at times be of benefit as the researcher is not compelled to prompt as readily as in a face to face interview from non verbal cues, with pauses during the telephone interview often allowing participants to talk further without being stopped to soon.

Related to this, based on the work of Heidegger (1927/1962), Langdridge (2007) suggests that although 'the corporal thing stops (our physical being) and is bounded by the skin, our sense of embodied selfhood may extend beyond this 'bodily limit' (Langdridge 2007 p.71). Langdridge (2007) draws on an example given by Heidegger of a person pointing, although the finger tip signals the end of the body our bodiliness does not stop here, but extends beyond the finger to capture the object in our sights. Langdridge (2007), referring to on-line research (but this could also be applied to the telephone), argues that this could 'provide a possible answer for the absence of the (corporal) body', where the interview encompasses

> the immediacy of communication, a sense of shared accomplishment, as the researcher and the researched work together to create a sense of embodied meaning within the constraints of the on-line research setting (Langdridge 2007p.71).

Hence the researcher does not need to be physically there to gain sense of shared embodied meaning.

6.2 Timing of the Interview

Interviews were carried out four days postoperatively. This time scale was chosen for a number of reasons, firstly, pain after surgery is said to continue for a number of days however, the majority of research looking at recovery after day surgery has been criticised for not moving beyond the first 24 hours postoperatively (Carr 2000, Watt-Watson et al 2004). Interviewing patients at four days would therefore overcome this and provide further insight into the patient experience beyond this time. Secondly, we wanted to allow patients enough time and opportunity to utilise

their analgesics and become familiar with them before the interview. Day four was a good time for this as if the patient used the maximum dosage of oral morphine they would have taken all of that provided by the end of day three. Also, while other phenomenological research aims to interview participants directly after their experience to understand un-conceptualised pre-structures (van Manen 1990), with regard to IPA methodologically it made sense to interview patients at a later time. They have had the experience with their analgesics and have had time to reflect on this experience, enabling an investigation into how patients' conceptualise their analgesic use.

Finally, on a practical note, it was useful to carry out the interview at this time as the majority of patients were still be at home recovering and available to take part, not yet back at work. Also, memory for pain at four days was not problematic, with research suggesting that patients can accurately recall the severity of acute pain for some time after the event (Singer et al 2001 and Gedney and Logan 2004). As well as this patients were still be able to recall the analgesics they had used given the short time scales, and knowledge of the number of analgesics provided in the first instance e.g. six vials of oral morphine.

6.3 Developing the Interview Schedule

Semi-structured interviews are generally viewed as the best way to collect data when employing IPA (Smith and Osborn 2003). Here the researcher puts together an interview guide comprising of open questions providing areas to focus discussion around in order to answer the research question, and 'explore flexibly and in detail an area of concern' (Smith and Osborn 2003 p.53). Providing non-directive and open questions allows the participant the freedom to give a full account and take the interview in a different direction, where it is hoped, that exciting and new avenues of exploration will open up. The interview should not be used to test a pre-determined hypothesis, but should be empathetic, enabling an inductive bottom-up approach ideal for an exploratory study such as this, where little previous understanding exists.

In the first stage of interviews the interview guide was kept simple with two general

questions to ask participants in order to answer the aim of this research, which was to explore patients' use of analgesics following day case surgery, and the influence of decision making and beliefs upon this analgesic use. The first question was 'please could you tell me about any pain or discomfort you have experienced since you left hospital'. This question was asked as, as argued in the background chapter, pain is multidimensional with each individual having a different pain experience despite similar surgery, hence it was important to explore patients' experience of pain in order to gain an understanding of the relationship between pain and analgesic use, and if indeed patients were avoiding analgesics when they should be using them. This general question was in many cases enough to start the participant talking about the subject, however, if the participant experiences difficulty it is important to prepare prompt questions, these 'more specific level questions are there to deal with more difficult cases where the respondent is more hesitant' (Smith and Osborn 2003 p.60). Prompt questions included the following; 'can you describe any pain you had', 'what was it like', 'has pain interfered with any activities' and were employed to enable patients to further describe their pain.

The second general question asked was 'can you tell me about your experience with the painkillers the hospital suggested you take'. When asking this question patients began to talk about their experience of using, or not using, the analgesics and the choices they made surrounding them, including any beliefs they held that influenced these choices. Hence I soon began to get an insight into patient decision making regarding analgesic use and the beliefs that may be important to this decision making, something that I was keen to focus on after undertaking an initial review of the literature and was an important aim of this research (see chapter 2). Prompt questions included 'which painkillers did you take', 'how did you get on with them', 'how did you feel about taking them', 'can you give me your thoughts surrounding the painkillers provided', 'when did you take them', and were again used if patients had difficulty describing their analgesic use. Looking for opportunities to improve practice the steering group wanted to learn more regarding how patients' felt about the information surrounding pain management provided by the hospital, so participants were asked for their thoughts on this. Although this appeared to be

unimportant in terms of previous research (outlined in the earlier background chapter 1), that has shown information to have little bearing upon medication adherence, in hindsight this was a very useful question and actually led to recommendations for improvement, to be discussed in the concluding chapters.

Many studies have successfully used self-report to gain an understanding of medication use (Myers and Midence 1998, Horne 2004). The practicalities of simply asking patients what medication they have used far outweigh other measures such as electronic medication event monitoring machines, or pill counts which are complex and not always accurate e.g. just because pills are missing or a medicine bottle lid has been removed does not necessarily mean the contents have been consumed (Myers and Midence 1998). However, it is also acknowledged that in some cases patients have been found to overstate their use of medicines (Myers and Midence 1998, Horne and Weinman 1999), particularly when they want to please the researcher or feel that non adherence will result in disproval (Horne and Weinman 1999). In order to keep this at a minimum it is important to remove social pressure and probe in a non-threatening way (Horne and Weinman 1999). Hence I made it clear to participants that I was a researcher from Bournemouth University and that what they reported to me would in no way influence the standard of care they received. By distancing myself from the hospital and those staff who cared for them, and by asking participants about their painkillers in a laid back way e.g. how did you get on with your painkillers, which ones did you use, I hope that participants did not feel any pressure to provide the 'right' answers. Also, the distance provided by the telephone, as mentioned earlier, proved a useful aid in this situation.

With the second stage of data collection greater depth was required so focus moved to exploring in greater detail some of the issues that arose from the first set of interviews, for example, I wanted to gain further insight into some of the beliefs patients held that influenced their decision making regarding analgesics found to be important in the first stage. Hence a second interview schedule was designed based on the findings and grounded in the ideas illuminated during the first stage of data collection. However, as previously mentioned there was concern with moving away

from the inductive commitment of IPA, where the aim is to avoid the testing of a predetermined theory or hypothesis (Smith and Osborn 2003). I was very aware of this when designing the interview schedule, I didn't want it to become a checklist in order to support any pre-determined views as the aim at this stage was to get as close to the participant's phenomenological experience as possible. I tried to avoid this by using a funnelling technique noted by Smith and Osborn (2003). I began the schedule by asking quite open questions such as patients' thoughts on their analgesics and pain. If they touched upon any issues important to the first stage of interviews I asked them to elaborate further e.g. why they feel that way, and where they feel such beliefs stem from etc… and importantly, if I became aware of things that were not picked up on in the first phase or were contradictory I asked for more detail.

Later in the interview any issues that were not covered, but appeared to be important to the stage one interviews, I asked the participants about. For example, I would say… 'other participants have said 'x' how do you feel about this'. However, at this stage I was continuously aware that I didn't want the participant to think about how others would feel and why they would say 'x', but to reflect on their own experiences. Only on a couple of occasions did participants seem to talk about why others may do something, and it was quite clear when this occurred. Other questions surrounding pain experiences that featured in phase one were not included in the phase two interviews as the focus was more upon the beliefs held by patients that appeared to be important to their analgesic use, of course pain was discussed, but only in its relationship to analgesic use e.g. 'I didn't have any pain so didn't take painkillers', rather than asking them to specifically describe their pain following surgery. Prior to interviewing this interview schedule, like the first, was discussed with the steering group and piloted. See Appendix VII for a copy of the interview schedules.

6.4 Reflecting on the Interview and Intersubjectivity

'IPA researchers are aware that interviews are not 'neutral' means of data collection' (Reid et al 2005 p.22),'any discoveries that we make are necessarily a function of the

relationship that pertains between the researcher and subject matter' (Larkin 2006 p.107). Hence it is important to discuss the relationship between myself as the researcher, and the participant. I met all participants prior to their interviews, so they knew who I was, therefore, they knew I was a student from Bournemouth University, with a background in psychology and could see I was in my mid twenties, female and perhaps slightly unconfident, particularly in the clinical setting which was something unfamiliar to me. In my opinion this may have influenced the knowledge produced in a number of ways. Firstly, because I was not a clinician or responsible for their care in any way then this may have helped them talk openly with me, and I tried to keep things as informal as possible to aid this. I was younger than the majority of patients which I felt gave a good balance of power, also, I was genuinely interested in what they had to say regarding their experience, putting the participant in a position of authority; they had this knowledge, and I didn't. Again both of these factors may have helped the participant to speak openly. Meeting the participant previous to the telephone interview was also useful because it allowed me to get to know them. Building rapport with the participant prior to and during the interview is important to IPA (Smith and Osborn 2003), and when using the telephone interview (Sweet 2002), as it enables a relaxed atmosphere in which the participant is willing to talk, allowing for an 'in-depth and personal discussion' (Reid et al 2006 p.22)

The first stage of IPA aims to provide an empathetic description of the participant's experience using the hermeneutics of recollection (see earlier methodology chapter page 54, also I will come back to this in the next chapter), the 'P' in IPA. Therefore it is my understanding that it is important to get as close to the participant's experience during the interview in order to aid this. Consequently I tried to approach each interview from an empathetic and somewhat passive standpoint, trying not to let any pre-understanding I had gleaned along the way to have an impact. This was particularly easy during the first stage as I had little understanding at this time and tended to prompt all areas. For the second stage of data collection, as previously outlined, I started with general open questions and if the participant touched upon an interesting area (from the first stage) I asked for further elaboration on these. Also,

as previously suggested, I wasn't trying to confirm my previous findings but explore them in further depth. Importantly, if something new emerged or something that contradicted what I had thought, I would also hold onto this and try to explore it further with participants and change and adapt my understandings along the way, moving around the hermeneutic circle. However, it is acknowledged that the researcher cannot be completely passive and they are important to the co-production of knowledge, but, the aim at this stage was to still to get as close to the participant's experience as possible given the epistemological constraints inherent in IPA's contextualist position, and I feel these interviews successfully achieved this. As argued by a paper on IPA by Larkin et al (2006 p.108),

> we can never fully escape the preconceptions that our world brings with it. But this should not discourage us from making an attempt. If the empathetic treatment of our subject-matter is central to our approach…and we are prepared to adjust our ideas and assumptions in response to the promptings of that subject matter.

7. Chapter Summary

Overall this chapter details the way in which IPA was applied in order to explore patients' use of analgesics following day case surgery, starting with a larger sample of participants to produce a broad explanatory account, followed by a second stage of in-depth interviews with a smaller number of seven patients; a design that had not previously been employed by IPA research. Detail surrounding how this design was put into practice then followed, outlining ethical considerations, participant selection and recruitment, and the use of semi-structured telephone interviews. Some time was also spend discussing the questions to be asked during the interview, and the potential impact of pre-understandings, particularly when interviewing a second set of participants employing questions derived from the first, along with how, despite constraints inherent in IPA contextualist position, this impact was reduced allowing the participant's phenomenological account to have priority and every opportunity to emerge. This chapter also aimed to be reflexive by openly considering the design process and the role played by myself, the researcher, and the steering group in the undertaking of this research, aiding its transparency and credibility, and overcoming criticism of previous IPA research which has failed to be reflexive.

The next chapter will now explore in-depth how IPA was used to analyse interviews in this research, and will also provide further detail surrounding issues of transparency and credibility within the epistemological position taken by IPA.

Chapter 4

Using IPA for Analysis

1. Chapter Outline

Guidelines have been produced to illustrate how to employ IPA and the way in which data can be analysed using this approach (Smith et al 1999 and Smith and Osborn 2003). These guidelines have been helpful to the design and undertaking of this research (see previous chapter), however, in terms of analysis, whilst such guidelines are valuable in relation to managing, coding and organising data they appeared to be less adequate, particularly when putting some of the more theoretical aspects of IPA into practice, or undertaking a second order interpretative analysis. Hence IPA has been labelled as merely a thematic and simplistic approach, and research employing this method has been criticised for failing to fully engage in IPA's interpretative element (Brocki and Wearden 2006, Larkin et al 2006). In order to overcome this, in this chapter I draw upon IPA's theoretical underpinnings (as outlined in the earlier methodology chapter 2) and show how I have integrated them with the existing guidelines to successfully undertake an analysis that moves beyond first order description to interpretation, and engages with IPA's theoretical position.

For example, as outlined in the earlier methodology chapter, IPA has been linked to the interpretative phenomenological philosophy of Heidegger (1927/1962) (Larkin et al 2006), who argues that we are embedded in the world, and whilst it is argued that from this position it is impossible to step back from the world and set aside or bracket what we already know (called pre-understandings /preconceptions/ forestructures) to see the phenomena from a purely objective position. Such pre-understandings still need to be 'worked out' in order to avoid the researcher merely confirming their own truth when analysing data (Geanellos 1998). The analytical process of IPA however, makes no mention of what is to be done with pre-understandings and how they are to be 'worked out', a concern given IPA's relationship with Heidegger's phenomenology. Therefore this chapter begins by discussing Gadamer's (1960/1997) concept of 'fusing horizons' and the hermeneutic circle, and how I employed these ideas in order to

'work out' any pre-understandings I had in relation to this research. The chapter then goes on to provide examples of how I integrated this with IPA's practical guidelines to undertake a first order analysis of data from the first stage of interviews with twenty one patients, aiming to adapt and change my pre-understandings in order to get as close as possible to the participant's phenomenological experience.

Moving on from this, the chapter then goes on to consider the second order analysis which aims to go a step further and provide an explanatory account for this initial phenomenological description, an important feature of IPA (however it must be noted that the division between the two are not always clear and sometimes it is difficult to distinguish where description ends and interpretation and explanation begins). Here an explanation of how I personally undertook a second order analysis will be described, providing examples of how I employed the hermeneutics of suspicion and drew upon social and cultural context in particular (important to IPA see methodology chapter 2), to gain an understanding of patients' use of analgesics. Following on from this, this chapter considers the process by which identified themes were then organised and meaningfully grouped to 'produce a theoretical framework which is based upon, but which may transcend or exceed the participant's own terminology and conceptualizations' (Larkin et al 2006 p.113) providing an explanation of patients' use of analgesics following day case surgery.

The chapter will then illustrate how this process was repeated again with data obtained from seven further in-depth interviews (and adapted slightly bearing in mind IPA's idiographic approach), and provide examples of how these findings were then used to enrich, extend, and in some respects challenge, the explanation produced in the first stage. Finally, the chapter considers issues surrounding rigor, transparency, trust and credibility when employing IPA, particularly when undertaking its second order interpretative element.

2. Working out Pre-understandings

As previously suggested IPA draws upon the interpretative phenomenology

developed by Heidegger who argued that we are embedded in our world and we cannot stand back from this world to see things from a purely objective position (Larkin et al 2006). The researcher cannot remove or transcend all they know about a topic and their history in order to gain a pure understanding, hence, I cannot forget or dismiss all I know about pain and analgesics from my being in the world to see the participant's experience alone without such influences. Nevertheless, Heidegger (1927/1962) argues that we must 'work out' these pre-understandings in terms of the phenomenon we are investigating (Geanellos 1998a).

> As to not engage in the process of addressing forestructures/pre-understandings places the researcher at risk of confirming their own truth (foreknowledge, assumptions, biases and beliefs) rather than revealing the truth of the phenomenon under investigation (Geanellos 1998a p.238).

However, IPA appears to make no mention of how this theoretical position impacts the analysis of data and how the 'working out' of pre-understanding is to be actually undertaken. Which could be said to be particularly important to IPA's first order analysis aiming to get as close to the participant's phenomenological experience as possible, and is an omission that could potentially impact the credibility of this approach.

Gadamer (1960/1997) put Heidegger's philosophy into practice and proposed a way to 'work out' these pre-understandings, arguing that through a fusion of horizons a mutual account can be produced between the reader and the text (Laverty 2003, Rapport 2005, Langdride 2007, Smith 2007). As outlined in the previous methodology chapter, it is my understanding that this involves the researcher explicitly making known their pre-understandings that formulate their horizon limiting how far they can see. They then adapt and change these understandings, or their horizon, when in contact with the horizon of the text (participants' experience), in order to form a 'fusion of horizons'. Therefore the horizon of the text (participants' experience) is important and 'priority should be given to the new object rather than ones preconceptions' (Smith 2007 p.6). This fusing of horizons takes a circular motion, hence the term 'hermeneutic circle' (Gadamer 1960/1997).

In terms of this research I would make clear my pre-understandings or preconceptions and adapt and change them when reading a participant's interview transcript, which will then provide me with new pre-structures and understanding and so on. Due to this circular motion a complete understanding will never be possible, however, one must step out of this circle when one has reached a sensible place of meaning free from contradictions for that time (Kvale 1996). This hermeneutic circle may also be of relevance to the research participant. As previously suggested IPA employs a double hermeneutic where not only the researcher is trying to make sense of the participant, but the participant is also trying to make sense of their world (Smith and Osborn 2003). Therefore the participant's understanding or sense making may also develop in a circle motion as they talk about the phenomena (their experiences with analgesics) they may also make adjustment to their horizon.

3. Putting this into Practice: First Order Analysis of Stage 1 Interviews

Looking back to a reflective diary I kept surrounding the research process it appears that I can divide my pre-understandings into three elements; professional, personal history and social/cultural. I will now reflexively consider each of these before going on to demonstrate how they were adjusted and adapted through within the hermeneutic circle as I encountered the understandings of participants in this research. Firstly, professional pre-understanding involved what I knew from my psychology background and theoretical literature surrounding the use of analgesics following day case surgery. As IPA is a bottom up explanatory approach which avoids the testing of hypothesis, I aimed to avoid digging too deeply into the literature in the area, and made a conscious decision to try to avoid making sense of patients' use of analgesics after day surgery from an early stage. That said it is acknowledged that a certain amount of review is required to know that this is an area worth investigating (hence the initial literature review undertaken in the early background chapter) (Smith 2004, Brocki and Wearden 2006). Therefore, I obviously had an understanding that patients may not be using their analgesics appropriately from my reading and steering group discussions, and that this may

occur despite the experience of pain. From scoping the literature I also had an idea that this was likely to be an intentional decision made by patients on the basis of beliefs they held. That said, I had not undertaken research, or worked in the area of day case surgery previously so had few pre-understandings in this aspect.

In terms of my personal history, like all other people, I have inevitably felt pain and on such occasions am not opposed to using analgesics, but I have no personal experience with actually undergoing surgery myself and therefore have few pre-understandings surrounding what it is feels like to be admitted to the day case unit, have an operation and recover at home. On the other hand I have had close relatives undergo surgery, and also spent some time in the day case unit where this research was carried out, so have some pre-understanding of what it may be like for the patient and can empathise with them to a certain degree.

Finally, being part of the world, I am inevitably going to have pre-understandings stemming from the culture within which I am immersed. One pre-understanding I believe I held prior to the undertaking of this research surrounded the addictive nature of analgesics, particularly morphine (prescribed to patients following day case surgery). Looking at the wider social context it is clear where such views may have arisen. For example, in the western world the media is said to play a role in the cultural and social values we hold, and with regard to medicines, Morgan and Horne (2005 p.45) argue that the

> mass media thus both creates and conveys images of pharmaceuticals that may shape lay views and provide a critical 'frame' within which medicine itself and health risks are interpreted and understood.

Looking at pain medication in particular, opioids have had a host of negative publicity, especially surrounding their addictive properties and potential for overdose. Carr (1997 p.414) notes that 'with increased media coverage of the growing problems associated with drugs and addiction it would be reasonable to assume that the public hold fears about these drugs'. Hence the early pre-understanding I had surrounded the view that analgesics are addictive and consequently I believed that patients may avoid taking them through fear of

addiction. A second pre-understanding I held was that male participants may be less willing to use their analgesics then females. I believe that this probably stemmed from my awareness of cultural values that exist that see enduring pain and being 'brave' as a male prerogative (such issues will be discussed further in the findings chapter).

After I had considered such pre-understandings and bought them into my consciousness, I began to analyse the transcripts. However, during the analysis other pre-understandings I had only became apparent at this later stage, as suggested by Smith (2007 p.6) 'one may only get to know ones preconceptions (or at least some of them) when interpretation is underway'. The following section provides insight into this analytical process and gives examples of how pre-understanding were changed, modified and recognised in light of the analysis, giving priority to the participant's experience.

In order to analyse the data obtained from the interviews with twenty one patients in the first stage of data collection I used IPA's guidelines set out by Smith et al (1999) recommended to manage data when using a larger sample. The first step in these guidelines is to read the transcript a number of times and note in the left hand margin of the transcript 'anything that strikes you as interesting or significant about what the respondent is saying' (Smith et al 1999 p.220). Hence I began this, giving priority to the participant's account and noting anything that gave an insight into their use of analgesics. For example, below is an extract taken from a participant named Paul, here I have identified my first thoughts in the left hand margin.

Pain is a natural reflex. *By blocking pain may overstretch.* *Pain can be used as a measure to keep active/ keep going.*	"I knew I wanted to be active um, pain is a natural thing isn't it, it's a reflex thing isn't it. You know if someone hurts you, you know to keep away from it sort of thing. So I wanted to be mobile and doing things around the house and you know, I am not going mad or anything, but the thing is if I know, if I don't have that pain I don't know if I am overstretching myself or not do I, because it's all numb and you know its er. But what I have been doing is if I felt I was just doing something and I thought that is starting to twinge, that's it, I stop it straight away. Do you get what I mean. So I have been

> using pain as like a, you know, a measure sort of thing. You know, the twinges and that allow me to keep on going"

In terms of modifying and changing any pre-understandings I had, this occurred throughout the analytical process and was ongoing as reflected by the hermeneutic circle, so as pre-understandings were modified these new modified understandings were then changed again in light of future understanding and so on. It is difficult to actually articulate this process because for me it was fluid and very implicit, however, I have tried to pick out a few examples below to illustrate how my initial preconceptions were adapted and changed. For example, the quote below from Maggie illustrates how women, as well as men, tended to endure pain and that this was not just a masculine behaviour as I had previously considered.

Endure pain.

Her discomfort is others pain.

Female.

> "In fact in the hospital the doctor said to me she said how are you feeling, are you in pain? And I said just discomfort. She said it sounds like your discomfort is other peoples pain, she said please take something straight away. But I didn't"

In terms of my pre-understandings surrounding addiction, the relationship between analgesic use and fear of addiction was actually more complex than I had anticipated, and on a number of occasions patients mentioned addiction as important, but this did not actually go on to influence their analgesic use. For example, the extract from Peter below illustrates how addiction was important, but he didn't see it as a problem for himself in particular.

Acknowledged addiction but this wasn't to be a problem for him.

> "There was always the thought in the back of my mind, you know, knowing what it is and knowing that it can be addictive and all that. But I was thinking well I am sure whatever I have been given here is not going to be a problem".

Another preconception I had was that I knew that patients, from previous

research, often avoided analgesics despite pain, and that the day case unit provided adequate information regarding pain management, and was therefore convinced that adherence or non adherence would be an intentional decision the patient made. This was, in the majority of cases a correct assumption, however, the role of more unintentional factors also had an influence. Hence this bought about a change in my understanding. For example, some patients talked of confusion and lack of understanding surrounding the management of their pain. They may have wanted to use their analgesics but unintentional factors, through no fault of their own, prevented them from doing so. The extract below illustrates how George felt too unwell to fully understand the information surrounding pain management provided to him, and perhaps therefore unintentionally did not use his analgesics. Similarly Amanda was confused as to what to do.

Confusion surrounding information. Unintentional.	"To be honest at the hospital I was not all too together with it a lot so the time so. I know I have taken information in but looking back on it now I am not sure how much of it I have"
Too many, confusion.	"Because they sent me home with loads of pills, um and I was not sure which ones to take"

As suggested earlier some pre-understandings do not always come to light until actually engaging in the analysis (Smith 2007). For example, prior to analysis I had not thought that the type of pain caused from day case surgery would influence analgesic use, however, after encountering this during analysis I realised that I did have pre-understandings surrounding this issue. Personally, the type of pain caused by tissue damage from an operation I would take seriously and want to relieve. However, for some patients this was not the case, and the fact that this pain was caused by an operation meant that it would soon heal and that pain would therefore not last forever (see quotation below). Therefore, it was not until I had encountered this perspective when analysing the

data did I realise the pre-understanding I held, which I then adapted and changed in light of this new horizon.

Endure pain as it will be gone soon.	"It's just a case of I know this will be gone by tomorrow so I put up with it".

After reading the transcript many times, adapting and changing pre-understandings (as illustrated above), and giving priority to the participant's account using the hermeneutics of empathy or meaning recollection (see earlier methodology chapter 2) (Ricoeur 1970), it is my understanding that the notes made in the left hand margin therefore closely resemble the participant's experience. Hence a 'fusion of horizons' between the researcher and participant, resulting in an account that represents the 'insider' perspective and the 'P' in IPA. However, as argued in the previous methodology chapter, this phenomenological account may describe the participant's experience related to their analgesic use, but does not explain it (Willig 2001). IPA aims to go beyond this, and the researcher is said to play a greater role interpreting the description further to 'produce a theoretical framework which is based upon, but which may transcend or exceed the participant's own terminology and conceptualisations' (Larkin et al 2006 p.113). Guidelines for undertaking research using IPA (Smith et al 1999, and Smith and Osborn 2003) do not explicitly separate or make note of the descriptive first order analysis, followed by the more interpretative element of IPA. However, I would suggest that the next step outlined in such guidelines appears to mark the beginning of the more interpretative and explanatory element of IPA. But, it must be noted that inevitably there may be some overlap between the two, and it is not always clear where description stops and further interpretation begins (Larkin et al 2006).

4. Second Order Interpretative Analysis of Stage 1 Interviews

The second stage involves the researcher going back over the transcript and documenting theme titles or key words in the right hand margin relating to those

in the left (Smith et al 1999). These themes should use a

> slightly higher level of abstraction and may invoke more psychological terminology...so the skill at this stage is finding expressions which are high level enough to allow theoretical connections within and across cases but which are still grounded in the particularity of the specific thing said' (Smith and Osborn 2003 p.66).

More recently Smith (2004) and Larkin et al (2006) have aimed to articulate this second stage further and have provided examples of how the interpretative element of IPA can be employed. However, whilst these are useful, they are very particular to the text that is being analysed and the researcher's goals. Hence, it has became clear to me that interpretation is personal to the researcher and the interpretative resources they have, along with the material with which they are presented. Therefore providing universal guidelines and processes may not always appropriate or even possible for this. However, researchers should recognise that IPA is not only a descriptive approach, as in the first order, and should aim to go beyond this.

As outlined in the earlier methodology chapter I aimed to piece together the theoretical underpinnings of IPA, and it is from this I gleaned two important interpretative resources, useful when carrying out a second order analysis with interviews from this study. Firstly, IPA argues that hermeneutics of suspicion (Ricoeur 1970) may be employed to gain an insight that the participant may be unaware of or unwilling to see (Smith 2004, Larkin et al 2006, Smith, IPA conference, July 5th 2007), which I found useful when aiming to understand patients' analgesic use. When employing such hermeneutics I aimed to balance this with the participant's original account or description (taken from the left hand margin), such grounding is important to IPA and I will talk more about this later in this chapter.

Secondly, IPA's interpretative component, drawing on the work of Heidegger (1927/1962), aims to contextualise the participant's claims

> within their cultural and physical environments, and then attempts to make sense of the mutually constitutive relationship between 'person' and 'world' from within a psychological framework (e.g.

> 'What does it mean for this person to have these concerns in this context?') (Larkin et al 2006 p.117).

Hence I found this second interpretative resource useful as it enabled me to draw on contextual and cultural influences when making sense of patients' analgesic use, important going back to the earlier background chapter where it was outlined that beliefs, thought to be important to patients' decision making regarding adherence to medicines, are not isolated constructs but impacted by context. It is important to note here that at this stage I was still within a hermeneutic circle (Gadamer 1960/1997) as interpretations were made my understanding adapted and changed and so on. The following section provides examples of how I further interpreted participants' accounts employing the two interpretative resources outlined above, noting such interpretation in the right hand margin of the text.

The example below from Paul shows how the initial description is further analysed and provided with a more abstract and psychological code 'coping strategy'. It could be said that I have employed the hermeneutics of suspicion here, where I have dug slightly below the surface to uncover this deeper meaning that the participant may be unable to see e.g. Paul may not see that his experience may be interpreted as a coping strategy, therefore this interpretation has gone beyond the participant's words and a first order description.

Pain is a natural reflex. By blocking pain may overstretch. Pain can be used as a measure to keep active/ keep going.

"I knew I wanted to be active um, pain is a natural thing isn't it, it's a reflex thing isn't it. You know if someone hurts you, you know to keep away from it sort of thing. So I wanted to be mobile and doing things around the house and you know, I am not going mad or anything, but the thing is if I know, if I don't have that pain I don't know if I am overstretching myself or not do I, because it's all numb and you know its er. But what I have been doing is if I felt I was just doing something and I thought that is starting to twinge, that's it, stop it straight away. Do you get what I mean. So I have been using pain as like a, you know, a measure sort of thing. You know, the twinges and that allow me to keep on going".

Coping Strategy

Taking this further the following extract illustrates how the hermeneutics of suspicion were employed again, but this time more rigorously. Here Maggie states that the doctor had said that her feeling of discomfort would be someone else's feeling of pain and to use the analgesics provided, but she didn't. It is my interpretation that Maggie is stoical, playing down her pain, and perhaps not wanting to be seen complaining. This is something that appeared to me when employing such hermeneutics, and is perhaps something that Maggie herself is unable to see. It was also of value to use a second hermeneutic circle here, an idea in hermeneutic theory that argues that 'to understand the part, you look at the whole; to understand the whole you look at the part' (Smith 2007 p.5). Hence in this instance the part would be the extract below, and the whole would be the complete transcript. When considering the whole transcript on a number of other occasions Maggie is stoical in her response to pain for example, she later goes on to say 'I am very much sort of grin and bear it', adding weight to the interpretation made below. It is also possible to also consider an even bigger picture when interpreting the participant's account, Maggie states that she avoids most medications in her day to day life, hence, this overall holistic view of Maggie's life beyond the text again enables the further interpretation of the parts.

Endure pain. *Her discomfort is others pain.* *Female.*	"In fact in the hospital the doctor said to me she said how are you feeling, are you in pain? And I said just discomfort. She said it sounds like your discomfort is other peoples pain, she said please take something straight away. But I didn't".	*Stoicism*

Another example of employing the hermeneutics of suspicion comes from this short extract from George. Here George seems somewhat ashamed of taking his painkillers when he says 'to be honest', it is as if he is telling me a secret or confessing a sin. Again this is something below the surface that George himself is unlikely to see.

> "I am still dosed up on plenty of painkillers to be honest actually"

The two extracts below illustrate how I have used a second interpretative

resource drawing on the social/cultural context to ask what it means for the participant to have these concerns in this context (Larkin et al 2006). Here Maggie states that she felt she would be able to tolerate pain, and experience less pain, because she is physically fit and takes pride in this. Similarly Bill implies that taking tablets may reduce the way he sees himself as a fit and healthy man. Thinking about the wider social and cultural context, it is in my opinion that being seen as fit and healthy is a positive attribute in today's society, with numerous pressures, particularly from the media, to achieve this goal. Therefore drawing on this context we could say that both Maggie and Bill's proud and positive image of being fit and healthy may be destroyed in their eyes, by taking their analgesics, hence the impact of context upon this interpretation. There are many other examples of where I believe cultural and social context influences patients' analgesic use e.g. stoicism, pain thresholds, natural healing etc… each of which will be considered in greater detail in the findings chapter to follow.

Proud to tolerate pain. Fitness	"I pride myself in being able to tolerate things (laugh) being a fairly fit person but I suppose that's why".	*Analgesics reduce pride/ perception of self as fit and healthy.*
Dislikes using analgesics wants to be fit and healthy.	"I just don't like taking tablets I try and want to be a fit and healthy man".	*Analgesics reduce perception of self as fit and healthy.*

I continued this process for all transcripts writing further interpretations in the right hand margin. Smith et al (1999 p.224) suggest that it is possible, when analysing further interviews, to 'look for instances you have identified in the first interview but then be ready to identify new ones that arise'. Hence as I went through each transcript, I inevitably had ideas or new understandings from

previous transcripts so I used these as a basis for the analysis to follow. However, I was consciously aware not to impose my pre-understanding from the previous transcript upon the ones to follow, and to adapt and change my understanding when necessary, still working within a hermeneutic circle. The original first order analysis in the left hand margin was also a useful tool for this, as it ensured that important aspects of the transcript were not overlooked and to help the analysis remain grounded in the original meanings.

5. Using Identified Themes to Produce an Explanatory Framework

The next stage of analysis is to meaningfully bring these themes together (noted in the right hand margin) in order to provide an explanatory framework giving a complete picture of themes identified to influence analgesic use following day case surgery. Smith et al (1999) provide useful guidelines as to how to organise and manage the interview transcripts into high level and lower level themes in order to gain this insight e.g. photocopy sections of transcripts, cut and paste on the computer etc… Inspired by this I used my own strategy to enable me to organise my data compatible with my way of thinking. To begin I started by scribbling each theme taken from the right hand margin onto a piece of paper for each participant. This enabled me to think about each theme and to start to look at similarities between themes identified in each transcript, and also where necessary make amendments to these theme names to bring them together. For example, for one extract in which the patient states they put up with pain I may have labelled this with the theme 'stoicism' for another patient who said a similar thing I may have labelled this 'toleration of pain'. Hence after careful consideration I changed the second theme name 'toleration of pain' also to 'stoicism'. This helped with my personal thought process as I could see a more complete picture of all the participant's experiences together.

After doing this I went back and colour coded the text of each participants original transcript e.g. participant number 1 was blue, and then proceeded to go through and copy the sections of each transcript that represented a theme (taken from the right hand margin), into a separate document. This resulted in a page for each theme, along with the extracts that represented this theme. I wanted to

do this as it is important for IPA analysis to stay grounded in the original data and having the original words of the participants that made up each theme enabled this. Below is a scaled down example of this for the theme 'stoicism'.

Stoicism
"I am very much sort of grin and bear it' (Line 138).
"I will live with a certain amount of discomfort" (Line 190).
"I just get on" (Line 118).
"If I can deal with what it is, then I would rather deal with it" (Lines 136-137)
"There was never a point when I thought I can't cope with this" (Line 117)
"This sort of thing I just live with" (Line 116)
I would rather weather the storm" (Line 167)
"I just see it through" (Line 45)

Figure 2: Colour Coded Extracts for the Theme 'Stoicism'

The next stage involved linking all of the identified themes (from the right hand margin e.g. stoicism) coherently to form an explanatory framework. In order to do this I wrote the name of each theme onto label and laid them all in front of me.

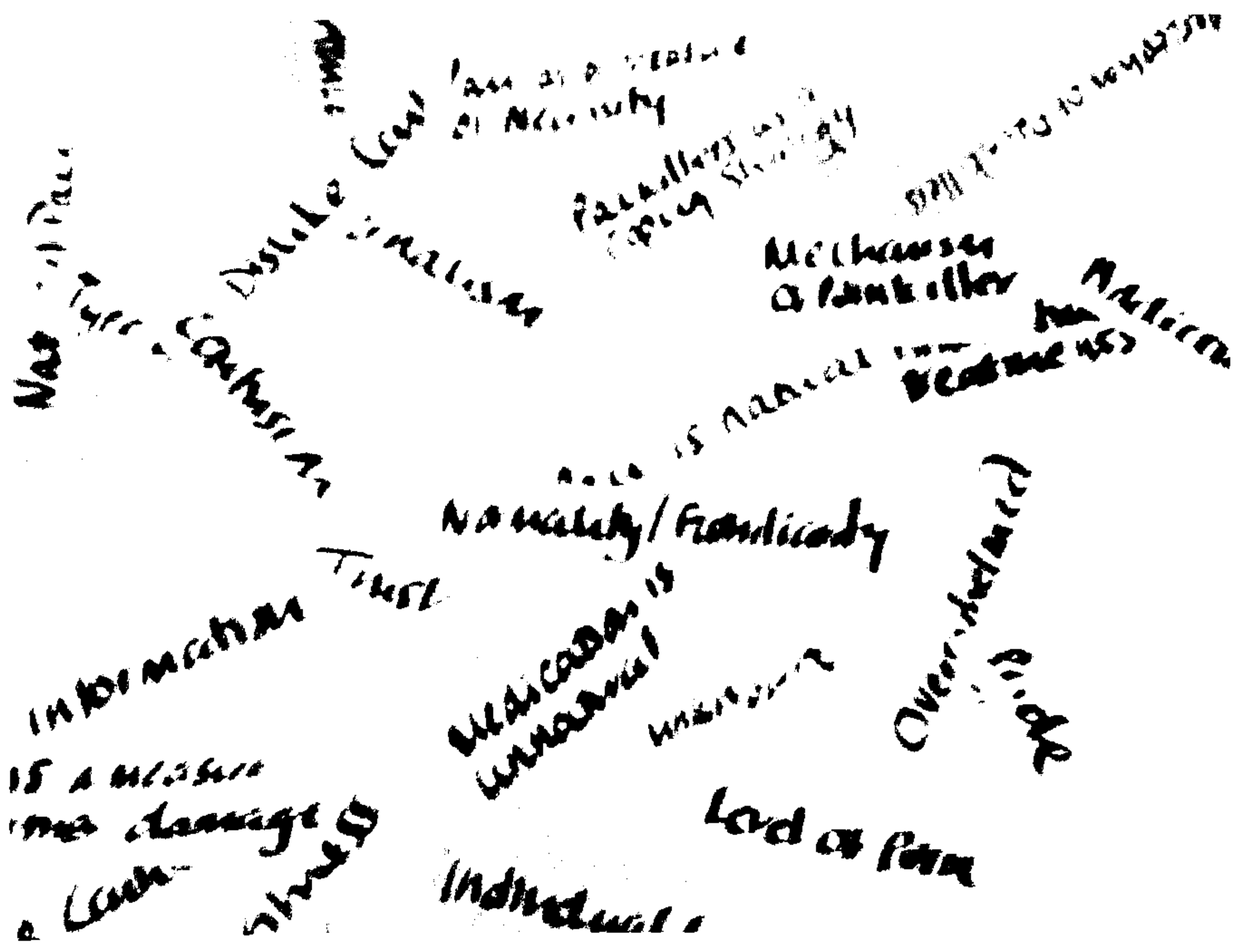


Figure 3: Theme Labels

I then began to consider how these themes could be meaningfully grouped together and given a higher order or master theme name, hence I began to try out different groupings. To help with this I continually referred to the colour coded documents with the original participant words that represented each theme (see above) which provided a useful reminder of what each theme meant, and why it had been created. At this stage I managed to group these themes together under eight high level or master themes; Toleration of Pain, Necessity of Painkiller, Coping Strategy, Natural v's Unnatural, Danger, Patient/Provider Relationship, Control and Practical. To capture my thought process I took digital photographs as I grouped the theme labels, however at times this process was implicit and not always easy to capture. Below is a picture taken of the eight theme groupings I had at this stage.

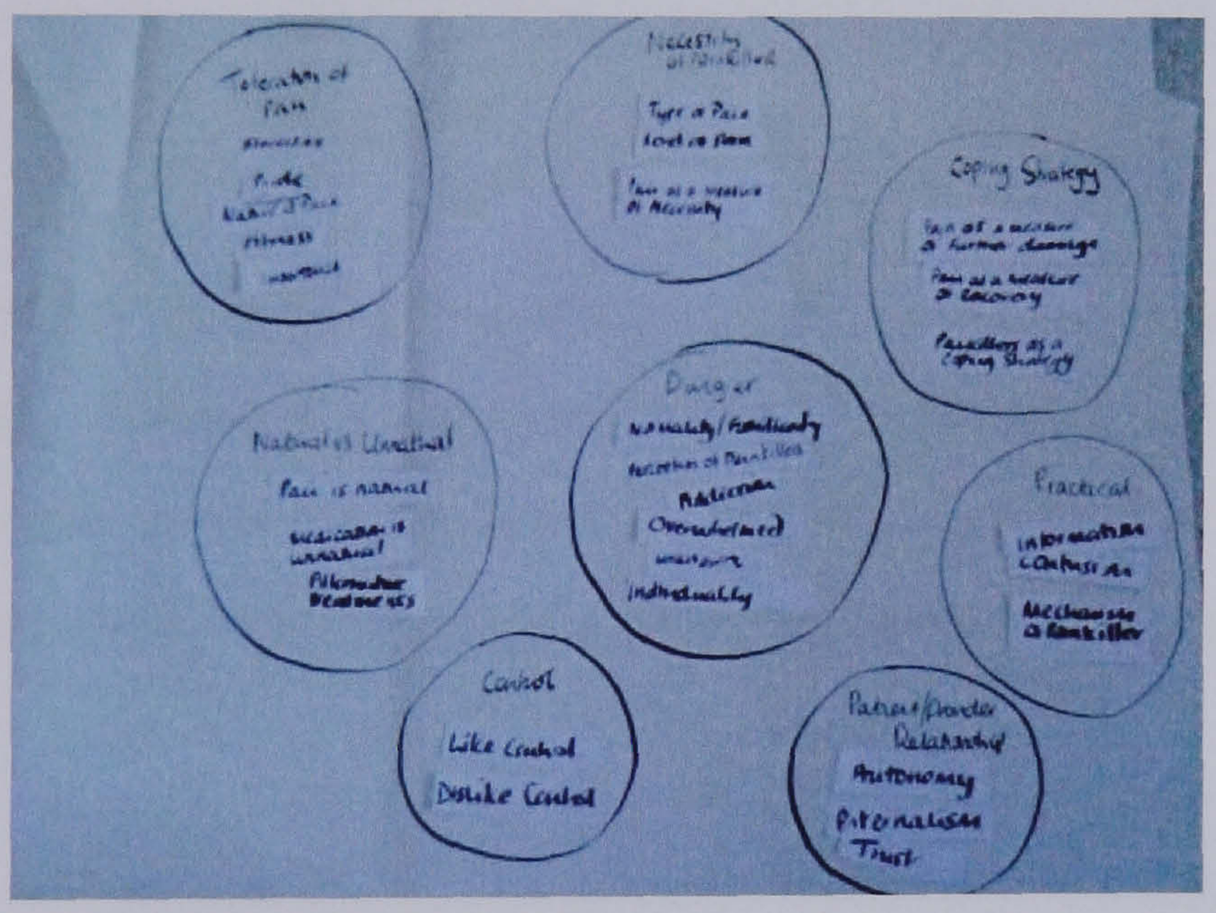


Figure 4: Illustration of Theme Groupings

The next stage involves searching for patterns, connections and tensions between these theme groupings (Smith et al 1999). Here Smith et al (1999 p.232) suggest that diagrams are useful and they 'facilitate the identification of new, implicit or underdeveloped relationships'. As I had already started using a visual aid (e.g. theme labels grouped on a large piece of paper and circled) I began to mark any relationships between the eight high level theme groupings. For example, the image below shows how some patients were fearful of masking their pain with analgesics and unwittingly causing further damage (under the theme 'Danger'). Which appeared to be related to the finding that some patients avoided their

analgesics in order to feel their pain and use this to gauge the their movement and activity, a coping strategy that reduced the fear of causing further damage Hence the theme 'Pain as a Measure' under the high level theme 'Coping strategy' is linked to the theme 'Danger of Masking' under the high level theme 'Danger'.

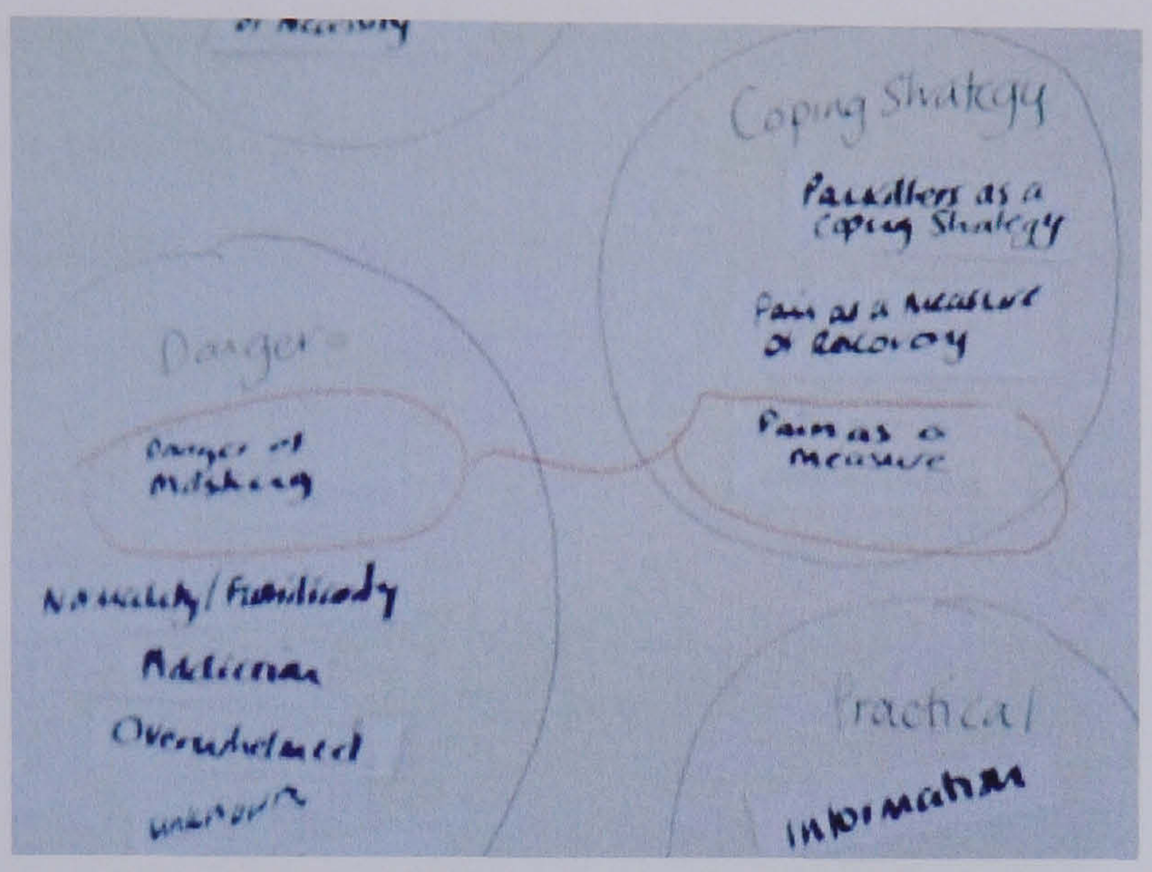


Figure 5: Illustration of a Connection

The image below also shows another link this time between the main themes 'Danger' and 'Patient Provider Relationship', because in my interpretation, patients who had a trusting relationship with their health care provider appeared to be less concerned with the dangers identified important to analgesic use.

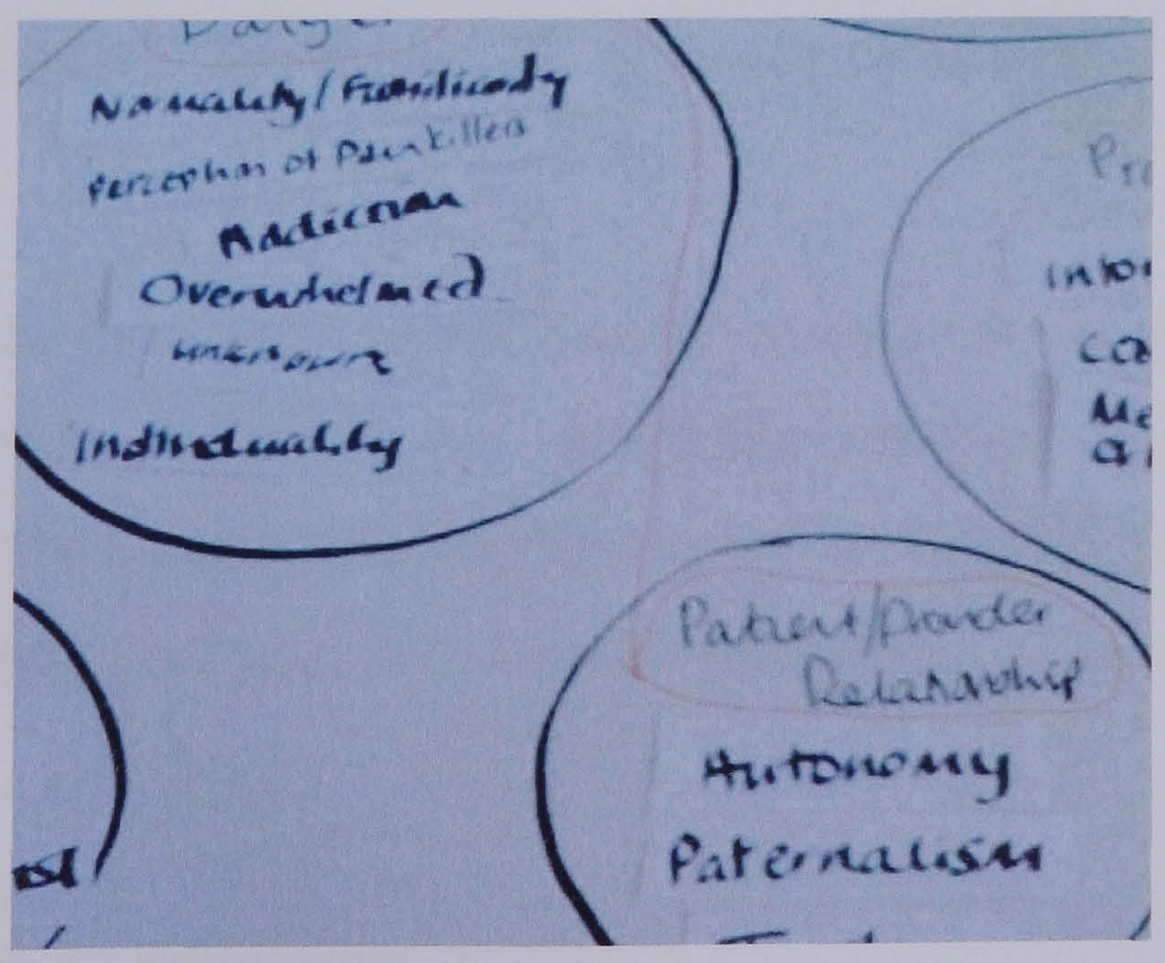


Figure 6: Illustration of a Connection

By going through and identifying connections, between these initial groups many themes began to collapse. For example the image below shows how the high level theme 'Practical' was collapsed and integrated into the theme 'Fear of the Unknown'. This was because the theme 'Practical' surrounded the finding that many patients were not aware of the practicalities of actually using their analgesics and were confused and unsure. However, it became clear that for many patients, this confusion and uncertainty led them to become concerned and fearful of this unknown. Hence the main theme 'Practical' could be collapsed into the theme 'Fear of the Unknown'.

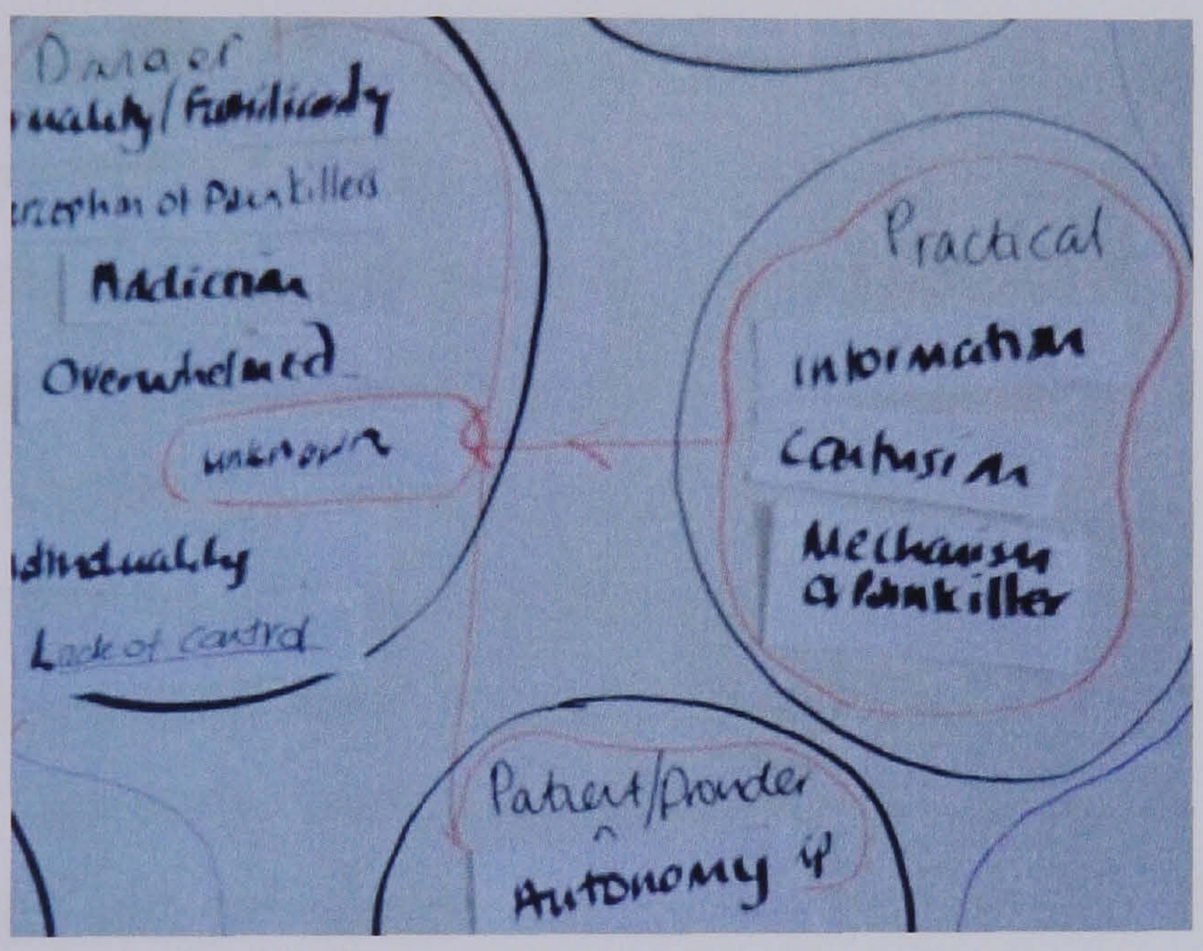


Figure 7: Illustration of Collapsing a Theme

Considering all the links and tensions also led to removal and renaming of some themes, and further collapsing and integrating resulting in three high level themes 'Pushing the Limits', 'Coping Strategies, 'Setting the Limit/Stopping the Pain' and a number of mid and even lower level themes.

6. Analysis of Stage 2 Transcripts

After analysis of the first stage of data collection a broad explanation of patient decision making regarding the use of analgesics following day surgery was

provided. However, some of the themes identified needed exploring in further depth, particularly how patients' beliefs that appeared to influence their use of analgesics identified in the first stage, came to exist, and why patients came to feel this way. In order to do this, as detailed in the previous chapter, a further seven patients were interviewed using an interview schedule based on the initial explanation provided by the first set of interviews. Although I have separated this into two stages it is useful to see this as an on-going process of exploration, a continuing hermeneutic circle, where new horizons were examined and old ones adapted in changed.

When analysing these interviews, as in the earlier analysis outlined above, the first aim was to get as close to the participant's experience as possible. By this time I was already in the hermeneutic circle and inevitably had many ideas and pre-understandings gleaned from analysis of the first stage. I was very aware of these pre-understandings and how I did not want this subjectivity to stand in the way or blinker me when aiming to get a close, empathetic understanding of the participant's experience. During the previous chapter I discuss how I tried to avoid confirming my own subjectivity when actually interviewing participants in light of what I already knew, by adjusting my understanding when listening to the patient. Similarly, during the analysis I aimed to be aware of my pre-understandings and to change and adapt them in light of the participant's account, to gain a fusion of horizons (Gadamer 1960/1997) as I had in the first stage of analysis. Like with the earlier analysis I carried out a first order analysis making notes in the left hand margin, and used these to get as close to the participant's phenomenological experience as possible. I then went on to carry out a second order analysis (Smith et al 1999, Smith and Osborn 2003) drawing the hermeneutics of suspicion and positioning the participant's account in a wider social and cultural context (Larkin et al 2006) noting these interpretations in the right hand margin as I had done with the first set of interviews.

Different from the earlier stage however, as I had a smaller sample, based loosely on Smith et al (1999) suggestions for more idiographic analysis, I took each set of themes identified for each participant and considered them separately (e.g.

how they could be grouped, links between them etc...), before jumping to explore shared themes across all participants (as was done in the first stage of interviews recommended with a larger sample of participants). This was useful as it allowed an in-depth reading of each transcript, for, example, I could take the themes from one participant and understand how these factors influenced their individual analgesic use, before trying to understand how it can be related to other participants' stories. Hence insight appeared to be deeper, especially when considering their whole story and the way in which previous experiences in particular, appeared to shape their beliefs.

I wanted to then compare these new interpretations with what I already had from the previous analysis from 21 participants in order to add further insight and depth to some of the findings. To do this I drew upon ideas from 'Template Analysis'. Template Analysis developed by King (1998) is a way of thematically analysing qualitative data from many methodological and epistemological positions. Basically a template or a priori codes can be used which can be then modified, adapted and even dispensed with altogether in light of the data. Hence in terms of this research I used the complete understanding identified from each of the seven participants, and then compared this to the template I had from the prior analysis. I used these new findings to add depth, adjust and adapt the earlier explanation to gain a greater deeper understanding of patients' analgesics use following day surgery. Again moving further around the hermeneutic circle adjusting pre-conceptions in light of new understanding.

An example of this would be that the second stage of interviews particularly highlighted the importance of past experiences and how these influenced the beliefs patients held. For example, the theme 'Individual Pain Threshold' was highlighted during the first stage of analysis, which among other things, related to the idea that some patients felt they had a high pain threshold and this gave them the confidence that they could therefore endure pain without analgesics. The second stage of interviews also found patients to hold similar beliefs, and could expand this understanding further by giving an insight into the way in which these beliefs may have developed through past experiences of not taking

tablets, along with previous encounters of pain which had been successfully endured, adding further depth and explanation. Such findings will be considered in greater detail in the next chapter.

7. Quality within a Contextualist Position

Many papers have outlined criteria used to evaluate and achieve excellence within qualitative research (Henwood and Pidgeon 1992, Elliot et al 1999, Spencer et al 2003). It is argued that the epistemological position taken by the research determines which of these criteria is important to its evaluation, as different 'positions carry differing implications for the evaluation of research conducted under their auspices; a feature of qualitative research too often ignored in reviews of quality criteria' (Madill et al 2000 p.2).

IPA takes a contextualist position, arguing that each person will make sense of their world differently depending on the context they are in and the pre-understandings or pre-structures they hold, hence multiple realities exist. Taking this view IPA therefore subscribes to a coherence theory of truth, where knowledge is viewed as ever changing and incomplete and when the researcher steps out of the hermeneutic circle they hope to have achieved the best understanding possible so far (Laverty 2003). Hence this research can be said to have produced the best understanding of patients' analgesic use following day surgery at this time, in this context. However, in order to ensure that this is the 'best' understanding, research must be rigorous, trustworthy and credible, and transparency appears to be an important criteria through which to achieve this within this epistemological position.

> A case is more likely to be persuasive if the reader can see (i) how the data were collected (ii) evidence in support of the claims being made, in the form of presentation of original data and (iii) the influence of the researcher on the production of findings, through the discussion of reflexivity (Langdridge 2007 p.157).

The following section will consider each of these three points, illustrating how this research is transparent with rigour, credibility and trustworthiness clear to see.

The first point 'how the data were collected' has been discussed in detail in the previous chapter, which openly outlines how the interview questions were developed and my thoughts and reflections surrounding the interview process. As well as this there is a reflexive account of myself, as the researcher, along with a consideration of the intersubjective relationship between myself and the participant, and the influence of this upon the co-production of knowledge. Hence it is hoped that the way in which the study was designed and data collected is transparent for all to see, providing a platform upon which to judge the credibility, trustworthiness, and rigour of this research.

The second point, is to ensure that there is evidence in support of the claims being made. Grounding research within the original participant's account is very important in IPA (Smith et al 1999, Smith and Osborn 2003, Smith 2004, Larkin et al 2006) and helps to overcome the vital concern with this type of research; that the researchers own subjectivity has taken priority and is pressed upon the study (Langdridge 2007). By ensuring all interpretation is grounded in the text, and providing a clear audit trail for this interpretation, the reader is able to clearly see how the analysis has been achieved and the extent to which it is supported and derived from the data.

In order to achieve this grounding Smith (2004) notes that one must continuously check 'ones reading against the local text itself and verifying it in light of the larger text' (Smith 2004 p.46). In terms of this research I continuously referred back to the participant's original accounts, and as previously outlined in this chapter, I copied all participants' quotations important to the themes identified into separate documents which provided a valuable reminder of the participant's words in relation to each theme. Also by carrying out an phenomenological reading employing the hermeneutics of recollection during the first stage of analysis (in the left hand margin) enabled me to gain a good grasp of the participant's experience before moving on to interpret this further, therefore again helping to ensure that my reading was grounded in the participant's experience. As well as this, during the write up of findings in the chapter to

follow, direct quotations from participants are provided along with an explanation of how each interpretation was constructed, as well as showing a clear distinction between this interpretation and what the participant actually said.

Smith (2004) also notes that if the researcher wishes to go further and for example, engage with existing theoretical constructs during interpretation 'this would be clearly marked by a difference in tone as more speculative because of the distance between the text and interpretation' (Smith 2004 p.46). Hence when moving away from the participants actual words and drawing on contextual influences or the hermeneutics of suspicion to make further interpretations, I have ensured in the following findings chapter that it is always clear to the reader when this occurs. Also this chapter aimed to provide an open description of the analytical process taken, again aiding transparency so the reader can clearly see the process through which findings emerged.

The third point is that the researcher should reflexively consider their impact upon the study, as outlined in the previous 'methods' chapter, researchers 'are themselves participants in the inquiry with their own identities and personal stance; they do not merely retell the experience, feelings and behaviours of those whom they study' (Holloway 2005 p.279). If the impact of the researcher is transparently available through reflexivity, then the reader can clearly see how the study has been constructed increasing confidence in the credibility and trustworthiness of the research. However, Langdridge (2007 p.58) notes that 'reflexivity is often mentioned as being crucial in qualitative research but rarely taken seriously'. Similarly Willig (2001 p.67) notes that 'IPA recognizes the importance of the researchers perspective but...it does not tell us how exactly the researcher's own conceptions are implicated in a particular piece of analysis'. Aiming to overcome this criticism in the previous 'methods' chapter I reflexively considered my background and how who I am may impact upon the intersubjective relationship between myself and the participant. I also provided reflections on the interview process in terms of how the schedule was constructed and the way in which it was adapted during the actual interview in light of the

participant's experience. In this chapter I have reflexively considered my pre-understandings and how they were modified and changed whilst moving around a hermeneutic circle (Gadamer 1960/1997), something that appears to be important when using an approach in which interpretation plays a key role, but not previously considered in IPA.

A final point surrounding credibility, trustworthiness and rigour in qualitative research involves the communication of findings to peers. Langdrige (2007 p.157) notes that

> with no ability to make grand truth claims about the nature of reality, the communication of our findings to our peers, and their critical interrogation of them, is a vital part of the research process.

Similarly, drawing on the work of van Manen (1990) Rapport (2005 p.133) notes it is recommended that those using hermeneutic phenomenology should 'work closely with others during the data collection and analysis' and 'others experiences and reflections are valid and should be considered alongside the experiences and reflections of the researcher'. Hence this research was carried out with the support of a steering group who work in the field of day case surgery, and I continuously fed my findings and interpretations back to them at six monthly meetings (along with a clinical scholarship in pain group which I was a member of, comprising of many practitioners who work and teach in the field of pain management). For me listening and reflecting on their views gave further grounding to my readings, and on many occasions the findings were not surprising to the groups and confirmed their own 'hunches'. However, the main purpose of this is not to ensure that my reading was correct and correlated with those of others, as suggested earlier, each individual has their own reality and their readings will be based on this reality, therefore there is no one 'truth' to be discovered. But the aim when asking others to interrogate the research was to explore different interpretations, further ground the findings in practice, and also to ensure that analysis had been systematically achieved and supported by the data (Osborn and Smith 1998).

8. Chapter Summary

Guidelines have been developed to aid the analysis of data employing IPA (Smith et al 1999, Smith and Osborn 2003) which goes some way to explain the popularly of this approach in psychology today. However, in practice whilst such guidelines were useful in terms of organising data, they were less helpful when putting some of the more theoretical elements of IPA into practice. This could account for the increasing criticism that IPA is purely a simplistic thematic approach that fails to go beyond a first order descriptive analysis (Larkin et al 2006). Hence when analysing data for this study I went further than these established guidelines putting into practice some of IPA's theoretical underpinnings, pieced together in the earlier methodology chapter. For example, despite subscribing to the phenomenological philosophy of Heidegger (1927/1962) IPA makes no mention of pr-understandings and how to 'work out' these pre-understandings important to this phenomenology. As a result I employed ideas taken from Gadamer (1960/1997) such as 'fusing horizons' and the hermeneutic circle, and provided examples of how I engaged in these concepts in order to 'work out' or adapt and change my understanding in light of new information. Along with this I have aimed to go beyond IPA's first order descriptive analysis and have outlined the way in which I employed the hermeneutics of suspicion and contextualisation, to achieve a greater understanding and explanation of patients' analgesic use following day case surgery. Finally issues surrounding rigour, credibility and trustworthiness within the contextualist position taken by IPA are discussed. It is argued that research must be transparent in order to demonstrate these criteria, consequently a clear explanation of how data were collected, analysed and grounded, along with issues surrounding reflexivity, and the impact of the researcher have been provided.

Overall by carrying out transparent, rigorous and credible research, and by incorporating the theoretical underpinnings of IPA into the analysis of data, not only has an in-depth insight and explanation of patients' use of analgesics following day case surgery been provided, but it is also hoped that analytical process employed by the relatively new methodology of IPA developed further,

overcoming criticism that this is a basic thematic approach with no theoretical grounding (Larkin et al 2006). The following chapter will now go on to consider in detail the findings obtained from this analysis.

Chapter 5

Findings

1. Chapter Outline

This study found that patients did not always adhere to their analgesic regime when they returned home following day case surgery, with many patients describing how they avoided analgesics often withstanding high levels of postoperative pain. This chapter begins by illustrating this finding, confirming the argument that patients' under use of analgesics may be a significant barrier to pain management in this area, the reasons for which were, until now, yet to be fully explored.

This study overcame this gap in research by exploring patients' use of analgesics when they returned home following day case surgery. A number of themes emerged from interviews with patients giving an in-depth insight into their analgesic use. In order to provide insight into these themes a narrative account for each will be presented during this chapter, along with how such themes have been used to produce a framework in order to further explain their influence upon patients' analgesic use when they return home following day case surgery. As outlined in the previous chapter, to aid the transparency, credibility and trust of the interpretations made, participant quotations will be provided throughout in order to ground each theme, and a distinction between the interpretations made and the participant's actual words will be clear to see.

The findings from this research also provided direction for a more comprehensive review of the relevant literature, which up until this point had been suspended due there being little previous research in the area, and therefore the need to use a bottom up inductive qualitative approach starting with the patient (see 'background' chapter page 39). Hence the findings will be placed in the context of previous research (mainly with other patient groups), and the way in which they illuminate or refute this research will be considered throughout.

2. Patients' Limited use of Analgesics Despite Pain

Interviews were on average 20-30 minutes in length and revealed that although analgesic use was rather complex and unique to each patient, it soon became quite clear that the majority of patients in this research did not do as advised and adhere to the multimodal analgesic regime (oral morphine, ibuprofen and paracetamol) prescribed, often enduring very high levels of postoperative pain following day case surgery. For example, one patient with the pseudonym Paul aged 40-45, underwent hernia repair surgery and reported severe pain, however he did not use any oral morphine or paracetamol as recommended, and only took one dose of the ibuprofen provided on the first three nights following surgery. Emma aged 25-30, also underwent hernia repair surgery, Emma withstood much pain in her strive for a 'balance' between taking analgesics and enduring pain. Daphne aged 35-40 reported pain following her laparoscopy, but took no analgesics at all. And finally, Christine aged 50-55 took her Ibuprofen regularly as advised after laparoscopic surgery, however used paracetamol in a rather ad hoc fashion, only taking it when her pain became 'unbearable' and not pre-emptively as recommended. To provide an overall picture of all twenty eight patients who participated in this research, only ten took their analgesics as recommended for the pain they described (see Appendix III for patient information advising patients how to use their analgesics to manage pain), and of the 132 vials of oral morphine provided only 43 in total were utilised.

The finding that patients will avoid analgesics despite pain backs up research outlined earlier in the background chapter that also suggests that patients' analgesic use is limited following day case surgery (Beauregard et al 1998, Watt-Watson et al 2004 and Dewar et al 2004), and confirms the suspicions of a number of authors, along with the steering group for this research, who suggested that limited adherence to analgesic regimes may be a contributing factor to the high levels of reported pain following day case surgery, with them calling for further research in the area (Oberle et al 1994, Rawal et al 1997, Huang et al 2001, Horvath 2003).

This is also in line with research from other patient groups who have found patients to avoid analgesics despite pain. For example, research suggest that many patients were reluctant to use analgesics to effectively manage their cancer pain often tolerating high levels of pain (Ward et al 1993, Lin and Ward 1995, Riddell and

Fitch 1997, Wang et al 1997, Paice et al 1998, Lin 2000, Miaskowski et al 2001, Gunnarsdottir et al 2002, Schumacher et al 2002). Likewise, a number of patients have been found to fail to use analgesics for their pain prior to attending accident and emergency departments (Nicol and Ashton-Cleary 2003, Corbally and Gallagher 2006), when they have chronic pain (Kendrew et al 2001), and when they have pain associated with AIDS (Breitbart et al 1998), inflammatory arthropathy (Donovan and Blake 1992), and are terminally ill (Weiss et al 2001). Similarly, patients have been found to avoid analgesics following in-patient surgery, often under medicating themselves via patient controlled analgesia (Thomas 1996, Gagliese et al 2000), failing to report pain, and refusing analgesics despite pain (Clarke et al 1996, Carr 1997, Jairath and Kowal 1999, Apfelbaum et al 2003, Bedard et al 2006). Members of the public have also been found to withstand pain (Bostrom 1997), with 39% of people stating that pain after surgery should not be taken away altogether, and 17.1% stating that they would refuse strong painkillers after a major operation (Scott and Hodson 1997).

In summary, it is clear that patients do not always adhere to their analgesic regime despite the experience of, in some cases severe pain, following day case surgery, the reasons for which have not previously been explored in detail. By carrying out in-depth interviews with patients following day case surgery this study overcame this gap in research with themes that emerged from these interviews providing an in-depth insight into patients' analgesic use. The identified themes and their influence upon patients' analgesic use will be considered next.

3. Making Sense of Patients' use of Analgesics following Day Case Surgery

3.1 Identified Themes and Explanatory Framework

Analysis of all transcripts revealed three high level themes and twelve mid-level themes, these mid-level themes were then broken down into a number of lower level themes. Many of the themes identified surrounded the beliefs patients held regarding pain, analgesics and day case surgery. These beliefs seemed to be strongly influenced by previous experiences, context and culture, and many patients appeared to use them upon which to base their decisions regarding whether or not to take their analgesics as prescribed, suggesting patients' analgesic use to be as a result of an intentional decision they make.

Table 1 below illustrates how, using IPA, these themes have been used to provide not only a description, but also an explanation of patients' analgesic use following day case surgery. The first high level theme explores beliefs held by patients that led many to want to avoid analgesics and endure pain, pushing their pain limits. The second high level theme illustrates a number of strategies patients employed to cope with their pain without using analgesics, and the final high level theme explores beliefs and attitudes that motivated patients to adhere to their analgesic regime as recommended, stopping their pain.

Overarching this is the concept that many patients ultimately had personal control over the way in which they managed their pain. It is my interpretation that this came from the fact that these patients were responsible for their own recovery at home due to the nature of day case surgery, were familiar with pain (from everyday life), and therefore felt that it was something they were adept to manage and they did this in the way they personally deemed fit.

1. Pushing the Limits: Why patient wanted to avoid taking analgesics and why they thought they could.	2. Coping Strategies: Strategies employed to cope with pain without analgesics.	3. Stopping Pain : Factors leading to analgesic use
1.1 Stoicism and Pride	**2.1 Contingency**	**3.1. Necessity** 3.1.1 Level of Pain 3.1.2 Previous Experiences
1.2 Danger and Concern 1.2.1 Fear of the Unknown 1.2.2 Negative Perception of Analgesics 1.2.3 Danger of Masking Pain	**2.2 Type of Pain**	**3.2 Patient Provider Relationship** 3.2.1 Paternalism 3.2.2 Trust
1.3. Overused and Unnecessary	**2.3Distraction/Positive Attitude**	
1.4. Benefit of Pain 1.4.1 Pain is Natural 1.4.2 Pain as a Measure	**2.4 Comparisons** 2.4.1 Comparing to Personal Pain Threshold 2.4.2 Comparing to Others	
1.5 Individuality 1.5.1 Type of Person 1.5.2 Individual Pain Threshold 1.5.3 Fitness	**2.5 Pain as a Measure**	

Table 1: Explanatory Framework

Before providing an in-depth narrative account of each of these themes, the following section will briefly consider a key finding of this research; that patients' use of analgesics is as a result of an intentional decision they make based on a complex array of beliefs they hold.

3.2 The Importance of Decision Making and Beliefs

In the earlier background chapter (see page 32), I outlined a large body of research carried out aiming to understand patients' use of medications prescribed for a number of chronic illness conditions (asthma, hypertension etc..) Early research in this area was mainly conducted under a 'compliance' model, however, little progress

had been made in the understanding of patient medication use despite many thousands of studies. As a result it was argued that the problem with this research was that it ignored the patients' view, and that patients are not passive followers of instruction, ignorant or forgetful as in this 'compliance' model, but make active decisions regarding whether or not to use their medication (Donovan and Blake 1992, Horne 1999, Horne et al 1999, Horne and Weinman 2002, Scherman and Löwhagen 2004, Morgan and Horne 2005). It was also argued that these decisions are formed as a result of beliefs patients hold (Donovan and Blake 1992, Britten 1996, Horne 1999, Horne et al 1999, Horne and Weinman 2002, Pound et al 2005, Morgan and Horne 2005), which are said to 'serve as a lens for interpreting the meaning of events and making decisions about how to react to them' (Jensen 2003 p.453). Taking stock of this evidence this research aimed to explore patients' use of analgesics following day case surgery, with particular focus on the influence of patient decision making, and the beliefs that may impact this decision making (see chapter 1 'Background and Initial Literature Review' for further discussion).

As suggested above, findings from this study illustrated how patients' use of analgesics following day case surgery was on the whole as a result of an intentional decision they make, and that such decisions appeared to be based on the beliefs patients held. Hence providing evidence for the argument that patients make active decisions regarding whether or not to take their medicine, showing that this is not only important in patients prescribed medication for chronic illness conditions, but also among patients prescribed analgesics for the management of short term acute pain following day case surgery. This study also illustrates why, despite much research in the field of day case surgery aiming to overcome pain by providing effective analgesics and information as to how to use them (Stone 1996, Doyle 1999, Henderson and Zernike 2001, McHugh and Thoms 2002, Mitchell 2003, Mitchell 2004a), pain continues to be problematic. This is because such research overcomes unintentional barriers to analgesic use, but fails to address intentional ones; that the patient may actively decide not to use their analgesics even though they are effective and the patient understands, through information, how to use them.

As a result of these findings I began to explore literature in greater depth and identified studies within the clinical/medical field that have also found patient beliefs

to be important to pain management and analgesic use in other patient groups. This review was not undertaken until this stage to avoid steering the research in a wrong direction and producing findings that have little relevance to day case patients, whose use of analgesics, and factors influencing this analgesic use, are until now yet to be fully explored. (see page 41 for further rationale for suspending the review until this stage).

The majority of this research identified in this later review was carried out in the area of chronic cancer pain management with Ward et al's (1993) Barriers Questionnaire (BQ) being the catalyst for much research in this field (Ward et al 1993, Lin and Ward 1995, Wang et al 1997, Riddell and Fitch 1997, Paice et al 1998, Thomason et al 1998, Ersek et al 1999, Weiss et al 2001, Lin 2000, Potter 2003). Beliefs held by patients have also been found to play a role in analgesic use in other patient groups such as those attending accident and emergency departments with painful conditions (Nicol and Ashton-Cleary 2003), patients with pain associated with AIDS (Breitbart et al 1998), inflammatory atrophy (Donovan and Blake 1992), rheumatoid arthritis (Treharne et al 2004), and the management of pain following in-patient surgery (Thomas 1996, Jairath and Kowal 1999, Gagliese et al 2000). Members of the public have also been found to hold beliefs regarding the management of postoperative pain that may influence analgesic use (Scott and Hodson 1997), and the general public also hold a number of views that they state have influenced their use of analgesics in the past, and may influence their analgesic use in the future (Bostrom 1997). However, many of these studies have identified beliefs but do not consider how beliefs may actually exert their influence upon analgesic use. Finally, the findings from this research also counteract other studies that have found little relationship between patients' beliefs and adherence to pain medications (Ward and Gatwood 1994, Du Pen et al 2000, Kendrew et al 2001, Dawson et al 2005).

This chapter will now go on to consider in-depth each of the themes identified in this study based on patients' beliefs (see table 1 above), and will illustrate the way in which IPA had been employed to take these themes further in order to provide an explanation as to how they exert their influence upon patients' decisions surrounding analgesic use following day case surgery. Providing this in-depth narrative will allow the opportunity to gain a detailed insight into the shared experiences within

each theme, along with a close look at individual unique experiences, as well as any tensions and conflicts between them. As each theme is considered extracts from the original transcripts will be used to illustrate interpretations and clearly show how such interpretations are grounded in and transpire from the primary text. Also in line with issues surrounding transparency (see previous chapter) I endeavour to continuously provide a clear distinction between my interpretation and what the participant actually said (Smith et al 1999, Smith and Osborn 2003).

3.3. An In-depth Narrative Account of Themes

1. Pushing the Limits: Why patients wanted to avoid analgesics and why they thought they could.

The first high level theme is named 'Pushing the Limits', which reflects how many patients wanted to avoid analgesics and endure pain, pushing their limits to the level of pain they could withstand. In my interpretation patients held a number of beliefs regarding pain, analgesics, and recovery following day surgery that led them to take this decision. Some patients also held beliefs particularly related to their previous pain experiences and personal pain limits or thresholds, that appeared to provide them with the confidence that enduring pain and limiting analgesic use was a goal that they could successfully achieve. These beliefs are illustrated in the five mid-level themes 'Stoicism and Pride', 'Danger and Concern', 'Overused and Unnecessary', 'Benefit of Pain' and 'Individuality', some of which have been reduced further into lower level themes. Each of these will now be considered in turn.

1.1 Stoicism and Pride

The first mid level theme under the high level theme 'Pushing the Limits' is named 'Stoicism and Pride' (see table 1 page 119). Here some patients had stoical beliefs surrounding the appropriate response to pain and were willing to push their limit and believed that they should endure as much pain as possible without complaining. It is my interpretation that this 'grin and bear it' philosophy was a contributing factor to the avoidance of and under use of analgesics among a number of patients in this study. The following extracts illustrate this interpretation.

Maggie:

"I am very much sort of grin and bear it" (Line 138)

"In fact in the hospital the doctor said to me, she said, how are you feeling, are you in pain? And I said, just discomfort, she said it sounds like your discomfort is other peoples pain, she said please take something straight away. But I didn't" (Lines 127-129).

Bob:

"I will live with a certain amount of discomfort" (Line 190)

Gillian:

"I just get on" (Line 118).

Miriam:

"There was never a point where I thought I can't cope with this" (Line 117).

"If I can deal with what it is, then I would rather deal with it" (Lines 136-137)

Paul:

"This sort of thing I just live with" (Line 116)

"I'd rather weather the storm if you get what I mean" (Lines 167-168).

Emma:

"I just see it through" (Line 45).

Daphne:

"I just say get on with it" (Line 74).

Above shows the way in which patients expressed how they put up with pain and 'lived with it' and 'coped', getting on with things and confronting their pain. Digging further using the hermeneutics of suspicion (Ricoeur 1970), I felt that some

patients also didn't want others to know that they had pain or to be seen to be complaining, for example, Maggie said that she described her pain to the doctor as 'just discomfort', and the doctor said that her feeling of discomfort would be what others consider to be pain, demonstrating how perhaps she wanted to play down her pain and not complain. The extracts below illustrate this further where it is my interpretation that some patients had a negative opinion of those who fail to endure pain or exhibit stoicism. For example, Mary believed you should not numb pain and pretend it's not happening as others do, but face it and cope with it. Paul states that people are too 'mollycoddled', by this he seems to mean that they should not make a fuss and waste health professionals' time, but put up with pain as he does. Emma recalls an experience as a child where it is clear that failing to endure illness without complaint was not viewed too kindly. In my interpretation this may have led some patients to avoid their analgesics, as to use them would be viewed as a sign of weakness.

Mary:

> *"I am the sort of person that if it hurts I know that there is something wrong and I will deal with it. Where there are other people out there that I think that if it hurts just numb it and pretend it is not happening" (Lines 171-173).*

Paul:

> *"I think too many people waste too much of other peoples time through being mollycoddled" (Lines 390-391).*

Emma:

> *"It's just the way we were brought up, we were always like just get on with it, unless you are really ill you go to school...don't namby pamby around anyone because they don't feel great, do you know what I mean" (Lines 463-468).*

Lifestyle can also account for this stoicism. Emma notes how in her life she has little time for herself when taking care of three children under three years old and as a consequence often endures her pain.

Emma:

> *"I have got three children three and under, and I am just really busy with them, you just get on with it and you think it will pass, and it is probably because my particular circumstances at this moment in time are very much, myself comes last. Because it's getting the time to go and get yourself organised with some tablets or whatever, do you know what I mean, it's just because I am busy, and I just think oh, just get on with it you will be fine" (Lines 135-140).*

Related to stoicism is the idea that some patients seemed proud to tolerate pain and not to have taken their analgesics. The extracts below illustrates this, for example Paul says that he wanted people to know that he managed without any analgesics and was pleased to have achieved this. Peter also said that one reason he believed that he didn't take his painkillers as prescribed may have been due to male pride.

Paul:

> *"It makes me feel like a bit of a warrior if you get what I mean maybe that's it, it maybe a sort of macho thing but I am pleased when I can say to people I don't need all these things you know"(Line 195-198).*

Maggie:

> *"I pride myself in being able to tolerate things (laugh) being a fairly fit person but I suppose that's why" (Lines 96-98).*

Gillian:

> *"I am quite good at dealing with pain" (Line 254).*

Peter:

> *"I don't know if it was male pride or what" (Line 255).*

The quote by George found below again illustrates how putting up with pain and not

taking painkillers is seen as an achievement. Looking below the surface and employing the hermeneutics of suspicion (Ricoeur 1970) here George seems somewhat ashamed for taking his painkillers when he says "to be honest", it is as if he is telling me a secret or confessing a sin.

> George:
>
> *"I am still dosed up on plenty of painkillers to be honest actually" (Line 164).*

In terms of previous research such stoical beliefs have also been identified among day case patients (Beauregard et al 1998, Dewar et al 2004), and are reflected in the general public of the UK and USA (Bostrom 1997, Scott and Hodson 1997 and Palos et al 2004). Such beliefs have also been recognised in other patient groups, with one item on Ward et al's (1993) 8 item Barriers Questionnaire surrounding the desire to 'be a good patient' and avoid complaining about pain, being a significant barrier to pain management in cancer patients, with many other studies finding high scores on this questionnaire to be significantly associated with under medication and hesitancy to use analgesics among cancer patients in the USA (Gunnarsdottir et al 2002), Australia (Potter et al 2003) and Taiwan (Lin and Ward 1995, Wang et al (1997). Other research with cancer patients also illustrate stoical beliefs and the desire not to complain (Dawson et al 2002), and how such beliefs have influenced lack of analgesic use (Riddell and Fitch 1997, Thomason et al 1998). Surgical in-patients have also been found to be reluctant to request analgesics often refusing them (Oates et al 1994, Carr 1997, Carr 2000), with Moddeman (1995) stating that elderly surgical patients among other things, fail to report pain and use analgesics due to stoical beliefs and the thought that expressing pain indicates a weak character.

As outlined in the earlier 'analytical process' chapter, whilst analysing interviews using IPA it is important to ask what it means for participants to have these concerns in this context (Larkin et al 2006). As suggested by Skevington (1995 p.105) 'patients' beliefs are inevitably embedded in and tend to reflect the more general views held by society and the culture from which they come'. Cultural beliefs are argued to be especially important in relation to pain and suffering, with stoicism said to dominate Western attitudes to pain (Harper et al 2007). For example, Harper et al

(2007 p.607) quote a military nurse interviewed in their study who said he found some patients to under-rate their postoperative pain due to a 'bit of "we're British, keep a tight upper lip" and just get on with it'. Along with this there is said to be a common cultural belief that medication should be used as little as possible (Townsend et al 2003). Hence, when looking at the wider cultural context in which these participants are immersed, it is clear to see how such stoical beliefs may have emerged. And if, as research suggests, stoical beliefs regarding pain, along with the attitude that drugs should be used as little as possible are ingrained in our culture, then this may explain the sense of pride some patients in this research felt when carrying out a behaviour (not using their analgesics) which is accepted and encouraged by society. For example, exhibiting a stoical response to postoperative pain has been found to be admired and even rewarded (Thomas 1997). Hence

> the reluctance of some patients to accept analgesics may have no relationship to the severity of their pain experience, but instead be to do with the extent to which psychosocial factors particularly their own culture impact upon them as individuals (MacLachlan 2006 p.149).

However, it must be noted that, as argued by MacLachlan (2006 p.4) people are not 'simply empty vessels with 'thinking spaces' filled by the flows of their culture' but each responds individually to their culture. As outlined in the earlier methodology chapter page 65, IPA subscribes to the similar notion that although social influences shape the individual they cannot be reduced to them (Eatough and Smith 2006). Therefore not everyone will react in the same way as a result of the culture in which they live. For example, in this research Bill takes a different position suggesting that you shouldn't put up with pain and try to be a hero, but that you should take your painkillers if you need them. Similarly Daphne and Emma also argue that they did not feel proud to have tolerated pain as they did.

Bill:

> *"But they are there for a reason so if you need them take them, don't be a hero sort of thing" (Lines 183-184).*

Emma:

> *"But I don't think that there should be a*

macho thing of like wow. Like if you go to anything with the children and they are like what was your birth like, did you have this and did you have that, and I say I didn't have this, I didn't have that...I don't think it should be a bravado thing do you know what I mean"(Lines 417-425).

Daphne:

"I don't feel proud, I just get on with it really" (Line 385).

1.2 Danger and Concern

The second mid-level theme is named 'Danger and Concern' and surrounds beliefs patients held about the dangers of analgesics and describes how, in my interpretation such beliefs led some patients to want to avoid analgesics, tolerating pain and pushing their limits of pain endurance. This theme has been further reduced down into a number of lower level themes: 'Past Experiences and the Fear of the Unknown', 'Negative Perception of Analgesics', 'Volume' and 'Danger of Masking Pain' all of which represent the particular beliefs held by patients' leading to this concern.

1.2.1 Past Experiences and the Fear of the Unknown

The influence of past experiences and what patients normally do to manage pain became particularly important to this theme. Inevitably patients have previously experienced pain and it is likely that they draw on this experience when given autonomy to self manage pain following day case surgery. As a result many patients appeared to fear using their analgesics because they do not usually take them in their day-to-day lives to manage pain, and patients seemed worried or concerned regarding trying something new, hence 'fear of the unknown'. This is also a good illustration of how, going back to the underpinnings of IPA and the influence of Heidegger (1927/1962), pre-understandings held by patients (in terms of previous experiences) had an impact upon their sense making. The extracts below illustrate how Paul discusses the fact that he does not use analgesics in his day-to-day life and would rather not do so now, and Miriam notes how she was not used to taking them.

Paul:

"I didn't want to do any of that if I could help it I don't like taking er medicines for anything you know if I get coughs colds or anything like that I would rather not take er things" (Lines 165-167)

Miriam:

"It's not something I am used to taking, some people take them for any sort of pain" (Lines 142-144).

Also, patients were advised to use their analgesics additively, which is key to the success of a multimodoal analgesic regime (see page 20), however a number believed that this may be unsafe, particularly taking the ibuprofen and paracetamol together, as they do not do this normally in their day to day life and again appeared concerned and fearful of using their analgesics in this way.

Gillian:

"It's just personal preference, I don't like you know it's just like mixing your drugs isn't it. I mean I don't take unless I have got a headache is the only time I'll have a you know, normally have a tablet other than antibiotics or something. But I don't like to mix the drugs" (Lines 205-208).

Julia:

"I thought how come I can take them both you know together? I know with a lot of medication you can't" (Lines 190-192).

Sally:

"It does seem a lot of painkillers to take with ibuprofen and paracetamol and something else you wouldn't normally dream of taking a mixture of pills like that just if you have got a headache you just go for the paracetamol you don't take a bit of both do you"(Lines 180-183).

Emma:

"At home I would probably never take them together like that" (Line 31).

Maria:

> *I wouldn't normally do that, I would just take the paracetamol and leave it at that " (Lines 106-107).*

Similarly, Emma also noted that the oral morphine provided was something unfamiliar to her and this may have discouraged her from using it.

Emma:

> *"I was a little more dubious then I would have been with the ibuprofen and paracetamol, just because of the fact that it is not an everyday medicine that you can buy over the counter" (Lines 114-116).*

Some patients were also used to taking a particular type of painkiller in their normal lives and in my interpretation this influenced their use of the other painkillers prescribed. For, example, Maggie was used to taking ibuprofen for pain and therefore appeared to be reluctant to use the other analgesics provided.

Maggie:

> *"I must admit I have been a bit naughty and have gone straight into ibuprofen because it tends to be what I am used to" (Lines 167-168).*

However, in some instances when patients were familiar with their analgesics and knew what to expect then they appeared to be less 'fearful of the unknown' and consequently appeared more likely to follow the analgesic regime. For example, Jim had tried the oral morphine in hospital and knew it was safe and that he wasn't in any danger, so was happy to take it at home. Similarly, Miriam and Linda were not concerned about taking different painkillers together as they had previously taken them that way before so they knew they were not harmful and exhibited a greater confidence when using them.

Jim:

> *"I took some, they gave me some in the*

hospital when I came around, so it isn't an unknown item. I would recognise the smell and the taste and know what to expect" (Lines 189-191).

Miriam:

"I have had back problems before and I have had painkillers and they have told me to take paracetamol and ibuprofen at the same time because they work well together, so I am aware that paracetamol sometimes can go with other drugs and it tends to do the job" (Lines 171-174).

Linda:

"I piggybacked the ibuprofen, a trick I learnt from my other op rather than take everything and then it only lasts for two hours, and then you have got to wait two hours before you can have something else. So I piggy back them" (Lines 281-283).

In terms of previous research, within the field of psychology the influence of past behaviour upon predicating future behaviour and beliefs or cognitions is well documented and predictive of adherence to a variety of health behaviours (Ogden 2000). Related to this is the concept of self efficacy (Bandura 1997), which surrounds the beliefs the individual holds regarding their ability to successfully carry out an activity based on, among other things, previous experiences. Hence in terms of this research patients who had previously taken analgesics in the way prescribed knew they were able to follow this analgesic regime, and would therefore be said to have high self efficacy and would be consequently more likely to participate in this behaviour again.

With regard to the 'fear of the unknown', no previous research has linked this to adherence and the avoidance of analgesics. One way in which this barrier could possibly be overcome is through the provision of information and reassurance, which is said to reduce fear and anxiety (Mitchell 2001). Hence in the day case unit where this research was carried out, patients were provided with information regarding their analgesics and pain management (see Appendix III), and given the opportunity to ask any questions, which should have provided reassurance and

relieved this 'fear of the unknown'. However when asked about the usefulness of this information some patients reported a lack of understanding or confusion surrounding how to utilise their analgesic regime. Bill and Amanda were confused about what analgesics to use and when. Others like Samantha read the individual pill packaging and seemed to view their painkillers separately e.g. you take one or the other, rather than additively as recommended.

Bill:

> *"I think that if I took the morphine I didn't think I had to take the ibuprofen, I am not sure I can't remember now. If I needed the morphine I don't think I could have taken one of the ibuprofen I can't remember" (Lines 137-139).*

Angela:

> *"Because they sent me home with loads of pills, um and I was not sure what ones to take" (Lines 93-94).*

One reason for this lack of understanding is that some patients like George said that they were 'not with it' after their surgery to take in information regarding pain management explained by the nurse. With regard to the information sheet provided to take home, Paul was not in pain at the time so thought it was irrelevant and didn't read it, similarly Bill was more concerned with other parts of his recovery, and Angela said she was too tired to read it. This is consistent with the findings of Dewar et al (2004) and Gilmartin (2007) who argue that many patients found it difficult to absorb information prior to discharge from the day case unit, and in some cases patients had difficulty taking in information up until the second postoperative day (Dewar et al 2004). Similarly with regard to written information Dewar et al (2004) found some patients not to read it or even remember receiving any.

George:

> *"To be honest um at the hospital I was not*

all too together with it a lot so the time so. I know I have taken information in but looking back on it now I am not sure how much of it I have" (Lines 297-303).

Paul:

"I didn't really read it all properly to be honest because I wasn't really interested unless I was in you know discomfort that sort of thing" (Lines 300-301).

Bill:

"I was reading mainly when to take the patch off my wound and have a shower and when I can work, but the painkillers it just sort of like...didn't give it a lot of attention if I am honest" (Lines 143-146).

Angela:

"I did um read the paper when I got home but I was asleep most of the time really" (Lines 316-318).

This lack of understanding or confusion could therefore be said to result in unintentional non adherence, which is said to 'arise from capacity and resource limitations that prevent patients from implementing their decisions to follow treatment recommendations' (Horne et al 2005 p.11). Hence, this was against my pre-understanding in which I assumed that patients would have accurate knowledge how to manage their pain from the information provided by the day surgery unit (see page 90 for further discussion on this pre-understanding). Many studies have linked poor recall and lack of understanding to adherence to medications for a variety of chronic illness conditions (see Morgan and Horne 2005 for a description), and is an important factor to consider alongside intentional influences (Horne and Kellar 2005). As suggested by one participant, Maggie, she may have followed the analgesic regime if she had a greater understanding of how to use it and had been prompted to refer to the information provided earlier in her recovery.

Maggie:

"They should have prompted me to read it earlier in the recovery period rather than

sort of when I felt well enough to read it again. I had a look at it and thought oh maybe I should have taken some paracetamol first" (249-252).

However, many patients knew what was required in terms of how to manage pain and which analgesics they should take, but were still fearful of the unknown requiring further knowledge. For example, May and Gillian required further information surrounding how analgesics actually work to reduce pain, and felt this was necessary in order for them to make an informed decision regarding their analgesic use. The concept of 'informed adherence' is discussed in the earlier background chapter, where it is argued that it is up to the patient regarding the decision they make regarding their treatment, however, the health care provider has a duty to ensure that such decisions are truly informed (Horne and Weinman 2004). In this instance the provision of further information surrounding how analgesics work and reassurance surrounding any danger, may help to allay this fear of the unknown and enable patients to make informed decisions. However, it is acknowledged that different levels of information are required depending on the individual, too little can cause confusion and too much can lead to anxiety, consequently the level of disclosure required would need careful consideration (Mitchell 2001).

Mary:

"I think it comes down to fear at the end of the day doesn't it, if you don't know what is going to happen when you take something then you panic and you don't want to do it. But if I knew what was in each drug and how that reacted with another drug and you knew what the possibilities were, and all that sort of information, then definitely I would re consider" (Lines 219-233).

Gillian:

"You don't want the body to have to cope with too much, you know because you don't

have enough information. You know, when you get your little booklet or your little bit of paper it doesn't actually give you the information on there you know, what it actually does to the body. Yes it gives you the side effects, but what about what is happening inside, you know that's what I would like to know. I mean yes you swallow it and it gets digested and then what happens? You know how does it actually reach the pain? (Lines 213-128).

Finally, under the theme 'fear of the unknown' is the concept held by a few patients that although the use of multimodal analgesic regime was safe for others it may not be for them. They believed that everyone is individual and they might react differently to the drugs than others, however, they will not know how they react until they try their analgesics hence 'fear of the unknown'. Consequently the fear that they may have a dangerous unpredictable reaction to their analgesics may have prevented these patients from using them appropriately. This belief has not previously been identified within day case surgery or with other patient groups prescribed analgesics. However, it is backed up by previous research in psychology with patients prescribed medication for chronic illness conditions that has found those patients who believe they are sensitive to the effects of medication, to be more likely to have stronger concerns, believe medication is harmful, and be less adherent to their medication (Horne et al 2004). This may also have implications in terms of information provision, both Mary and Gillian stated above that they required further information regarding how analgesics work, however, they also see themselves as individuals who may have a different reaction to everyone else. Hence providing information to these patients may do little to allay their fears if they feel that they will react differently to others upon which the information is based.

Mary:

"I know obviously the people who have given it to me have said that it is going to be fine absolutely no problems what so ever. But everyone is different aren't they and you don't know how everyone is going to react so I would rather not have it" (Lines 124-125).

Gillian:

> *"Yeah my personal thing is I do not like to mix because I have no idea what how my body is going to react to mixing it, because we are all individual aren't we" (Lines 226-228).*

This chapter will now go on to explore further some of the beliefs patients held, particularly surrounding analgesics, that appeared to have led them to believe that there was actually something about the unknown to be fearful of.

1.2.2. Negative Perception of Analgesics

A number of patients had quite negative perceptions surrounding the analgesics they were prescribed, and in my interpretation such negative perceptions led patients to feel their analgesics were dangerous, hence the mid-level theme 'Danger and Concern', under which this lower level theme sits. Reflecting on the theme levels (see table 1 on page 119 for a summary of themes) as previously suggested, this danger may then explain why some patients may have wanted to avoid analgesics and endure pain, pushing their pain limits, hence the high level theme 'Pushing the Limits' under which this mid-level (Danger and Concern) and low-level theme (Negative Perception of Analgesics) sit.

In particular patients had a number of negative perceptions surrounding the oral morphine prescribed. Philip argues that morphine is a concoction and it appears that he feels that it is something that shouldn't be trusted. Along these lines both Paul and Julia suggested morphine to be a 'strong drug'. Paul associates morphine with terminal illness, and Miriam recalls a past experience when her husband's grandfather had an unpleasant encounter with morphine. In my interpretation such negative associations may then go on to influence analgesic use. For example, the extract from Mary suggests that she does not want to take unnecessary risks, and similarly Angela did not use the morphine because she felt it may be dangerous to take it at home where as, unlike in hospital, there was no one there to monitor her and ensure her safety, also Paul stated that he would rather not take the oral morphine if it can be avoided.

Paul:

"It has got to be a stronger sort of drug I am assuming you know than other things you know as I would say I would rather not do that if I could help it" (Lines 211-213).

"The only thing I link morphine with is when people are terminally ill with cancer and they are in pain all the time that sort of thing and they have got to take that sort of drug to take away their pain" (Lines 218-220).

Julia:

"I think it's you know the name morphine, you know it's so strong" (Line 197).

Philip:

"Um there was um, some sort of concoction which um, if I was in any er excruciating pain, I could have some of the concoction and taken it at home. I think it was a morphine based concoction" (lines 210-213).

Miriam:

"I would have tried the other things before taking that just because obviously the sort of connotations of it being some form of morphine" (Lines 152-154).

"Because my husband's grandfathers had some very bad experiences on morphine as a painkiller, so I suppose in my mind I am aware of that" (Lines 248-250).

Mary:

"You don't want to risk it do you" (Line 206).

Angela:

"In hospital I didn't mind because they are monitoring and they know, cos I felt all drowsy in the hospital so they knew. They have it all written down on the chart and everything what you have been taking and that" (Lines 182-184).

Related to this, fear of 'addiction' was another negative perception patients had, especially surrounding the oral morphine provided. This fear again appeared to have an influence over the use of analgesics among some patients, for instance, Mary told me how her partner had been given oral morphine after an operation and had difficulty coping without it, and that it was because of this that she didn't like to use the morphine given to her. Similarly Maggie stated that she avoided taking it as she didn't want to become dependent on anything.

Mary:

> *"I do have partner that took it when he came out of hospital after keyhole surgery um and he took it for much longer then he was requested to and I just felt that it kind of got a hold of him, do you know what I mean. He didn't feel as though he could cope with out it and that concerned me a little bit. When stuff like that happens I think it's best to stay away from it" (Lines 149-163).*

Maggie:

> *"You know not wanting to get dependent on anything I suppose" (Lines 276-277).*

Looking at the wider social context, it is argued that the media can be held accountable for some of the fears and negative attitudes we hold surrounding medicines (Donovan and Blake 1992, Britten 1996). According to Morgan and Horne (2005 p.45) the 'mass media thus both creates and conveys images of pharmaceuticals that may shape lay views and provide a critical frame in which medicine itself is understood', and research has actually demonstrated how such media stories can have a significant impact on our beliefs (Bissell et al 2001). With regard to pain medication, opioids (prescribed to patients in this study to take home after day surgery in the form of oral morphine), in particular have had a host of negative publicity, especially surrounding their addictive properties and potential for overdose. Carr (1997 p.414) notes that 'with increased media coverage of the growing problems associated with drugs and addiction it would be reasonable to assume that the public hold fears about these drugs'. Also the well documented case of serial killer Dr Harold Shipman have done little to show opioids, particularly

morphine, in a positive light. It is therefore clear to see why patients may hold such views surrounding morphine gleaned from being embedded within this social context.

Other studies have also identified fear of addiction to be an important barrier to adherence to medication for chronic illness conditions (See Pound et al 2005 for a review), in patients with cancer pain, with Ward et al (1993) noting fear of addiction to be the second most popular concern on their well studied Barriers Questionnaire. Other research moving away from the Barriers Questionnaire has also found fear of addiction to be associated with poor pain relief and adherence to analgesics among cancer patients (Dar et al 1992, Paice et al 1998, Thomason et al 1998, Schumacher et al 2002). As well as this fear of addiction was said to prevent surgical in-patients from seeking help for pain in 89% of patients studied (Jairath and Kowal 1999), and was highlighted by some patients as an extremely important and possible complication of postoperative analgesia (Laing et al 1993).

Similar findings can be seen in day case surgery with Beauregard et al (1998) employing the Barriers Questionnaire developed to use with cancer patients (Ward et al 1993) and finding 62% of patients agreeing that they could become addicted to pain medication. However, Beauregard et al (1998) did not test for any association between beliefs and actual medication use, so it could not be said that fear of addiction actually influenced adherence among this group, as just because patients hold beliefs does not necessarily mean it will influence their behaviour. This is illustrated in the work of Thomason et al (1998) who found fear of addiction a concern for 27.3% of cancer patients, but it prevented a smaller percentage (17%) from actually taking their medication.

Employing a qualitative methodology this research was able to interview and discuss in-depth with patients factors influencing their analgesic use, gaining an insight into the complex relationship between beliefs and behaviour among day case patients. For example, Freddie notes addiction may be a problem for others, however, he is strong willed so this was not a problem for him, and both Peter and Alan said that they were worried about addiction, however this did not influence their analgesic use as they trusted the advice given. Hence insight is given into the

relationship between patients' beliefs and decisions regarding analgesic use, in this case it would seem that increasing patients' trust in the health care provider and advice given, may reduce fear of addiction, something not previously considered by earlier research (issues surrounding trust and the patient provider relationship will be considered again later in this chapter as it appeared to be an important factor influencing analgesic use).

Peter:

> *"There was always the thought in the back of my mind, you know, knowing what it is and knowing that it can be addictive and all that. But I was thinking well I am sure whatever I have been given here is not going to be a problem" (Lines 410-413).*

Alan:

> *"At the back of your mind you think, are you going to get hooked up on taking drugs or something like that, you don't want to rely on them do you, So that's the danger you think about, can you get reliant on them. But um, I must admit I didn't think myself personally nothing of it, I was just thinking well I really don't want the pain so, and the hospital are telling you this is the stuff to take, so if it's there you take it don't you" (Lines 135-140).*

Freddie:

> *"If I had been given any more it would have been another two days I would be sat on the settee and that is not going to be good for anybody is it, certainly not for somebody who isn't as strong willed as I am" (Lines 325-328).*

Related to this Alex was informed by others that morphine was addictive and to beware. However, despite this he used three vials over the four days after his operation. Alex decided to 'test' the oral morphine and felt satisfied it was safe because he did not 'want' anymore. This also relates back to the earlier theme 'Fear of the Unknown' as Alex had used the oral morphine, decided it was not addictive and no longer feared it.

Alex:

> *"I know it is addictive morphine, because everyone has told me you can get addicted to it, but I have never had morphine in my life and I tested it and that was it, I didn't want any more" (Lines 452-454).*

Another negative perception patients had surrounding their analgesics involved the amount or volume with which they were provided, with some patients feeling concerned regarding the danger of potential overdose. Again, in my interpretation, this negative perception seemed to lead to fear, which I feel influenced some participants to take the decision not to use their analgesics as prescribed, enduring pain and pushing their limits. The extract from Angela illustrates this concept well when she states that by taking all the medication given to her she was in danger of becoming ill. Similarly Gillian said that she didn't want the body to have to cope with too much, and Paul seemed to be concerned with the amount of painkillers he was advised to take. Also Emma states how she didn't expect the volume of analgesics as she was given and was concerned about taking too many.

Angela:

> *"Well there is quite a lot of pills and things and um. When I like put them out of the packets, I thought I really don't want to take all them because, well I will make myself ill really" (Lines 139-141).*

Gillian:

> *"I guess it's a, you know, you don't want the body to have to cope with too much" (Lines 212-213).*

Paul:

> *"You know, the way they were going on about that, and the level of pain and things, and you might have to take um you know paracetamol with such and such, and you know with ibuprofen, and then if that's not enough you might have to take this oramorph or whatever, and I thought God you know" (Lines 111-113).*

Emma:

> *"I have a little phobia of overdoing it and taking too many, do you know what I mean" (Lines 65-66).*

Patients other negative perceptions of analgesics surrounding the belief that they are unnatural and had concerns regarding the dangers of putting such unnatural substances into the body. For instance, the extract from Paul illustrates how he describes the medication he was given as something that may pollute the body and should be avoided. Similarly, Emma argues that she would rather not put 'junk' into her body.

Paul:

> *"I don't really drink alcohol much at all, I have never smoked I just don't really feel that I want these sort of er what I consider to be almost like pollutants in the body do you get what I mean. You know I just don't really want things that are going to, you know"(Lines 191-194).*

> *"I would rather go natural with anything I could rather than taking this synthetic sort of drugs and what have you" (Line 324-325)*

Emma:

> *"I don't like to put, well I know it's not rubbish into your body, you know, I just think I just don't like to put things into my body" (Lines 54-56).*

> *"I do think that um, that I suppose I don't know but my ignorance would say that they are just full of a load of things that you don't really need and maybe like you know, chemically based. They are not natural products." (Lines 185-188).*

Daphne:

> *"The only ones I take are natural, like um,*

evening primrose oil" (Line 92).

This belief has not previously been identified among day case patients, previous research has, however, found the belief that analgesics are bad for the body to prevent patients from taking medication on a regular basis or in sufficient doses to manage their cancer pain (Riddell and Fitch 1997). Similarly Schumacher et al (2002) note not wanting to put 'garbage into my body' as a reason provided by patients for avoiding analgesics to manage cancer pain. Beliefs surrounding the view that medicines are unnatural and made of harmful chemicals have also been found to be held regarding medication in general (Horne et al 1999). Within the field of psychology Horne et al (1999), Horne (1999), and Horne and Weinman (1999, 2002) have measured such beliefs employing a Beliefs about Medicines Questionnaire (BMQ) (Horne et al 1999), and argue that those who score highly on s beliefs surrounding the unnatural qualities of medicines, are said to be more likely to perceive medication as dangerous and less likely to be adherent (based on patients using medicines for chronic conditions such as asthma). This is only part of a model developed by Horne and colleagues used to explain the relationship between beliefs and adherence, such research will be considered further in the next chapter when the relationship between the findings of this study, and those theoretical models within psychology used to understand adherence (in patients with chronic illness conditions), are discussed.

Related to this is the way in which some patients tried to use their own non-pharmacological strategies in order to alleviate their pain without using the analgesic regime as prescribed. Again I feel this highlights how it was felt that it is better to combat pain naturally rather than taking painkillers which are seen as unnatural. For example, Jenny would rather relax in a dark room and Paul tries to 'will' his pain away. Similarly, studies involving members of the public have also shown people to prefer to use alternative natural remedies to manage pain (Bostrom 1997, Fins 1997).

Jenny:

"I don't know really I have just never been one for taking tablets, I just don't. If I have got a headache I go and lay down in a dark room, if I have got a tummy ache I will go and lay down with a hot water bottle rather

than resorting to taking painkillers" (Lines 188-121).

Paul:

"I once did a few years ago that I have never sort of reproduced I actually once willed a headache to go away. I sat there and thought this is not hurting me this is not happening you know and it actually went I couldn't believe it, I have tried to do it a bit since" (Lines 243-247).

Looking at the wider social context and from my own personal being in the world, I can see where such preconceptions may emerge. In western society today there appears to be a certain pressure, which I myself have felt, to live a 'natural' lifestyle, with many people for example, becoming concerned with issues surrounding food additives and wanting to keep healthy and use natural remedies. Such issues are frequently covered by the media (see Appendix X for examples). However, as previously suggested we are not all empty vessels which society and culture fills we are all said to be influenced in different ways by the society in which we live (MacLachlan 2006). Hence there in some tension within this theme, for example Alan states that it is actually automatic and natural to go straight for the analgesics to relieve pain.

Alan:

"I think you would automatically go and reach for your painkillers wouldn't you that's the thing what you have got to try to do" (Lines 241-243)

"If I have pain or something then you would go back to your painkiller wouldn't you, it's a natural thing to do, you know just to keep out of the pain" (Lines 249-251).

Finally, patients also had a negative perception of their analgesics due to their perceived side effects, which in my interpretation, in some cases led patients to fear using their analgesics, with them rather enduring pain than experiencing such side effects. For example, patients such as Gillian did not like the feeling of 'grogginess' the morphine gave them, and Maggie said that she would rather have the pain than to feel like this. Related to this some patients also feared that the oral morphine

would take away their control due to these side effects, and as a consequence some were reluctant to utilise it. For example, Julia was responsible for her young children and felt that she was not in control due to 'grogginess' and was concerned that she would be unable to care for them properly. Because of this she only took the oral morphine in the evening when her children were in bed. Similarly, Jenny argued that the side effects of the morphine made her feel out of control and consequently she would avoid taking it. Many other patients stated that they would rather take their analgesics only before going to bed, enduring pain during the day, again I felt issues surrounding control may play a role here as maintaining a sense of control appeared to be unnecessary whilst sleeping. Both Sally and Maggie also mentioned fear of constipation as a side effect that would deter them from taking the morphine.

Gillian:

> *"I wouldn't want to take it all the time because when you wake up in the morning you are quite heavy you feel your head is quite heavy you know. It's like you are sitting in a bucket of cotton wool with your head so I would prefer not to take it" (lines 178-181).*

Maggie:

> *"It made me tend to think I would rather not feel groggy, or given the grogginess or the pain I would rather have the pain and so just take the ibuprofen and paracetamol rather than the um morphine" (lines 327-329).*

Julia:

> *"But I sort of felt safe later in the evening to take the painkillers when the children were in bed . Well they do obviously come to chat with me and sort of jump all over and stuff, it's not nice if you are a bit spaced out trying to talk to them. I don't want them to see me sort of like that" (247-250).*

Jenny:

> *"The effects that morphine had on me I*

would probably be less inclined to take that because it makes me really drowsy and sort of spaced out and not in control of anything" (Lines 135-137).

Sally:

"*They can make you quite constipated and that and my doctor told me to keep an eye on that because if you get constipated you will be in an even worse state than you are now" (Lines 157-160).*

However, Freddie spoke of how he wanted to use the oral morphine to 'knock him out'. He didn't want or need to be in control, but wanted to sleep through and be unaware of his pain as much as possible.

Freddie:

"I would like something that would, would put me to sleep for four or five hours I can wake up and have something to eat and go back to sleep for four or five hours for a week and then I would be fine" (l35-136).

Although Freddie used the oral morphine he did have a negative perception of the other analgesics provided and viewed, particularly the paracetamol, as dangerous due to a previous bad experience he had. Similarly Gillian also had a negative perception of paracetamol describing it as 'harsh' and therefore only used the ibuprofen as she felt this was a 'gentler' way alleviated her pain. These views are unique within the group of patients who took part in this study, as many held little concern regarding the paracetamol, being that it is a medicine used frequently and can be bought over the counter. However, it is important to share such idiosyncrasies, as outlined earlier, the narrative stage of IPA not only allows an in-depth description of those experiences that are shared, but also individuals' unique experiences are free to emerge (Smith et al 1999).

Freddie :

"Paracetamol isn't a thing I normally take, I had a scare a few years ago when I was

> *taking a paracetamol based cough medicine and also paracetamol for flu...I had actually overdosed quite considerably, and felt really sick from it. Um nausea, lack of balance inability to focus on anything, a whiteness or sheen across everything" (Lines 97-104)*

Gillian:

> *"I think the ibuprofen works better than the paracetamol, I personally prefer the ibuprofen to the paracetamol I found the paracetamol quite harsh, you know it's hard to describe but I find them a harsh tablet, where as um the ibuprofen seem to be gentler" (Lines 129-133).*

Fear surrounding negative side effects is frequently documented and is a contributing factor to non adherence to medications prescribed for chronic illness conditions (Horne 1999, Horne et al 1999, Horne and Weinman 2002, 2004, Morgan and Horne 2005). It has also been identified as an important barrier to the management of pain in those with cancer (Ward et al 1993, Lin and Ward 1995, Wang et al 1997, Thomason et al 1998, Ersek et al 1999, and Potter et al 2003 , Lin 2000, Schumacher et al 2002), terminally ill patients (Weiss et al 2001), patients with AIDS (Breitbart et al 1998), surgical in-patients (Brydon and Asbury 1996, Thomas 1996, Gagliese et al 2000, Gan et al 2004), those with chronic pain (McCracken et al 2006) and patients suffering from inflammatory arthrophy (Donovan and Blake 1992), with Donovan and Blake (1992 p.509) noting that patients in their study took fewer analgesics to reduce side effects which 'meant them putting up with considerable amounts of pain'. Similar beliefs can also be seen among patients following day case surgery with Beauregard et al (1998) noting 49% of patients in their study agree that it is easier to tolerate pain than side effects, and Dewar et al (2004) and Watt-Watson et al (2004) reporting fear surrounding adverse effects to be an important reason for patients' reluctance to use analgesics.

1.2.3 Danger of Masking Pain

The final low-level theme under the mid-level theme 'Danger and Concern' is called

'Danger of Masking Pain'. This theme surrounds the belief a number of patients had that by using their analgesics their pain would be masked and they may unwittingly cause themselves further damage. As a consequence such patients thought taking their analgesics might be dangerous; hence this low level theme sits under the mid level theme 'Danger and Concern' (see table 1 page 119 for summary table of themes). Below Maggie, Paul, Freddie, Daphne and Christine all talk of their worries concerning masking their pain and unintentionally causing themselves further damage.

Paul:

> *"If I felt a twinge there I would stop doing it straight away because I would know that that wasn't doing it any good, and I wouldn't go past that. But if that pain was numb I wouldn't have known and I could have been sort of damaging myself and still carry on doing it because I couldn't feel anything" (Lines 330-333)*

Maggie:

> *"If you dull the pain you might actually do yourself some more mischief as well, so if you can't feel the pain you might try and lift something or whatever that you perhaps shouldn't have done . So it's better to let you know what's actually going on in there" (Lines 145-148)*

Freddie:

> *"But the way I have looked at it with painkillers, you can actually do more damage to yourself by dosing up on painkillers and then sort of carrying on and think oh yes I can do this, I can do that, and feeling the odd twinge and then maybe doing a bit more damage" (Lines 231-234).*

Daphne:

> *"You could be stretching and going and it's, you know, not until the painkillers have worn off that you think oh god that's really bad now, sort of thing" (Lines 117-118).*

Christine:

> *"If it blocked all the pain you would think*

ok, you feel good and you would go off and realise that you had gone back to work too soon" (Lines 301-302).

Concern surrounding the masking of pain has also been found in previous research with Dewar et al (2004) noting how patients were concerned that they may 'over do it' if pain was masked with analgesics following day case surgery. Fear of masking symptoms has also been identified in other patient groups such as those with chronic conditions such as asthma and allergy (Scherman and Löwhagen 2004), and has been found to be a significant barrier to the management of cancer pain in the updated Barriers Questionnaire (BQII) (Gunnarsdottir et al 2002), and in qualitative research carried out by Ersek et al (1999). However it must be noted that with these patient groups fear does not concern masking pain and unwittingly cause further damage as can be seen in the day case patients who took part in this study, but that taking their medications may conceal more serious symptoms they should be aware of. For example, cancer patients may want to feel their pain in order to ensure that they are fully aware if their illness becomes worse.

1.3 Overused and Unnecessary

The next mid-level theme is named 'Overused and Unnecessary' and illustrates how some patients believed that analgesics are often overused and unnecessary and in my interpretation, such beliefs contributed to their decision to endure pain and push their pain limits, hence the high-level theme 'Pushing the Limits' under which this mid-level theme falls (see summary table page 119). Issues surrounding overuse were particularly clear during the second stage of interviews with Maria and Emma saying that as a nation we take too many drugs unnecessarily, and that many of us are unsatisfied unless we leave our GP surgery with a prescription. There is no previous research to identify such beliefs among day case patients or other patient groups prescribed pain medication, however, if we turn to research conducted within the social sciences, Horne et al (1999) beliefs about medicines questionnaire (BMQ) (based on patients prescribed medication of a variety of chronic illness conditions), includes items surrounding the belief that medicines are overused. Horne and Weinman (1999) argue that those who have such negative beliefs regarding medicines are more likely to have concerns regarding their medication, and as a consequence are found to have lower levels of adherence (this questionnaire and its

relationship to this research will be considered again in the next chapter). Similarly, older research conducted by Virji and Britten (1991) also found some patients to hold the belief that medicines are over prescribed, and patients with these 'unorthodox' views were said to prefer not to take medicines (Britten 1996).

Maria:

> *"I think people just rely on drugs to much, you know they get the slightest you know whatever it is and they are off to the doctors you know, and everybody wants too come away with a prescription" (Lines 61-63).*

Emma:

> *"I do think a lot of people think that they are not being constructive about anything unless they come out with a prescription or something" (Lines 479-481).*

Many patients also noted that they did not like to take analgesics unnecessarily and for many, despite the provision of information to the contrary, felt the particular level of pain they had did not warrant using analgesics. It is my interpretation that in many cases there was a significant gap between the level of pain warranting treatment with analgesics viewed by the health care professionals and research, compared with that of the patient. For example, patients are advised to take their analgesics regularly and to utilise the oral morphine if pain becomes moderate to severe. However, many waited for pain before taking anything, and stated that their pain would have to be 'excruciating' and for them to be 'in tears' before using the oral morphine provided. This has not previously been identified as a barrier among day case patients, but is in line with other research showing patients to be completely accepting of severe pain (Maroney et al 2004), and feeling it was important to endure high levels of pain before requesting analgesics following in-patient surgery (Dar et al 1992, Riddell and Fitch 1997).

Jenny:

"I just tend to wait until I have got pain and really feel the need that I have to take them" (Lines 102-104).

Bob:

"When I get to the point when I can't stand it any longer (laugh)" (Line 162).

Miriam:

"Because I didn't feel like I was in enough pain to warrant it, and I am not a big fan of taking tablets anyway, so there was never a point where I thought I can't cope with this" (Lines 115-118).

Paul:

"I would have only taken that (morphine) if I was really just like oh god this is agony if you know what I mean"

Jenny:

"I would say that I would have to be in tears and not be able to move before I would take it (morphine)" (lines 147-148).

Bill:

"If it was constant and severe, and I would have waited to see how I got on for a couple of hours" (Lines 97-99).

Sandra:

"It hasn't been as excruciating to take the morphine I don't think"

Maria:

"If I can cope without them then I will, they are a last resort"

An overwhelming number of patients had views like those above and did not take their analgesics regularly, surviving on a minimum dose. This was particularly worrying as outlined in the introductory chapter, there are many negative consequences associated with uncontrolled pain, including evidence to suggest that uncontrolled pain following surgery may lead to the future development of chronic pain (Callesan et al 1999). This elicits many questions surrounding informed

adherence; as outlined earlier the concept of informed adherence subscribes to the view that patients are able to decide whether or not to take their medication, however it is the duty of the health care professional to ensure that this decision is informed, and not based on misconception and misinformation (Horne and Weinman 2004). It is my interpretation that the patients in this study have, however, not been provided with the opportunity to make an informed decision and are unaware of the potential risks surrounding uncontrolled pain.

The extracts below illustrate this point further, Daphne argues that there is little health benefit in terms of a quicker recovery from following the analgesic regime, similarly Emma argues that she would follow the advice provided that would help her recovery (e.g. no heavy lifting), but also saw few health benefits as a result of controlling her pain. It is my interpretation that this is further exacerbated by the likelihood that they have suffered pain before; along with the fact patients are left in control of their own pain management. Hence the importance of effective pain relief is diminished, and the patient may feel that it is nothing new, and obviously not important, as why are they left to control pain alone? Related to this, previous research has shown patients to have low expectations for pain relief following in-patient surgery (Kuhn et al 1990, Brydon and Asbury 1996, Jairath and Kowal 1999, Carr 2000, Huang et al 2001). However, if patients are informed of the importance of effective pain management to avoid unwanted consequences and to promote recovery, along with the high level of pain relief that can be achieved, their decisions surrounding analgesic use may be different. Informed adherence will be discussed again later in final chapter when considering the conclusions and implications of this research.

Daphne:

> *"You know you are going heal eventually so why bother putting things in that don't really need to be there...you are not going to heal any quicker are you" (Lines 165-170).*

Emma:

> *"I would always follow their advice if it was going to have, if it can have a*

detrimental effect on the, you know, the injury or the operation or whatever you have had done. So I would always follow their advice, like for example, not to do any heavy lifting I really wouldn't do that. Whereas for the pain relief, I would see that the only effect of not taking them would be that I was a bit more uncomfortable and that wouldn't actually cause any issue. (Lines 231-236).

1.4. Benefit of Pain

The next mid-level theme surrounds the beliefs that some patients had regarding the benefits of pain. Hence such benefits led these patients, in my interpretation, to avoid analgesics and endure pain and push their limits. This mid-level theme has been broken down further into two lower level themes 'Pain is Natural' and 'Pain as a Measure', each of these will now be considered in turn.

1.4.1 Pain is Natural

'Pain is Natural' relates to the belief patients held that pain is normal or natural and therefore is seen as something that should not be stopped, but is of benefit and welcomed. Consequently this may influence the use of analgesics as some patients may want to 'heal naturally' and therefore avoid taking painkillers. This is consistent with other research that suggests some surgical in-patients to hold the belief that pain is necessary for recovery (Brydon and Asbury 1996 and Huang et al 2001), and a sample of patients with asthma/allergy who believed that by taking medication the ability of the body to heal itself naturally would be weakened (Scherman and Löwhagen 2004). This theme can also be linked to the earlier theme named 'Negative Perception of Analgesics' where it was outlined how some patients did not like to use analgesics as they were viewed negatively due their perceived 'unnatural' properties. Hence by using substances believed to be 'unnatural', the body, as argued by some patients, is unable to heal naturally.

Paul:

"I weather the storm if you get what I mean and just it all a natural sort of thing" (Lines 167-168).

Maggie:

"It's a personal thing I suppose I am I you know I like the body to heal itself naturally

I suppose, I am suppose this is part of the healing process just how you are feeling" (Lines 135-137).

Daphne:

"I don't bother no, I just let it take its natural course" (Line 50).

1.4.2 Pain as a Measure

It is my interpretation that some patients also believed that feeling pain was beneficial as they could use it as a measure to determine what activities they could do. For example, Paul and Freddie wanted to feel pain to ensure they were not causing themselves further damage, a danger outlined in the earlier theme 1.2.4 'Danger of Masking Pain', and used this pain to their benefit to measure and adjust their activity accordingly. Similarly Daphne states that by blocking pain you do not know how far to limit yourself, hence taking this interpretation further it could be said that she may prefer to have pain to measure her limits. Dewar et al (2004) found similar findings in their study with some patients also using pain to gauge activity levels following day case surgery.

Paul:

"So I have been using pain as like a, you know, measure sort of thing, you know the twinges and that allow me to keep on going" (Lines 131-132)

"So I wanted to use the pain as a bit of a measure to see if I was stretching or something and pushing something, if I felt a twinge there I would stop doing it straight away because I would know that that wasn't doing it any good and I wouldn't go past that (Lines 326-328).

Freddie:

"I am monitoring and measuring the amount of pulling, now any pulling that you do or any activity you do is putting a strain on the incision. Now if I can monitor that and think, well that's a twinge I better take that bit easy, I will do that for a couple of days, you know, as opposed to having it masked and you don't feel it pull" (Lines

271-274).

Daphne:

> *"I think with the painkillers it knocks the pain out and you don't know how far to limit yourself" (Lines 111-112).*

Pain was also used as a measure of recovery and in such instances patients did not use their analgesics or purposely reduced them in order to see if they were recovering well. For example, Gillian argues that pain can be used to determine if she is getting better or worse, Daphne says she would prefer to feel the pain to know how well she is healing, and Emma states that you need to be suitably aware of what is happening. In my interpretation in such cases pain was therefore viewed as beneficial in order to achieve this. Previous research in day case surgery suggests patients reduced their use of pain medications in order to determine if they were effective (Dewar et al 2004), and other research has illustrated how patients with serious illness fear analgesics will mask the progression of disease (Ersek et al 1999, Gunnarsdottir et al 2002). However, to date no previous research has considered the benefit patients see in feeling pain in order to measure their recovery, as in this study, which appears to be an important barrier to patients' analgesic use following day case surgery.

Gillian:

> *"I like to know what's going on because if you dull the pain then sometimes it's sort of like false, false information isn't it. If you don't know that you have got any pain then how are you supposed to know if you are actually getting better or worse" (Lines 266-268).*

Daphne:

> *"I prefer to feel that the pain is there so that I know how quickly I am healing, if you know what I mean" (Lines 22-23).*

Emma:

> *"With pain I suppose it puts you in tune with what's going on in your body. Because that's another thing sometimes with people say I am taking paracetamol or this and that, and then you actually don't know how you feel or what is going on anyway, do you know what I mean, you*

have to be suitable aware of what's happening (Lines 346-350)

Pain has also been used to measure how much the body can endure. For example, Maria states that everyone should feel pain at some point so they know how much pain they can take. It is my interpretation that Maria sees a benefit in feeling pain so she has an understanding of the level of pain she is able to endure. Related to this the low-level theme 1.5.2 'Individual Pain Threshold', to be discussed shortly, illustrating how knowing the level of pain you are able to endure, through previous experiences, influences how much pain the individual is prepared to withstand, in this case, following surgery. Hence, it can be further interpreted here that Maria may use the information she has gleaned in terms of the level of pain she can withstand (by not using her analgesics), which may then benefit her in terms of future pain experiences.

Maria:

"I think everyone should feel pain at some stage in their life, probably so you know what your body can take" (Lines 47-48).

1.5. Individuality

The final mid-level theme under the main theme 'Pushing the Limit' is named 'Individuality', this theme relates to the beliefs that some patients held about themselves as individuals, which appeared to further encourage patients to withstand pain and importantly provided them with personal confidence that enduring pain and pushing their pain limits was an achievable goal. This theme is broken down into a further three lower level themes 'Type of Person', 'Individual Pain Threshold' and 'Fitness', each of these will now be considered in turn.

1.5.1 Type of Person

This theme became particularly apparent in the second stage of interviews and highlights how some patients viewed themselves as the 'type of person' who doesn't take tablets. This is an important barrier as, in my interpretation, such beliefs went on to influence analgesic use, with those who saw themselves as someone who

doesn't take tablets enduring pain and avoiding their analgesics. This barrier has not yet been identified among day case patients, however, research by Dawson et al (2002) found patients with cancer pain to hold the belief that they are 'not one to take pills'. Similarly, Schumacher et al (2002) found patients to state that they are 'never one for taking pills' as a reason as to why they withstood cancer pain avoiding analgesics. Schumacher et al (2002 p.129) also notes that these views 'may become interwoven into the individual's sense of self', hence this has resonance with this theme as such patients view themselves as 'a person' who does not take tablets. The extracts below provide examples of this where Daphne notes that she is not a 'tablety person' and later states 'that's just me I suppose', and Emma notes that she is 'somebody' who would rather not take them.

Daphne:

> *"I am not really a tablety person" (Line 22).*

> *"That's just me I suppose" (Line 179).*

Emma:

> *"I am probably somebody who would rather not take them" (Line 128).*

Both of these patients recalled previous experiences of pain and illness from which, in my interpretation, they learned to view themselves as a person who does not take medicines, hence again illustrating how pre-understandings from 'being in the world' influence patient beliefs/sense making. For example, Daphne recalls when she had dental work without injections, how she put up with pain after two caesarean sections, and how she failed to finish a course of antibiotics. Emma talks about how she gave birth to all three of her children without pain relief, and how she didn't take medication when she felt ill recently. Bachiocco et al (1993) also shows how lack of previous analgesic use during an earlier pain experience gave patients a sense of mastery which then went on to influence their future response to postoperative pain following in-patient surgery, which was to 'actively' cope with it avoiding analgesics.

Daphne:

> *"I mean I won't have injections at the dentist so" (line 192).*

"I had a crown put on without anything" (Line 200).

"I have had a few caesareans as well and I don't think I took many tablets with that I just you know, put up with the pain and, and let nature take its own course I suppose" (154-156).

"I just think it is me in general, I remember going back years I was about seventeen I think I had tonsillitis and they thought I was going to get glandular fever, and um they said I was supposed to take a course of antibiotics and I think I only took half of them and gave the rest to my brother" (226-230).

Emma:

"I did have all three children without pain relief" (270).

"I just think, well some people said to me when I had a virus thing, why didn't you use that, and I was given antibiotics for it but I just don't think they helped. I went out with my friend and I said I feel yuck actually, she said have you taken anything, ibuprofen or anything, and I said no, she was like I don't have any sympathy then, no but I just don't, I just don't take it" (Lines 473-477).

Also, interesting both Emma and Daphne talk of relatives who are the opposite to them and take analgesics regularly without thought. Digging deeper employing the hermeneutics of suspicion, again it is my interpretation that this reinforces their perception of themselves as the type of person who does not use medicines, distinguishing them from those that do. Employing the hermeneutics of suspicion further this could also be a strategy to avoid blame. Perhaps these patients understand that they have not followed the advice provided, however, this is not their fault as it is the type of person they are, ingrained in their personality and unnameable to change.

Daphne:

> *"My other half is the opposite to me, he will take anything that is going out there so (laugh) (Lines 86-87)*

Emma:

> *"My husband had quite a different attitude, if he has got a headache he will be like I will take a tablet, and you know I am like, no, no, just see it through, it will go, do you know what I mean. So I am probably um somebody who would rather not take" (Lines 125-128)*

1.5.2 Individual Pain Threshold

This lower level theme is named 'Individual Pain Threshold' and illustrates the belief some patients had surrounding the individual nature of pain, with many stating that they have high pain threshold which, in my interpretation, appeared to provide them with the confidence and self belief that they were able to endure pain, pushing their limits. This theme is very much related to the previous low-level theme 'Type of Person', as like this earlier theme where previous experiences with pain and illness influenced the patient's belief that they were not the type of person to take medicines, here previous experiences with pain gave patients the indication of their individual pain threshold, providing them with the confidence that enduring pain was a possible and achievable goal. For example, Freddie notes previous pain experiences where he successfully endured pain so knew he had a high pain threshold. This is also related to the theme 'Pain as a Measure' outlined earlier, where pain was seen as beneficial as it could be used as a measure of how much pain that could be endured, or the pain threshold the person has, preparing the individual for future pain experiences. These beliefs surrounding individual pain threshold appear to be an important and have until now not been considered as a barrier to pain management by research.

Gillian:

> *"I am quite good at dealing with pain and you know most women do have a higher pain threshold, but I am quite good with dealing with pain so" (Lines 254-255).*

Bob:

> *"Well I know for a fact that I have got a fairly high pain threshold, so maybe I can put up with a bit more than other people can" (Lines 101-102).*

Maria:

> *"I think I have got a pain threshold that is quite high so er, I probably can take quite a bit of pain before I do something about it" (130-131).*

Freddie:

> *"I always thought of myself as having quite a high threshold of pain to be honest, because I have broken my hand on a ski slope, um, quite severely, I have had a motorbike accident and lost part of my leg, fallen from a tree and smashed my elbow, I have had a appendicitis that um burst just as I was on the operating table, and the leading twelve hours before that were agonising" (Lines 503-507).*

Looking at the wider cultural and social context in which these participants are immersed and from my own personal 'being in the world', it is my interpretation that having a high pain threshold is something that is valued within our culture and society. As outlined earlier under the theme 'Stoicism and Pride' cultural beliefs are argued to be particularly important to pain and suffering, with many people believing that the expression of pain is a sign of weakness and are stoic about pain (Moddeman 1995), hence why having a high pain threshold may be of value. Sally's remark illustrates this when she says she 'just couldn't do it' due to her low pain threshold suggesting that she has failed in some way for not withstanding pain.

Sally:

> *"I don't know it's because I have got a lower pain threshold or something that I just couldn't do it or what" (Lines 205-207).*

Again looking at the wider cultural and social context it could be assumed that males

would more likely to report having a higher pain threshold due to the pressures upon them to appear brave and strong (Nayak et al 2000). Research by Harper et al (2007) notes how military nurses believed that there is a expectation within British society that men should be stoic and macho not perceived as 'wimps', and this was also reflected in the earlier theme 'Stoicism and Pride' where participants mention 'male pride' as important. When encountering this theme I began to think about pre-understandings I may have held prior to the undertaking of this research. I believe I would have expected male participants to be more likely to talk about having a high pain threshold than female participants. However, different to expected both males and females in this research reported having a high pain threshold claiming that they could withstand greater levels of pain, hence this was not only a male prerogative.

1.5.3. Individual Fitness

In my interpretation some patients also felt that because they were a physically fit person then they were able to withstand pain and push their limits. For example, Maggie states that she thought she could tolerate pain being a fit person, and Ian felt because he was physically fit he felt less pain. Interpreting this further and again looking at what it means for these patients to have such concerns within the larger social context, important to IPA (Larkin et al 2006), it is in my opinion that in society today fitness is seen as something to be embraced and proud of, hence the numerous media stories on how to achieve the perfect physique along with the problems associated with being overweight and unhealthy (see Appendix X for examples of media coverage). This is reflected in Maggie's statement that she 'prides' herself in her ability to tolerate pain being a fit person. As a result of this the use of analgesics may shatter the individual's ideal of themselves as fit and healthy and hence are to be avoided. This belief has not previously identified among day surgery patients, however, Scherman and Löwhagen (2004) argue that one reason participants in their research did not adhere to a medication regime (for asthma/allergy) was because taking it threatened their perception of themselves as healthy. Also, analgesics may themselves be seen as detrimental to health and therefore something that diminishes this ideal (this is also related to the theme surrounding the perceived unnatural qualities and harmfulness of medicines) for example, Bill states that he does not like taking tablets as he wants to be fit and healthy.

Maggie:

> *"I pride myself in being able to tolerate things (laugh) being a fairly fit person but I suppose that's why" (Lines 96-98).*

Ian:

> *"I would probably consider myself quite fit anyhow, so whether that has had something to do with it. I mean I play sport I have played sport all of my life, I belong to a tennis club still now, whether my actual fitness for my age has helped, it might have had a bearing on it with regard to actual pain" (Line 20-24).*

Bill:

> *"I just don't like taking tablets I try and want to be a fit man and healthy" (Lines 182-184).*

2. Coping Strategies: Strategies employed to cope with pain without analgesics.

The second high-level theme is named 'Coping Strategies', and as its name suggests this theme represents the number of strategies patients employed to cope and control their pain without the use of analgesics, enabling them to push their pain limits. This theme is divided into four mid-level themes 'Contingency', 'Type of Pain', 'Distraction / Positive Attitude', 'Comparison' and 'Pain as a Measure' which surround the many strategies patients in this study employed (see table 1 page 119 for a summary of themes), each of these will now be considered in turn.

2.1 Contingency

This theme describes the coping strategy some patients employed that involved keeping analgesics aside or avoiding taking them as a contingency in case their pain worsened. Interpreting this further it could be that having this safety net, the knowledge that analgesics were there 'just in case', may have provided patients with a greater confidence when enduring pain. Below are extracts illustrating this idea, as you can see Peter kept one vial of morphine aside just in case he needed it, and Jim took less painkillers just in case his pain worsened and he needed more and didn't want to have to resort to taking the oral morphine. Related to this Maria had the

view that pain should be suffered so the benefits of analgesics could be felt later if pain became worse. Many other studies have also highlighted fears surrounding tolerance as an important barrier to pain management in many patient groups (Donovan and Blake 1992, Dar et al 1992, Ward et al 1993, Lin and Ward 1995, Wang et al 1997, Riddell and Fitch 1997, Breitbart et al 1998, Lin et al 2000, Thomason et al 1998), with such beliefs also being entrenched in the general public (Bostrom 1997). As well as this similar findings have been seen in patients following day case surgery with Beauregard et al's (1998) work employing the Barriers Questionnaire (Ward et al 1993) showing 44% of patients in their study to agree that pain medication should be saved in case pain gets worse.

Peter:

> *"I was just thinking well I have got that as a back up" (255-256).*

> *"I kept one just in case I did something stupid and hurt myself so I kept that one just as a back up" (Lines 343-344).*

Jim:

> *"I have got one in reserve without having to go for the morphine" (Lines 98-101).*

Maria:

> *"I think you need to suffer some pain, so when it does get bad you can take something for it" (153-155)*

2.2 Type of pain

Another coping strategy employed by some patients surrounds the 'Type of Pain' they were experiencing. Because pain after day case surgery is a result of tissue damage that with time will heal, some patients used this knowledge to cope with their pain. For example, Emma talks about how she felt that pain was not going to last forever and hence she could cope with it. Similarly Miriam and Daphne speak of how their pain will be gone shortly.

Emma:

"I think it is just about how you manage it in your head and I was just sort of thinking, well this isn't forever" (lines 282-284).

But I think a small amount of pain for a short time is fine and you should just get on with it, and there is a purpose to it you know (lines 323-324)

Miriam:

"It's just a case of I know this will be gone by tomorrow so" (192-193).

Daphne:

"You know you are going to heal eventually" (165)

To date little previous research has identified patients' beliefs surrounding the type of pain experience (in this case acute with a known cause) as a barrier to pain management, with only one early study illustrating patients to cope with pain following in-patient surgery by making statements such as 'I know it's not going to last forever, and that it will pass' (Jacox 1979 p.897). However, Leventhal's Self Regulatory Model (SRM) (Leventhal and Cameron 1987, Leventhal et al 1992) used in the field of health psychology, proposes a complex framework aiming to explain the way in which the individual copes with illness threat, elements of which have been used to predict adherence to treatment recommendations for chronic conditions such as hypertension (Meyer et al 1985) and diabetes (Gonder-Frederick and Cox 1991). This model proposes that one coping response is to take medication or not, and this, among other things, is more likely if it makes sense to the patient in terms of their beliefs about the illness threat. Leventhal and colleagues have identified five illness beliefs or representations, two of which are said to surround the belief the patient holds about the cause of their illness, and time-line in terms of the duration of the disease. Hence in terms of this research, these patients held the belief that that their pain is caused by tissue damage (cause), and that will not last forever (time-line), therefore according to this model, not to take analgesics would be a coping strategy that made sense in light of these beliefs. For example, previous research has shown that patients who believed their hypertension to be acute and therefore of limited duration, to be less likely to follow treatment recommendations

(Meyer et al 1985) (the relationship between this research and the Self Regulatory Model will be considered further in the following chapter).

2.3 Distraction / Positive Attitude

Another coping strategy involved patients distracting themselves by taking their mind off their pain. For example, Emma speaks of previous pain experiences and how she mentally switched off and rose above her pain, and also suggests that having a positive attitude helps. Paul talks of how with other pain like a headache he is unable to distract himself, however, this is a coping strategy that he successfully employed after his surgery. Research with other patient groups has suggested similar findings with Riddell and Fitch (1997) noting a number of strategies employed by patients to manage pain associated with cancer, including 'diversional activities' (38%) and 'maintaining a positive attitude' (24%). Employing such non-pharmacological strategies may also be related to the earlier theme describing patients' fears surrounding the belief that analgesics are unnatural and to be avoided.

Emma:

> *"So it's sort of like, try to rise above it sort of thing, and mentally like switch off from it a bit" (Lines 329-330).*

> *"I think it depends on your personality in general and how you deal with things, and whether you are quite positive about things and feeling positive about things at that time" (Lines 395-397).*

Paul:

> *"Your headaches in your brain, you can't really to me you just, you know it's not like you can get on with things and try to forget about it like you can with this, do you get what I mean" (Lines 232-234.)*

2.4 Comparisons

2.4.1 Comparing to Personal Pain Threshold.

As outlined earlier above, a patient's perception of their personal pain threshold

appears to be factor in providing them with the confidence to push their limits and endure pain. Knowledge of this personal pain threshold from previous experiences can also be said to be a coping strategy, with some patients stating how they have endured pain in the past, or been through worse, and it is in my interpretation that this knowledge helped them to cope with their pain in this instance. For example, Freddie talks about how his previous pain has prepared him and Maria about how if you have been through childbirth then you can cope with more. These beliefs are related to the concept of self-efficacy (Bandura 1997) as outlined earlier, which involves beliefs the individual has surrounding their ability to perform a behaviour, and are strongly influenced by past experiences of success or failure (Horne and Weinman 1998). Hence in terms of this research the knowledge that pain has been endured in the past allows patients to cope with pain by providing them with the confidence that they have successfully achieved this before. This is also related to the earlier theme 'Type of Person' where it was highlighted how from past experiences some patients' viewed themselves as the type of person who doesn't take analgesics, and hence this may have influenced their sense of mastery that such a behaviour could be performed again.

Knowledge of previous pain experiences and pain threshold and how this may be used as a coping strategy has not previously been highlighted by research, and appears to play strong role in providing patients with the confidence to endure pain and avoid analgesics.

Freddie:

> *"I recon it prepared me, again the example of the appendicitis I was thrashing on the bed for six or seven hours waiting for a doctor to come out with a temperature the highest I have ever felt, it was the most excruciating pain I have ever had to deal with" (Lines 534-53).*

Maria:

> *"I think you can cope with pain as a woman, especially if you have had children I think you probably can a bit more" (Lines*

124-126).

Linda:

> *"I have had some horrendous things done and I have been left in terrible pain so this is actually a doddle" (Lines 85-87).*

2.4.2 Comparing to Others

Another coping strategy employed was to compare pain experienced after surgery with alternative worse situations. This low-level theme was built around the story provided by Paul, and illustrates well how IPA can be employed not only to give an insight in to shared experiences but also individual unique ones. Here Paul argues that his operation and the pain that followed was insignificant, especially compared to those in a worse situation than himself. Digging below the surface employing the hermeneutics of suspicion it is in my interpretation that by making this downward comparison puts Paul in a better position to the others he talks of, he feels lucky and as a result can cope with his pain as his situation could be much worse. Eresk et al (1999) also highlight strategies employed by patients to reduce their dose of analgesics for the management of cancer pain, with comparing themselves to others less fortunate enabling them to tolerate higher levels of pain.

Paul:

> *"But with me with what I have got I consider this as a silly little operation I have had compared with what a lot of other people have got to go through do you know what I mean, and you know, it is no where near merited you know" (Lines 221-224)*

Making comparisons to others who had had a similar operation was also important. Sandra talks of how her sister had the same operation three times before so as a result she prepared herself to cope with the pain. Expectations of pain have been related to the actual pain experience, although this area is complex, some research does suggest that to 'expect the worst and it will be better, could be an important aspect of the actual experience' (Svensson et al 2001 p.131, Nay et al 1996). Therefore preparing oneself for pain prior to day case surgery is one coping strategy that may actually influence the level of pain experienced (see earlier introductory chapter for discussion on the multidimensional nature of pain).

Sandra:

> *"I just psyched my body up to get used to oh god there is going to be pain. so I just got used to it so I was not shocked otherwise, so I knew there would be some pain. Also my sister has had this operation three times before so I knew" (Lines 215-218).*

2.5. Pain as a Measure

This theme has been described elsewhere under the mid-level theme 'Benefit of Pain' where it is argued that patients see benefit in their pain as they can use it to measure activity and adjust this activity accordingly. It is also applicable here as this monitoring and measuring is in my interpretation was also a coping strategy to control movements and endure pain (see point 1.4.2 'Pain as a Measure' page 154 for quotations illustrating this theme).

3. Stopping Pain: Factors Leading to Analgesic Use

Although overall analgesic use among patients was low, patients did use their analgesics, albeit on most occasions not regularly, in sufficient doses or to pre-empt pain as recommended. When patients did decide to utilise their analgesics many factors appeared to have an influence upon this. These factors are explained in detail under the mid-level themes 'Necessity' and 'Patient Provider Relationship', each of these will now be considered in turn.

3.1 Necessity

Necessity played a large role in determining when patients took their analgesics. Two factors appeared to have an effect on patients' perceived necessity of analgesics which are represented in the low level themes 'Level of Pain' and 'Previous Experiences'.

3.1.1 Level of Pain

Many patients waited until their pain reached a certain level and they had pushed their limit before using analgesics, only taking them very much as a last resort. In

my interpretation in such instances choice seemed to be removed, with many being left with having no alternative but to use their analgesics. This theme is therefore related to the theme 'Overused and Unnecessary' as patients had reached the level of pain they had described under this earlier theme, and now actually felt the use of analgesics were necessary. Hence the experience of a severe level of pain took precedence, and in some cases appeared to override many of the beliefs patients held that earlier posed a barrier to analgesic use. For example throughout her interview Emma outlined the many reasons as to why she dislikes taking medication and the way in which she endured pain, but eventually came to the point when she was in much pain and, in my interpretation, no longer had a choice but to use her analgesics. Many other patients had a similar view, Christine states that she doesn't like taking her analgesics, but will because she is in pain. Alex says that he 'really didn't like putting tablets into the body' but he did on this occasion, and Freddie talks of how he prefers natural medicine, but in this case it did not matter if analgesics were unnatural as long as they worked. Many other patients had a similar view (see quotations below).

Maggie:

> *"I suppose to a certain extent I try not to take anything unless I really have to but I think I felt at that stage that really it was the best solution" (Lines 71-72).*

> *"I don't mind taking them if I feel that the time has come when I really want to be more comfortable but it's just a question of biding my time" (Lines 152-153).*

Mary:

> *"So I would rather wait for it to see if it actually did hurt and see if it you know immobilised me first before I had to take it. It did so" (Lines 192-194).*

Julia:

> *"I took a paracetamol, ibuprofen and a morphine because the pain was unbearable" (Lines 20-21).*

Emma:

> *"One day I did think that actually, no this really hurts now, and I did take the ibuprofen and paracetamol together" (Lines 95-96).*

Christine:

> *"I must admit I don't like taking them, but if they are going to do the job" (Lines 64-65)*

Freddie:

> *"I would rather take something natural but given choice between something artificial and nothing for the first two days of recovery after a procedure, my belief would be to take the artificial something" (Lines 424-426).*

This has not previous been identified among day case patients, however research with surgical in-patients has also obtained similar findings with Owen et al (1990) study illustrating 65% of patients only requesting analgesics when their pain became severe. And research by Dar et al (1992), Schumacher et al (2002) and Riddell and Fitch (1997) note some patients only to take analgesics to manage cancer pain as a last resort or when it became moderate to severe. The concept of 'necessity' is also an important component to Horne et al (1999) Beliefs about Medicines Questionnaire (BMQ) developed to understand patients' adherence to medicines prescribed for a variety of chronic conditions (asthma, hypertension etc..). Although many of the constructs of the BMQ relate to chronic conditions there are similarities to this research, with Horne et al (1999) arguing that those with stronger necessity beliefs surrounding their medication as measured by the BMQ being more likely to be adherent than those without such beliefs. Hence, relating this to this research, those patients who had come to the point where they could not cope with their pain any longer and had pushed their pain to the limit, then perceived their analgesics as necessary and were therefore willing to use their analgesics.

This finding also highlights again the disparity between the view of the patient as to what level pain relief is sufficient compared to that of the health professional, with

patients seeming to tolerate high levels of pain before taking their analgesics rather than taking them pre-emptively as recommended. Again this raises questions surrounding informed adherence, for example, would patients do this if they knew that uncontrolled severe pain following surgery could potentially result in the development of chronic long-term pain?

3.1.2 Previous experiences

Previous experiences patients had, particularly surrounding surgery, also appeared to have an influence on how necessary they believe taking analgesics to be. For example, Alex had never previously undergone surgery and was concerned regarding the pain he would experience afterwards. He states that with pain he would normally push his limits, and that after his surgery he could have hung on longer before taking analgesics, but chose not to as he felt it would be safer to take them earlier. He did not want the pain described by his friend who had previously undergone a similar operation. Likewise Ian took all his oral morphine in the first two days because he feared the pain described by others. This is also related to the earlier theme 'Individual Pain Threshold' where it was argued that because patients had undergone surgery, or experienced pain before they had a greater self-efficacy that they were able to do it again, and this in turn appeared to influence their perceived ability to push their limit and endure pain. However, in this theme patients had not undergone surgery before and so it was new and novel, hence Alex felt safer to take analgesics.

Alex:

> *"I thought it was going to be bad pain because my friend had it done last year, and he came out and he was in agony, so I just thought back to him and I thought oh, I am not going to go through that" (Lines 439-441).*

> *"With my pain I could have hung on a bit longer but I just chose not to" (396).*

> *"I don't know I think it would be safer to er, like take something now otherwise I will be in agony, you know, the time the tablets work it will be too late" (399-400).*

Ian:

> *"Other people I heard were off for six weeks, my dad was off for such and such, and I thought god I don't like the sound of that. Also I am self employed, I can't have four weeks off with no money" (359-361).*

However, it must be noted here that Ian then went on to take no analgesics at all and equated not using them as a sign of recovery despite pain. For example, Ian had his hernia repair surgery on the Friday and described waking up 'screaming in pain' with a scar 'five inches long', but planned to have stopped the analgesics and walked a mile by Monday. Again going back to issues surrounding informed adherence, if Ian knew that by taking the analgesics he would recover quicker and get back to work, rather than seeing taking nothing as a sign of recovery, then his story may have been different.

Ian:

> *"I had made a plan when I went in to have gone for a mile walk by Monday and to have stopped taking the painkillers" (196-197).*

3.2 Patient Provider Relationship

In my interpretation the relationship between the patient and health care provider was another important factor that appeared to encourage patients to utilise their analgesics. This mid-level theme has been further split into two lower level themes; 'Paternalism' and 'Trust' each of which describe different aspects of the patient provider relationship that influenced patients' analgesic use.

3.2.1 Paternalism

The first low level theme is 'Paternalism' and describes the way in which some patients took a more passive role in their pain management, strictly following the advice provided and preferring the health care provider to make the decision for them surrounding their use of analgesics. For example, Peter said that he would rather not have a choice when to take his painkillers but just to be told exactly when to take them, he also said it is sensible to follow the advice you are given. Similarly Jim states that you just shouldn't go against the advice given. Christine also talks of this suggesting that when you are prescribed medication you must take it, the choice

is taken away and you cannot ignore what you are advised to do.

Peter:

> *"It would have been better if I had a thing to say seven o'clock in the morning take this, ten o' clock take two of those, twelve o'clock take one of those. That would have been a lot easier because then you don't really have to think" (Lines 390-396).*

> *"But I just thought well I have been given it and I am just going to be sensible" (Lines 422-433).*

Jim:

> *"Their advice, you just don't go against it because they have done their bit and so you have got to do yours" (Line 179-180).*

Christine:

> *"I would say that anything that a doctor gives you or a hospital gives you, I think yes you have got to take them, you can't just say no I don't want to, so" (Lines 148-150).*

> *"If they said I had to take it, then I would have done" (Line 163)*

As outlined in the earlier introductory chapter there has been much change as to appropriate concept and terminology to use when referring to patient medication use, with 'concordance' being the preferred choice (or informed adherence as used in this research), overcoming much criticism surrounding the earlier 'compliance' model said to be based on power and control (Noble 1998), where the doctor is in a position of authority and the patient expected to follow the advice provided. However, controversially, it could be suggested that for a small number of patients in this research the compliance model is more acceptable, with patients preferring not to have choice or to be required to make their own decisions regarding analgesic use, and in such cases these patients are willing to follow their analgesic regime without

question.

Looking at the idea of paternalism further Jim said that both the surgeon and anaesthetist told him to take his analgesics regularly, and because of this he did. In this case it seems that the authority of the health care professional influenced Jim's use of his analgesics, especially considering the extract below in which Jim states that he took his analgesics out of respect for those who helped him. Similarly, Christine talks of the health care professionals as being 'icons' to be followed, and how the message was reinforced by her consultant, anaesthetist and staff nurse. Christine also mentions in her normal life she doesn't take analgesics for day to day pain and often feels non prescription medicines are unnecessary, however, in such situations, in my interpretation, she felt following advice of the health care professional should take precedence.

Jim:

> *"Both the surgeon and the anaesthetist said it very definitely with conviction" (Lines 350-352)*

> *"I think it is respect for the people who have helped you through the operation" (Line178).*

Christine:

> *"Well you know, I think the hospital have given them to you, I mean obviously they are the icons with it they know what they are doing" (Lines 189-190).*

> *"The consultant spoke to me, and the anaesthetist spoke to me, and the staff nurse" (Line 196)*

3.2.2 Trust

This final lower-level theme illustrates the interpretation that if patients have trust in the health care professional or the practice of medicine in general, then dangers and

concerns surrounding analgesics appear to be reduced. In my interpretation, this helped the patient to feel confident that the advice given to them was correct, and that it was safe to take the analgesic provided. Amanda, Sally and Sandra talk of how they trusted the advice provided, also in the earlier theme 'Dangers and Concerns' quotations were provided by Alan and Peter who stated that although they were worried about the potential for addiction, they trusted what the hospital had provided them with. Previous research with other patient groups has also related patients' trust in their doctor with analgesic adherence, with those showing greater mistrust being less likely to use their analgesics to control chronic pain (McCracken et al 2006).

Amanda:

> *"They said it was safe" (Line 46).*

Sally:

> *"Because everybody that's told me to obviously the nurses and the doctors so I trust what they have got to say" (Lines 187-188).*

In the modern world it is argued that

> trust in expert systems and forms of authority become 'active' in the sense that it is not a given, accepted aspect of lay experience; rather trust increasingly has to be 'won' and therefore consistently renegotiated with lay audiences (Bissell et al 2001 p.9).

One way in which to increase trust is through the building of strong open relationships between the health care provider and the patient. This is something to which the popular concordance model subscribes (Royal Pharmaceutical Society 1997, Marinker 2004, Bissell et al 2004), however, within day case surgery the limited contact between the patient and provider makes this partnership difficult to achieve. As suggested in the earlier background chapter concordance is better suited to chronic illness conditions where there is 'opportunity to develop an understanding of the patient's perspective over a number of consultations' (Stevenson 2004 p.43). However, although such a relationship is difficult to build within the day case arena, previous positive experiences with medicine and good patient provider relationships

prior to day case surgery, in some cases, appear to increase trust in medicine in general, which then, in my interpretation, influenced analgesic use. Christine had been diagnosed with MS and she believed the steroid injections she received helped her greatly. She therefore had much trust in medicine and used these experiences upon which to base her decisions regarding her analgesics.

> Christine:
> *"I was diagnosed with MS and then I was given steroid injections twice a day seven days a week and it was just a case of having to do it. If I hadn't had steroids the vision in my eyes would have gone and my leg was going, ok that hasn't happened for about 16 years, but yes if I had not have them steroids then you know I wouldn't have been able to function" (Lines 385-388).*

Related to this is also the concept of satisfaction, as it could be said that Christine was satisfied with her previous experience with medicine. The relationship between satisfaction and adherence is complex with previous research linking greater satisfaction with greater adherence (Sigurdardottir 1996), the patient provider relationship has also been found to influence satisfaction and adherence (Imanaka et al 1993, Hirsh et al 2005, Dawson et al 2002). As well as this satisfaction has been found to be a mediating factor in patient perception of trust in health care providers in those with chronic pain and cancer pain (Dawson et al 2002, McCracken et al 1997). That said, it must be noted that the majority of patients in this research commented on how pleased and satisfied they were with the care they had received during their time at the day case unit, however, many went on to take the decision not to follow the advice provided, avoiding analgesics and enduring pain.

4. Chapter Summary

Overall, many patients in this research avoided analgesics and often tolerated high levels of pain when they returned home following day case surgery, highlighting

significant barrier to pain management in this area, which until now, was yet to be fully explored. By employing a qualitative methodology this study has provided a unique and detailed insight into patients' use of analgesics following day case surgery. Findings illustrated analgesic use to occur largely as a result of a complex intentional decision making process based on patients' beliefs that emerged often from past experiences and the context and culture in which the participant was immersed. The influence of patients' intentional decision making is something not previously considered in this area, with the majority of earlier research aiming to improve pain management calling for better patient information and analgesics in order to overcome unintentional barriers, underestimating the complexity of the patient's experience with their analgesics when they return home following surgery. Also this study was the first to uncover many of the beliefs influencing patients' decisions regarding analgesic use, and makes further sense of such beliefs by providing an explanatory framework illustrating how they may exert their influence.

This framework can be separated into three categories, the first of which surrounds beliefs held that encouraged patients to want to endure pain and push their limits. These beliefs included the thought that stoicism was an appropriate response to pain, with many gaining a sense of pride from tolerating pain. Other beliefs under this main theme included those surrounded the dangers of analgesics with some patients fearing the unknown, being concerned regarding addiction, side effects, overdose and the unnatural chemical nature of analgesics, there was also a perceived danger of masking pain and unwittingly causing further damage, all of which led some to want to avoid analgesics and endure pain. As well as this many patients appeared to want to avoid analgesics because they saw benefit in pain as they felt it was natural and could be used as a measure of activity and recovery. Patients also wanted to endure pain because they felt analgesics were overused and unnecessary, and that they were not the type of person who used them. Also enduring pain was viewed and an achievable goal by some because they believed they had a high pain threshold, were physically fit and had successfully endured pain during previous experiences.

The second main theme surrounded coping strategies employed in order to cope with pain avoiding analgesics. Coping strategies used by some patients included keeping a portion of analgesics aside in case pain becomes worse, distracting themselves

from their pain, using pain as a measure, maintaining a positive attitude, comparing themselves to others in a worse situation, preparing themselves to withstand pain and taking comfort in their perceived high pain threshold gleaned from previous experiences and the knowledge that pain is acute and will not last forever.

Eventually, many patients felt it necessary to take their analgesics, hence the third main theme 'Stopping Pain'. This perceived 'necessity' appeared to reduce choice and overcame earlier identified barriers to pain management, however, it often came at a time when pain became severe, and consequently pain relief was not taken pre-emptively as advised, with worryingly, a considerable gap between patients' and health care professionals' perception of pain that is deemed to be acceptable. The patient provider relationship also influenced patients to use their analgesics with those who had trust in the provider, which may have been gleaned from previous positive experiences, appearing to be more likely to follow the advice given and being less afraid of addiction. Paternalism was also important for a few patients who followed the advice provided implicitly without question, with one patient arguing that he would prefer not to have the choice but to be told what to do.

To conclude, this research has highlighted a significant barrier to pain management following day case surgery; that patients often avoid using their analgesics when they return home following day case surgery despite the experience of pain, and has provided a unique insight into this analgesic use, identifying for the first time a number of beliefs patients hold that influence their decision making regarding analgesics. Findings will have a significant impact in this field, illustrating how day case surgery is not as straight forward as many hope or believe, and that by providing patients with pain management information and effective analgesics is unlikely to significantly reduce the continued reports of pain following surgery as it underestimates the complexity of the patient's experience with their analgesics when they return home. The final chapter will consider further the implications of this research, however, before this an important objective of IPA is to relate findings back to previous research, and to illuminate or counter existing theoretical models that dominate the field of psychology based on traditional quantitative research. Hence the next chapter will now discuss these findings further, particularly in relation to theoretical models that have been produced to explain adherence to

medication for a number of chronic illness conditions (mainly asthma and hypertension), with which the findings of this research has some resonance.

Chapter 6

Further Discussion

1. Chapter Outline

Relating findings back to previous research, particularly to illuminate or counter existing theoretical models that dominate the study of health psychology is an important objective of IPA (Smith 1996, 2004), with IPA's theoretical underpinnings, especially its commitment to cognition in terms of meaning making or sense making (see earlier methodology chapter page 59), being particularly suited to this goal. Within mainstream psychology a number of theoretical models have been proposed to understand patients' use of medicines prescribed for chronic illness conditions (such as preventer medication for asthma or medication prescribed for hypertension), but to date there is no research to have considered these models in relation to acute illness, and in particular, to patients' use of analgesics following day case surgery. However, findings from this study appeared to have some relationship, mainly to the Self Regulatory Model (Leventhal and Cameron 1987, Leventhal et al 1992), and I felt this relationship to be worthy of discussion. Especially how this model can be used to explain the mechanism through which patients make their decisions regarding medicines. Hence this chapter begins outlining some of the theoretical models used to explain patient adherence to medications for chronic illness conditions, and then considers in detail the relationship between the findings from this research (particularly the explanatory framework produced to make sense of patients' analgesic use following day case surgery) and such models, with particular focus on the Self Regulatory Model and the way in which it can be employed to further understand the mechanisms through which patients' beliefs may influence their adherence decisions.

2. Theoretical Models of Adherence

Within mainstream health psychology a number of social cognitive models (SCMs) such as the Health Belief Model (Rosenstock 1974 and Becker 1974), Theory or Reasoned Action (Ajzen and Fishbein 1980) and later Theory of Planned Behaviour (Ajzen 1991) have all been employed to understand a variety of health decisions, including how patients' beliefs influence their adherence/ non adherence to treatment recommendations for a number of chronic illness conditions. However,

the main weakness of these models is said to be their simplistic assumption that the patient makes rational liner decisions and therefore they have difficulty explaining more complex and irrational behaviour (Horne and Weinman 1998). The results of this research illustrate how patients' decision making regarding analgesic use following day case surgery is very complex, and the finding that patients often avoid analgesics despite pain may be seen as rather irrational, consequently such social cognitive models may have limited applicability in relation to this research.

One model which may have utility however, is the Self Regulatory Model (Leventhal and Cameron 1987, Leventhal et al 1992) which has also been used, among other things, to explain adherence decisions to medications prescribed for chronic illness conditions. More recently this model has been extended to include beliefs about medicines (Horne and Weinman 1998, Horne et al 1999, Horne and Weinman 2002) which has added to its predictability. There is limited research employing this model (Horne and Weinman 1998) and to date it is yet to be applied in the understanding of adherence to analgesic medicines, let alone adherence to analgesics in an acute setting such as day case surgery. This model does, however, provide a further insight into the mechanisms that may be involved in adherence decisions, and can be applied to this research to further explore the way in which beliefs found in this study to be relevant to patient use of analgesics following day case surgery, could exert their influence. This model also overcomes a number of the problems associated with Social Cognitive Models being able to account for irrational and complex behaviour. The Self Regulatory Model and its relationship to this research will be considered in detail below.

The Self Regulatory Model was developed by Leventhal and colleagues in the 1980's, taking into consideration a number of lay representations surrounding illness this model proposes health-related decisions to be dynamic rather than static (Horne and Weinman1998). The main crux of this model is that the patient is motivated to cope with an illness threat in order to return to a state of normality. The patient's coping response (in this case to take medication or not) is said to be guided by their beliefs or lay representation regarding the illness threat, and is more likely if it makes sense with regard to these beliefs. It is argued that these beliefs are based upon five dimensions which, like the findings of this research, are said to be

influenced by cultural context, past experience and the beliefs of significant others (see Horne and Weinman 1998 and Ogden 2000). These five dimensions are outlined below:

1) Identity – The label the patient gives to the illness and the symptoms associated with it.
2) Cause – Belief the patient holds about the cause of their illness
3) Consequence – The patient's perception of the short and long term implications in terms of disability, social, economic and emotional consequences.
4) Time-line – Beliefs about the duration of the disease.
5) Cure and Controllability – Perceptions as to the effect of medical care in bringing recovery and control over the illness.

This model also includes an appraisal stage in which the coping response (to take medication or not) is assessed, if the coping strategy is deemed ineffective this can then be fed back resulting in a change in coping strategy and in some cases a change in illness representation. For example, if an individual is suffering from heartburn they may cope with this illness threat by taking an antacid, however if this does not work they may choose an alternative strategy, perhaps take a stronger antacid or seek medical advice, and may also change their initial illness representation, that their illness may be more serious than heartburn. The Self Regulatory Model also has an emotional component which can explain irrational behaviour, Horne and Weiman (1998) provide an example of this; a patient may, as a result of her illness representation, believe a lump in her breast is a tumour, but may delay seeking help in order to cope with the emotional fear or distress caused by this perceived illness threat.

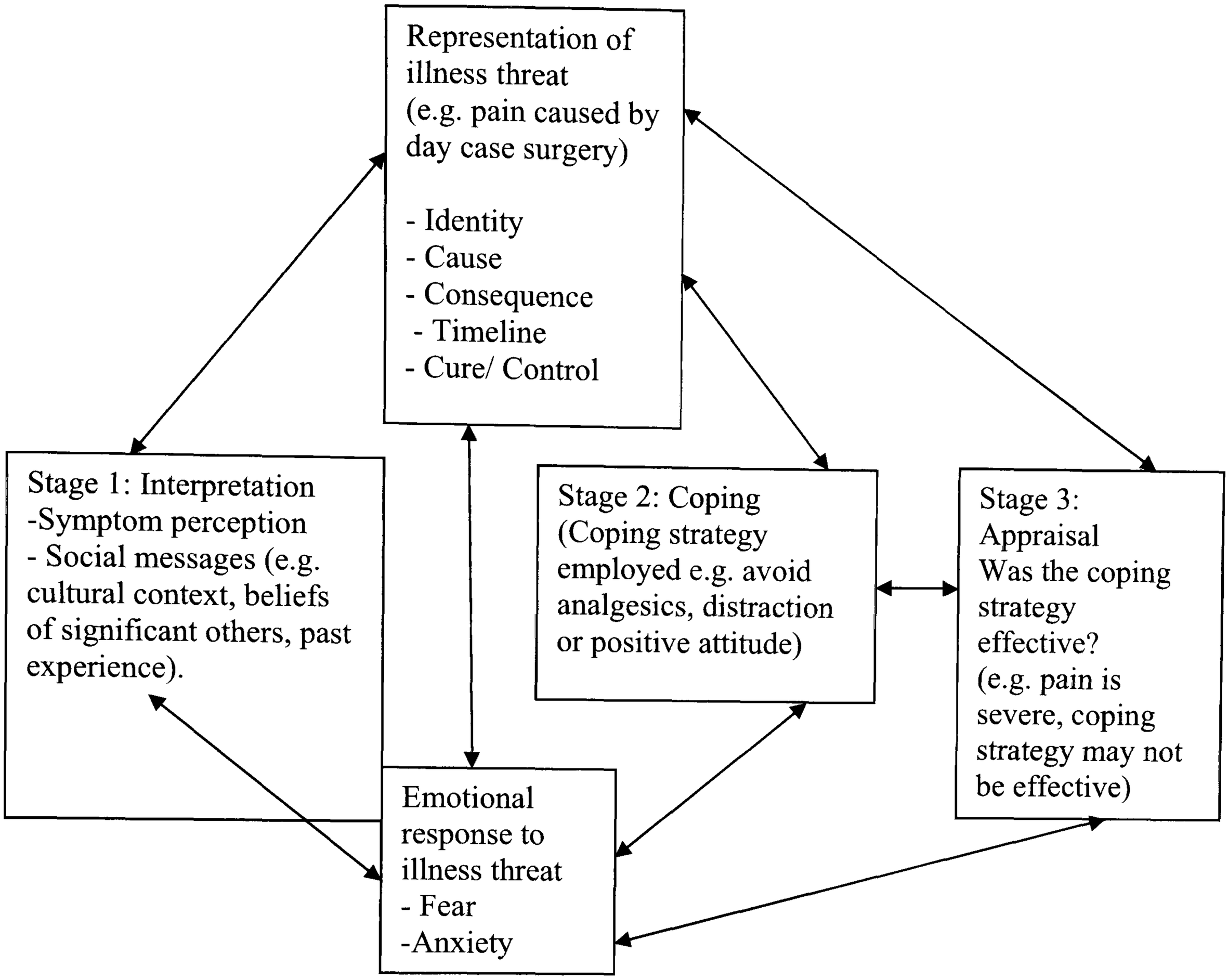


Figure 8: Leventhal's Self regulatory Model (Adapted from Ogden 2000)

In relation to this research, Leventhals five illness representations have some resonance with a number of beliefs patients held regarding day case surgery and pain. For example it can be assumed that these patients had experienced pain in the past and therefore they could identify their illness (or pain). They also knew the cause of this pain was as a result of day case surgery. As can be seen in the findings of this research patients appeared to be unaware of the consequences of uncontrolled pain, such as the development of chronic pain, and many assumed that as their pain was a result of day case surgery it would not last for ever, hence a short timeline. Some patients also had few expectations surrounding pain relief. Taking this together, in terms of the Self Regulatory Model, it could be speculated that a patients common sense response to their illness representation may be non adherence (or to

cope with their pain without analgesics), because they had experience of pain before they knew what to expect, they knew pain was a result of their day case surgery, and believed that it would be of short duration with few consequences, and expectations of pain relief were low.

The belief patients had that they could carry out the behaviour, in this case to cope with pain without analgesics, was found in this study to be influenced by their previous experiences with pain, the view that they had a high pain threshold, that they were fit and healthy, and the type of person who doesn't take medicines. In my interpretation this previous behaviour may have influenced their chosen coping strategy as a result of self efficacy; they knew they were able to carry out this behaviour (endure pain) as they had done it before. The Self Regulatory Model does not consider self efficacy, however, it does acknowledge previous experiences. Hence if we think in previous pain situations the patient may have chosen a coping strategy that involves coping with pain avoiding analgesics, and appraised this as successful, then in this situation (following day case surgery) it could be assumed that they are likely to carry out this successful behaviour again.

This model may also talks of 'coping procedures' which could relate to the various coping strategies employed by patients in this study as an alternative to taking analgesics, such as the use of distraction and maintaining a positive attitude, comparing themselves to others and to their personal pain threshold, saving a portion of analgesics in case their pain worsens, and taking comfort in the belief that this pain will not last forever. And the Self Regulatory Models 'appraisal' stage may go some way to explain why some patients in this study chose to change this coping strategy. For example, the patient may cope with their pain by using distraction or maintaining a positive attitude, however, this strategy may be appraised as being unsuccessful when pain becomes severe, and an alternative is then sought. Hence this could explain why patients' chose to use analgesics when their pain reached a certain level when their chosen strategy became no longer effective. It could also be speculated that because pain became severe for some patients, and resulted in them choosing an alternative coping strategy, to use their analgesics, that their initial illness representation may have been modified e.g. pain after day case surgery is not as short term as previously expected, or the pain associated with day case surgery is

more severe than expected.

This model can also go some way to explain the influence of other beliefs identified to impact patients' use of analgesics following day case surgery. For example, according to the Self Regulatory Model patients' illness beliefs (in this case beliefs surrounding pain) are as said to be influenced by context, culture and the beliefs of significant others (Horne and Weinman 1998). Hence this can account for beliefs that appeared to influence analgesic use such as 'Stoicism and Pride' which could be said to arise from the culture in which the patient is immersed. The patient may be aware that stoicism is a valued response to pain within society and may be motivated to carry out a behaviour accepted by society, therefore having the feeling of pride as seen in this study, and consequently this may influence their chosen coping strategy which is to avoid analgesics. The 'Patient Provider Relationship' was also found to be important in influencing patients' analgesic use, and some patients in this research followed the advice provided because they looked up to, and respected the health care professional. Hence they could be said to be influenced by the 'beliefs of significant others' and are motivated to please the health care professional, which then influenced their chosen coping strategy which was to take analgesics as recommended.

However one aspect of the findings the Self Regulatory Model has difficulty accounting for is the beliefs patients had not only about their pain and day case surgery (in terms of illness representations), but about analgesics and the influence this had upon their adherence. Previous research has also argued that patients not only hold beliefs about their illness, but beliefs about the medication used to treat this illness (Horne and Weinman 1998, Horne and Weinman 1999, Horne et al 1999, Horne and Weinman 2002). In 1995 Horne and colleagues began to investigate the beliefs patients hold about medication, from this they developed a Beliefs about Medicines Questionnaire (BMQ) (Horne et al 1999) based on beliefs identified in the literature, along with those from interviews conducted with patients prescribed medication for chronic illness conditions (haemodialysis and myocardial infarction). Horne et al (1999) argue that beliefs about medicines prescribed for specific conditions can be grouped under two core themes; concern about harmful effects and necessity of prescribed medication, as well as this patients are also said to have

general beliefs about the intrinsic nature of medicines as a whole.

Many of the items measured by the BMQ surround beliefs regarding medication to treat long term illnesses, however, some items could be related to this research. Items employed in the BMQ used to measure 'concern about harmful effects' included, among other things, items surrounding beliefs regarding dependency and side effects, both of which were important concerns for patients in this study involving the analgesics they were prescribed. The 'mysterious nature of medicines' was also a concern/belief measured by Horne et al (1999) and can also be related back to this research where patients were 'fearful of the unknown'. Items employed by the BMQ to measure 'necessity of prescribed medication' include statements such as 'my health at present depends on medicines', 'my life would be impossible without medicines', and could also relate to the beliefs patients held about the necessity of their analgesics in this study, particularly when their pain became severe.

Finally, Horne et al (1999) also highlighted that people not only have beliefs specific to the medication prescribed to them (as outlined above in terms of necessity and concern), but they also have general beliefs about medicines as a whole which inform their expectation and orientation towards their proposed medication. Again during the development of the BMQ, Horne et al (1999) identified two important general beliefs people are said to hold about medicines; that medicines are over prescribed by doctors, and the belief that medicines are generally harmful substances. Items under this construct include statements such as; 'if doctors had more time with patients they would prescribe fewer medicine', 'doctors use too many medicines', 'natural remedies are safer than medicines', 'medicines do more harm than good', 'most medicines are addictive' and 'all medicines are poisons'. Many of which were beliefs held by patients in this research.

Horne and Weinman (1999, 2002) argue that these beliefs patients hold about their medicine influence adherence in a number of ways. Firstly general beliefs influence a person's initial orientation towards medicines, and then beliefs about the necessity of a specific medication are said to be balanced against concerns. Hence patients with strong concerns regarding the medication and fewer beliefs about the necessity

of their medication for improving health should have a higher level of reported non adherence, especially if they also have a negative view of medicines based on their general beliefs. Using the BMQ studies have also shown how beliefs may influence adherence to medication for chronic conditions (Horne and Weinman 1999, 2002) and analgesics prescribed to manage pain in patients with chronic arthritis (Treharne et al 2004, Neame and Hammond 2005).

The necessity concerns construct has not previously been applied to examine adherence to medication for acute conditions, such as the use of analgesics in day case surgery. However, if this construct is employed to findings from this research it could be argued that patients who are less likely to use their analgesics have greater concern regarding the dangers of analgesics (outlined under theme 1.2 'Dangers and Concerns') should have more negative general beliefs surrounding medicines as harmful and overused, along with fewer necessity beliefs (outlined under theme 1.3. 'Overused and Unnecessary'). This may also explain why, when pain become severe, there was a shift in this construct and necessity (outlined under theme 3.1 'Necessity') began to outweigh these concerns, hence this may explain why when pain became severe patients in this study began to take their analgesics despite earlier concerns.

Horne (1998) and Horne and Weinman (2002) have extended the Self Regulatory Model to include these medication beliefs, hence this model provides a way in which adherence can not only be explained by illness beliefs, but also by beliefs about medicines. Regression analysis has shown how medication beliefs add significantly to the level of variation in reported adherence (employed with patients with asthma), supporting this extended model (Horne and Weinman 2002). In relation to this research bringing both illness beliefs and medication beliefs together is useful, for example, patients who have illness beliefs surrounding pain associated with day case surgery as short term and of little consequence (addressed by the Self Regulatory Model), may have fewer necessity beliefs surrounding their medication, and this combined with concerns (both addressed by the beliefs about medicines component), may influence adherence. Although this model has not been employed in an acute setting, Horne and Weinman (1998) also agree that the necessity construct may be more important in acute conditions, or where the benefit of taking medication is not

clear to the patient. Hence in relation to this research if patients had a greater awareness of the consequence of avoiding analgesics and the benefits of using them, they may have greater necessity beliefs, which could go on to outweigh their concerns.

Incorporating beliefs about medicines with illness beliefs may also bring into use the emotional component of the Self Regulatory Model outlined earlier which up until now seemed redundant in terms of this research. For example, if the patient is concerned about their medication (addressed by the beliefs about medicines component) they may experience emotions such as fear, distress and anxiety (as in the Self Regulatory Model), and in order to avoid such emotion they may chose a coping response which is to evade the cause of their negative emotion and therefore not take their analgesics, hence resulting in what seems to be irrational behaviour of some patients which is to avoid analgesics despite pain.

3. Chapter Summary

Although the above considerations are to some extent speculative in nature, I felt it was important to relate this research to the extended Self Regulatory Model Leventhal and Cameron 1987, Leventhal et al 1992, Horne et al 1999, Horne and Weinman 2002) in detail due to the resonance I found it to have with the findings of this study, particularly its ability to further explain the possible mechanisms through which patients make decisions regarding their use of analgesics following day case surgery. It may be of value to consider this further in future research, as this model is yet to be tested within an acute setting such as day case surgery. This model may also prove to provide a useful intervention tool when aiming to improve pain management following day case surgery, which will be discussed in the next chapter. However, although such a model is important, especially when looking at the mechanisms of adherence, going some way to make further sense of how the patient's complex array of beliefs identified in this study may influence their behaviour. It is still acknowledged that such a model will never completely explain patients' adherence to analgesics following day case surgery, due to the many individual differences that can only be seen when employing qualitative research. The next chapter will now go on to outline the conclusions of this study along with the implications it has in terms of future research and practice development.

Chapter 7
Conclusions

1. Summary of Key Findings

This study has revealed many patients to avoid analgesics enduring, in some cases, severe pain during their recovery at home following day case surgery, helping to uncover a significant barrier to pain management in this field, the reasons for which, until now, had not been fully explored. Interviews with patients gave new understanding, showing patients' use of analgesics to be as a result of a complex intentional decision making process based on their beliefs surrounding pain, analgesics and day case surgery, which were strongly influenced by past experience, and the cultural context in which the patient is immersed. With this research being the first to identify many of these beliefs and illustrate how these beliefs may influence patients' adherence decisions. These findings also reveal that day case surgery is not as straight forward as many hope, and believe, and that providing patients with simple pain management information and effective analgesics, the solution to pain management in this area proposed by many previous studies (Stone 1996, Doyle 1999, Henderson and Zernike 2001, McHugh and Thoms 2002, Mitchell 2003, Mitchell 2004a), appears to underestimate the complexity of the patient's experience with their analgesics when they return home following surgery. The following section will now go on to consider the implications of this study along with opportunities for future research.

2. Implications and Further Research

2.1 Implications for Practice

One important implication this research has for practice is the finding that patients' use of analgesics when they return home following surgery is highly complex and largely as a result of an intentional decision they make. As briefly outlined above, current recommendations to overcome pain following day case surgery are to provide patients with effective analgesics to take home and sufficient information as to how to use these analgesics (Royal College of Anaesthetists and The Pain Society 2003). Consequently, although pain management information and effective analgesics are vitally important if patients are to manage their pain, the findings from this study show that it cannot be assumed that patients will automatically follow the

advice provided, hence such recommendations overcome unintentional non adherence, but appear to misjudge the patient and the significant role they play making intentional decisions regarding analgesic use.

Recognising the role of the patient this research explored in detail their analgesic use when they returned home following surgery and found patients to hold a complex array of beliefs upon which they appeared to base their decisions regarding their use of analgesics. Many of these beliefs were built on misunderstanding and misinformation, and it is here that opportunities to improve pain management in this area may be found. Interventions need to go beyond the provision of pain management information (as in current practice), and aim to overcome some of the erroneous beliefs held by patients, as argued by Ferrel and Juarez (2002 p.329) 'providing only content or facts is futile unless clinicians also address strongly held beliefs'. This is also in line with the concept of 'informed adherence' (Horne and Weinman 2004) to which this research subscribes (see background chapter page 31) This concept argues that the patient has a right to make treatment decisions however, the health care provider has a duty to ensure that these decisions are based on evidence rather than misconception or misinformation. According to Horne and Weinman (2004 p.124)

> Informing should be an active process, which involves more than simply presenting the evidence. It also entails eliciting the patient's beliefs and identifying whether pre-existing beliefs might act as a barrier to an unbiased interpretation of the evidence.

However it may not be this simple, whilst previous research, particularly within the field of cancer pain management aiming to provide education to correct common misconceptions regarding pain control (many based on Ward et al's (1993) barriers questionnaire) has proved to successfully increase adherence and reduce pain among patients with cancer (Chang et al 2002, Aubin et al 2006, Lin et al 2006), other research has found little improvement (see Gunnarsdottir et al 2003 for a review). Similarly, many interventions have been undertaken aiming to improve adherence to medications prescribed for a number of chronic conditions. Whilst the majority of these aim to overcome unintentional influences e.g. providing memory aids, clear instructions etc…, some aim to overcome beliefs and attitudes based on

misinformation and misconception, however according to reviews again the success of these interventions is mixed (see Horne and Kellar 2005).

Ward et al (2001) argue that such interventions may be too simplistic, and that, as also found in this research, beliefs are complex 'embedded in a matrix of ideas beliefs and experiences concerned with pain and analgesic medication' (Ward et al 2001 p.151). Similarly it is my view that such interventions aim to simply overcome beliefs, but rarely consider the complex mechanism through which these beliefs may exert their influence, which may provide the key to improving pain management in this area. Using IPA this research has not only described patient beliefs important to analgesic use, but has also gone a step further giving some structure to these beliefs and providing an explanatory framework showing how these beliefs may actually influence their analgesic use. For example, the first main theme illustrates how patients 'Push their Limit' and endure pain, the second illustrates the 'Coping Strategies' patients employ in order to do this, and the third theme 'Stopping Pain', outlined factors that encouraged patients to use their analgesics, particularly when they became necessary when pain had reached a certain level and pain could no longer be tolerated. In the previous chapter these findings were also further discussed in relation to the Self Regulatory Model (Leventhal and Cameron 1987, Leventhal et al 1992) and the extended Self Regulatory Model to include beliefs about medicines (Horne 1998, Horne and Weinman 2002). Again giving further structure to patient beliefs and the mechanism by which they may influence patients' analgesic use.

It is my understanding that the explanatory framework provided by this research along with the extended Self Regulatory Model could be applied in order to target key beliefs important to patients' analgesic use, thereby overcoming problems with earlier interventions and improving pain management. For example, the extended Self Regulatory Model proposes that patients balance the perceived necessity against concerns regarding medicines, and as shown in this research when pain became severe patients' perceived necessity increased and this took precedence, overcoming many concerns patients had. Hence increasing this necessity, for example, informing patients of the consequences of uncontrolled pain and how the use of analgesics will benefit them result in a quicker recovery, and reducing the perceived concerns, for

example, informing patients of how unlikely addiction is, how safe their medication is, and that further damage will not be caused if pain is masked, along with considering other complex beliefs assessed by this model (e.g. illness representations, emotional response as outlined in the previous chapter), may have an impact on patients' analgesic use following day case surgery.

Similarly, identifying a patient's coping response, for example one of which seen in this research was to keep a portion of analgesic aside in case pain worsened, and by asking the patient to reappraise this response (as outlined in the Self Regulatory Model see previous chapter page 182) for example, inform the patient that they would not become tolerant to the effects of their analgesics in such a short time frame and further analgesics would be prescribed if necessary, may lead to a change in the chosen coping strategy with the patient choosing instead to take their medication as prescribed. Another coping strategy employed by some patients was to take comfort in the knowledge that their pain was caused by tissue damage and would not last forever, however, this coping strategy may be reappraised if patients knew that by not sufficiently controlling their acute pain could potentially lead to the development of chronic pain. Further research is now required to assess usefulness of the explanatory framework produced by this research and the extended Self Regulatory Model as a possible intervention tool aiming to overcome patient barriers to pain management following day case surgery.

Donovan et al (2007) have also outlined an intervention to help facilitate patients' analgesic use (mainly in patients with cancer pain). Donovan et al (2007) have not based their intervention on the mechanisms involved in the Self Regulatory Model as proposed above, however, have used the five illness representations highlighted in this model (see page 182 for an outline of these representations). Their intervention, called the representational approach to patient education, aims to identify and change patients' representations surrounding the management of pain by identifying any problems with their representation, discussing this with the patient and introducing replacement information, and in their recent publication this approach has shown promising results (Donovan et al 2007).

However, it is acknowledged that in practical terms, in the world of day case surgery patient turn around times are fast with the patients having limited contact with the health care provider, hence such individual interventions would need careful thought. It is also acknowledged that some beliefs may not be amenable to change, for example, Schumacher et al (2002 p.129) found a small number of cancer patients to have deep convictions about medicines that are 'not the same as misconceptions or erroneous beliefs about pain management. Rather they are strong and enduring views about medications that may become interwoven with the individual's sense of self'. In terms of this research further studies may wish to gain greater insight in to which beliefs day case patients may hold that may be less amenable to modification. For example, beliefs found in this study surrounding the 'type of person' the patient thinks they are, which, as outlined by Schumacher et al (2002) may be entwined into the their sense of self, could therefore be difficult to overcome. Many of the beliefs patients held in this study were influenced by the context, culture and past experiences, again such beliefs which are strongly entrenched within the patients world may be difficult to defeat. Related to this there is a need to recognise that by taking the position of informed adherence, one must respect the patients' decision and be accepting that some patient may hold views that they are unwilling to change.

Although patients' intentional decision making was found to be paramount to their analgesic use, this study also found unintentional factors to play a role, particularly when some patients talked of how they were confused about how to use their multimodal analgesic regime, hence patients may have wanted to use their analgesic regime, but couldn't as they did not understand how to. The main reason for this lack of understanding appeared to be due to the fact that verbal information surrounding pain management was provided at discharge when some patients felt their judgement to be clouded due to the anaesthesia given during surgery, and hence they were unable to absorb this information (however they were also provided with written information to take home). Further research is therefore required into the timing of pain management information, perhaps verbal and written information should be given to patients when they attend for their pre-assessment appointment some weeks prior to surgery, and then reinforced upon discharge with further written information to take home. Some patients also asked for more detailed information regarding how their analgesics actually work in order to allay their 'fear of the

unknown', providing this may offer further opportunity to improve pain management in this field. However, it is acknowledged that different levels of information are required depending on the individual, too little can cause confusion and too much can lead to anxiety, consequently the level of disclosure required would need careful consideration (Mitchell 2001).

Telephoning patients when they return home following surgery may also provide opportunity to reinforce pain management information, and may also help to build a stronger patient provider relationship (which in the world of day case surgery there is little time for). This may prove important as such relationships in this research appeared to have a positive influence on analgesic use, with those who experienced a good patient provider relationship and had trust in the health care provider, appearing to be more likely to use their analgesics as recommended. Another practical suggestion would also be to provide patients with their analgesic regime sometime before discharge, perhaps they could take one dose themselves whilst in the day case unit to become familiar with their regime, as this study showed that those who were familiar with their analgesics and had used them in this way before, appeared to less fearful of the unknown and more likely to utilise them.

2.2 Methodological Implications

Interpretative Phenomenological Analysis was particularly suited to the aims of this research, among other things, it was able to provide an in depth phenomenological insight into the individual's experience, important when studying patients' use of analgesics and the subjective experience of pain. Taking a middle ground between social cognition and discourse analysis it was able to be used to explore cognitive constructs such as beliefs which were important to patient decision making regarding medicines, and also to be used to gain an insight into some of the contextual factors that influenced such beliefs. As well as this IPA was able to take initial description further to provide an explanatory framework as to how such beliefs may actually influence patients' use of analgesics, with findings then being able to be related back to existing theoretical models (particularly the extended Self Regulatory Model never previously employed in field of pain), to further understand the mechanism through which patients make decisions regarding analgesic use.

However, IPA was not without its problems, in particular IPA was increasingly coming against criticism for its underdeveloped theoretical underpinnings, and as a result was starting to become known as a purely thematic and simplistic approach (Willig 2001, Larkin et al 2006). In the methodology chapter of this thesis I have, through much piecing together and exploration, outlined in detail the theoretical underpinnings and epistemological position of IPA. It is hoped from this chapter that the theoretical position of IPA has not only been explained, but advanced in light of the latest developments in the field and my own understandings, having implications for IPA in helping to overcome criticism that it is merely a thematic approach with no theoretical grounding.

Along similar lines IPA had also been criticised for not fully engaging with IPA's interpretative element, with many previous studies failing to move beyond a first order descriptive analysis (Larkin et al 2006, Brocki and Wearden 2006). One reason for this appeared to be that guidelines for analysis were inadequate, particularly when putting some of the more theoretical aspects of IPA into practice or undertaking a second order interpretative analysis. In the analysis chapter of this thesis I aimed to go further than these established guidelines putting into practice some of IPA's theoretical underpinnings pieced together in the earlier methodology chapter. For example, despite subscribing to the phenomenological philosophy of Heidegger (1927/1962) IPA makes no mention of pre-understandings and how to 'work out' these pre-understandings, important to this phenomenology. Hence I employed ideas taken from Gadamer (1960/1997) such as 'fusing horizons' and the hermeneutic circle and provided examples of how I engaged in these concepts in order to 'work out' or adapt and change my understanding in light of new information. Along with this I have aimed to go beyond IPA's first order descriptive analysis and have outlined the way in which I employed the hermeneutics of suspicion and contextualisation, to achieve a greater understanding and explanation of patients' analgesic use following day case surgery. It is envisaged that this will have implications for the methodology of IPA, illustrating how it can successfully be applied to undertake analysis that is theoretically driven, and effectively engages with IPA's interpretative element.

3. Limitations of this Research

IPA takes a contextualist position, consequently it is acknowledged that the findings, and explanatory framework produced in order to make sense of patients' analgesic use following day case surgery is applicable only to these patients, at this time, and in this setting. Hence further research in other day case units, with other patients, at other times are required in order to build a body of work sufficient to make more general claims (Chapman and Smith 2002). It is also recognised given the contextualist position of IPA that this is only one interpretation of the data and that others at different times, in different contexts may produce a different finding. However, in this thesis I have specifically aimed to be transparent throughout aiding the credibility and trustworthiness of these interpretations. For example, all interpretations were grounded in the original participants' account with a clear demonstration how the analysis had been achieved and the extent to which it is supported and derived from the data. To further ground interpretations I continuously fed my findings and interpretations back to the steering group for this research. Also I aimed to be reflexive throughout, particularly providing an account of myself, as the researcher, and the impact I may have had upon the co-production of knowledge between myself and the participant, overcoming criticism that argues IPA to fail to engage with reflexivity, important given its strong interpretative stance (Brocki and Wearden 2006) (further discussion surrounding mechanisms in place to aid the transparency, credibility and trustworthiness of this research can be found in chapter 4). Hence, overall it is clear to see how interpretations were formed, and the influences upon these interpretations, allowing others to judge the credibility of this research and to possibility to interpret the data themselves and perhaps take different view.

Another consideration is that all participants who took part in this research were white with a European cultural background. Therefore, it would be of value to conduct further research with those from other cultural backgrounds, as different cultural groups have been found to hold different beliefs regarding pain (Nayak et al 2000, MacLachlan 2006), and different attitudes towards medicines (Horne et al 2004). It may also be of value to consider interviewing others who may hold a different perspective, for example, nursing staff working in the day case unit, or

those at home caring for their relative or friends who have undergone day case surgery, shedding further light upon patients' analgesic use following surgery.

Finally, although telephone interviews were very useful, overcoming a number of problems, for example, reducing the possibility of patients over reporting analgesic use in order to exhibit socially desirable behaviour, making interviewing possible within the day case arena where contact with the patient is minimal, and providing a good source of data (see methods chapter for a complete discussion). There was a down side, for me, patients did not appear used to, or did not like to, talk on the telephone for long periods of time, hence interviews lasted approximately 20-30 minutes (some longer). However, with face to face interviews, when effort has been made to meet up for the interview patients may be more willing and expecting, to talk for a period of time. Although this was not a hindrance, because a second stage of interviews explored the findings from the first in greater detail, this second stage may not have been as necessary with face to face interviews as greater depth may have been achieved in the first instance. Hence employing two stages or two separate telephone calls is something one must consider in order to gain the depth required when carrying out qualitative interviews over the telephone.

4. Final Summary and Conclusions

This PhD research has been very successful having implications not only important to the world of day case surgery, but also to the methodology of IPA:

In terms of methodology, IPA has increasing come under much criticism for its lack of theoretical grounding, and also for failing to engage sufficiently with its interpretative facet. Piecing together and in some respects advancing IPA's theoretical underpinnings, and also by illustrating in detail the way in which IPA can be employed to analyse data taking into consideration this theoretical position and producing findings that go beyond description to fully engage with IPAs interpretative stance, this thesis has hoped to overcome this criticism making an important contribution to the understanding of IPA.

In terms of day case surgery, the findings from the research have highlighted the problem faced by in this area, showing how, worryingly, many patients avoid

analgesics despite pain, the reasons for which until now had not fully been explored. This research is the first to highlight how patients following day case surgery make intentional decisions regarding the use of analgesics to manage their acute pain, with such decisions being made as a result of a matrix of beliefs they hold, many of which have not previously been identified within day case patients, or as barriers in the field of pain management as a whole. Simple interventions such as patient information regarding pain management, and the provision of effective analgesics to take home, underestimate the role of the patient and fail to take into account the impact of their decision making upon analgesic use. Bearing this in mind further research is now required to identify alternative ways in which the unacceptable levels of pain experienced by patients following day case surgery can be reduced. One important suggestion is to consider overcoming any erroneous beliefs the patient may hold standing in the way of them making informed decisions regarding their analgesic use. And in particular the explanatory framework produced by this research and its relationship to the extended Self Regulatory Model (not previously considered in the field of pain management) provides a unique insight into the mechanism by which these beliefs may exert their influence, particularly the necessity concerns construct, and may prove to be a useful tool in defeating this pain. Hence this research has successfully laid an important foundation upon which future interventions and research aiming to break down this patient barrier could be based, hoping to improve patient care and overcome pain and its negative consequences, paving the way for day case surgery to reach its full potential.

Audit Commission, 2001. *Day Surgery: Review of National Findings.* No 4. London: The Stationary Office.

PROCEDURE	DESCRIPTION	DAY CASES AS A PERCENTAGE OF INPATIENTS AND DAY CASES COMBINED (ENGLAND 1999/2000)			
		Lower quartile	Median	Upper quartile	95th percentile
1 Orchidopexy	Correction of undescended testes	66	77	85	93
2 Circumcision	Removal of foreskin	68	78	84	93
3 Inguinal hernia repair	Repair of an outpouching of the abdominal sack of the groin	33	43	52	65
4 Excision of breast lump	Removal of a lump in the breast	47	63	73	86
5 Anal fissure dilatation or excision	Treatment for a tear of the skin at the anal region	57	71	81	92
6 Haemorrhoidectomy	Removal of haemorrhoids from within the anal canal	2	5	13	38
7 Laparoscopic cholecystectomy	Removal of the gallbladder by means of an instrument introduced through a small hole in the stomach wall	0	1	3	22
8 Varicose vein stripping or ligation	Removal of tortuous and incompetent veins in the leg	37	50	62	78
9 Transurethral resection of bladder tumour	Removal of a tumour by an instrument inserted into the bladder	8	17	31	49
10 Excision of Dupuytren's Contracture	Removal of fibrous tissue under the skin of the palm that causes the fingers to become bent	13	34	54	74
11 Carpal tunnel decompression	Incision in the wrist to relieve pressure on the median nerve as it passes into the hand	81	89	93	98
12 Excision of ganglion	Removal of a lump usually around the wrist, hand or foot	82	88	91	97
13 Arthroscopy	The use of an instrument to look inside a joint for	59	68	77	86

	diagnosis and/or treatment				
14 Bunion operations	Straightening of the big toe and removal of bony overgrowth causing it to bend	8	17	30	59
15 Removal of metalware	Removal of pins or plates used to stabilise a fracture	35	44	57	67
16 Extraction of cataract with/without implant	Removal of a cloudy eye lens and, if appropriate, replacement with a synthetic one	72	87	94	100
17 Correction of squint	Repositioning of the muscles of the eyeball	59	79	91	98
18 Myringotomy	Relief of glue ear by making a small hole in the ear drum to release pressure and inserting a tube to avoid recurrence	82	88	93	100
19 Tonsillectomy	Removal of the tonsils	0	0	1	53
20 Sub mucous resection	Relief of nasal blockage caused by a bent cartilage in the middle of the nose	7	13	31	87
21 Reduction of nasal fracture	Repositioning of the bone in the nose	75	88	94	98
22 Operation for bat ears	Removal of skin and cartilage at the back of the ears	29	48	81	93
23 Dilatation and Curettage/Hysteroscopy	Examination of the inside of the uterus and removal of tissue if necessary	70	77	85	91
24 Laparoscopy	Use of an instrument introduced through the abdomen for diagnosis and treatment of internal organs often by gynaecologists	67	76	81	87
25 Termination of pregnancy	Evacuation of the contents of the pregnant womb	90	93	96	99

Appendix II

ACUTE PAIN POST DAY SURGERY QUESTIONNAIRE

PATIENTS RECEIVING ORAL MORPHINE TO TAKE HOME

43 LAPAROSCOPY PATIENTS

1. How much pain have you had since you got home?

- MILD (1-4) - **40% (n =17)**
- MODERATE (5 – 7) - **44% (n =19)**
- SEVERE (8 – 10) - **16% (n=7)**

2. Did you have difficulty sleeping due to pain?

YES - **21% (n = 9)**
NO - **79% (n = 34)**

3. Did pain wake you up in the night?

YES **35% (n = 15)**
NO **63% (n = 27)**
Missing data **2 % (n = 1)**

Analgesia taken

Analgesia taken	Number of patients
Oramorph	7% (n = 3)
Oramorph & Ibuprofen	40% (n = 17)
Oramorph & Paracetamol	5% (n = 2)
Oramorph & Ibuprofen & Paracetamol	21% (n = 9)
Ibuprofen & Paracetamol	9% (n = 4)
Oramorph & Ibuprofen & Other	7% (n = 3)
Ibuprofen	9% (n = 4)
Nothing	2% (n = 1)

Number of pts with side effects = Yes = 28% (n= 12) No = 70% (n = 30)
Missing data = 2% (n = 1)

SIDE EFFECT	NUMBER OF PEOPLE
Drowsy	16% (n = 7)
Dizzy	2% (n = 1)
Nausea	7% (n = 3)
Vomiting	2% (n = 1)

Breakdown of patients reporting severe pain – 16% (n = 7) patients in total

Pain score	Procedure	Difficulty sleeping	Woken up by pain	Analgesia taken	Side effects
8	Laparoscopy	Yes	Yes	Oramorph x 6 Ibuprofen x 6	Drowsy
8	Laparoscopic sterilisation	Yes	No	Oramorph x 1 Ibuprofen x 1 Anadin	None
8	Laparoscopy	No	Yes	Oramorph x 2 Ibuprofen x 2	None
9	Laparoscopy	No	No	Oramorph x 2 Ibuprofen x 2	None
10	Laparoscopy	Yes	Yes	Oramorph x 1 Ibuprofen x 1 Voltarol	None
9	Laparoscopy	Yes	Yes	Oramorph x 4 Ibuprofen x 6	None
8	Laparoscopy	Yes	Yes	Oramorph x 6 Ibuprofen x 3 Co proxamol	Drowsy Vomiting

- All patients in the group **did not** take Paracetamol
- Patient who had taken voltarol had called GP out who gave/prescribed voltarol, also was hyperventilating and distressed

- 5 out of 7 had difficulty sleeping and were woken in the night with pain

Breakdown of patients taking oramorph, ibuprofen and paracetamol (21%, n = 9)

Pain score	Procedure	Difficulty sleeping	Woken up by pain	Analgesia taken	Side effects
4	Laparoscopic sterilisation	No	No	Oramorph x 1 Ibuprofen x 1 Paracetamol	Vomiting
5	Laparoscopy	No	No	Oramorph x 3 Ibuprofen x 3 Paracetaoml	Drowsy
5	Laparoscopy	No	Yes	Oramorph x 1 Ibuprofen x 2 Paracetamol	None
4	Laparoscopy Asp. cyst	No	No	Oramorph x 2 Ibuprofen x 4 Paracetamol	None
4	Laparoscopy Hysteroscopy	No	Yes	Oramorph x 2 Ibuprofen x 3 Paracetamol	None
7	Laparoscopy	Yes	Yes	Oramorph x 2 Ibuprofen x 1 Paracetamol	Drowsy
4	Laparoscopic Sterilisation	No	No	Oramorph x 2 Ibuprofen x 3 Paracetamol	None
6	Laparoscopy	No	No	Oramorph x 2 Ibuprofen x 2 paracetamol	None
5	Laparoscopic Sterilisation	No	No	Oramorph x 1 Ibuprofen x 3 Paracetamol	None

- Patients taking all 3 recommended pain killers appear to have lower pain scores
- This group had less sleep difficulties and fewer in the group were woken in the night compared to previous group
- None of the patients took any other drugs than those recommended
- All patients in the severe pain group **did not** take Paracetamol
- Only 9 took all three analgesics despite 26 having mod-severe pain.

Appendix III

DAY CASE UNIT

Information for Patients receiving Ibuprofen & Oral Morphine syrup

ADVICE ABOUT YOUR PAINKILLERS

After surgery it is important to keep pain under control because research shows that you will get better more quickly and with fewer problems if your pain is well controlled.

You should take enough painkillers so that you feel comfortable enough to be able move about.

There are 3 types of painkillers that you can use after your operation.

1. PARACETAMOL
   Two tablets up to 4 times a day
   Paracetamol is a very effective painkiller after operations. You will have been advised to have Paracetamol available at home.

2. IBUPROFEN
   If Paracetamol alone does not control your pain, take Ibuprofen WITH the Paracetamol. [If you know that you should not take Ibuprofen, take Paracetamol with or without Oramorph].
   There are 9 tablets of Ibuprofen 400mg. One tablet should be taken <u>regularly</u> three times a day with food. If these tablets give you indigestion, stop taking them.

3. ORAMORPH
   You have also been given 6 plastic vials of Oramorph. If you have taken the Paracetamol and Ibuprofen and still have pain, you may also take one or two vials of Oramorph every 6 hours. Oramorph is a strong painkiller and may make you drowsy so you must not drive or use machinery whilst taking, or for at least seven hours after your last dose. Oramorph may also make you constipated, but if you drink more water you should reduce this problem.

If you have severe pain, Paracetamol, Ibuprofen and Oramorph may be taken TOGETHER, but <u>do not exceed maximum doses</u> of any of these drugs.

Paracetamol and Ibuprofen are available from a chemist without a prescription. If you have any Oramorph left after your treatment it should be handed in to a chemist for disposal.

Using the scale below how would you rate your pain?

0 1 2 3 4 5 6 7 8 9 10

NO PAIN **WORST PAIN**

If your pain score is
0 to 3
Take Paracetamol

STEP 1

If your pain score is
3 to 5
Take Paracetamol
And Ibuprofen

STEP 2

If your pain score is
5 to 7
Take Paracetamol
And Ibuprofen
And 1 vial of
Oral morphine

STEP 3

If your pain score is
7 to 10
Take Paracetamol
And Ibuprofen
And 2 vials of
Oral morphine

STEP 4

Appendix IV

Dorset Research Ethics Committee
Room 20, D Block [Hawker Wing]
Poole Hospital NHS Trust
Longfleet Road
Poole
Dorset
BH15 2JB

21 March 2005

Miss Claire G Older
Research Assistant
Bournemouth University
Institute of Health and Community Studies
1st Floor (R115) Royal London House
Christchurch Road, Bournemouth, Dorset
BH1 3LT

Dear Miss Older

Full title of study: ***A study to explore the experience of pain and the use of a multimodal analgesia regimen (painkillers)after day case surgery.***
REC reference number: ***05/Q2201/8***
Protocol number:

The Research Ethics Committee reviewed the above application at the meeting held on 10 March 2005.

Ethical opinion

The response from Claire Older was tabled. The Committee agreed that this answered all queries.

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation.

However, the Committee has not yet been notified of the outcome of any site-specific assessment (SSA) for the research site(s) taking part in this study. The favourable opinion does not therefore apply to any site at present. I will write to you again as soon as one Local Research Ethics Committee has notified the outcome of a SSA. In the meantime no study procedures should be initiated at sites requiring SSA.

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents

The documents reviewed and approved at the meeting were:

Document Type:	Version:	Dated:	Date Received:
Application	1	26/01/2005	02/02/2005
Investigator CV	1	26/01/2005	02/02/2005
Protocol	1	26/01/2005	02/02/2005
Covering Letter	1	26/01/2005	02/02/2005
Summary/Synopsis	1	26/01/2005	02/02/2005
Peer Review	1	26/01/2005	02/02/2005
Compensation Arrangements	1	01/08/2004	02/02/2005
Interview Schedules/Topic Guides	1	26/01/2005	02/02/2005
Copies of Advertisements	1	26/01/2005	02/02/2005
Letters of Invitation to Participants	1	26/01/2005	02/02/2005
GP/Consultant Information Sheets	1	26/01/2005	02/02/2005
Participant Information Sheet	2	04/03/2005	10/03/2005
Participant Consent Form	2	04/03/2005	10/03/2005
Response to Request for Further Information		08/03/2005	10/03/2005
Other	1	26/01/2005	02/02/2005

Management approval

The study should not commence at any NHS site until the local Principal Investigator has obtained final management approval from the R&D Department for the relevant NHS care organisation.

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

Notification of other bodies

The Committee Administrator will notify the research sponsor that the study has a favourable ethical opinion.

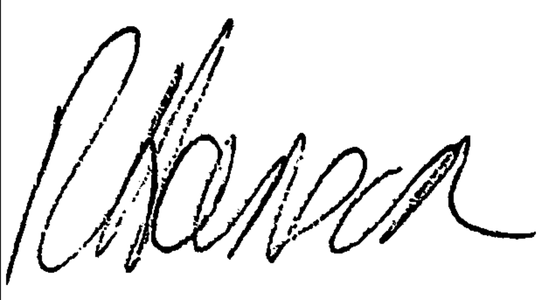
Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

05/Q2201/8 **Please quote this number on all correspondence**

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

Yours sincerely,



Chair

E-mail: rachael.hanson@poole.nhs.uk

Enclosures *List of names and professions of members who were present at the meeting and those who submitted written comments*

Standard approval conditions

Site approval form (SF1)

[redacted] NHS

NHS Trust

17 March 2005

Miss Claire Older
Research Assistant
Institute of Health and Community Studies
Royal London House
Christchurch Road
Bournemouth

Dear Claire

Re: A study to explore the experience of pain and the use of multimodal analgesia regimen (painkillers) after day case surgery

The above named research project has been reviewed by the Research Governance Department and I am pleased to advise you that permission to undertake the proposed project has been granted. You may commence with the project once Dorset Local Research Ethics Committee has approved your response to their request for further information (3/3/05). Please send a copy of the LREC approval letter to the Research Governance Department within 2 weeks if its issue.

Conditions under which this approval is granted are the Research Governance Department is notified of:

- Any protocol amendments
- Serious adverse events

In addition:

- The progress of this research project will be monitored 6 monthly by the Research Governance Department and may be selected for audit in accordance with the Research Governance Framework.
- A copy of your dissertation is sent to the Research Governance Department on completion of the study.

A financial review of the proposed project has been undertaken and no additional Trust resources will be required to support the study. This project is not eligible for NHS R&D Support for Science funding allocated through the Research Governance Department, and therefore any unforeseen costs need to be met by the Sponsor (Bournemouth University).

An Honorary contract is in place for the duration of the research project.

Please find enclosed, a letter from the Trust's Data Protection Officer.

Finally, in order for local GP's to be made aware that this study has had Ethical and Poole Hospital Trust approval, please could you insert the following on the GP letter:

REC Reference Number: ***05/Q2201/8***

[redacted]**NHS Trust Ref:** [redacted]

urs sincerely

m Bailey
oject Manager
esearch Governance
nc: Data Protection Letter

nc: Data Protection Letter

c: Eloise Carr
[redacted]

10/05/2005 (Version 2)

Appendix V

Vice-Chancellor:
Professor Paul Curran
BSc MBA PhD DSc CGeog
FRGS FRSPS FCIM

Institute of Health & Community Studies

Joint Heads of School
Angela Schofield
Professor Iain Graham

Dear Patient

A Study to Explore the Experience of Pain and the use of a Multimodal Analgesia Regimen (pain killers) after Day Case Surgery.

You are invited to take part in a study which involves you answering a few questions over the telephone when you return home after your operation.

Please read the attached information sheet in order to find out more. After reading the information sheet please take some time to think about whether you would like to take part.

If you decide that you would like to take part in this study, or require further information, then please give your telephone number to the nurse during your assessment appointment and I will call you back at an agreed time. You can also telephone me on 01202 702744.

Thank you for taking the time to read this.

Claire Older
PhD Student, Bournemouth University

1st Floor Royal London House Christchurch Road Bournemouth Dorset BH1 3LT
Telephone: (01202) 524111 Fax: (01202) 962194

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Appendix V

Vice-Chancellor:
Professor Gillian L Slater
MSC MA DPhil CMath
FIMA FRSA

Institute of Health and Community Studies

Joint Heads of School
Angela Schofield
Professor Iain Graham

Participant Information

A Study to Explore the Experience of Pain and the use of a Multimodal Analgesic Regime (pain killers) after Day Case Surgery.

You are being invited to take part in a research study which will involve you answering some questions after your operation. Here is some information to help you decide whether or not to take part. Please take time to read the following and discuss it with your friends and family if you wish. Please ask if there is anything that is not clear or if you would like more information. Thank you for reading this.

What is the purpose of the study?

We are carrying out a study to look at the pain that patients may experience once they have been discharged from hospital after day surgery. Previous research has shown that pain can sometimes be a problem for patients after they have been discharged. The study will help us to understand what happens once a patient is back at home so we can improve patient care.

Why have I been chosen?

You are being asked to take part in the study since you are soon to undergo day surgery and you will be given painkillers to take home with you. We are particularly interested in patients who have been given oramorph, if you are not given oramorph to take home with you, you will not be included in the study. We are also interested in what happens when you return home after surgery, therefore if your surgery results in an overnight stay you will not be included in the study. 15 other patients will also be asked to take part in this study.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be asked to sign a consent form and you will be given a copy of the consent form together with this information to keep. If you decide to take part you are still free to withdraw at any time without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you receive.

What will happen if I take part?

If you wish to take part then on admission to the day case unit you will be asked to sign a consent form and make arrangements for a convenient time to be telephoned. Claire Older will then telephone you at home on the fourth day after your operation and ask you about the pain that you may have experienced since you returned home. In particular she will want to know how you got on with your pain medication and how any pain you may have experienced affected your normal daily activities. Claire Older will call you for your interview at a prearranged time convenient to you, before the interview starts she will ask you to verify that you are happy that it is 'Claire Older' speaking to you, and will confirm when and where you met originally. These precautions are to ensure that you are confident that it is Claire Older speaking with you at this time. The conversation will be taped to avoid writing notes when talking. The conversation will probably last approximately 30 minutes.

What are the possible benefits of taking part?

The information we get from this study may help use to improve the care of future patients.

Will my taking part in this study be kept confidential?

All information which is collected about you during the course of the research will be kept strictly confidential and anonymous. You will be given a patient number for the study so your name and any other personal details will not be used, and therefore any information you provide will not be personally identifiable.

What will happen to the results of the research study?

The results of this study will help us to better understand patients experiences after day case surgery and may help to develop better information for future patients. The results of this will be written up and published in a professional journal within the next 3 years. A copy of the report will also be sent to you on request. Please note that you will not be identified in any report or publication.

Who is organising the research?

The research is being organised jointly by [redacted] and Bournemouth University.

Who has reviewed the study?

The research has been reviewed by Dorset Local Research Ethics Committee.

Contact for further information

Should you require further information on this study you can call Claire Older 01202 702744.

If you would like independent information about this study please call [redacted], Research Governance Manager, [redacted].

Thank you for taking the time to read this information sheet.

04/03/2005 (Version 2)

Patient Identification for this study:

Vice-Chancellor:
Professor Gillian L Slater
MSc MA DPhil CMath
FIMA FRSA

Institute of Health and Community Studies

Joint Heads of School
Angela Schofield
Professor Iain Graham

Consent Form

Title of Project:

A Study to Explore the Experience of Pain and the use of a Multimodal Analgesic Regime (pain killers) after Day Case Surgery.

Principle Researcher: Claire Older

Please read each statement and initial the box

1. I confirm that I have read and understand the information sheet dated 04/03/2005 (Version 2) for the above study. ☐

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

3. I understand that all information I provide will be kept strictly confidential and anonymous. ☐

4. I understand that the interview will be tape recorded. ☐

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

Name of Patient	Date	Signature
Researcher	Date	Signature

Phase 1 Interview Schedule

1) Opening the interview

- Confirm who is calling, why I am calling – verify that they are happy it is me.
- Check that it is a convenient time to call, re-arrange a convenient time if necessary.
- Just to remind them – the research involves interviewing them about their experience once they returned home after surgery
- Are you still happy to take part in the study.
- Going to ask a few questions, please answer them as completely as possible etc…

2) Please can you tell me about any pain you have experienced since you left hospital?

- Seek clarification about key subjects stated and / or ask them to expand upon issues that they raise.

Further questions/prompts:

- Can you describe any pain you had?
- What was it like?
- Has pain interfered with any activities?
- How long did the pain last?
- If they didn't experience pain why do they think this is?
- Did they need to consult anyone for help or advice (GP, NHS Direct, Day Case Unit)?

3) Can you tell me about your experience with the painkillers that the hospital suggested you should take?

- Seek clarification about key subjects stated and / or ask them to expand upon issues that they raise.

Further questions/prompts:

- What painkillers were you given?
- Which painkillers did you take (sequence together/separately)?
- When did you take them?
- How did you get on with them?
- How did you feel about taking them?
- Can you give me your thoughts surrounding the painkillers?
- Experience of using multimodal analgesics.
- What information concerning their medication were they provided with?
- Do they remember what this information recommended them to do?

4) Closing the interview

- Anything else relevant to the study, ideas to improve the experience of/management of postoperative pain.
- At the end, re-check consent with patient, ask them if they have said anything that they wish to re-tract or rephrase.
- Thank the patient for participating in the study.
- Provide contact number if they have any queries/ concerns after the call.

Phase 2 Interview Schedule

1) Opening the interview

- Confirm who is calling, why I am calling – verify that they are happy it is me.
- Check that it is a convenient time to call, re-arrange a convenient time if necessary.
- Just to remind them – the research involves interviewing them about their experience once they returned home after surgery
- Are you still happy to take part in the study?
- Going to ask a few questions, please answer them as completely as possible

2) Painkillers / Pain -General Questions

(Seek clarification about key subjects stated and / or ask them to expand upon issues that they raise).

- Can you tell me your thoughts about the painkillers the hospital gave you to take home?
- How do you feel about taking them? Why do you think you feel this way?
- How did you get on with them?
- Which painkillers did you take after your surgery and why?
- Can you tell me your thoughts about pain, how do you feel about pain, can you tell me about your experiences of pain?

Themes important to Phase 1 (if patients talk about these ask for further elaboration etc…)

Necessity of painkillers -

- Did you always take a painkiller when you experienced pain after your surgery?
- Did you wait for pain before taking your painkillers?
- Do you think the painkillers you were given were suitable for your pain?
- Do you think it is important to take the minimum amount of painkillers as possible to control pain?

Danger-

- Have you reduced or stopped taking your painkillers, why did you do this / feel this way?
- Were you given the right amount of painkillers?
- Research suggests that some people think that we are all individual and therefore some people might have a bad reaction to their painkillers and others may not, what do you think about this?
- Do you think painkillers should block all your pain?

Natural vs Unnatural-

- Some people think that medicines can be artificial or unnatural, what are you thoughts on this, why do you feel this way?

Patient provider relationship -

- Research suggests that some patients would rather follow what their body is telling them and take control over their own pain and recovery rather than strictly follow advice from the hospital, how do you feel about this?

Toleration of pain-

- Research has shown that some people think it is ok to put up with a certain degree of pain, how do you feel about this?
- Do you feel you have put up with some degree of pain since your surgery?
- Have you experienced pain in the past, what did you do to manage it?
- Do you feel that some people might be able to put up with more pain than other, why do you think this is?

3) Closing the interview

- Anything else relevant to the study, ideas to improve the experience of/management of postoperative pain.
- At the end, re-check consent with patient, ask them if they have said anything that they wish to re-tract or rephrase.
- Thank the patient for participating in the study.
- Provide contact number if they have any queries/ concerns after the call.

Vice-Chancellor:
Professor Gillian L Slater
MSc MA DPhil CMath
FIMA FRSA

Institute of Health and Community Studies

Joint Heads of School
Angela Schofield
Professor Iain Graham

Dear

A Study to Explore the Experience of Pain and the use of a Multimodal Analgesic Regime (pain killers) after Day Case Surgery.

Thank you for agreeing to take part in the above study. This letter is to confirm that you will be telephoned at home by Claire Older on .....

You will be telephoned between: 10am and 12 noon ☐
2pm and 4pm ☐
Other (.....) ☐

The purpose of this telephone call is to find out more about what happens to patients after discharge from hospital after day case surgery. In particular we will ask about:

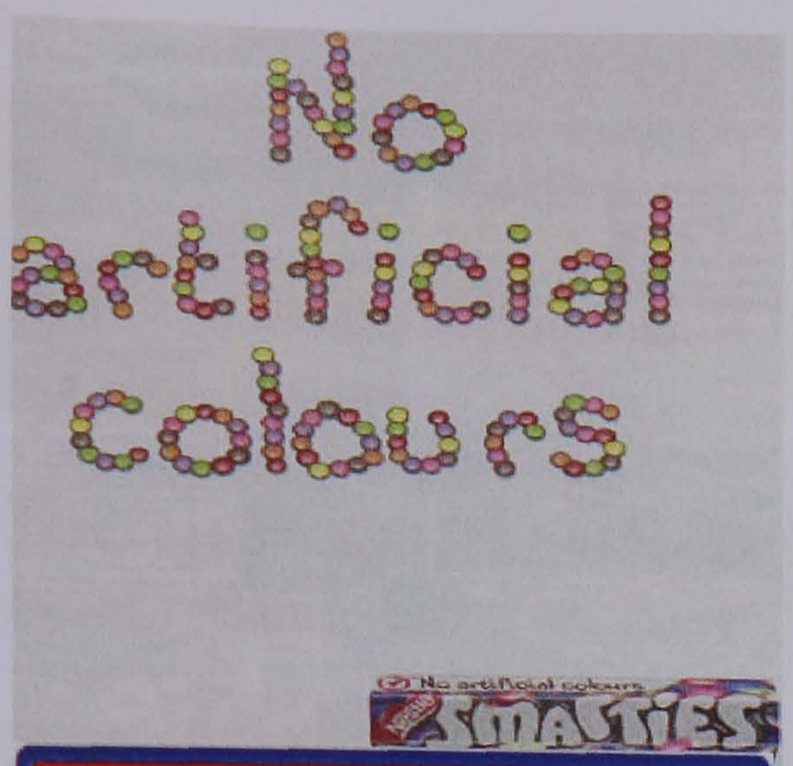
- Any pain you may have experienced.
- How you have got on with your pain medication.

If you have any questions about this study you can call Claire Older on 01202 702744.

Appendix IX

Participant Information						
	Pseudonym	**Gender**	**Age**	**Procedure**	**Day Case**	**Oral morphine**
1	Angela	Female	20-25	Laparoscopy	Overnight stay	Yes
2	Samantha	Female	20-25	Removal of screws and plate.	Yes	No
3	George	Male	30-35	Hernia Repair	Yes	Yes
4	Philip	Male	35-40	Hernia Repair	Overnight stay	No
5	Linda	Female	40-45	Hernia Repair	Yes	Yes
6	Bob	Male	56-70	Cholecystectomy	Inpatient x3	No
7	Ian	Male	50-55	Hernia Repair	Yes	Yes
8	Peter	Male	45-50	Hernia Repair	Yes	Yes
9	Sandra	Female	20-25	Laparoscopy	Yes	Yes
10	Jim	Male	60-65	Hernia Repair	Yes	Yes
11	Lucy	Female	20-25	Laparoscopy	Yes	No
12	Amanda	Female	20-25	Laparoscopy	Overnight stay	Yes
13	Julia	Female	30-35	Laparoscopy	Yes	Yes
14	Miriam	Female	30-35	Laparoscopy	Yes	Yes
15	Sally	Female	25-30	Laparoscopy	Yes	Yes
16	Paul	Male	40-45	Hernia repair	Yes	Yes
17	Maggie	Female	50-55	Laparoscopy	Yes	Yes
18	Jenny	Female	20-25	Laparoscopy	Yes	Yes
19	Gillian	Female	40-45	Laparoscopy	Yes	Yes
20	Bill	Male	40-45	Hernia Repair	Yes	Yes
21	Mary	Female	25-30	Hernia Repair	Yes	No
22	Alan	Male	60-65	Hernia Repair	Yes	Yes
23	Alex	Male	20-25	Hernia Repair	Yes	Yes
24	Freddie	Male	35-40	Hernia Repair	Yes	Yes
25	Daphne	Female	35-40	Laparoscopy	Yes	Yes
26	Emma	Female	25-30	Hernia Repair	Overnight stay	Yes
27	Maria	Female	50-55	Laparoscopy	Yes	Yes
28	Christine	Female	50-55	laparoscopy	Yes	No

Appendix X



From The Times
September 6, 2007
Food additives make children behave badly

Good for you or **too good to be true?**
Prima nutritionist **Angela Dowden** takes a look at the latest hot topic to hit our plates. This month, she investigates whether supermarket 'healthy' ranges live up to their claim

Good for you

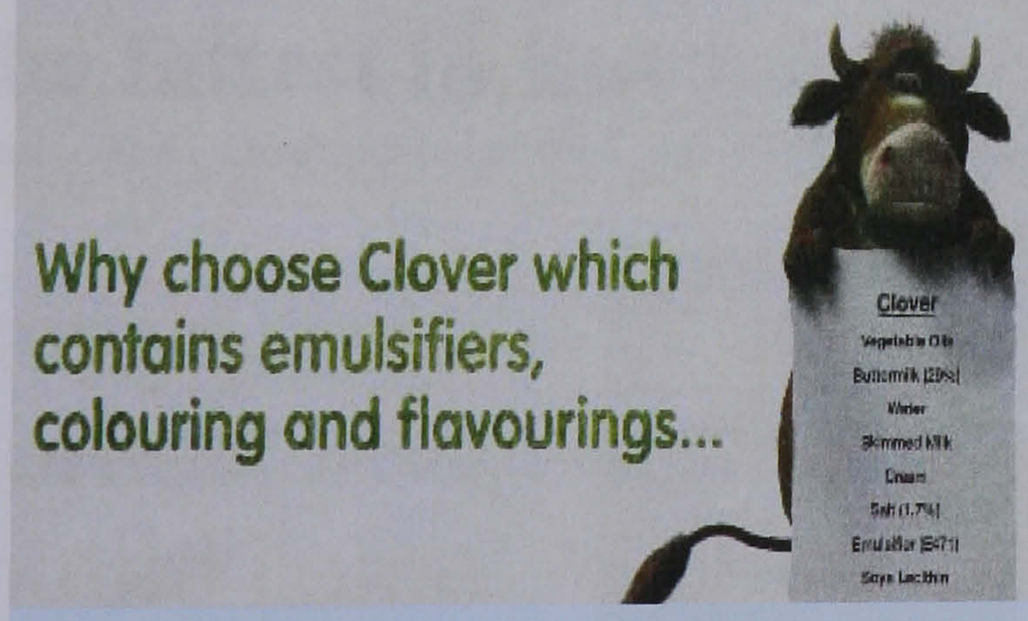
lazy girl's detox secrets
Hate complicated diet plans? Fast-track into your summer wardrobe the easy way

Go organic

It's cheaper and has no nasty side-effects

Daily Mail - Last updated at 09:44am on 24th May 2006

healthy décision

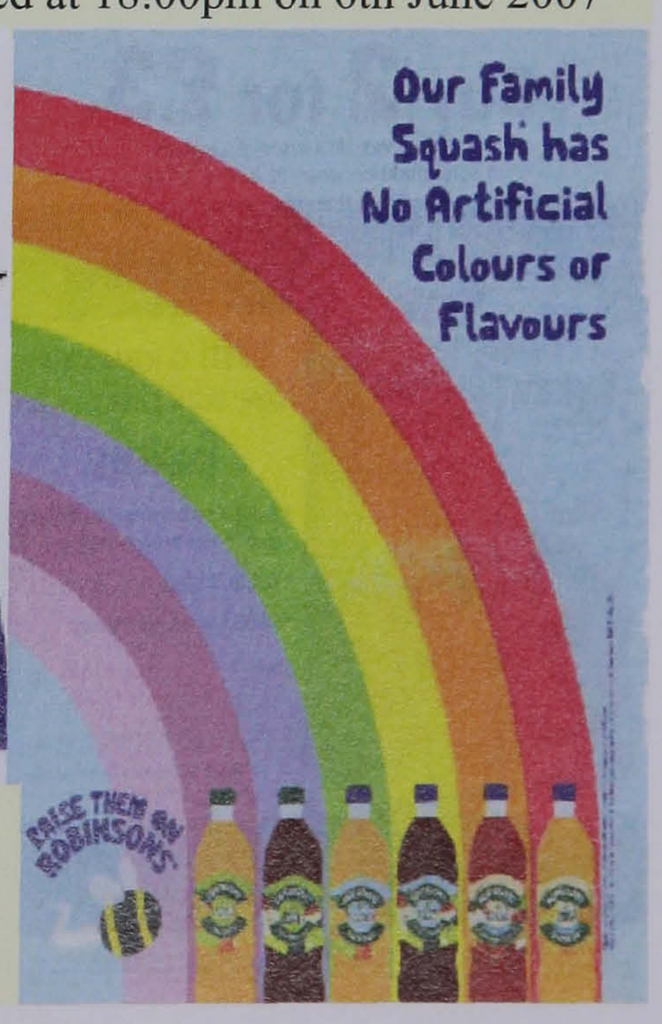


'Human error' cause of drug recall

Daily Mail - Last updated at 18:00pm on 6th June 2007

Natural alternatives to painkillers

By SARAH STACEY, Daily Mail - Last updated at 12:24pm on 14th July 2006



Are painkillers harming me?

Daily Mail - Last updated at 14:50pm on 26th November 2003

Appendix X

On yer bike

Obesity 'contributes to 30,000 deaths a year'

Daily Mail - Last updated at 08:10am on 16th January 2002

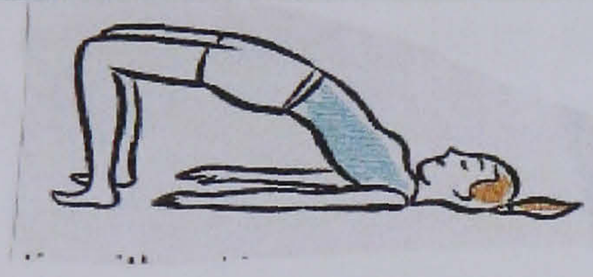
Simple steps to a flat tum

Food and fitness

Get active

HEALTH HANDBOOK

ACTIVE & HAPPY



CELEB FITNESS TIP...

"I have to struggle to keep this hot body, and I want girls to know that. It's in my genes to be a little bigger. It doesn't come naturally," says Gwen Stefani, who works out five times a week

UK women are now officially the fattest in Europe

Daily Mail - Last updated at 08:13am on 21st February 2007

The fittest do live longer

Daily Mail- Last updated at 09:59am on 15th March 2002

Larger-size clothes should come with warning to lose weight, say experts

transform yourself

UK faces obesity epidemic

Daily Mail - Last updated at 17:35pm on 15th February 2001

cember

CELEB DIET EXTRA

Moderate exercise 'is not enough'

The Times, October 10, 2007

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