‘On the Edge of a Whirlpool’
Living With a Fear of Needle Procedures

Shona Matthews

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Abstract

This study explores the lived experience of needle phobia through individual interviews with five participants. The understanding and experience of three medical imaging nurses carrying out procedures on patients with needle phobia is also explored to provide clinical context and comparison. The study is guided by the values of phenomenology and in particular the body philosopher Merleau-Ponty. It will also draw on the research of nurse scholars Patricia Benner and Irena Madjar who have focused on the body and embodiment in nursing practice. Interpretation of the data is informed by the work of Anthony Giddens.

The study unravelled a fear notable for its personal idiosyncrasies, and variable origins. It is an obscure fear that is experienced as intensely physical and embodied but is not primarily about pain. A needle piercing the skin violates the integrity of the skin surface, even the sense of self and at worst threatens to overwhelm, likened by one participant to being on the edge of a whirlpool. Living with the fear involves managing a wayward body, with particular capacities for action, but plagued by uncertainty at how it will respond when faced with a needle procedure. It is an irrational fear that impacts upon life choices and ‘pierces the protective cocoon’; the main emotional support that allows us to cope with life, arousing a sense of shame that something so simple cannot be mastered and threatening the usual competent face the person presents to the world.

In contrast, the nurses saw needle phobia as an emotional reaction related to pain; they felt empathy and concern for their patient but also personal anxiety when faced with a distressed or fearful patient. Narratives revealed the challenge and dichotomy of their caring, learning and instrumental role. This was particularly acute for the novice practitioner. Caring and coping with their own reactions was closely intertwined with getting the job done. Ethical dilemmas arose. Mutual vulnerability was demonstrated with the nurse’s sense of competence also threatened when the procedure failed.

The study revealed significant implications for clinical practice both in regard to caring for people with needle phobia and in teaching and mentoring nurses. A partnership approach to care emerged as the most appropriate way to meet the varying subjective needs of people with needle phobia, while allowing nurses to combine both their pathic and instrumental touch.
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Glossary

Aichmophobia: fear of pointed objects.

Algophobia: fear of pain.

Blenophobia: fear of needles.

Bracketing: a term derived from mathematics meaning to set aside or suspend one’s various beliefs.

Diaphoresis: sweating.

Embodiment: the ways meanings, expectation, styles and habits are expressed and experienced in the body.

Emic: Internally evaluated or experiential view (qualitative).

Epistemology: concerns how and what people know.

Etic: externally evaluated view based on normative standards.

Functional Magnetic Resonance Imaging (fMRI): a specialised MRI scan which measures the hemodynamic response (change in blood flow) related to neural activity in the brain or spinal cord of humans.

Gnostic: as in (dia)gnostic or to know thoroughly in the sense of ‘seeing through the body’.

Integrity of Self: the person’s sense of soundness in the various dimensions of her or his life. Integrity is challenged when something has the potential to disrupt that conceptualisation and there is corresponding uncertainty about the ability to respond adequately.

Intravenous (IV) Cannulation: the insertion of a fine plastic tube into a vein for the administration of fluids or medication.

Lived experience: the way people encounter situations in terms of their own personal concerns, background meanings, temporality, habitual cultural bodies, emotions and reflective thoughts.
**Mind-body-split**: the idea that originated from Descartes that the mind and body are separate and distinct entities. As long as the mind is the only source of meaning and interpretation, the body cannot be understood as a knower but only as a means of bringing information to the mind.

**Moral agency**: capacity for making moral judgement or taking moral action.

**Ontology**: concerns how people are or exist.

**Pathic**: derived from ‘pathos’ meaning ‘suffering’ and also passion and disease or ‘a quality that arouses pity or sorrow. The pathic also refers to the general mood, sensibility and felt sense of being in the world.

**Phenomenology**: a philosophy that focuses on the ‘lifeworld’ or ‘lived experience’ of human beings as revealed through their own descriptions.

**PICC**: A PICC line is, by definition and per its acronym, a peripherally inserted central catheter. It is long, slender, small, flexible tube that is inserted into a peripheral vein, typically in the upper arm, and advanced until the catheter tip terminates in the superior vena cava to obtain intravenous access.

**Phlebotomy**: puncturing a vein with a needle to collect blood for diagnostic tests or to remove blood for treatment purposes. Term used in American literature. Interchangeable with venesection.

**Reflection**: critical examination of the research process or of an event or behaviour.

**Reflexivity**: Examining and uncovering the researcher’s place in the research process.

**Syncope**: fainting or partial or complete loss of consciousness with interruption of awareness of oneself and one’s surroundings.

**Temporality**: the way the person simultaneously lives in the present, is influenced by the past, and is projected into the future. It does not refer to the linear passage of time but to the way the person is anchored in a present that is made meaningful by past experience and the anticipated future.

**Trypanophobia**: fear of injections.
**Vasovagal reflex**: a reflex mediated by stimulation of the vagus nerve (parasympathetic nervous system) resulting in a slowing of the heart rate (bradycardia), fall in blood pressure (hypotension) and peripheral vasodilation. May result in *vasovagal syncope* or fainting as a result of reduced cerebral blood flow or cerebral anoxia.

**Venesection**: puncturing a vein with a needle to collect blood for diagnostic tests or to remove blood for treatment purposes. (Latin derivation)

**Vicarious Needle phobia**: a phobic response to the witnessing of someone else having a blood test or needle procedure done.

**Vulnerability**: an experiential quality of life, the foundation of which is the individual’s experience of being unprotected and open to damage in threatening environments (qualitative perspective).

**Vulnerability**: The universally present relative risk of potential or actual harm from external judgments of endangerment, functional capacity, and socially sanctioned need for intervention (quantitative perspective).
Chapter 1 – Introduction

Part A – Setting the Scene

Needles are an integral part of diagnostic, preventative and therapeutic medicine. Their use tends to be taken for granted by those of us working within the health system. For a significant group of people, however, an ongoing and often worsening fear of needle procedures is a major source of distress and impediment to the provision of health care. While the physiological and psychological manifestations of needle phobia are reported and researched to a limited degree, the actual lived experience of what it means to be needle phobic remains elusive and puzzling. Richard Matthews (personal communication, April 2009) noted:

As I look back now, I can see that the level of panic that needles aroused in me was growing episode-by-episode, rather than reducing as is the normal experience of growing familiarity. I cannot be sure of how many injections I had up to adulthood, but each occasion was accompanied by a feeling of entrapment, either on a dentist’s chair, a hospital bed or doctors surgery. (p. 2)

Chapter one is divided into three sections. The first Part will set the scene, explain the background context of the study and explore the often confusing terminology. Part B will define needle phobia; look at the likely aetiology, prevalence, neurophysiology, physical manifestations and the significance of this condition within the existing knowledge and research base. This largely normative information provides the foundation for this qualitative study. Finally, the chapter will introduce the important concept of embodiment, the place of narrative and the philosophical principles of phenomenology which guide the study. An introduction to the work of social theorist Anthony Giddens and his narrative on self-identity, important in the understanding and analysis of the study is also offered.

Hamilton (1995, p. 719) reports “that victims of needle phobia typically have a variety of symptoms including decreased cerebral perfusion, cardiovascular changes, electrocardiogram changes and hormonal rises when faced with needle access, either some or all of the time”. No one has explored how the experience of having a needle inserted into a vein can be so disturbing that it elicits these bodily responses or how that make the person feel. This study uses phenomenology – a philosophy that focuses on the ‘lifeworld’ or ‘lived experience’ of human
beings as revealed through their own descriptions (Holloway, 2005b), a philosophy that will be explored more thoroughly in Chapter three. In other words, phenomenology allows us to cast a thoughtful and ‘listening gaze’ (Madjar & Walton, 1999) on the personal experience of being needle phobic to try and unravel and make sense of this puzzling condition. That same ‘listening gaze’ will be cast on nurse participants and their experience of caring for patients with needle phobia and the challenges it presents.

The personal lived experience of five healthy adults who fear needle procedures is explored through an individual interview. Three medical imaging nurses are also separately interviewed regarding their understanding, experience and concerns in caring for patients with needle phobia, by way of comparison and to give the study an enduring clinical focus. These narratives and the emergent themes from both sets of interviews are considered separately and together to enhance awareness and understanding of needle phobia and in turn, inform clinical practice.

**Origins of the Study**

As a nurse in medical imaging I have witnessed the often palpable fear of patients referred for medical imaging examinations involving needle puncture and have explored ways to care for, support and maintain the safety of these people. A review of the available literature, combined with discussion with patients I was caring for and observation and conversations with colleagues, led to the realisation that a fear of needle procedures in adults is seldom acknowledged and is a poorly understood phenomenon. The personal stories, descriptions and experiences of those affected by this condition are missing from the literature and in particular the limited research literature. In essence we simply do not understand what it is all about.

My own clinical nursing role involving the insertion of intravenous cannula and injection of radioisotopes also revealed the dissonance and personal unease of both trying to care for and yet at the same time contributing to the distress of patients who fear needle procedures. The ambiguity of this role is particularly acute because these patients are typically fearful and anxious and do not behave in a restrained and controlled manner. Despite this experience no information or guidelines on caring for patients with needle phobia existed within my own department or in medical imaging texts in general. The Centre for Evidence Based Nursing Aotearoa [CEBNA] (2009) Peripheral Intravenous Catheter Management recommended best practice document contains no reference to the condition. So while nurses are increasingly grasping the task of intravenous cannulation as their own, they have seemingly failed to cast their more holistic gaze over patient
focused aspects of the subject or considered the dissonant aspects of the role, especially when orientating new staff.

While a qualitative study of a larger group of participants with needle phobia would have been feasible and appropriate given the minimal research literature available, it would have lacked the same clinical focus. I was also captivated and disturbed by Madjar’s (1998) study ‘Giving Comfort and Inflicting Pain’. By revealing both the patient and nurse perspective on clinically inflicted pain, Madjar (1998) exposed a void in knowledge and understanding. At the same time an alternative approach and way of behaving presented that was significant for both patients and nurses involved in the study, and for nursing practice in general (Madjar, 1998). Hence it was important to give my study a clinical context and explore both the lived experience of a group of adult participants with needle phobia and the lived experience of a group of nurses caring for patients with needle phobia in the course of their work in medical imaging. The objectives of the exploration are therefore to make explicit the particular experiences of those who live with needle phobia and in turn to enhance awareness and understanding of the condition. In addition exploring nurses’ understanding of needle phobia and their response to caring for patients with the condition will identify care strategies and together provide a basis for more informed nursing practice.

The Terminology

It should be stated from the outset that the term needle phobia is problematic in that it encompasses a range of described physical and psychological symptoms within a spectrum of intensity. The official and certainly comprehensive title within the Specific Phobia diagnostic category of the DSM-IV-TR (2000) is blood/injection injury phobia. This proved too cumbersome to use all the time and is not what the participants in my study readily identified with. Hence, like Hamilton’s (1995) article, and in the absence of better shorthand or terminology, the term needle phobia is used throughout this thesis to represent the spectrum of blood/injection injury phobia responses. The title of the study has been modified from the working title (Living with Needle Phobia) in recognition of the unease some of the participants felt in referring to themselves as phobic. Needle phobia also implies judgment, reflected by many patients with needle phobia describing themselves as ‘wimps’, a likely reflection of how they have been made to feel by other people, including health practitioners. In the absence of a better shorthand or terminology the term needle phobia will be used with caution. “On the edge of a whirlpool” are the words of one
of the participants – his description of how he felt when a blood test was looming, and so much more graphic and revealing than any list of symptoms.

Van Manen (1999) talks of the process of unnaming things, or at least putting the name aside to focus on the ‘pathic’ or lived dimension of a phenomena. This is very relevant with needle phobia as the name fails to reflect the varying triggers, the range of experience, get to the root of the fear, or mirror the dread and panic that needle procedures elicit in some people. Indeed, this is the work of interpretive phenomenological inquiry and the process though which this study aims to explore the personal stories and experience of all the participants.
Chapter 1

Part B – Defining Needle Phobia

A phobia is defined as a persistent, abnormal or irrational fear of a specific thing or situation that compels one to avoid the feared stimulus ("The American Heritage Medical Dictionary," 2007). Needle Phobia, or more precisely blood/injection injury phobia, is a subtype within the diagnostic category of Specific Phobia in the American Psychiatric Associations’ Diagnostic and Statistical Manual of Mental Disorders [DSM-IV-TR] (2000). It is notable that it was defined as a discrete subtype of Specific Phobia (formerly Simple Phobia) only in 1995. While a mild fear or dislike of needles, or the sight of blood, is very common, needle phobia can be further and more rigorously defined by objective clinical findings in addition to subjective symptoms and responses (DSM-IV-TR, 2000).

The primary factors underlying the recognition and diagnosis of needle phobia focus in the first instant on past medical history; a self report by the person of a long-term needle fear that they recognise as unreasonable and usually extending from childhood. Exposure to, or anticipation of a needle procedure invariably triggers anxiety and sometimes a panic attack (Hamilton, 1995). As a result, procedures involving needles, often along with associated medical objects or situations, are occasionally or consistently avoided. In turn, the needle avoidance and fear interfere significantly with health and dental care and with normal occupational, academic or social activities. People with needle phobia are usually markedly distressed about having the fear (Hamilton, 1995). A similar response may occur on witnessing needle procedures on others; or what is termed vicarious needle phobia.

In addition to the above history, people with needle phobia typically exhibit a range of clinical symptoms which in fact differ from other specific phobic responses. Syncope, near-syncope, light-headedness or vertigo may occur on needle exposure, along with other autonomic symptoms such as pallor, diaphoresis or sweating, and nausea. Cardiovascular depression occurs with a drop in blood pressure, pulse or both; with or without an initial rise in blood pressure pulse or both. Accompanying electrocardiogram abnormalities of virtually any type are possible. Rises in any combination of several stress hormones: antidiuretic hormone, growth hormone, dopamine, catecholamines, and/or corticosteroids may occur. It is this plethora of physiological responses that can cause falls and trauma and may necessitate the calling of cardiac codes (DSM-IV-TR, 2000). The neurophysiology of these symptoms will now be described more thoroughly.
The Neurophysiology of Needle Phobia

It is important to explore in more detail the physiological reactions that occur with needle exposure to understand better both the complexity of these responses and how these relate to what the participants in the study describe. Most people with needle phobia display varying symptoms of an autonomic vasovagal reflex when they undergo a needle procedure (Hamilton, 1995).

The autonomic nervous system is the part of the peripheral nervous system which connects the central nervous system to the limbs and organs and acts as a control system. In the autonomic system, two neurons connect the central nervous system and the end organ. The fiber of a neuron (preganglionic fiber) lying in the central nervous system extends to an autonomic ganglion and synapses on the dendrites or cell body of an autonomic neuron. The fiber of the second neuron (postganglionic fiber) passes from the ganglion to the effector cells to be innervated. The autonomic nervous system functions largely below the level of consciousness and controls visceral functions such as heart rate, digestion, respiration rate, salivation, perspiration, pupil size, micturition (urination) and sexual arousal. Whereas most of its actions are involuntary, some, such as breathing and micturition work in tandem with the conscious mind. It is classically divided into two subsystems, the sympathetic or thoracolumbar system and parasympathetic or craniosacral system which also functionally divide into sensory (afferent) or motor (efferent) subsystems and contain both inhibitory and excitatory synapses between neurons. These two systems operate in a complementary or interdependent manner, where marked stimulation of one system or part of one system results in stimulation of some part of the other system, acting as a check or control to maintain body homeostasis (Miller & Leavell, 1972).

The craniosacral or parasympathetic system includes all the fibers that arise from the midbrain (occulomotor nerve), the medulla and pons (seventh, ninth and tenth cranial nerves) and from the sacral region (spinal nerves) of the cord. Fibers from the tenth cranial nerve or vagus nerve (of significance in needle phobia) are distributed to the heart, lungs oesophagus, stomach, the small intestine, the proximal half of the colon, gallbladder, liver and pancreas. Some fibers of the vagus nerve are distributed to the skeletal muscles of the larynx, and pharynx. The vagus also carries important afferent nerve fibers from pressor receptors in arteries and stretch receptors of the lungs to the medulla. The sacral autonomies include autonomic fibers which emerge from the
spinal cord (Miller & Leavell, 1972). In lay terms, parasympathetic activity promotes a ‘rest and digest’ response and return to regular function.

The thoracolumbar or sympathetic system includes small neurons in the gray lateral columns of the thoracic and lumbar regions of the cord giving rise to preganglionic fibers; the sympathetic ganglia and their postganglionic fibers which form the lateral chain of the sympathetic trunk and the great prevertebral plexuses. Post-ganglionic fibers may arise either from a ganglion in the lateral chain or from a ganglion in one of three great plexuses (cardiac, celiac and mesenteric). The autonomic nervous system therefore innervates all plain muscle tissue in the body, the heart and the glands. The ganglia serve as relay stations for many of the impulses passing from the midbrain, pons, and medulla, or the spinal cord, or may act independently of these influences (Miller & Leavell, 1972). In lay terms, sympathetic activity promotes a ‘fight, flight’ response or arousal and energy generation.

Impulses within the autonomic nervous systems cause the release of chemical transmitter substances. Autonomic fibers are classified as ‘cholinergic’ and ‘adrenergic’ fibers depending on the transmitter substance released. All preganglionic fibers release acetylcholine from the vesicles in their nerve endings which then diffuses across the synaptic cleft producing permeability changes within the membrane of the postganglionic neuron. The transmitter is rapidly hydrolyzed by the enzyme acetyl-cholinesterase. The postganglionic fibers of the parasympathetic systems are also cholinergic. Most sympathetic postganglionic fibers release norepinephrine (noradrenalin) and are considered ‘adrenergic’. Monoamine oxidase is the enzyme that destroys norepinephrine. Cells stimulated by ‘adrenergic’ fibers are subdivided into alpha (α) and beta (β) groups based on their response to certain drugs. Stimulation of β fibers results in increased rate and strength of cardiac contraction, vasodilatation, and bronchial relaxation (Miller & Leavell, 1972).

The centre for regulation of both parasympathetic and sympathetic activities lies in the hypothalamus. The anterior and medial areas of the hypothalamus control parasympathetic activities. When this area is stimulated there is slowing of the heart rate, increased motility and tone of the alimentary tract and vasodilatation of peripheral blood vessels. The posterior and lateral hypothalamus is concerned with control of sympathetic activities. When these areas are stimulated the immediate sympathetic responses include dilation of the pupil, increased heart rate, peripheral vasoconstriction causing an elevation in blood pressure and inhibition of the
digestive organs and bladder. Hence these centres complement each other in regulation of body processes or maintenance of homeostasis (Miller & Leavell, 1972).

The neurophysiology of the vasovagal reflex is based on both a cardioinhibitory and vasodepressor response. The cardioinhibitory response is characterized by a drop in heart rate and contractility, leading to a reduction in cardiac output. The vasodepressor response causes peripheral vasodilatation from withdrawal of (alpha) sympathetic arteriolar tone and these combined actions cause hypotension (Hamilton, 1995). In addition related neurological circuits produce cardiographic anomalies and stress hormone release. The term ‘vasovagal reflex’ rather than ‘vasovagal syncope’ is a more accurate description of this process in that most people do not actually lose consciousness (Hamilton, 1995).

The vasovagal reflex seen in people with needle phobia is classically described as biphasic, with an anticipatory rise in blood pressure and pulse prior to needle puncture (fight, flight sympathetic response) followed by a sudden plunge in both after puncture (Accurso, Winnicki, Shamsuzzaman, Wenzel, Johnson, & Somers, 2001; Fernandes, 2003., 2001; Marks, 1988; Ost, Sterner, & Lindahl, 1984). The first phase is similar to that displayed by other people with phobias, but instead of a gradual decrease and return to baseline level as exposure to the phobic stimuli continues, those with blood/injection injury phobia show a sharp parasympathetic response and decrease below baseline in both heart rate and blood pressure and this may lead to fainting if it is not possible to withdraw from the situation (Ost et al., 1984). Both Ost et al. (1984) and Accurso et al. (2001) in their head-up tilt test, found that the more marked the transition between the two phases the greater the likelihood of syncope, although in both studies the participants were able to terminate the test prior to full syncope occurring. The reason for this biphasic response with needle phobia, but not other phobias remains uncertain, but may reflect both an inherited neurocardiovascular and neuroendocrine reflex in combination with a learned conscious fear that is peculiar to needle phobia (Hamilton, 1995).

The vasovagal reflex or episode may also occur in response to a wide range of triggers such as prolonged standing, standing or sitting up quickly, stress or any painful or unpleasant stimuli. The episodes are typically recurrent, and usually happen when the person is exposed to a specific trigger such as venepuncture or injections. Regardless of the trigger the mechanism of the reflex is similar and results in a wide range of symptoms and sensations such as light-headedness, nausea, an uncomfortable feeling in the heart, sweating, ringing in the ears, weakness, and blurred or
tunnel vision as a result of the reduced cerebral perfusion. Short of fainting a person may experience an almost indescribable sensation of weakness or impending doom.

While most people with needle phobia who faint are unconscious for only a few seconds, longer periods are possible. Although blood pressure usually returns to normal within a couple of hours and the majority of people feel well enough to resume normal activities, others describe anxiety and malaise for 1-2 days after a vasovagal episode (Hamilton, 1995). Convulsions during vasovagal episodes are a general response of the central nervous system to the cerebral hypoperfusion or hypoxia arising from decreased vascular tone and heart rate. These convulsions may be focal or partial seizures usually arising from a discrete region in one cerebral hemisphere and may not cause any alteration in the level of consciousness, but presentation is highly variable (Bamgbade, 2007).

Cardiac arrhythmias and electrocardiogram changes during the vasovagal reflex are probably secondary to vagal influence on the sinoatrial and atrioventricular nodes (control heart rhythm) and perhaps also to the antagonism between the activated sympathetic and parasympathetic systems of the heart (Hamilton, 1995). A full spectrum of arrhythmias has been seen in patients with needle phobia from sinus arrhythmia and bradycardia to ventricular tachycardia, ventricular fibrillation and asystole (Ellinwood, 1991; Hamilton, 1995; Hart & Yanny, 1998). There are recorded deaths most likely resulting from either serious cardiac arrhythmias or the abrupt vasovagal drop in blood pressure and perfusion on an arterial tree already compromised by atherosclerosis, leading to a myocardial or cerebral infarction (Hamilton, 1995).

Finally a range of different stress hormones have been reported to elevate during needle puncture. Increased cortisol and corticotropin (ACTH) are documented (Ellinwood, 1991; Hamilton, 1995) with a positive correlation between cortisol level and the number of vasovagal symptoms. Corticotropin releasing factor, dopamine, growth hormone and beta-endorphin levels may also rise. Similarly, epinephrine (adrenalin) levels are seen to rise initially with a biphasic cardiovascular response. Probably most significantly, the pituitary gland in response to a reduced intravascular volume during vasovagal shock releases antidiuretic hormone (ADH), endothelin and renin. The ADH rise causes pallor by sharply decreasing cutaneous blood flow and may cause nausea and together with the catecholamine elevation, account for the intense fear that people with needle phobia learn in response to their vasovagal reflex (Hamilton, 1995). Given the range
and complexity of this neurophysiologic response it is understandable that victims of needle phobia describe it as an intensely physical experience.

**Aetiology of Needle Phobia**

Garfield (1988) claims that needles and syringes have been a source of fear and discomfort since their invention in the 1830s and yet they are an integral part of many diagnostic tests, and medical, surgical and dental treatments. Kassowitz’s (1958) research on children’s psychodynamic reactions to hypodermic needles revealed that there was no evidence of reaction to needles in the first six months of life, due to a primitive cognitive system and lack of prior experience, but from that time until the end of the fourth year most children exhibit strong, if not violent reactions to needles but go on to develop increasing compliance and self control or what is termed ‘emotional maturity’. A particularly traumatic event, however, involving needle puncture, an unexpected panic attack when exposed to the feared situation, or observation of others undergoing trauma or demonstrating fearfulness may all initiate the development of the phobic response (Garfield, 1988).

Du, Jaaniste, Champion & Yap (2008) believe that fear acquisition in needle phobia can be considered within two broad frameworks: the environmental learning pathways which include direct conditioning, vicarious learning, and negative information and the non-associative pathways covering biological preparedness and genetic mechanisms. According to early direct conditioning models of fear acquisition exposure to cues associated with an intensely negative event can cause a person to remain fearful of those cues. Direct conditioning alone, however, does not adequately explain the development of an excessive fear of needles as many adults with intense fears cannot recall a specific learning incident (Menzies & Clarke, 1995) and furthermore many individuals exposed to traumatic experiences do not develop fear (Poulton & Menzies, 2002). Du et al. (2008) note that vicarious learning of fear from caregivers also potentially contributes to the development of needle fear. Similarly negative information may increase beliefs about the danger posed by particular situations or objects even if they have not been personally experienced and negative expectations regarding an injection can lead to avoidance and facilitate persisting resistance (Du et al., 2008). Findings of a retrospective study by Ost (1991) confirm this framework with 52% of participants with needle phobia, attributing the onset of their fear to conditioning experiences, 24% to vicarious experiences, 7% to instruction information and 17% could not remember any specific onset circumstances.
Non-associative accounts include biological preparedness and genetics (Du et al., 2008). There are certain fears that are thought to be innate such as the fear of heights and loud noises. Similarly Du et al., (2008) note that fear of pain and injury is a common response enabling an individual to avoid threats and dangerous situations. Most violent deaths in our species’ evolutionary history are either as a direct result of skin penetration from teeth, claws, fangs and tusks or from axes, knives, spears and other such instruments or secondary infection (Hamilton, 1995). Hence a reflex that encouraged the learning of a strong fear of skin puncture was of important selective value. Hamilton (1995) hypothesizes that genes controlling cardiovascular function and stress hormone release were selected to create the vasovagal reflex. The reflex results in vasovagal syncope or fainting and is characterised by a sudden drop in heart rate and blood pressure which reduces cerebral blood flow and may cause brief loss of consciousness. It is likely that multiple genes are involved in this process (Hamilton, 1995). Experiencing a vasovagal episode in response to the feared stimulus is therefore highly disturbing and the subsequent fear may be strongly linked to concern that the body will again respond in this manner when faced with the same stimulus (DSM-IV-TR, 2000).

The wide variation in physiological responses and subjective symptoms in people with needle phobia suggest that this trait is not an “all-or-none phenomena” (Hamilton, 1995, p. 174). The genes that promote needle phobia, as with other polygenic traits are probably randomly distributed among the human population. Thus Hamilton (1995, p. 174) notes that “both strong and weak-trait individuals interact with the medical environment in a lifelong process of learning through varying needle exposure to create a wide expression of the needle phobia trait.”

Prevalence

Statistics on the prevalence of needle phobia vary markedly from 4% (Accurso et al., 2001; Fernandes, 2003) to 10% (DSM-IV-TR, 2000; Hamilton, 1995; Nir, Paz, Sabo, and Potasman, 2003). The Diagnostic and Statistical Manual of Mental Disorders (2000) notes that the reported prevalence varies depending on the threshold used to determine impairment and the setting in which the study takes place. For example, the prevalence of needle phobia is likely to be lower in population samples from clinics or hospital since those with a marked fear of needles select themselves out of such populations. Approximately 55-70% of individuals with blood/injection injury phobia are female (DSM-IV-TR, 2000). This statistical range is significant and clinical practice would suggest that women are more inclined to acknowledge their fear. Anecdotally at least,
more severe vasovagal reactions are seen in men probably because precautionary measures, such as lying down, are not initiated.

Hamilton (1995) notes that 80% of patients with needle phobia report strong needle fear in a first-degree relative. There certainly appears to be a strong hereditary component in the tendency to syncope or presyncope displayed by most people with needle phobia. Accurso et al. (2001) demonstrated that fainting related to blood/injury/needle stimulus may in part be due to a defect in neural circulatory control which may lead to the phobia because of repeated vasovagal or syncopal events. Both Hamilton (1995) and Lamb (2009) assert, however, that people with needle phobia are ‘made, not born’ and that it is the combination of predisposing factors, environment and subsequent treatment by parents and health professionals that creates an intense fear of needles.

**Significance**

People with needle phobia are often terrified of or dread what health practitioners would consider routine needle procedures and a few are so frightened that they would rather die than have a needle procedure done (Marks, 1988). This leads to avoidance behaviour and this together with the spectrum of possible physiological responses make this condition problematic for the sufferer and significant for health care providers. As Richard Matthews (personal communication, April 2009 p. 2) comments, “I resigned myself to death at a young age, as I was quite convinced that I would never be able to inject [insulin].”

Hence, victims of needle phobia have a heightened risk of morbidity and mortality simply because they avoid or delay necessary health or dental care. Hamilton (1995) notes that occasionally needle phobia can be fatal, with at least 23 reported deaths ascribed to the effects of the vasovagal drop in blood pressure and perfusion on an arterial system already compromised by arteriosclerosis, resulting in myocardial or cerebral infarction or a range of cardiac arrhythmias. In addition, needle phobia can cause major social difficulties interfering with plans for travel, marriage, education, immigration or employment as some of my participants will attest. In particular, students may be discouraged from nursing or medical degrees because of their fear of needles (Hamilton, 1995; Lamb, 2009; Marks, 1988). Legal issues may also arise when blood tests are ordered for accused drunk drivers (Marks, 1988; Stark & Brener, 2000), in paternity cases and a range of other felonies (Hamilton, 1995; Marks, 1988) and in cases of emergency caesarean
In summary needle phobia can be seen to impact on many aspects of sufferers’ everyday lives (Hendry, Malden, & Grey, 2003).

Treatment or therapy for needle phobia is beyond the scope of my study. A range of psychological behavioural therapies exist and while some authors claim spectacular success (Fernandes, 2003; Hendry et al., 2003) the stories in the grey literature (Emanuelson, 2010; Lamb, 2009) suggest therapy, at best, needs to be highly individualized and is both very time consuming, expensive, and has variable success. Notably therapy is typically based on classical conditioning theory, despite this being controversial in relation to needle phobia, as described in the Aetiology section of the Chapter. It is, however, a premise of my study, well supported by the literature, that the behaviour, skill and care afforded by health practitioners makes a significant difference in both preventing the development of needle phobia in children (Duff, 2003; Lawes et al., 2008; Thurgate & Heppell, 2005; Willock, Richardson, Brazier, & Mitchell, 2004) and in lessening the phobic response and reported fear of adults (Hamilton, 1995; Lamb, 2009). An intended outcome of the study will be the development of a series of patient care guidelines or maxims based on my research and the source literature included in the study. Hence the focus is on learning about the lived realities of needle phobia and about care, rather than therapy.

As noted earlier, needles are currently an integral part of diagnostic, preventative and therapeutic medicine and surgery. In some areas of practice, use is decreasing due to the introduction of new technologies, for example, an increasing range of capillary blood sampling options involving a simple finger prick now exist. In addition, a skin sensor with an attached monitor called the Venus prototype (Laboratory Equipment, 2009) that uses infrared light to determine tissue oxygen, metabolic rate, and blood chemistry has been developed for the space industry and is likely to reduce reliance on needles for diagnostic testing in the future. There is also an increasing array of sublingual and dermal delivery methods for medications available. Similarly a range of advances in the treatment and care of people with Type 1 diabetes mellitus have seen the advent of needle-free insulin injectors and research is currently underway on implantable insulin pumps, insulin inhalers, insulin pills, islet cell transplant, and gene therapies (Lifeclinic International Ltd, 2010). Medical imaging, however, is likely to remain reliant on intravenous access for the injection of radioisotopes and contrast agents. Intravenous access is also likely going to remain an important part of acute medical and surgical care so, while the range of procedures requiring intravenous access is likely to reduce, needles will still remain an important aspect of medical care.
Part C – The Philosophical Basis of the Study

This section briefly explores the concept of embodiment, central to the philosophical approach of the study and to understanding the experience of needle phobia. It introduces the important role of storytelling in furthering understanding and making sense of experiences and outlines phenomenology and hermeneutic analysis as the philosophical basis for the study. It is also necessary to introduce the work of social theorist Anthony Giddens as his study of the impact of modernity on the development of self identity offer important insights into understanding the narratives of the participants. Finally, the aims and objectives of the study are reiterated.

The Embodied Self

It is important at this stage to introduce the concept of embodiment as it is a recurring theme throughout the study. From a phenomenological perspective the body is our basic mode of being in the world, in so far as consciousness is embodied consciousness, and a person is an embodied being, rather than just the possessor of a body. In other words, the body is the ‘touchstone of existence’ and therefore the starting point in understanding human experience (Merleau-Ponty, 1962).

Van Manen (1998) describes how the usual manner of experiencing the body is in a state of near self-forgetfulness. In other words, we do not ordinarily notice much about the body while we are engaged in everyday activities like walking or generally conducting ourselves in a normal healthy state. This does not mean we are completely unaware of the body, but our primary focus is our project or relation with others, rather than the body per se. Disease may not show itself directly as pain or an altered bodily sensation and may be just a feeling of being out of sorts with the world (van Manen, 1998). Similarly, when we meet other people, we first of all meet them through their bodies as a welcoming smile, an outstretched hand, or a reluctant gesture. While in this instance the body seems in the forefront and while we are no doubt aware of the other person’s embodied state of being, we rarely think of the other person’s body; instead we engage in discussion or set about our work. So van Manen (1998, p. 11) notes, “just as we bypass our own body in favour of the things in which we are involved, so we may bypass the other person’s body who is similarly engaged in the world”.

The concept of embodiment will be explored further in Chapter three particularly in relation to the work of phenomenologist Maurice Merleau-Ponty. It is also an important concept, however, when reviewing the knowledge and research base around needle phobia as well as the experience of
needle phobia as described by the participants. Lawler (1997, p. 31) notes that “the physical body is studied, in pieces, in a number of different disciplines, but embodiment has attracted much less attention.” While specialty research and practice has undoubtedly had a positive impact on knowledge in many aspects of medicine, it has not worked well for needle phobia where physiological expressions of the condition are many and varied. Classification as a Specific Phobia has seen needle phobia variously described as a psychiatric disorder (Accurso et al., 2001), a peculiar type of specific phobia (Bamgbade, 2007), and an unusual but well recognised clinical entity (Simon, Wilkins, & Smith, 2002). Such descriptions do little to further our understanding.

**Hearing and Telling Stories**

To develop our understanding we must ask the people who know about needle phobia, who live with it and experience it on a daily basis. By asking the person even the simplest question, we give that person the assurance that they matter, that we are interested in hearing their story, that we want to be open to what we hear and that we are there to listen (Tschudin, 2003a). It is ethically respectful, polite and befitting of our role as nurses or researchers to ask what is happening, but even more crucially, what does this mean for the person. Nurses hear other people’s stories, but they also tell their own stories. What we hear in our own stories and in other people’s stories are uncertainty, vulnerability, pain and fear (Tschudin, 2003a). Telling the story of what is happening is therefore a way of making sense of it and the two people together create the ethics from the story that is told, heard and responded to. While Verena Tschudin (2003a) is telling us about narrative ethics and the way in which ethics emerges from practice, centred on the particular patient in the particular setting as the nurse participant stories in this study will show; her description also accurately describes the process of hermeneutic phenomenology.

**Phenomenology and Hermeneutic Analysis**

Phenomenology is the study of the ‘lifeworld’ or the world as we immediately experience it (van Manen, 1990). In other words, phenomenology aims at gaining a deeper understanding of the meaning of everyday experience. In terms of this study it asks, “What is the experience of needle phobia like for those that live and experience it”? And “What is the experience of nurses caring for patients with needle phobia”? It is systematic in that it uses specific modes of questioning, reflecting and focusing, and is explicit in that it tries to articulate, through the form and style of writing the meaning embedded in the lived experience. Phenomenology is a human science which is discovery orientated and that is characterised by “thoughtfulness” (van Manen, 1990).
Heidegger (1962) describes “thoughtfulness” as a minding, a heeding, a caring attunement. Phenomenology and particularly the work of Maurice Merleau-Ponty will be explored in more depth in Chapter three. While phenomenology offers pure description of lived experience, hermeneutic phenomenology offers interpretation of the stories and descriptions while remaining true to the lived experience. This involves a series of interrelated activities, which according to van Manen (1990) include turning to a phenomenon of concern to the researcher; investigating the experience as it is lived or as described by the participants; reflecting on the essential themes that emerge and describing the phenomena and bringing it to speech.

Phenomenological questions are therefore meaning questions in that they ask about the significance of certain phenomena so they may be more deeply understood. On the basis of this understanding we may be able to act more thoughtfully and more tactfully in particular situations. In a nursing context and in terms of this study phenomenological enquiry enables us to contemplate the experience that patients undergo as they live with needle phobia and nurses understanding and experience of caring for patients with needle phobia (Madjar & Walton, 1999).

**The Development of Self Identity**

Lawler (1991) comments that our understanding of the body is enmeshed with the nature of personhood and with what it means to be human. Our idea of human existence also requires a bodily form that is recognisably human and we are human to the extent that we have a physical appearance like other humans. This leads into an introduction of the work of social theorist Anthony Giddens as his exploration of the impact of modernity on the development of self identity is particularly useful in explaining some of the findings of this study (Giddens, 1991). Modern institutions differ from all earlier forms of social order both in their dynamic nature and the extent to which they undermine traditional habits and customs, but also in their global influence. In other words, their impact is felt at both a global institutional level, but also at an individual and personal level. In these rapidly changing times, Giddens (1991) maintains that the certainty of tradition and habit have been replaced by a reliance on rational knowledge and as a consequence doubt has become a pervasive feature of modern reason, that permeates every aspect of our contemporary social world. In such circumstances of uncertainty and multiple choices the concepts of trust and risk have become particularly important.

Giddens (1991) sees trust as a crucial phenomenon of personality development. Hence the trust which the child vests in its caretakers can be seen as a sort of ‘emotional inoculation’ against
outside anxieties – a protection against future threats and dangers which allows the individual to sustain hope and courage in the face of debilitating circumstances. In other words basic trust is a protective device in relation to risks and dangers in the surrounding setting. It is the main emotional support or ‘protective cocoon’ which all normal individuals carry with them as the means of getting on with day-to-day life. Trust in others, in the early life of the infant and later in the activities of the adult, is at the heart of the experience of a stable external world and a coherent sense of self identity (Giddens, 1991). The importance of this notion of trust as an integral part of our integrity of self will be developed in the course of the thesis as it is vital in both explaining the possible origins of needle phobia and in the approach to care of people who fear needle procedures.

Giddens (1991, p. 53) defines self identity “as not a distinctive trait, or even collection of traits, possessed by the individual. It is the self as reflexively understood by the person in terms of her or his biography.” These traits are both socially and culturally derived. A stable sense of self-identity presupposes an acceptance of the reality of things and of others, and like other dimensions of ontological security; feelings of self-identity are both ‘robust and fragile’. The following quote from Giddens (1991) eloquently links the important concepts of embodiment and self identity:

The body sounds a simple notion, particularly as compared to concepts like ‘self’ or ‘self-identity’. The body is an object in which we are privileged, or doomed, to dwell, the source of feelings of well-being and pleasure, but also the site of illnesses and strains. However, as has been emphasized, the body is not just a physical entity which we ‘possess’, it is an action-system, a mode of praxis, and its practical immersion in the interactions of day-to-day life is an essential part of the sustaining of a coherent sense of self-identity. (p. 99)

The Research Gap

In summary, victims of needle phobia typically have varying symptoms of decreased cerebral perfusion, cardiovascular changes, electrocardiogram changes and hormonal rises when faced with needle access. At the extreme end of the spectrum needle phobia can be fatal, with at least 23 reported deaths ascribed solely to needle phobia, its vasovagal reflex and accompanied responses (Hamilton, 1995). Needle phobia is also relatively common, estimated to affect about 10% of the population (Hamilton, 1995). While the spectrum of physiological expressions of this condition, along with the tendency to avoid or delay seeking medical care is well documented, the embodied or lived experience is not.
Chapter 1

The clinical context of this study acknowledges that not only are the realities and practicalities of living with needle phobia poorly understood but the very nature and expression of the fear presents particular challenges for nurses providing care. To really understand this condition we must explore the stories of the participants with needle phobia regarding the origins of their condition, their personal experience of living with this fear and how they feel about themselves in relation to it, if we are to provide compassionate and effective nursing and medical care.

Hence this study aims to explore the lived experience of needle phobia as described by the study participants. To give the study a strong clinical focus it aims to also explore the experience of a group of nurses caring for patients with needle phobia in the course of their work in medical imaging. My observation and experience would suggest that the approach, support and understanding offered by health practitioners is critical in caring for patients with needle phobia and this is confirmed by the paediatric and grey literature (Duff, 2003; Hamilton, 1995; Lamb, 2009; Searing, Baukus, Stark, Morin, & Rudell, 2006; Thurgate & Heppell, 2005). Formal research and insight into the individual patient and nursing experience is a vital part of understanding, affirming and developing this approach. The objectives of the study are therefore to make explicit the particular experiences of those who live with needle phobia and in turn to enhance awareness and understanding of this condition. In addition, exploring nurses understanding of needle phobia and their response to caring for patients with this condition will identify care strategies and together provide a basis for more informed nursing practice.
Chapter 2  Literature Review

The background literature on needle phobia is characteristically sparse, reflected in the title of James Hamilton’s (1995) landmark and frequently cited article; Needle Phobia: A Neglected Diagnosis. The chapter will review the broad scope of literature and research around the subject at the same time exploring possible reasons for why there is so little material, given the prevalence and significance of needle phobia. The paediatric literature, particularly relating to venepuncture is reviewed and contrasted with the equivalent adult material. The fragmented nature and challenges of researching the subject of needle phobia is also explored followed by an outline of the psychology-based literature on fear and disgust. Case studies of specific patient events involving needle phobia in a range of medical and surgical settings further highlight the variability of presentation and the significance of this condition. Some recent functional magnetic resonance studies of the brain in relation to pain perception and response to visual and tactile stimuli contribute further to our understanding. The limited qualitative research on needle phobia is presented along with the grey literature on the subject. Finally an outline of the literature used in explaining the methodology and interpreted the research findings is provided.

The work of Hamilton (1995) was used extensively as background to my study. This American article is based on case research carried out on Dr. Hamilton (Ellinwood, 1991) himself and his work with patients with needle phobia within his general medical practice. Ellinwood (1991) conducted a series of blood tests on the needle phobic Hamilton, following three months of desensitisation therapy, to show the range of physiological and biochemical changes that occur with needle exposure. In addition to this positivist scientific approach, however, Hamilton (1995) also combines his personal and professional experiences and a comprehensive exploration of the existing research at the time, to provide an overview of the condition, its causative factors, varying physiological manifestations and treatment options. Guidelines for the care of adult patients with needle phobia undergoing investigations involving needle puncture are also provided.

The Paediatric Setting and Venepuncture

There are a number of articles exploring needle phobia and venepuncture practice in infants and children (Duff, 2003; Fitzsimons, 2001; Smalley, 1999; Thurgate & Heppell, 2005; Willock, Richardson, Brazier, & Mitchell, 2004) and routinely incorporating psychological approaches to
minimise procedural distress. It is worthy of note that there is a clear expectation with children that such procedures can be frightening and support and care is vital in minimising long term damage. Such approaches are absent in the equivalent adult literature affirming Hamilton’s (1995) assertion that it is popular belief that needle phobia is an emotion-driven or transient phenomena confined to children.

Willemsen, Chowdhury and Briscall (2002) provide a comprehensive overview of the aetiology and treatment of needle phobia in children from a psychological perspective. Also of particular interest are two British articles by specialist paediatric nurse educators, specifically looking at peripheral venepuncture practice in children. Thurgate and Heppell (2005) describe the development of a three-step approach to overcoming needle phobia: relaxation, control and graded exposure, developed after a difficult routine venepuncture revealed a need for a change in their ambulatory setting. This approach was developed by the multidisciplinary team based on extensive discussion, national guidelines, a review of the literature and involved additional training for some staff members. Emphasis was placed on the inclusion of the child as well as the parent(s) in all steps of decision-making (Thurgate & Heppell, 2005). Willock et al. (2004) provide a thoroughly researched continuing professional development training package for peripheral venepuncture in infants and children aimed to help nurses prepare and support children undergoing procedures.

Another small multidisciplinary British study involved the development and assessment of the impact of an education programme for medical staff working with children, undergoing painful procedures (Lawes, Sawyer, Amos, Kandiah, Pearce, & Symons, 2008). The study concluded that there are useful pain control techniques that can be used for children undergoing needle puncture that can both be taught relatively quickly by nursing staff and that do make a substantial difference to the medical care of children. Notably no equivalent nursing or multidisciplinary studies of adults with needle phobia have been identified and yet the suggested approach and use of distraction techniques have equal relevance.

A range of documents on intravenous cannulation and venesection (Canterbury District Health Board, 2009; CEBNA, 2009; Joanna Briggs Institute, 2008; Royal College of Nursing, 2010; Scales, 2005) were reviewed by way of comparison with the paediatric literature. At best there is a cursory mention by Scales (2005) of needle phobia linking it to pain under a heading of psychology. Perhaps most surprising the thoroughly researched, evidence based, lengthy and
otherwise technically comprehensive Royal College of Nursing (2010) guidelines document covering the full gamut of intravenous therapy, peripheral, central and implanted catheter placement and venepuncture has no mention of patient care, or possible fears and concerns. So while there is some talk of patient rights, informed consent, education and even possible patient involvement in selection of the most appropriate site and device, as Lawler (1991) notes the ‘person’ is otherwise missing in this scientific, technical discourse. The possibility of a patient who is fearful of the procedure is not considered and needle phobia remains invisible despite this document being researched and written by nurses. In contrast, much of the phlebotomy literature is of American origin and does include specific information on needle phobia (Ernst, 2008) largely based on the work of James Hamilton (1995).

The Challenge of Researching Needle Phobia

Before moving on to review the other research literature, a number of other observations must be made. Lawler (1997) notes that the physical body is studied “in pieces” in a number of different disciplines or that knowledge of the body has been theoretically and epistemologically fragmented. This is very apparent when reviewing the quantitative literature in and around needle phobia. Classification as a specific phobia places needle phobia within the realm of psychology and psychiatry reflected in a range of research around the role of fear and disgust in eliciting the phobic response (Kleinknecht, Kleinknecht & Thorndike, 1997; Olatunje, Williams, Sawchuk, & Lohr, 2006; Page, 2003) and yet this is a fear that is accompanied by wide ranging physiological responses.

Similarly an Australian literature review on the aetiology of needle phobia by Du et al. (2008) noted that environmental, biological and genetic pathways are likely to account for the manifestation of needle phobia. Despite this, researchers have typically focused exclusively either on one or a few associative learning pathways of fear acquisition, or on biological or genetic factors. Given that the aetiological pathways are unlikely to operate independently, the observation by Du et al. (2008) that researchers need to expand their focus and consider the possible interactions between genetic and acquired influences is significant. Hence only part of the picture is presented when either the aetiology or presentation of this condition is studied in a fragmented fashion or when therapy is based on the premise that needle phobia is the result of
direct conditioning alone. Such a disjointed approach has added to the general confusion around needle phobia when it persists or occurs in adults.

A review of the research also reflects the changing ethical climate. A Swedish study by Ost, Sterner and Lindahl (1983) studied a group of eighteen participants with known blood phobia who had been referred, or applied for therapy in an ongoing phobia treatment project. The study aimed to investigate cardiovascular changes associated with the blood phobia. The participants had presumably agreed to take part, but after a period of assessment and monitoring of blood pressure, heart rate and cardiac rhythm they were subjected to a gory film of thoracic surgery, although they were permitted to turn it off at any time, and were monitored throughout. Most of the participants displayed the characteristic biphasic response with an initial increase in heart rate and blood pressure followed by a sharp decrease below baseline in both parameters. Five participants showed fainting reactions and displayed at least one period of five second asystole (absence of heart beat) either while watching the film or soon after turning it off. This study appears to mark the end of experimental work on participants with known needle phobia, as it clearly has significant risk attached, with the exception, of course, of Hamilton’s experimental work on himself (Ellinwood, 1991). Subsequent experimental studies have used non-clinical subjects, relied on retrospective analysis or used questionnaires.

Hamilton (1995) reviewed a range of historical studies looking at the incidence of needle phobia and concluded that an estimate of at least 10% is credible. A recent Wyoming study by Deacon and Abramowitz (2006) on a large group of patients undergoing venepuncture at a phlebotomy service reported approximately 15% of the sample usually felt afraid during injections. An additional 7.5% described their fear of injections as excessive. Although very few vasovagal reactions occurred during the study, 9.5% of patients reported a history of vasovagal reactions and 4.3% reported vasovagal syncope during previous injections. Notably Deacon and Abramowitz (2006) reported a clear association between needle disgust and needle phobia and concerns that injections might pose a health hazard. The setting of this study may also have excluded those people whose fear of needles prompted them to avoid venepuncture altogether.

The Role of Fear and Disgust

There is a body of international research using non-clinical populations around the relative roles of
fear and disgust in faintness elicited by blood and injection stimuli (Kleinknecht et al., 1997; Olatunje et al., 2006; Page, 2003). Page (2003) noted that phobic reactions do not always involve the emotion of fear; some involve disgust (e.g. reaction to maggots or body fluids) and that the stimuli involved in blood and injury are at the point of intersection between the two emotions and hence recruit the physiological mechanisms involved in both reactions. Page’s Australian quantitative study concluded that the normal fear reactions to blood and needles are exacerbated by individual differences in disgust sensitivity. Therefore individuals with high disgust sensitivity are more likely to develop blood/injection injury phobia following a traumatic event than those with low disgust sensitivity (Page, 2003).

The research by Olatunje et al. (2006) notes that the specific emotional mechanisms that elicit fainting associated with blood/injection fear are more complex still and need to consider the nature of the fainting response. There is agreement, however, that blood phobics are more likely than needle or injection phobics to report symptoms of fainting (Kleinknecht et al., 1997; Olatunje et al., 2006; Ost, 1991; Page, 2003). Olatunje et al. (2006) also note that phobic individuals tend not to fear blood injuries as such, but become fearful of the consequences of being exposed to the stimuli; such as embarrassment over fainting in public or intolerance of dizziness and fainting sensations. So while there is a significant amount of psychological literature on the role of fear and disgust in the development of blood/injection injury phobia it is at best remote, and while of possible relevance in terms of therapy, otherwise does little to improve our understanding or contribute to the care of people with needle phobia.

As noted, fainting or vasovagal syncope frequently occurs in association with blood/injection injury fear, but is virtually non-existent in other phobic and anxiety disorders (Marks, 1988; Ost et al., 1983). An important American controlled study by Accurso et al. (2001) demonstrated that subjects with syncope related to blood/injury injection phobia have an underlying autonomic dysregulation predisposing them to neurally mediated syncope, even in the absence of any blood or injection stimulus. This suggests that fainting relating to these stimuli may in large part be due to dysfunction in neural circulatory control demonstrated in their response to a 70° head–up tilt manoeuvres. In other words the study participants tended to faint when they were sat up suddenly.
Case Studies

The tendency to vasovagal syncope demonstrated by people with needle phobia also presents challenges in a range of surgical settings evidenced in a number of case study reports. For example Hart and Yanny (1998) and Bamgbade (2007) provide case reports on the management of specific patients with severe needle phobia and the use of gaseous induction in a perioperative setting. In addition, Bamgbade (2007) provides a continuing education package acknowledging the significance of the condition from an anaesthetics perspective. Win, Kohase, Miyamoto and Umino (2003) provide case reports of two patients with suspected needle phobia in a British dental surgical context. Both exhibited a decrease in their bispectral index score (used to monitor depth of sedation) associated with syncope during venepuncture and prior to the commencement of sedation, but with otherwise differing presentations. A number of case study reports are also presented (Sehgal, Mendonca, & Stacey, 2001; Simon et al., 2002) detailing the challenges needle phobia presents in pregnant women requiring urgent caesarean section.

Similarly a range of medical case studies detail needle phobic responses in specific medical settings. Needle phobia obviously presents significant issues for people with Type 1 diabetes mellitus. Logan Stotland (2006) conducted an extensive review of the literature of psychological barriers to insulin therapy of which needle and injection phobia were the most significant. Zambanini and Feher (1997) present a very dispassionate case report of a woman with Type 1 diabetes mellitus from the time she was a small child and her ongoing refusal to perform glucose monitoring. They describe several inpatient episodes when she was a small child where she was held down physically to perform venesection and the administration of insulin. The article does go on to discuss the importance of education, reassurance and flexible behavioural approaches and physical treatment options in the care of people with diabetes mellitus and needle phobia. Mollema, Snoek, Heine and van der Ploeg’s (2001) quantitative study investigated the use of the Diabetes Fear of Injecting and Self-testing Questionnaire (D-FISQ) as a tool for health professionals in assessing levels of fear of self-injecting and self-testing in diabetes patients. In contrast to the other material, Mumford (2004) provides a range of ‘patient tips from the industry’ covering the spectrum of diabetes care and management and very much acknowledging the significance of needle phobia in diabetes management.
Imaging Studies

Two other recent scientific studies using functional magnetic resonance imaging (fMRI) offer insights into other puzzling aspects of needle phobia. In vicarious needle phobia the body reacts in the same or similar manner to witnessed needle procedures as it does when experiencing them personally (Lamb, 2009). Morrison, Lloyd, di Pellegrino and Roberts (2004) used fMRI of the brain to compare the responses of participants to both noxious and innocuous tactile and visual stimuli. A noxious tactile and visual stimulus (moderate pinprick / video of someone else receiving the same stimuli) was associated with common activity in a pain-related area in the right dorsal anterior cingulate cortex suggesting a shared neural substrate for felt and seen pain. This is consistent with the anterior cingulate cortex’s role in coding the motivational-affective pain dimension associated with the body’s behavioural response to adverse events and accounts for the feeling of empathy or sympathy.

Ploner, Lee, Wiech, Bingel and Tracey (2010) explored the subjective experience of pain and how it is influenced by differences in individual susceptibility as well as personality, again using fMRI. The study found that the functional connectivity of two key areas of the brain (bilateral anterior insular cortex and the brainstem periaqueductal gray) before a sensory event reflects the susceptibility to subsequent noxious stimuli being perceived as painful. In addition the effects of prestimulus connectivity on pain perception co vary with pain-relevant personality traits and hence underlie personality-related differences in individual susceptibility to pain. This would in part account for why adverse and painful experiences have such an impact on subsequent experience of events such as venepuncture.

Qualitative Research on Needle Phobia

Needle Phobia also presents challenges for women contemplating pregnancy. A British study by Searing et al. (2006) was one of the few qualitative nursing studies of needle phobia identified. The researchers use a case study approach to explore the experience of a pregnant woman with needle phobia and examine its impact on her whole pregnancy and delivery experience. Three tasks during pregnancy were identified: namely seeking trusting relationships with health care providers, establishing and maintaining control and understanding and coping with the fear of needles, pain and invasion. The other somewhat paradoxical British qualitative study identified looked at elements of needle phobia amongst female injecting drug users and the health and clinical practice implications of this in facilitating engagement with and receipt of health care
Most of the participants were fearful of needles prior to their first experience of injecting drug use and their fear also extended to other medical procedures involving needles hence impacting on their medical care.

A number of other texts are important in interpreting my study given the minimal qualitative literature available on needle phobia and nursing in relation to needle phobia. The New Zealand phenomenological study entitled Giving Comfort, Inflicting Pain (Madjar, 1998) gives valuable insight into phenomenology and the rich description and understanding it yields. This study explored the lived experience of pain inflicted in the context of medically prescribed treatment, from the patients and nurses perspectives using both observation and interviews. Madjar’s (1998) study also reveals and explores a number of essential themes of relevance to my research project. Not only must people with needle phobia control their own anxiety and fear sufficiently to attend medical appointments, they must then in effect hand their bodies over to health care providers, suffer the ‘wounding’ of venepuncture and behave in the expected restrained and controlled manner (Madjar, 1998). Of particular significance to my study are Madjar’s (1997, 1998; Madjar & Walton, 1999) observations and interviews with nurses faced with the dichotomy of being the perpetrator or inflictor of pain in stark contrast to their ‘caring’ role. The nurses’ approach to care and coping strategies will be used by way of support and comparison in my study.

While a range of research literature and case reports on the physiological aspects of needle phobia exist, in particular the tendency to vasovagal syncope, with the exception of Searing et al (2006) and to a lesser extent Tompkins et al (2007) the patient / participant experience of this condition is noticeably absent. This is in marked contrast to the grey literature where one American website (Lamb, 2009) includes a wealth of personal lived experience, stories, advice and support. Notably both of the significant websites (Emanuelson, 2010; Lamb, 2009) and the landmark paper on the subject (Hamilton, 1995) are compiled and written by people with needle phobia and have an American setting. The unpublished ‘Reflections’ of Richard Matthews (personal communication, April 2009) are also a valuable comparison to the comments of the participants in my study, in articulating feelings and offering useful examples. These ‘Reflections’ were also valuable in formulating the open-ended questions used in my study.

Interpretation of Findings

Also of importance in interpreting my study is the work of Patricia Benner and Judith Wrubel. The Primacy of Caring: Stress and Coping in Health and Illness (Benner & Wrubel, 1989) offers a
phenomenological view of stress and coping and was particularly valuable to me in articulating and understanding the work of phenomenologist Maurice Merleau-Ponty. It also offers a unique perspective on the inherent good embedded in expert nursing practice and knowledge; articulating alternative approaches to health promotion, restoration and curing based on the primacy of caring. Benner’s paper on the ‘The Roles of Embodiment, Emotion and Lifeworld for Rationality and Agency in Nursing Practice (Benner, 2000) was also helpful in articulating the role of embodiment in skill acquisition and the capacity of nurses to make moral judgements in their day to day practice. Judith Spier’s (2000) paper offering new perspectives on vulnerability using emic and etic approaches and their consequences for nursing practice was particularly helpful in providing words that encapsulated some of the emergent themes in the participant transcripts.

The work of contemporary phenomenologist Max van Manen is also widely used in my study; in particular his explanation of the hermeneutic phenomenological approach to human science research and writing (van Manen, 1990). Van Manen (1999) also offers insights on the gnostic and pathetic dimensions of touch, significant in this study for understanding some of the ambiguity of nursing practice. The work of social theorist Anthony Giddens (1991) is also valuable in understanding and interpreting both the participants’ experience of needle phobia and to a lesser extent the nurses’ reactions to caring for patients with needle phobia.

For a condition that affects an estimated 10% of the population (Hamilton, 1995) the research is at best sparse and fragmented. The literature reflects a condition that is expected, and seemingly managed with increasing thoroughness and care within the paediatric setting (Duff, 2003; Fitzsimons, 2001; Smalley, 1999; Thurgate and Heppell, 2005; Willemsen et al., 2002; Willock et al., 2004), but remains largely invisible and unacknowledged when it comes to adults. The medical, surgical, and obstetric case study reports on the other hand clearly reveal its significance (Bamgbade, 2007; Langslow, 1997; Mollema et al., 2001; Mumford, 2004; Searing et al., 2006; Simon et al., 2002; Stark & Brener, 2000; Zambanini & Feher, 1997). Only Hamilton’s (1995) article provides a comprehensive overview of the condition based on the available literature at the time, physiological research on himself and his experience in his general practice and as a result this article is widely quoted. A significant research gap exists particularly in understanding the lived experience of being needle phobic and the impact this has on day to day life. My study uses phenomenology to explore the stories of the participants in relation to needle phobia. Thematic analysis of their personal accounts contained in the interview transcripts will in turn deepen our understanding of what it means to be needle phobic and how as health practitioners we can best
support and provide care for this group of patients. The following chapter will explore the methodology in greater depth.
Chapter 3 – Methodology and the Research Process

In qualitative research, methodology refers to the philosophical framework of the study whereas method refers to the research techniques and the procedure for carrying out research (van Manen, 1990). Both of these elements will be attended to. The chapter will start with a brief overview of phenomenology – the guiding philosophy of the study, followed by a more focused look at embodiment and the work of the phenomenologist Maurice Merleau-Ponty. It will explore the place of phenomenology in nursing research together with the role of narrative and the use of forceful metaphor in capturing ‘lived experience’. ‘Achieving quality’ draws together the steps taken to ensure ethical accountability and gain ethics approval and the emic and etic perspective of vulnerability are also considered. Assumptions and expectations relating to the study are explored along with other concepts important in ensuring trustworthiness and rigour. ‘The research process’ includes the way in which participants were selected, pilot interviews and the actual interviews carried out along with the management and editing of individual transcriptions. Finally the stages involved in hermeneutic analysis, the identification of themes within individual transcripts and collation of the results are described. Thematic analysis is guided by van Manen’s (1990) approach to hermeneutic interpretation along with the work of Reinharz (1983).

Phenomenological Enquiry and this Study

Phenomenology is the study of the ‘lifeworld’ or of the nature and meaning of human experience as it is lived (van Manen, 1990). In other words, phenomenology as a human science aims at gaining a deeper understanding of the nature or meaning of our everyday experiences. In relation to this study phenomenology offered a means of focusing on the individual participant’s experience of needle phobia. It was a means to discover and explore the participants’ stories, their feelings, their bodily reactions and explanations of their fear of needle procedures and in turn find the common threads in these experiences and pull them together to further our combined understanding. It is an approach that allows reflection and the stories and explanations to grow in the course of conversation, in a supportive encouraging and trusting interaction. Similarly the nurse participants were able to share stories they had not previously told, explore their understanding of needle phobia and in turn the challenges and dichotomies that people with needle phobia presented.
This is clearly very different from the aims of traditional scientific method, guided by existing theory, predetermined hypotheses, variables and controls – the approach used in much of the other research on needle phobia discussed in Chapter two. Phenomenological enquiry therefore also heralded a significant departure from the earlier Cartesian (from Descartes) mechanistic view of the body or the mind-body dualism that has influenced and characterized Western medicine. In contrast phenomenology proffers the view that we are embodied beings, rather than just minds that possess a body.

Phenomenology is a philosophy or way of thinking with a strong epistemological heritage and has been an important source of reference for the development of qualitative research in general (Todres, 2005). The origins of phenomenology lie with Edmund Husserl (1859-1938), a German philosopher and mathematician whose life work focused on some of the fundamental problems of epistemology or the foundation or status of knowledge (Todres, 2005). Husserl’s work was continued by Martin Heidegger (1889-1976) who moved further still from the Cartesian notion of mind-body split, to concentrate on the understanding and interpretation of phenomena, believing that it is through language and speech that our ‘being in the world’ was both manifest and understood. This stimulated the movement away from straight descriptive or transcendental phenomenology towards a more interpretative approach to understanding (Rapport, 2005) commonly referred to as Heideggerian hermeneutics. Husserl’s work also paved the way for the later French phase of phenomenology, reflecting in the work of Gabriel Marcel (1889-1973), Jean-Paul Satre (1905-1980) and particularly Maurice Merleau-Ponty (1908-1961).

Madjar (1998) notes that there is considerable diversity in how phenomenology has been used and developed by its major proponents rather than it being seen as a rigidly defined school of thought. Questions of ontology; how people are or exist and epistemology; concerns of how or what people know, dominated the early writing of Heidegger, Marcel and Merleau-Ponty who focused in particular on the issues of existence, consciousness and ultimate meaning (Madjar, 1998). The central concepts of phenomenology as a philosophy, however, include the notions of consciousness, perception, embodiment, temporality and experience as the being-in-the-world. My study uses the work of Merleau-Ponty and the following discussion will focus on his view of phenomenology and in particular of embodiment. The concept of embodiment assumed obvious importance in the course of my study as the participants described their total bodily responses to needle exposure. Similarly for the nurses, skill acquisition leads to a more differentiated world of
Chapter 3

practice and enhanced embodied capacities to work with and meet the needs of their patients (Benner, 2000).

Merleau-Ponty and the Concept of Embodiment

Merleau-Ponty (1962, p. vii) defined phenomenology as “a study of essences”. ‘Essence’ refers to the essential nature or the qualities that make something what it is (van Manen, 1990). In other words phenomenology is the systematic attempt to uncover and describe the internal meaning and structures of lived experience (van Manen, 1990). A universal or ‘essence’, however, can only be grasped through studying the lived experience and Merleau-Ponty (1962) made a fundamental distinction between the experience of pain or breathing (or whatever) as it is lived by a person and scientific or objective conceptualisations of human experience. Merleau-Ponty (1962) described the embodied ability to respond to meaningful situations:

It has always been observed that speech or gesture transfigure the body... The fact was overlooked that, in order to express it, the body must in the last analysis become the thought or intention that it signifies. (p. 197)

Merleau-Ponty (1962) was therefore critical of the artificiality and potential destructiveness of scientific thinking which effectively looks down on and distorts the phenomena of our lived experience. Rather he calls for a return to the embodied experience, a return to the prereflective world where people live, before they develop knowledge about it. The heart of phenomenology for Merleau-Ponty (1962) aims to directly describe human experience and to do so in a rigorous scientific way. Madjar (1998) notes that this reflects a continuation of Husserl’s phenomenological principle of ‘returning to things themselves’, of understanding human experience as it is lived and in the context within which it occurs and which it helps to shape:

To return to things themselves is to return to that world which precedes knowledge, of which knowledge always speaks, and in relation to which every scientific schematization is an abstract and derivative sign-language, as is geography in relation to the countryside in which we learned beforehand what a forest, a prairie or a river is. (Merleau-Ponty, 1962, p. ix)

Hence Merleau-Ponty’s account of the ‘lived body’ aims to understand the body as it is lived and experienced rather than how the body is viewed by natural science or idle observation (Madjar, 1998). Merleau-Ponty did not present a clear, organised account of the different facets of the
body but kept returning to the body in different contexts within his work – The Phenomenology of Perception (1962), revealing further aspects of it. The five dimensions of the ontological capacity of the body or embodied intelligence: inborn complex; habitual skilled body; projective body; actual projective body; and phenomenal body reflect the unpublished study of Merleau-Ponty’s work by Hubert Dreyfus as presented by Benner and Wrubel (1989, pp. 70-76).

The ‘inborn complex’ is the precultural body present even before birth with skills such as thumb sucking and the ability to react to light and sound and above all an innate capacity to learn and respond (Benner & Wrubel, 1989).

The ‘habitual skilled body’ describes the socially and culturally acquired gestures and habits learned through imitation and practice that enable the person to share their world with others. Benner and Wrubel (1989) cite the example of culturally-specific behaviours in relation to personal space and distance. Skill acquisition is another example of the habitual body whether it is learning a basic skill such as walking, riding a bicycle, or performing a specific nursing procedure, but where with time and practice the embodied skills are carried out smoothly and without conscious effort. Issues may arise, however, when the ‘habitual body’ contradicts the ‘body of the moment’ (Merleau-Ponty, 1962, p. 82) such as happens after amputation, or a stroke. Hence the ‘habitual skilled body’ is a major coping resource offering fast, flexible response in complex situations but conversely its loss presents a major coping deficit when capacities are lost.

The ‘projective body’ describes the way the body moves or acts in everyday life such as when reaching for an object or placing one foot before the other when walking. The ‘projective body’ may be affected by neurological disease or long periods of immobilisation after which difficulties may be experienced in moving in a co-ordinated manner (Benner & Wrubel, 1989).

The ‘actual projected body’ describes one’s current actual projection such as sitting before a computer screen or involvement in a complex of range of activities simultaneously (Benner & Wrubel, 1989). For example, a nurse inserting an intravenous cannula while trying to distract and reassure an anxious patient who is afraid of needle procedures.

The ‘phenomenal body’ “describes the body aware of itself” (Benner & Wrubel, 1989) including bodily sensations and body image. For example the phenomenal body can be experienced in relation to bodily sensations. This is highly relevant in this study where the participants describe their fear of needle procedures in terms of how their body reacts; feeling and tasting the injection
in their body, the flushing, sweating and faintness. Limited deliberate control of bodily functions is made possible through learning around bodily sensations. Also the phenomenal body may be extended beyond its anatomical boundaries, for example when a blind person uses a stick so that it becomes an extension of the body.

Because this study has arisen from and takes place within a nursing context it will also draw upon the research of a number of nurse scholars. Lawler (1991) in her grounded theory of the management of the body in nursing (somology) maintains that when nurses practise somologically they take account of the both the physical body and the body as it is experienced, lived and felt by the patient and they integrate these two aspects of embodiment. Lawler (1991, p. vi) notes that: “Nursing practice is essentially and fundamentally about people’s experience of embodied existence, particularly at those times when the body fails to function normally.” Hence in health we experience our bodies in a taken for granted and unselfconscious manner. In illness or times of distress the body can no longer be ignored and there is a breakdown in one’s sense of ‘being in the world’ as dyspnoea, pain, nausea or other sensations draw attention to the body and make it behave in an unpredictable manner. When illness or disease become chronic or progressively disabling, or in the case of acute and severe injury, the person may experience a sense of disembodiment that can totally change his or her sense of place in the world (Madjar, 1998).

**Nursing and Phenomenology**

Nursing practice defies easy definition despite the best attempts by nurse theorists over several decades. Benner and Wrubel (1989, p. xi) comment that “nurses provide care for people in the midst of health, pain, loss, fear, disfigurement, death, grieving, challenge, growth, birth and transition on an intimate and front-line basis”. This is known by ‘expert’ nurses as “the privileged place of nursing” (Benner & Wrubel, 1989, p. xi). Clinical nursing practice therefore offers a view on stress and coping in health and illness distinctly different from a purely psychological, physiological or biomedical view and different even from behavioural medicine even though nurses draw on all of these disciplines (Benner & Wrubel, 1989). A natural extension of this perspective is to therefore understand “nursing practice as the care and study of the lived experience of health, illness and disease “ (Benner & Wrubel, 1989, p. 8). Given this perspective the old Cartesian mind-body duality is replaced by an integrated view of the person and the previously opposed roles of instrumental and expressive actions are redefined when they are viewed in the context of their function. Thus nursing care may be both instrumental and
expressive as can medical care (Benner & Wrubel, 1989). This discussion highlights two important issues. Not only does it show the natural link and affinity between nursing practice and phenomenological enquiry but also provides valuable insight in explaining some of the clinical dichotomies described by the nurses in this study.

Madjar and Walton (1999) also suggest that phenomenology offers nurses a way of thinking about their practice that is immediately appealing and familiar and yet offers understandings which are often new and more involved than previously anticipated. The understandings revealed through phenomenological enquiry help to make everyday practice more meaningful. It is therefore not surprising that phenomenology, which allows nurses to reflect on the meaning of their work, is attractive to both researchers and clinicians.

Chapter one described the problematic terminology in relation to needle phobia and van Manen’s (1999) process of unnaming things or setting the name aside. This concept requires further reflection. Madjar and Walton (1999) describe how nurses see aspects of illness, trauma and suffering every day and how each of these things has a name or shorthand by which we discuss it with our patients and colleagues and which we expect others to understand. Although we know that these experiences have more complex emotional, and relational significance, we do not routinely attend to all these aspects in everyday practice. Phenomenology, however, offers a way of thinking that allows us to delve behind the shorthand and reveal the lived experience (Madjar & Walton, 1999). For example, Madjar (1998) provides a graphic example, of relevance to this study when she describes how as health practitioners we may describe a femoral artery puncture to obtain a blood sample as a brief “hurt”. A patient in Madjar’s (1998) study on clinically inflicted pain described it very differently and instead stated that “hospital staff ‘fish’ around there, and I say ‘fish’ literally”. This patient went on to state that it should be called “harpooning because if they don’t get the blood straight away they just keep jabbing and poking” (Madjar & Walton, 1999, p. 9).

Madjar and Walton (1999) offer another insight invaluable in considering the nursing narratives in this study. While much of nurses’ work is focused on giving comfort, relieving symptoms and providing information and support; in doing our work we often assume that through our assessment we ‘know’ what a patient is experiencing or what they need to feel comforted and supported. While those assumptions may be correct, they are nevertheless assumptions. Instead Madjar and Walton (1999, p. 9) suggest holding off “from naming things and instead adopting an
open, unknowing stance”. This open and unknowing stance is termed the ‘listening gaze’. “It is a gaze that is attuned to the concerns of the patients and that can adopt different perspectives in order to understand another’s experience and to act with care” (Madjar & Walton, 1999, pp. 11-12). It is an approach that is integral to this study.

**Use of Narrative and Forceful Metaphor**

The practice of telling stories and listening to stories is an integral part of nursing practice, and so too phenomenological research. Oral tradition is an important part of experiential learning and the development of clinical expertise as stories are more memorable than lists of warnings out of their context (Madjar & Walton, 1999). Hence nurses learn from both their own and from others’ experiences. In practice situations one of the challenges, but greatest satisfaction of nursing is the quest to get to know the people we care for. Nurses pride themselves on their ability to relate to their patients and the knowledge that comes from these relationships. Even when interactions are brief as in medical imaging or day-surgery situations, nurses do their best to learn something of the patients with whom they are working. In any clinical situation, talking and listening to patients and their families is therefore a vital part of nurses’ work (Madjar & Walton, 1999). Tschudin (2003a) explains that by telling our stories we become subjects and authors of our own experiences. When we treat others as objects we hear only a small amount of the truth while the rest remains hidden because objects are merely looked at. Whereas those who are subjects look together and this team approach enables each party to discern and see the truth of each other. This oral tradition therefore fits comfortably with carrying out phenomenological research.

Listening to the participants’ narratives reveals the language of ‘forceful metaphor’. Metaphors are ways of explaining one form of reality in terms of another given that language is how we represent and interpret this reality (Rudge, 1997). Metaphor was originally considered purely a literary device. The author Virginia Woolf (1932) eloquently described how words not only find their semantic limit in metaphor; metaphor is language’s way of allowing the poet to transcend this limit:

> By the bold and running use of metaphor, the poet will amplify and give us not the thing itself, but the reverberation and reflection which, taken into his mind, the thing has made; close enough to the original to illustrate it, remote enough to heighten, enlarge, and make splendid. (p. 32)
Recent developments in the analysis of nursing practice, however, have explored the use of bodily metaphors in particular, as a means of understanding embodiment better. Madjar (1997, p. 66) tells us that metaphors are a means of “trying to make the invisible, visible and share the unshareable.” For this very reason the title of my study (On the Edge of a Whirlpool) draws on the words of one of the participants who described his overwhelming sense of panic and in this case abortive attempt to get a blood test done. The phenomenological approach allowed exploration of the embodied and deeply felt participant experience of what needle phobia means to them and as the title illustrates, produces its own rich description and terminology to enhance our awareness and understanding of this condition. Madjar (1998, p. 8) notes that “phenomenological enquiry aims to bridge the gap between stories and individual experience and the phenomena of human existence.”

**Achieving Quality**

**Ethical Considerations**

The protocol for this study was submitted to The Unitec Ethics Research Committee (UREC), Auckland District Health Board Research Office and the Northern Y Regional Ethics Committee and approval was granted to proceed (Appendix A).

Ethics are concerned with behaving ‘properly’ and making the right choices (Iphofen, 2005). The branch of ethics that concerns health research is primarily normative ethics which sets out the way one ought to behave as a researcher. There are a number of lines of accountability that must be considered. These include clinical accountability to the patient or public and to participant colleagues, to the professional institution and to colleagues, and the service organisation or employer (Iphofen, 2005). A range of processes were followed to ensure the safety of participants in the study along with the broader accountabilities and these will be reviewed under the relevant guiding principles governing human research and teaching activities.

**Informed and Voluntary Consent:** All participants in the study were volunteers who responding to research flyers, information from colleagues or, in the case of the nurses, direct approach. A Participant Information Sheet and Consent Form (Appendix A) was provided electronically prior to the interviews being arranged so the participants had adequate time to review these and decide if they wished to participate. The consent forms were then discussed and signed at the time of the interview and a copy given to the participants. The consent forms will be securely retained for a
period of five years. Decisions about the timing and location of each interview were negotiated with each participant.

**Respect for rights of confidentiality and preservation of anonymity:** All interview transcripts were coded with a pseudonym from the outset and only the individual participant and I know these codes. Interview transcripts have only been seen by me, the individual participant and in some instances my principal supervisors. These measures all ensure the anonymity and confidentiality of my participants. The transcripts will be retained electronically in a password protected file on my personal computer for a period of five years. The digital recordings have been erased.

**Minimisation of Harm:** My major concern was that recall of past traumatic events might elicit distress or a vasovagal fainting reaction. Participants were assured from the outset that particular questions could be bypassed and that I would stop the recorder at any time they requested. I was also prepared to support them as required. One participant did become flushed and tearful talking about her past experiences, as she indicated – graphically demonstrating how her body reacted when faced with having intramuscular injections. She was taken aback at her own reaction, but assured me that she wished to continue. We had a drinks break and I offered verbal assurance, company and support until she was ready to resume the interview. Another participant surprised himself, by stroking the antecubital fossa on one arm as we talked. The other participants were seemingly unperturbed by talking about their fear.

The participants all indicated that by volunteering for the study as they hoped to personally learn more about needle phobia and to potentially help themselves and others in the process. The overwhelming comment at the end of the interviews or in subsequent email contact was that they had found it helpful talking about their fear as it was something they usually avoided even thinking about. A number commented on how talking about their fear made them realise it had affected their lives more than they had previously recognised or acknowledged.

**Limitation of Deception:** A copy of the individual interview transcript was sent to each participant as soon as it was transcribed. They all accepted these as documented, and without modification.

The term vulnerability is used to identify individuals and groups at risk of harm. It is an epidemiological term and one often used in relation to research studies involving patients and was certainly used in relation to my participants by an advisor. Spiers (2000) notes however, that people experience the problems and turmoil of life in ways that cannot be understood simply by
comparison to normative standards of risk. “By reducing vulnerability to an epidemiological term, we reduce our vision of the world” (Spiers, 2000, p. 715). Instead Spiers (2000) identifies two distinct approaches to vulnerability within the nursing literature which can be characterised as ‘emic’ and ‘etic’ perspectives. An ‘emic’ view of vulnerability is internal or personal and is based on an experiential perception of threat to personal integrity. Etic perceptions are externally evaluated and involve identification of individuals or groups who are at particular risk according to normative standards (Spiers, 2000). While my participants with needle phobia undoubtedly saw themselves as vulnerable when facing a needle procedure this did not extend to talking about their phobia in a research setting. As one participant noted ‘talking is fine as long as you don’t suddenly produce a needle’. This emic perspective is important when qualitative research involving humans is being considered.

So while gaining ethical approval for studies involving patients or so called ‘vulnerable participants’ is often seen by novice researchers as insurmountable, this is not necessarily the case. The emic perspective is critical in accurately evaluating the personal risk. The emic view of vulnerability has four primary attributes: integrity, challenge, capacity for action and multidimensionality (Spiers, 2000). These attributes will be explored further in interpreting the findings of my study in Chapters four and five. Hence appreciation of the unique lived experience of vulnerability as experienced by the person is essential to complete the picture of any phenomena under investigation.

Assumptions and Expectations

A phenomenological approach requires that the researchers assumptions and expectations relating to the study are made explicit from the outset and as far as possible set aside or “bracketed” (van Manen, 1990) out. By revealing my personal biases the reader is then able to assess the extent to which these have been recognised, thus allowing the participants’ responses and data to determine the findings, questions and themes of the study. While it is also possible that the researcher’s expectations are confirmed this should not be the intent of the study, but rather that the participants’ stories and understandings prevail (Madjar, 1998).

My current role as a nurse in medical imaging both conducting and observing patients undergoing needle procedures, familiarity with literature on the subject and informal discussion with patients, relatives and acquaintances have all contributed to personal assumptions and expectations present at the beginning of the study. Needle access is something we have virtually all
experienced and maybe this very familiarity makes it more difficult for practitioners to appreciate just how distressing procedures like blood tests or injections can be for some people. While I am not personally needle phobic, I do feel a sense of unease when undergoing blood tests and injections, largely related to a background concern at the competence of the person carrying out the procedure. I do remember a greater sense of unease and concern when supporting one of my daughters through a range of blood tests and infusions, a concern which would ease immediately when the staff member was skilled and familiar and related well to my daughter and to a lesser extent myself. All these experiences inevitably contribute to the way we are and the way we behave.

As a medical imaging nurse I have also experienced anxiety and nervousness while carrying out needle procedures on patients who are visibly distressed by needle access and the dichotomy of the caring role, while at the same time being the perpetrator of pain and distress. In the case of the present study, the following assumptions and expectations were recognised through a process of personal reflection and a self-interview. They have therefore been recorded and as far as possible set aside:

- That needle phobia is a distressing condition that impacts on health-seeking behaviour.
- That people with needle phobia are embarrassed about their fear and see it as a sign of weakness.
- That needle phobia is poorly understood by nurses and other health practitioners.
- That caring for patients with needle phobia presents particular challenges for health care professionals.

**Trustworthiness and Authenticity**

There is considerable debate around the use of the terms ‘validity ‘and ‘rigour’ in relation to qualitative research (Morse, 1999; Pyett, 2003). In quantitative research, validity is related to accuracy, relevance and reliability of measurement whereas in qualitative research, Pyett (2003) notes we seek to understand rather than to measure, and to represent or explain a complex social phenomena. The terms have been used interchangeably in this account in considering the important issue of truth-value in relation to the research and write-up of my study. Every attempt has been made to report the experience and reality of the participants and my own part in the research as accurately as possible. Much of this detail is interwoven throughout the account, particularly in Chapter one and the different sections of this chapter. The various approaches used
to demonstrate validity, however, are summarized using the processes outlined by Holloway (2005a).

**Internal validity** or accurate representation of the reality of the participants is most important. The transcript of the personal interview was returned to each participant (member check) to ensure they were comfortable with the content. The final discussion chapters were also read by two of the nurse participants for their response and feedback. Both participants felt that they had been accurately represented and were excited by the clinical implications of the study both in understanding needle phobia and in relation to their own practice. Extensive use is made of exemplars of both groups of participants’ accounts and related experiences of needle phobia. While these have been edited to remove repetition and pause fillers, they are otherwise unchanged as they eloquently tell all of the participants’ stories. The linking narrative essentially reveals my own (the researcher’s) place in the emerging story. In turn this dense and conceptual description (**thick description**) offers a sense and picture of events and actions surrounding the participants. Wherever possible either supporting or opposing literature has been cited within the narrative. An accurate and **detailed description of the audit trail** or record of decision-making throughout the research process has been provided in the proceeding sections. For example, the decision to carry out a sixth participant interview as detailed on pages 51-52.

The search for **external validity** and the ability to generalize in qualitative health research is another well debated issue (Holloway, 2005a). Certainly van Manen (1990) claims that generalization prevents us from developing understandings that remain focused on the uniqueness of human experience. While this is true to some extent in terms of the individual patient accounts, it nevertheless clarifies the realities of needle phobia through the participants’ eyes; in contrast to how it was perceived by the nurses’ in the study. My participants assertion that their fear is not primarily about ‘the pain’ for example has been well supported by other patients with needle phobia in my clinical practice, as it has by the grey literature (Emanuelson, 2010; Lamb, 2009). Most importantly within the wider context of clinical practice and understanding, the study offers considerable insight into approaches to care. Holloway (2005a, p. 278) comments “that phenomenology seeks transfer of meanings and unique variations but not literal generalizability,” an accurate portrayal of the situation with my study.

**Reflexivity** refers to examining or uncovering the researcher’s place in the research process. It is essentially a confessional account of methodology and an examining and revealing of one’s own
personal or unconscious reactions (assumptions and expectations) and in turn explores the dynamics of the researcher-researched relationship (Holloway, 2005a). Reflexivity therefore implies self-awareness, critical evaluation and self-consciousness by the researcher on the part they play in the research process. In addition reflexivity recognises power relationships between the researcher and participants, takes account of unpredictable and unexpected disclosures and expressions of emotion by participants and their own reactions during the research (Holloway, 2005a). It also involves being self aware and self-critical about the ethical issues in the research process and in effect requires the researcher to give full account of their own location and experience as they affect the participants, process, and setting of the research. In other words the researcher is a participant in the enquiry with their own identities, and personal stance; they do not merely retell the experience, feelings and behaviours of those they study. Hence research writing is always an interpretive process, not only reflecting or describing the views of those involved (Cohen, Kahn, & Steeves, 2000; Holloway, 2005a)

My own role in the genesis, research, data collection, and analysis of the study has been progressively documented throughout the writing process. It is a study that has evolved from clinical practice and my need as a nurse to understand the puzzling condition of needle phobia with greater understanding and clarity. Equally importantly I needed to know how other nurses reacted to and coped carrying out procedures on patients with needle phobia as so little research or literature exists on either of these topics. Holloway notes that “the effect of the researcher’s role is by no means always negative” (Holloway, 2005a, p. 279). Fascination and personal connection has given me greater insight into the lived experience of needle phobia and my subjective experiences have in fact become a resource, and have helped considerably in formulating questions and in the whole research process. I have also had opportunities to discuss understandings with patients affected by needle phobia, in the course of my work, further validating and confirming the study findings. Hence the final story is an amalgam of my actual research, my clinical practice experience, the existing literature and the reflective writing process.

The final test of trustworthiness and authenticity is ultimately performed by the reader who identifies with the feelings or experiences described and has what Holloway (2005a) terms an ‘aha moment’ or a sense of a revealing of something they knew, but perhaps had not expressed or recognised before.
The Research Process

Pilot Studies

As an initial pilot study, a family member interviewed me, using the nurse interview questions and recorded the session. This was an uncomfortable experience adjusting to an unobtrusive digital recorder. I was nervous and after all my background research knew too much about the topic to provide concise organised answers. It did clearly indentify the questions that needed reworking and breaking up into smaller portions. I disliked listening to my own recorded voice making the transcription process laborious and difficult and offered early insight into how disjointed the flow of language and conversation often is.

Jane (pseudonym), a nurse in the department with needle phobia also agreed to be interviewed as a pilot participant interview. This was useful in simplifying the open-ended questions and breaking them up into more usable segments and in generally gaining confidence in using the tape recorder. The nurse questions were also tested and again modified. Jane became flushed and anxious while narrating an unpleasant experience she had had, requiring a break. She was surprised by her own reaction, but this was a valuable insight regarding the recall of unpleasant events. The interview demonstrated the need for patience; to allow silences at times and to avoid ‘putting words into the participant’s mouth’. It also reinforced the importance of asking questions from different angles. Jane initially indicated that needle phobia had not affected how she felt about herself but later acknowledged – “I feel bad. I shouldn’t be needle phobic, I’m a nurse.”

Selection of Participants

The study involved only participants with direct personal experience of the phenomenon of needle phobia in a process called “purposeful sampling” (Morse, 1989). No attempt was made to determine the severity of their fear or whether the participants “fitted” the diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders (2000). What was important and in keeping with a phenomenological study was that they identified themselves as having an unreasonable fear of needle procedures, saw it as an issue in their lives and were prepared to talk about it. The intent was to certainly include men and women and this occurred without manipulation on my part. While I would have liked to interview a young man, no-one fitting this description was forthcoming, despite a number of direct approaches, instigated typically at the suggestion of partners.
Five adult, (over 18 years of age) English speaking participants, who acknowledged a fear of needle procedures, took part in the study. The sample size was determined in discussion with my principal supervisor as an appropriate and realistic number for a phenomenological study and to meet the requirements of a 120 credit Master’s thesis. Considerable time is involved in conducting one-on-one interviews, the transcription process and thematic analysis of material. At the same time the sample size allowed for a range of responses and a level of confidence in the findings.

As indicated earlier my study focused on adults, both because of my area of clinical practice and because of the dearth of qualitative research in this area. The group consisted of three women and two men. No demographic data was collected as it was not deemed relevant and only the age band and occupation and other minimal information is provided about the participants to lessen the likelihood of them being identified. Pseudonyms were used from the time the interviews were transcribed. Participants were sought through word of mouth, snowballing (Holloway, 2005b) and by the placement of research flyers (Appendix A) in the Radiology department and lifts at the outpatient facility where I work, on student notice boards at Unitec and in one general practitioner’s surgery. One participant was the partner of a work colleague and agreed to take part. Two participants saw the research flyers at the outpatient facility, either personally or through a family member and made contact by phone or email. One of the medical radiation technology (MRT) students learned of the study through work colleagues when she felt faint and was unable to remain in a procedure room during the intravenous cannulation of patients and she agreed to take part. The other student responded to the flyer. I knew both the MRT students casually, but I had not cared for any of the participants in my nursing role. My preference was for participants who were not actively involved in medical treatment at present and were essentially healthy. Concurrent and especially intense medical and surgical treatment places many demands on people. I had no wish to compound this process. There was also a concern that concurrent treatment would potentially complicate the response to questions about the fear.

There was concern early in the recruitment process that participants were slow to present. Contrary to my original intent of avoiding people actively involved in medical treatment, I interviewed a very courageous woman with a chronic medical condition and long-standing needle phobia, who endures regular intravenous infusions, despite difficult venous access, has had an implanted port failure and hundreds of hospital admissions. She finally initiated her own desensitization programme using a plastic pencil syringe, which she proudly presented to me as she no longer required it. The issues for Jo (pseudonym) were very different to the other
participants and describe a woman who has lived with chronic illness all her life compounded by a worsening fear of needles; she had tolerating repeated attempts at intravenous access with what Madjar (1998) would term ‘passive acquiescence’ but through necessity had developed a new assertiveness and involvement in her own medical care. There was also a lingering concern that she could be readily identified, so I have opted not to include her data. It would be a fascinating qualitative case study to write up at a later date. An additional participant interview was therefore performed. Towards the end of the interviewing process a number of other volunteers presented, but I was unable to include them within the parameters of the study.

**Selection of Nurse Participants**

Finding nurse participants proved more difficult, with the exception of one early volunteer also engaged in postgraduate study. Nurses who I had worked with closely and had orientated to the outpatient site where I work were excluded, as they were highly likely to have heard me discussing the subject. Flyers were placed within the wider department and the project presented at the weekly staff meeting. I had a preference for nurses working in medical imaging, where there is typically limited time to build up a rapport with patients, but the haematology and oncology departments were also contacted with no success. Finally other possible staff members were directly approached via email and two other participants found. Ultimately three nurse participants from the medical imaging field with varying degrees of experience were interviewed.

Recruiting within other District Health Boards would have required additional ethics approval and was likely to be time consuming and was hence rejected.

**The Interviews**

Consistent with a phenomenological approach to research, interviews were the primary data collection tool for this study (Taylor, 2005). The interviews flowed in a semi-structured manner using two predetermined sets of open-ended questions (Appendix A) typically beginning with “tell me about”. This approach was designed to initiate and direct the conversation to some degree, to cover particular areas of interest, but to encourage the telling of personal stories and experiences of needle procedures. There was, however, considerable flexibility in the approach and often participants would backtrack to earlier questions as they thought of something else they wished to add. In this regard each interview is unique and describes, in the participants own words, their account of the experience of being needle phobic, or in the case of the nurses their experience of working with, caring for and carrying out procedures on people who are afraid of needle
procedures. It is acknowledged that interviews can only describe events, beliefs and attitudes and the veracity of such descriptions of actions and behaviours must be accepted on trust (Taylor, 2005). The interviews also offered an opportunity for participants to construct and reflect on their experiences of being afraid of needle procedures. These constructions were influenced by the participant’s ability to articulate and reflect and particularly to recall experiences and the accompanying emotions. Several of the participants commented on thinking about their fear prior to the interview and trying to ‘pin down’ a starting point.

The face to face interview, lasting approximately an hour, was carried out with each participant at a mutually convenient time and place. Two of the nurse interviews, and two participant interviews were done at work in a quiet private space. One participant interview (Pat) was done at his office and the remaining three interviews were done at my home. All locations proved satisfactory. The interviews were conducted over a six month period from May until October 2009 as participants presented. There was no connection between the participants or the nurses in the study, so no comparison can be made of specific events or stories. My part-time clinical role in the Radiology department continued during this time and was useful in the reflective process.

The interview was arranged once participants had reviewed the Participant Information Sheet and Consent Form. Consent forms were discussed and signed by both parties and a copy given to the participant at the time or sent out later. The interview field notes were written up after each interview noting particularly body language and other non-verbal communication and general comments on how the interview had proceeded. Given the limited literature on the ‘lived experience’ of needle phobia the participant questions probed their personal understandings of the condition, as well as their specific feelings and dislikes, as distinct from the way their body reacted, when faced with a needle procedure. The questions also explored the participants’ personal and family history in relation to needle phobia, the possible impact it had on their wider lives, along with their coping strategies. One of the final questions asked for a story or narrative of a specific incident that had been particularly difficult. This was deliberately placed near the end of the interview when conversation was typically flowing freely. A final question sought specific practical suggestions from the participants as to how they would like to be cared for and what helped to make the procedure more tolerable for them.

The nurse interviews followed a similar pattern of open ended questions to explore their understanding of needle phobia. The nurses were much more inclined to tell stories or offer
clinical anecdotes to support their answers in keeping with nursing’s oral tradition (Madjar & Walton, 1999). The questions then probed the nurses’ personal feelings in regard to carrying out procedures on patients who were overtly afraid and fearful, how they approached this and their personal caring and coping strategies. A question also explored any specific instruction or guidance they had received in caring for patients who are afraid of needle procedures. A final narrative of a challenging incident involving a patient with needle phobia was included. Both sets of interview included a final open question encouraging participants to share any other thoughts that would contribute to the study.

Each interview was recorded on an unobtrusive digital recorder, downloaded, and transcribed in its entirety, and pseudonyms assigned. Once complete a copy of the transcript was sent electronically to the participant for verification. At this stage a number of clarifications or additional questions were asked if required. The content of the interviews was accepted by all the participants although it was necessary to reassure them that it was usual for conversations to ‘duck and dive’ and not necessarily follow an expected pattern, as most participants expressed some embarrassment at their lack of coherence. An unexpected aspect of the interviews was the many questions that the participants wished to ask me about needle phobia; so subsequent conversation and discussion typically followed at the end of the interview. A common comment was that it is something that they did not usually discuss, even with close family and all seemed to relish the opportunity to talk with someone who was interested and accepting.

I was cognizant of my own inexperience in conducting an interview and was aware of my increasing ease with the process as the interviews progressed. However, I do not believe this impacted significantly on the content of the interviews. Conversely, my experience as a radiology nurse where there is typically short patient contact time has honed the skills required to quickly establishing a rapport with people, aided by my fascination with the research topic. The process of being interviewed was a new experience for most of the participants and some were clearly more comfortable with this than others. The participants also acknowledged that their fear of needle procedures was a subject that they tried not to think about, and certainly did not usually talk about. Hence a number of the participants, (either deliberately or subconsciously) had limited recall of the detail of past traumatic events. The subject of the interviews clearly raised ethical issues around the potential vulnerability of the participants. As discussed previously, participants were assured that they could refuse to answer specific questions and we could stop at anytime if they wished.
Hermeneutic phenomenology; Data analysis and Interpretation

The term hermeneutics is derived from the Greek god Hermes, and refers to the theory and practice of interpretation (van Manen, 1990). Hermeneutic phenomenology tries to be attentive to both parts of its methodology; it is a descriptive (phenomenological) methodology because it aims to focus on how things appear and lets them speak for themselves; it is also an interpretive (hermeneutic) methodology because “it claims that there is no such thing as uninterpreted phenomena” (van Manen, 1990, p. 180). Hermeneutic Phenomenology attends to two issues simultaneously by staying close to the original data and describing things as they appear as well as interpreting that which it observes. In other words, people undergoing a needle procedure experience this in a direct embodied way, but the phenomenon that the researcher presents is something created through the interpretation of the participants’ and the researcher’s understandings of what it means to be afraid of needle procedures. Hence the realities of lived experience are already meaningfully or hermeneutically comprehended and in turn translated from thought into language by the participants and this is inevitably an interpretive process.

Phenomenology aims to transform personal lived experience into consensually validated social knowledge (Reinharz, 1983). Phenomenology, however, requires that the steps, by which direct experience is transformed into a written account and made available to others, are specified. To fulfil its aim of translating private experience into public knowledge phenomenological research requires active participation from both the researcher (the etic or outsider perspective) and the study participants (the emic or insider perspective) and finally from the audience who read and evaluate the research report (Madjar, 1998). Actually carrying out phenomenological research involves a series of interrelated activities, which according to van Manen (1990) include: turning to the phenomenon of concern and interest to the researcher; investigating the experience as it is lived rather than conceptualized; reflecting on the essential themes that appear from the investigation; describing the phenomena through a process of writing and rewriting and finally bringing it to speech.

The study used a single interview with each participant as a means for exploring and gathering experiential narrative as a resource for developing a richer and deeper understanding of needle phobia and the nurses’ experience of caring for and carrying out procedures on patients with needle phobia. A journal was also maintained throughout the interviewing, reflection and writing process noting the progress of the interviews, reflections and experiences from clinical practice.
and ideas, as they came to mind. Analysis in the hermeneutic phenomenological approach then involves moving from the interview transcripts or field text to a narrative text that stands alone for other readers (Cohen et al., 2000). This movement from one text to the other, along with reading and rereading is continued throughout the study. Reinharz (1983) provides the clearest identified description of the nature and sequence of ‘epistemological transformations’ involved in the process of hermeneutic phenomenological analysis and is the approach followed by my study:

- The first transformation is performed by the participant who in the context of the interview transforms private experience into language and actions and makes these available to the researcher. An atmosphere of trust and mutual respect are needed to facilitate this self-revelation;
- The second transformation is performed by the researcher who unable to directly sense another’s experience has to produce his or her own understanding of that experience from information communicated by the participant.
- Having grasped the participant’s experience, the researcher then needs to transform it into conceptual categories that capture the nature and meaning of the experience;
- The researcher then has to transform the understandings and conceptual categories into a coherent, meaningful account, such as a thesis or conference paper, that makes the knowledge public and open to scrutiny;
- The final transformation has to be performed by the reader who has not participated in the research process, but needs to create their own understanding of the phenomenon, clarifying existing understandings and asking new questions about the human experience under study (Reinharz, 1983, pp. 77-79).

There is some fuzziness around the degree to which participant narratives are presented as transcribed or as a cumulative story reflecting the content of the interview (Caelli, 2001). In regard to my study the participants’ narrative examples and anecdotes are presented largely as transcribed with only pause fillers and repetitive words removed. The participants spoke with clarity and a certain rawness that captured their feelings and personal experiences of needle phobia and offered new insights on this minimally researched subject. The identified themes largely reflect the pattern of the research questions and interviews and emerged either directly or through inference from the participants’ descriptions. Gadamer (1986) distinguishes between two senses of interpretation: in its original meaning, he says,
Interpretation is a pointing to something; and interpretation is pointing out the meaning of something. The first kind of interpreting is not reading in some meaning, but clearly a revealing of what the thing itself already points to. We attempt to interpret that which at the same time conceals itself (as cited in van Manen, 1990, p. 26).

Gadamer’s view of interpretation is useful in describing the stance adopted with this study. It is essentially exploratory or introductory research given the dearth of qualitative research on the subject and in essence aims to reveal the well-concealed lived experience of needle phobia, so we may comprehend it with more clarity.

As van Manen (1990) notes however, the understanding of some phenomenon, or lived experience is not always achieved by just grasping the ‘facticity’ of this or that experience. Rather, a true reflection on lived experience requires a thoughtful, reflective grappling with what gives this experience its special significance. In other words phenomenological research consists of reflectively bringing to the fore that which tends to be obscure or evade our everyday awareness. This is the important process of thematic analysis. Theme, in literature, refers to an element which occurs frequently in the text. Thematic analysis refers to the process of recovering or revealing the theme(s) that are embodied in the evolving meanings and imagery of the work. In terms of phenomenological interpretation it is a process of seeing meaning and in turn gives control and order to our research and writing (van Manen, 1990). In the eloquent and lyrical words of van Manen (1990):

> Phenomenological themes are not objects or generalizations; metaphorically speaking they are more like knots in the webs of our experiences, around which certain lived experiences are spun and thus lived through as meaningful wholes. Themes are the stars that make up the universes of meaning we live through. (p. 91)

Hence, phenomenological research is a creative process and is one interpretation of a human experience and does not exhaust the possibility of yet another complementary or even potentially richer description (van Manen, 1990). While idiosyncratic interpretation is possible, by making the steps of the transformation process explicit, and describing the context of the experiences under study, the number of possible interpretations is limited and the reader is able to reasonably judge the validity of the findings (Madjar, 1998).
Chapter 3

The Emerging Story

Interviews were initially transcribed in their entirety after first listening to the recording several times. Transcripts were then edited to remove pause fillers and repetition. The transformation process in my study involved reading and rereading the interview transcriptions and underlining passages or exemplars of particular significance in the emerging story. Notes were made in the transcript margins identifying common ideas or possible themes, aided by journal entries written after each interview. The recordings were also listened to several times and notes were made, a process that was helpful in picking up inference. Initially the written account very much followed the pattern of the interviews and exemplars from each participant (where possible) were pulled together in common categories such as ‘personal descriptions of needle phobia’ and a linking narrative progressively written drawing in other explanatory or supporting literature. The semi structured nature of the participant interviews facilitated the process. The nurse interviews presented a greater challenge as the three participants told totally different stories in keeping with their different level of experience and nursing background.

The initial categories were presented to and discussed with my principal supervisor to further tease out the emerging ideas and themes. Successive writing, rewriting and cutting and pasting of quotations and exemplars followed, gradually pulling the sections together. My ongoing clinical practice and discussions with patients and colleagues have assisted in this reflective process. Continued reading and literature searching have also helped to fill explanatory gaps in the developing account. The final process, after review of the first draft by my supervisors, involved a refining and considerable writing and rewriting of the themes in an attempt to make them both reflective of the participants’ stories and memorable. It progressively became obvious that the themes being grappled with were largely encompassed in Spiers (2000) attributes of ‘emic’ vulnerability, so where appropriate these have been used, along with the work of Giddens (1991), effectively linking the research to the theory or relevant literature. The latter themes, in keeping with hermeneutic analysis very much reflect my interpretation of the participants’ stories and their struggle to grasp or verbalise what they hated about needle procedures.

Limitations of the Study

Holloway (2005a, p. 288) notes “that qualitative research in the health and social-care field generally develops new questions and demands new answers” and this research is no exception. It was limited from the outset by the participants who were prepared to volunteer and it was
always unlikely that anyone at the extreme end of the spectrum of needle phobia would present or respond to flyers in a clinical centre. While I have a reasonable level of confidence that the picture presented by the participants with needle phobia is trustworthy, based on my clinical practice, and the literature, I have less confidence in the data from the nurse participants. There was a reluctance to participate on the part of the nurses. While the nurses interviewed all found carrying out procedures on patients with needle phobia challenging to varying degrees largely based on their level of experience, I know other nurses who are unperturbed by this, probably for a variety of reasons. A larger study, probably including observational enquiry, would be required to explore this in more depth. As Holloway (2005a) notes, there is never a single explanation for a phenomenon, for behaviours or feelings and this was never expected. At the same time the study has provided a vivid picture of the realities of living with a fear of needle procedures and offered or reinforced the need for particular approaches to care. It has also highlighted important issues in guiding and supporting the novice nurse in their learning that has significant implication for both patients and nurses.
Chapter 4 – Discussion: The Participant Experience

Introducing the Discussion

The aims and nature of phenomenology are concerned with understanding human experiences in their context and complexity. The participants in the study all offer different narratives and stories around their experience of needle phobia and these largely occur within the contexts of health and health maintenance, rather than illness. A phenomenological description of needle phobia or any phenomenon in which personal experience is transformed into a written account involves interpretation both on the part of the participant describing the experience and the researcher undertaking the study (van Manen, 1990). These initial accounts are important in this study as they ground the phenomena in the practical everyday experience of the participants and provide a very different perspective on a fear of needle procedures than seen in the existing literature where lists of possible physiological signs and symptoms predominate.

Chapter four, the first of the three discussion chapters, introduces the participants and using exemplars and supporting description arranges the threads of the interviews under three broad themes; unravelling the fear, living with the fear, and ‘piercing the protective cocoon’. Each of these themes is divided into subthemes, utilising Spiers (2000) work on the attributes of vulnerability. Together these themes and subthemes build up an emerging picture of the realities of needle phobia for the participants. Unravelling the fear explores the personal idiosyncrasies or varied presentation of the condition and a fear evolves traces individual stories of its origins. ‘A violation of integrity’ grapples with what the participants dislike so intensely about needle procedures and struggle to describe. Living with the fear describes a wayward body that behaves in an unpredictable and irrational manner. It is a fear that ‘challenges (to) integrity’ and impacts on lives despite the participants’ efforts to minimise its significance. ‘Capacity for action’ describes personal strategies for coping with the fear and the extent to which power guides or limits actions. The final discussion ‘piercing the protective cocoon’ draws on the words of Anthony Giddens and involves a more in-depth analysis of two important components of self integrity, seemingly threatened by the participants embodied reaction to their needle fear. The participants’ descriptions allude to a sense of shame, that something so simple cannot be mastered and in turn poses a threat to competence, or the competent face that they usually present to the world.
Chapter five will follow a similar process with the nurse participants and Chapter six - Implications for Practice will pull the findings together and look at the resulting understandings.

The Participants

<table>
<thead>
<tr>
<th>Cam</th>
<th>Is a fifty plus male, new immigrant and service manager in the motor vehicle industry.</th>
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<tbody>
<tr>
<td>Pat</td>
<td>Is a fifty plus male and senior university academic.</td>
</tr>
<tr>
<td>Fran</td>
<td>Is a fifty plus female with a grown family, who has sailed and travelled extensively.</td>
</tr>
<tr>
<td>Pip</td>
<td>Is female, in her early twenties and a senior MRT student</td>
</tr>
<tr>
<td>Meg</td>
<td>Is female, in her early twenties and a senior MRT student</td>
</tr>
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Unravelling the Fear

Personal Idiosyncrasies

The term needle phobia had quite specific meanings for each participant and they were selective in the procedures they felt able to tolerate and those that petrified them. Neither is the presentation always consistent, worse on some occasions than others, adding to the sense of insecurity and concern when faced with a procedure. Vicarious needle phobia was an issue for all participants, but Pip and Meg both encountered needle procedures in their workplace so it had become a particular issue for them.

Well obviously being sort of scared of needles; I’m not totally scared of needles it’s only when it’s the drawing of blood in the vein.  

Cam p. 1

My sort of needle phobia is only to do with things like having blood samples taken so that injections say at the dentist or into the muscle, is not a problem

Pat p. 1

I pretty much avoid anything that I know is going to involve needles, I guess I just fear them, no reasoning behind it and it’s even watching other people [have needle procedures].

Pip p. 1

It’s just that I dread getting blood tests and going to theatres or screening where needles are used – I can’t watch.

Meg p. 1

Really having anything to do with needles on my body; being inserted or watching it on anybody else in actual fact. But into tissues is worse. So if it’s into a vein to take my blood, as
long as I don’t watch I’m able to associate that with it’s an okay thing, but as for doing it into a muscle it’s completely awful.

Fran p. 1

All of the participants had had needle procedures at some stage although Cam had managed to avoid blood tests for 45 years. As part of the immigration process to come to New Zealand he had to undergo a blood test, a process that took five months, and hypnotherapy, until he could finally face it.

Although the participants had responded to the flyer or other contact about the study there was hesitancy about using the term needle phobia, hence the change of title of the study to “Living with a Fear of Needle Procedures” rather than ‘needle phobia’. This was in keeping with a tendency to downplay the fear and the significance it had in their lives.

I’ve never thought of it as a phobia. I always thought I was on my own in that sort of thing. I just thought it was one of those things, some people are scared of heights, going in boxes, and mine was just giving blood.

Cam p. 1

Like I would never have called myself needle phobic. Oh yeah I don’t like needles and kinda like a woos pretty much. Just pretty much scared of needles.

Pip p. 1

There are few assumptions that can be made about this condition. Spiers (2000, p. 719) notes “that experiences of vulnerability may be multiple, simultaneous or cumulative”. The presentation between individuals with needle phobia is variable and the fear may be quite specific to a particular procedure. This was vividly demonstrated in the course of the interviews. After five interviews the example of having a blood sample taken had crept into use when asking the participants about their feelings. This required correction from Fran who found intramuscular injections ‘completely awful’, but coped okay with blood tests. Neither can one assume that because a patient has tattoos, or piercings that they cannot be needle phobic. In fact all of the female participants in this study had piercings, though none of them had tattoos. The young women liked the idea of a tattoo but did not think they could face having it done. On the other hand Cam, who probably had the most acute fear in terms of his avoidance of blood tests, had a significant tattoo.

As you can tell I had the tattoos done when I was very young and that didn’t bother me at all.

Cam p. 4
Perhaps an even more unlikely scenario is intravenous drug users who are needle phobic and yet the study by Tompkins et al. (2007) of needle fear among women injecting drug users illustrates that this is in fact relatively common. These women had other intravenous drug users do their injections, but their aversion and fear influenced their uptake of other medical interventions. The issue of needle phobia in association with intravenous drug use was an unexpected finding of the research (Tompkins et al., 2007). It is also likely that challenges perceived to be within one’s sphere of control result in a different experience of vulnerability than those perceived as outside one’s control (Spiers, 2000).

**A Fear Evolves**

Hamilton (1995) claims that approximately 80% of people with needle phobia report a strong needle fear in a first-degree relative. So while needle phobia is not genetically inherited as such, the tendency to develop it is. The vasovagal shock reflex also has a strong hereditary component (Accurso et al., 2001; Hamilton, 1995). The current study does not support those findings, although this may reflect the small number of participants. Certainly none of the participants were aware of siblings or parents experiencing similar difficulties and yet all participants seemingly experienced faintness if not full blown syncope on needle insertion. One of Pat’s four children struggles with needle procedures, but that was the only family connection noted by any of the participants. It is possible that the participants had relatives with needle phobia who deliberately concealed their fear or had not presented with symptoms as they had not required medical procedures involving needles.

Hamilton (1995) maintains that those who inherit a tendency to go into vasovagal shock will tend to develop a fear of needles as they are exposed to needle procedures in the healthcare system. Hence learning does play a role in the expression of the needle phobia trait. Considering the average person probably undergoes 6-12 injections for immunisations or blood draws before they reach adulthood there is ample opportunity for the phobia to develop in the presence of negative experiences. Interestingly Fran had organised her life in such a way as to ensure that her children were unaware of her fear. She had someone else present when she took them for inoculations or positioned herself in such a way that she could not see what was happening. She had only told her adult daughter about her phobia on the way to the interview when she enquired about her mother’s apparent anxiety. Her daughter was fascinated and came in for the first part of the interview. Fran commented that:
Chapter 4

Sometimes as parents you don’t need to say everything, because you don’t need to worry your children about your own problems I suppose.  

Fran p. 4

Most of the participants had at least a vague recollection of an event or events that they felt were significant in explaining their phobia, although these did not necessarily involve needles. Fran thought her fear related to all the inoculations her job had required her to have, as she had no recall of childhood vaccinations. She remembered the Cholera vaccine as particularly unpleasant. In the course of conversation, however, she remembered a water skiing accident around the same time, when she had half her thumb ripped off by a rope. She had eaten so could not be anaesthetised and was seemingly given no sedation either. She recalled being strapped down while her thumb was repaired and the bone filed down and she remembered excruciating pain and screaming.

That may have been some sort of catalyst too, you never know, that was huge.  

Fran p. 6

Cam vaguely remembered going to a clinic as a six year old for a blood test. He has no recollection of the event, but assumes he was not told what was happening and it clearly left an impression. Lamb (2009) maintains that many needle phobic people trace their fear and life-long distrust of healthcare workers to being lied to, or at least not having a procedure accurately described when they were young. Cam did not have another blood test until the required immigration screening in his early fifties, explaining this by fortuitously having ‘rude good health’.

Pat recalled a traumatic injury to his finger when he poked it in a concrete mixer as a six or seven year old. He remembers going to hospital to have it sewn up and then redressed and that process being pretty traumatic with the dressing being pulled off strand by strand, although the recollection is otherwise sketchy. He remembers:

Shame for doing something so stupid really and causing trouble.  

Pat p. 4

In the course of conversation with patients with needle phobia in the clinical setting, a number have commented on traumatic events when they were aged about six years old that they believe caused their phobia. These events did not necessarily involve needles, but certainly medical care and they recount not having the pain of procedures accurately described. This is in keeping with Hamilton’s (1995) informal research and the findings of Bienvenu and Eaton (1998).
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Pip remembers being afraid of injections from the time she was very small and being in hospital for some reason.

*Mum wouldn’t tell me when we were going to the doctors for injections or anything because she knew that it would be such a big deal so she would just take me and they used to do it.*

*Pip p. 3*

At a particularly messy more recent venepuncture the phlebotomist failed to listen and acknowledge her fear and allow her to lie down as requested, compounded by a faulty venepuncture device that leaked blood everywhere. Pip fainted and ended up lying on the floor, further aggravating the condition. She has not had another blood test since, despite recommendations that she have allergy tests and a range of other blood work done.

*So that’s one I’ve clung onto for a while and I guess even going back to the same place will be weird. [You haven’t been back since?] No I haven’t been back and I don’t know if I will. I will if I have to obviously.*

*Pip p. 5*

Meg coped with blood tests as a child and it was not until she was 16 and having her belly button pierced and made the mistake of watching, that she became needle phobic.

*I think it was because it was a big thick needle and I watched. I fainted twice. I think it was just the sight of the needle going in and coming out again because it didn’t actually hurt much at all. I really hated the fact of fully passing out so that probably contributes to the needle phobia.*

*Meg p. 2*

She has had no further piercing done. Interestingly Hamilton (1995) notes that most people who have a fainting tendency do not actually do so until they mature into puberty and have developed a more adult-sized muscle mass, large enough to pool blood away from the central venous system during a vasovagal reaction, when the pulse and blood pressure plunge. Hence fainting is very unlikely in under 12 year olds. This would concur with Richard Matthews’ (personal communication, April 2009) description of mass inoculations at Intermediate or Junior High School level.

*A new height in loathing was reached when mass-inoculations took place at school (for TB I think). I remember the feelings of dread developing as class-by-class students were led across the quad to where we were to be ‘treated’. We stood in the hot sun waiting our turn*
as students (girls particularly) fainted at the prospect and were carried off to recover in the staff room. Clearly the hysteria was a consequence of bad management and playground gossip. I did not faint but do remember being very fearful and feeling trapped. (p. 1)

So while the origins of the participants’ fear was varied and not typically recalled in detail, the subsequent impact of poorly managed venepuncture or other needle procedures was vividly remembered and clearly had a compounding negative effect.

‘Violation of Integrity’

The participants all struggled to explain exactly what they disliked about needle procedures, in keeping with the other literature (Emanuelson, 2010; Hamilton, 1995; Lamb, 2009), but as Lamb (2009, p. 5) notes, “The fear of pain is surprisingly not a common concern for needle phobes. Many serious needle phobes would opt for a more painful approach if they could avoid the needle!” Pain was certainly not the major concern for most of the participants; in fact the men in particular denied that it was an issue at all, citing that they would prefer to have dental work done without local anaesthesia and tolerate the pain of the filling, than have an injection.

*I’m very staunch with pain. I don’t mind pain... It’s just that generally I don’t like having blood tests done.*  

Pat p. 6

Meg did find the pain part of the issue but recognised that it also related to her tensing up.

*I’m always scared it’s going to hurt and then I tense up and then it does hurt.*  

Meg p. 2

Richard Matthews (personal communication, April 2009) suggested that “It was something about the violation of the integrity of the skin covering” that he found repulsive and this comment is reflected in similar comments from a number of the participants. The term disgust or a sense of disgust was not used by any of the participants, but is certainly a word other patients have expressed in clinical practice. It is definitely a term that encompasses the sensations otherwise described by participants and is the term used in particular in the psychology literature (Olatunje et al., 2006; Page, 2003).

*I think it’s just the needle going in under the skin and going into a vein. I just don’t like the feeling.*  

Meg p. 2

*It’s after the needle goes in... I guess it’s some sort of foreign body inside me that shouldn’t be there. Even with the Mantoux test it’s sort of underneath the skin and you can see the skin*
bubble and that kind of freaks me out, because it’s not supposed to be there. That’s what the big deal is – it’s not supposed to be there. 

Pip p. 2

It doesn’t hurt so that doesn’t bother me; the idea of something going into me is huge, the idea of that fluid going into me, but also I seem to react to it; I can even taste it in my mouth. I can taste an injection and people say to me you can’t do that.

Fran p. 2

Fran also noted that she can look at a syringe and needle as long as it is not being used on her, but that it would probably appear magnified and bigger than it really was.

Pat knows what does not bother him, but struggles to describe what he dislikes so intensely:

It’s something about being touched around the inner arm and neck... I mean my partner if she wants to subdue me in any way just has to poke towards my inner arm and I become a mess sort of thing...

Pat p. 2

It’s not really the sight of the needle although that contributes if I know it’s going to be used on me... but I can look at a needle at the dentist or if someone is giving me an inoculation and it doesn’t bother me a bit.

Pat p. 2

Cam also struggled to describe what he specifically disliked. Similar to Pat, the antecubital fossa seemed to hold special significance and in the course of conversation he sat stroking this region possibly just through association.

It’s the whole process, even putting the band [tourniquet] on.

Cam p. 2

I’ve often thought is it just the area that they go and could they take it from somewhere else and I thought no, that’s just as bad, so it’s the whole thing.

Cam p. 2

Early on it was the thought of seeing the blood especially my own... It seems sort of quite barbaric to me.

Cam p. 6

Another interesting aspect of needle phobia can best be termed ‘visualising in your mind.’

I knew what was happening as well I think; even if not watching, totally knowing that a needle was going into the skin and stuff...

Meg p. 5

So that thought is important:
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Yes it is watching as well and also knowing what is happening. So you sort of visualise it in your mind and it makes it worse.  
Meg p. 5

Cam described a similar process when waiting for his partner to have her blood test done.

I couldn’t see what he was doing but I knew what he was doing and that didn’t make me feel good.  
Cam p. 7

The more I don’t sort of think about the process beforehand the better.  
Pat p. 1

As well as visualizing in the mind what was happening Pip describes having to stop herself staring at intravenous lines because...

If I was to stare at someone’s line for long enough I could see myself getting a bit carried away and I’d have to sit down, but I know when I’m doing it... So I need to tell myself not to look at stuff.  
Pip p. 7

This is in keeping with what Richard Matthews (personal communication, April 2009) describes as a morbid fascination:

As a strategy to deal with needle phobia, I was told to look away. That was hard to do as I had a morbid fascination with watching as the vial was shaken, the glass broken, the contents sucked into the syringe. Even when I looked away and did my best to think myself in some more pleasant place, I could imagine clearly the process being enacted beside me through the sounds involved. (p. 4)

The participants describe a sense of abhorrence and of violation that involves all the senses, but is not primarily about the pain. So superficially the violation involves the integrity of the skin surface. Some insights here are afforded by psychoanalytical theory. Both Freud and Lacan (cited by Rudge, 1997) suggest that our individual identities are first bound to our bodies through our senses, together with the sense of identity provided by skin. These understandings are a reflection of the integrated nature of mind and body; with the skin or body representing our physicality and ego our psychological or mental capacities. Hence our skin comes to represent the social and cultural experience or expression of being a self-contained individual. Certainly the participants in the study also describe a much deeper sense of violation, a violation of the integrity of self. In Gidden’s (1991) terms this sense of violation correlates to a piercing or disruption of ‘the protective cocoon’ or the basic sense of trust which protects the individual against overwhelming
anxiety in facing risks and dangers in their world. Integrity, a primary attribute of ‘emic’ vulnerability, also refers to the person’s sense of soundness in the various dimensions of his or her life (Spiers, 2000). Integrity is therefore challenged when a happening, such as a needle procedure, has the potential to disrupt that self conceptualisation.

Lamb (2009) categorises needle phobia into four broad groups; vasovagal, associative, resistive and hyperalgesic based on his informal online research. As Emanuelson (2010) notes, however, many people with needle phobic fit into more than one of these categories and there are significant differences between individuals. It is therefore questionable how useful such divisions are. The comments, reactions and feelings of the participants in this study suggest that needle phobia defies such tidy categorisation and this, in fact, may be detrimental in terms of the approach to care and even treatment.

Living with the Fear

A Wayward Body

In keeping with the concept of embodiment, the participants all describe an entangled mix of physiological and psychological reactions in response to separate questions of how they feel and how the body reacts to needle procedures. What they feel and how the body reacts or feels becomes one and the same. Above all, from their perspective it is a total bodily or embodied response, where they are acutely aware of the body and how it is behaving, one which they try to control but which threatens to overwhelm them totally.

Oh I go as if I’ve been trapped. As if I want to get out of there and I can’t… I get the sweats and go faint. I mean I had to do it once and went to the place and I just had to walk out and go and get some fresh air. The body takes over and it’s a mind thing obviously, but I go in there saying I’m going to do it, but as it gets nearer and nearer I just talk myself right out of it and I’ve got to get out. Cam p.1

I get uncomfortable and apprehensive and anxious I guess, but it does have a very real physiological effect on me because my blood vessels all disappear and so it sort of aggravates the process… Normally I have very large veins but they all kind of close up and disappear and I feel slightly nauseated. So it’s not severe but it is disabling in the sense that I would faint if I stayed upright. Pat p. 1
I go bright red, this [fidgeting hands and feet], cry, I can actually cry thinking about it [quite tearful and upset]. I get all sweaty and it overcomes me completely.  

Fran p. 1

I mean I tell myself to breathe and take big deep breaths and I actually have to mentally do that otherwise I do get taken away in the moment and get hot and sweaty and my heart starts racing.  

Pip p. 1

I’m scared that it’s going to hurt even though I know it doesn’t really. Sometimes I get white and faintly, hot and clammy and start getting blurred vision and then I know I have to lie down or get out.  

Meg p. 1

Fran expands on the idea of the total body response that follows the injection that she finds so disturbing.

I go bright red, it just overwhelms me and it’s a total body response. Everything happens that I have no control over, which is this [hand wringing] and I’m not an anxious sort of person and it’s totally out of my boundaries really and its isolated to this facet of my life.  

Fran p. 2

Fran also described the sensation of taste after an intramuscular or subcutaneous injection.

It’s unpleasant and I can taste either metallic, some are really right in the back of my throat and some are even right down my nose, that whole thing that goes on with your taste buds. I don’t know if it’s true or not. I don’t know if any medical professional will tell you that you can taste it but I certainly can. Sometimes I think I can actually feel it going right through my body, which it isn’t obviously, but I feel it is.  

Fran p. 5

This is akin to Merleau-Ponty’s ‘phenomenal body’ as described by Benner and Wrubel (1989) or the body aware of itself, where the person can describe kinaesthetic sensations. For Fran the obvious peripheral vasodilatation and flushing she experiences with intramuscular injections is accompanied by intense taste and presumably awareness of her surging peripheral blood flow.

Cam uses a graphic metaphor to describe his endeavours and in this case, abortive attempt to get a blood test done as part of his immigration screening...

It was a bit of a whirlpool; once you got on the edge it went on and just built up. And once I had that in my head that made the problem that I had before worse.  

Cam p. 8
A number of the participants also commented on the fact that the bodily response they feel actually lasts for quite some time after the procedure, which is something as health professionals that we probably fail to recognise. Although most of the participants had not experienced complete syncope they still felt very faint and ‘not themselves’ for an indefinite period.

*I feel really washed out, sometimes sick actually and I always say it’s that thing, that flavour, that stuff that’s going around my body. I actually usually come out and could quite happily go to sleep for a while afterwards, like a bit of a shock. I feel worn out.*  

*Fran p. 7*

*I’ve never fainted but I’ve always said – I’ll have to lie down. Normally when I stand up I feel pretty wobbly. Obviously the blood supply is not flowing quite as well as it should, but normally I can just get up and totter back across the road and get on with it. And I have to do stupid things like wear my sleeves down so I don’t have to look at the piece of plaster that’s covering the thing.*  

*Pat p. 3*

*I mean when I had the blood taken to come out here my partner – she said oh you were great like – but I didn’t feel great, I felt quite faint afterwards for a long time.*  

*Cam p. 2*

A sense of powerlessness or lack of control prevails with the body taking over and behaving in an erratic and disturbing manner. While some of the participants described and were aware of sweating, a tendency to hyperventilate and a rapid heart rate, for others it was just an overwhelming sense of dread and panic and the body being out of control. At the same time the mind is working furiously to manage the situation, keep the breathing deep and regular and avoid being totally overwhelmed. It is clearly an active and exhausting process to manage the faintness and avoid complete syncope and at times escaping the situation is the only avenue.

Benner and Wrubel (1989) note that the body does not require complete understanding to respond to a particular situation. This capacity to recognise and respond to vague problems and previously encountered situations has a definite adaptive capacity to it. It sets the person up to recognise impending threats and danger even before the nature of the danger is clear. This capacity can also exact a toll as in the case of the person with needle phobia where the body’s learned response may initiate a panic attack or the characteristic ‘fight, flight’ reaction even in anticipation of the needle procedure (Benner & Wrubel, 1989).
Against this backdrop, however, it is also important to recall the neurophysiologic changes that occur with the characteristic vasovagal reflex as described in Chapter one. Awareness of these physiological happenings was what the participants found so disturbing.

‘Challenge to Integrity’

A further attribute of ‘emic’ vulnerability is the presence of a challenge. Spiers (2000) notes that vulnerability is experienced when there is a perceived challenge to integrity combined with uncertainty at the body’s ability to respond appropriately. The participants’ fear of needles was something they preferred not to dwell on or think about too deeply and they tended to downplay the significance it had in their lives. In reality it is a fear that can readily be compartmentalised or in Gidden’s (1991) terms ‘bracketed out’ and set aside for much of the time and this was clearly a common coping strategy. Above all it is something you do not usually talk about, even with those close to you.

…it doesn’t affect my life... Well it did, like I say because of coming here. Cam p. 1

That was a big thing because it not only affected my life but my partner as well, because we wanted to come together and if I couldn’t go through with it; [the blood test] it was like extra pressure, but that’s the only time that its reared its ugly head. Cam p. 7

It’s just a funny thing to talk about because you think you grow out of things, but obviously you don’t and they sometimes can just get worse. It’s something you don’t even like thinking about. Fran p. 7

Cam uses the analogy of a monster ‘rearing its ugly head’ on a number of occasions. By objectifying the experience Cam gives it substance and makes it visible. The metaphor also describes particularly vividly the usual hidden nature of the fear and of a presenting challenge. It is a fear that can normally be set aside and ignored, not confronted provided health remains good; but reveals clearly the sudden horror and overwhelming panic when it presents.

Several participants noted the impact their fear of needles had on their choice of career paths.

…..way back it limited my career choice as I probably would have done medicine if I hadn’t been needle phobic. Pat p. 3
Chapter 4

I would have quite liked to get into medicine but because I don’t like needles and I don’t really like blood as such, that wasn’t an option. [Nursing was ruled out for the same reason].

Pip p. 4

I would like to have been a nurse but I knew I couldn’t. I couldn’t give them [injections] as much as receiving them.

Fran p. 3

Both of the MRT students had wanted an allied medical qualification and had chosen Medical Imaging because they saw it as being more remote from needles and blood.

I thought taking x-rays you’re not going to be doing anything with needles or blood or anything like that.

Pip p. 3

I did start to reconsider the profession due to this [needle phobia], but as it doesn’t happen often and I know that I can remove myself from the situation I haven’t decided to change my career.

Meg p.3

They both hope their fear will not affect the modality they ultimately specialise in, but neither felt they would be able to insert intravenous cannula and at this point struggle to remain in the room during screening procedures where needles are involved.

Fran also recounted doing an advanced first aid course, because being able to insert sutures and administer analgesia would be a valuable skill, given her lifestyle. The class had to practice injecting an orange and she was unable to do this. Nor could she remove prickles from fingers when her children were little.

The impact their fear had on health seeking behaviour was discussed with the participants. All acknowledged postponing or delaying procedures, but usually eventually going. Clearly Cam had gone for forty five years without a blood test. He had finally resorted to hypnosis to help him face the required immigration testing and while this had helped, it had by no means cured him as he had hoped. As Pip noted, the doctor will give you a form to have a blood test done, but there is no follow-up so often she just does not do it. None of the participants have ever donated blood and all commented on this, but felt it would be just ‘too much’. Similarly they all felt they would struggle to self-administer insulin if diagnosed with Type I diabetes mellitus.

I tend to avoid going to the doctor at all cost kind of thing and avoid medical treatment, but that’s nothing to do with needle phobia, that’s just the staunch male thing.

Pat p. 3
I hate to think if I was in a car accident and was badly injured what I’d be like. Even the idea of catheters and stuff really freaks me out.  

Pip p. 5

I’ve never made a big thing out of it because I haven’t had to; it hasn’t reared its ugly head like. I’ve just got on with life and hoped that I’m never ill so I’ve got to do that sort of thing.  

Cam p. 2

I always say if I got diabetes I’d put myself down. No I don’t know how I’d ever be able to do that – that would be terrible. I know I’d have to, but would I? I just don’t know that I could do that. No, at this moment in a million years I couldn’t do that.  

Fran p. 3

All acknowledged a niggling concern as to how they would cope as they got older and required more medical intervention and concern was also expressed as to how they would manage in a medical emergency or if intensive medical care was required.

I sort of didn’t want it to take over my life so I just put it on the back burner and hope that it never rears its ugly head and just carry on.  

Cam p. 6

I am worried if something comes up where I’ve got to go for quite a few blood tests – bloody hell how am I going to manage it like...  

Cam p. 6

There is clearly a certain dichotomy between suppressing the fear and yet knowing at some point is the likely to ‘rear its ugly head’ and present a major challenge.

‘Capacity for Action’

The most common ‘capacity for action’ (Spiers, 2000) or coping strategy was of course not thinking or talking about the fear. As Pip commented “avoidance is also a good one”. All participants also acknowledged postponing procedures.

I’ve sort of postponed things – I’ve known I’ve had to do a blood test sometime in the next couple of weeks and so I’ve thought – well today I’ll do it and then I’ve thought no I won’t – so I’ve put it off but I’ve never actually totally chickened out, I’ve always eventually gone.  

Pat p. 3

In her study of clinically inflicted pain, Madjar (1997) notes that an integral feature of such pain in adults is that they effectively consent to and are involved in the generation of this pain. Needle
procedures require the person to present for and then ‘hand over their body to others to hurt and to wound’. As Madjar (1997) comments:

The essence of clinically inflicted pain is not that the pain hurts me, or that the actions of another hurt me, but that I invite the pain by making my body available to another to wound and to hurt. (p. 65)

All of the participants recognised the need to have their own ‘capacities for action’ to get through procedures. These involved managing their breathing, and actively trying to relax. They were aware of the tendency to breath-hold, resulting in faintness. None of them would watch procedures on themselves or others and Pat commented on ‘putting your arm over your eyes’ to be doubly sure that you did not inadvertently witness the event. The response is in keeping with the research of Morrison et al. (2004) who found that noxious tactile and visual stimuli were associated with common activity in a pain-related area in the right dorsal anterior cingulate cortex of the brain suggesting a shared neural substrate for felt and seen pain. By not watching the procedure it at least removes the visual stimuli and the impact of the procedure is reduced.

The participants all commented on the need to lie down or at least be able to lie down quickly if they wanted to avoid ‘passing out’ completely. They also talked of the anticipation and build up for procedures and how possibly getting them done straight away rather than having too much time to think about it might be better. Meg and Pip also recognised the signs and need to remove themselves from procedure rooms when they started to feel faint and have blurred vision.

When I get to the stage when I know I’m getting light headed and have blurred vision then I just have to leave the room, sit down and think of something totally different and then I’ll normally come right within like five minutes. Meg p. 4

Surprisingly in this age of internet and ready access to medical information, none of the participants had done any research on the topic of needle phobia. They were all computer literate and certainly Pat, Meg and Pip were well used to researching information, but none of them had sought any information or were aware of the specialist websites. Certainly, no one other than Cam had thought of joining support groups or exploring treatment options. This is in keeping with a condition that as Cam said is ‘hidden under the carpet’, not thought or talked about unless absolutely necessary.
Only Pat had experienced the use of local anaesthetic cream (Emla) but felt it made the veins even less visible and didn’t really help, given that pain wasn’t really the problem. Meg and Pip thought they would like to try Emla but it had not been offered and they had not asked for it. Cam had suggested use of sedation for a blood test, but the medical staff had refused.

_Couldn’t you just knock me out, put me out for quarter of an hour but no..._  
_Cam p. 5_

All the participants told the health practitioner doing their procedure that they were scared of needles and generally that they needed to lie down or be able to lie down quickly if necessary. Above all they asked to be respected and listened to:

_I think if you are needle phobic you need the medical practitioner to actually not go – oh yes everyone doesn’t like needles – because that is such a common comment._  
_Fran p. 6_

_Listening to the person because they know themselves_  
_Pip p. 6_

All the participants talked about ‘throw away lines’ when the health practitioner minimises the fear and does not really listen. Pat also talked of an incident where a phlebotomist was actually affronted by his admission of fear, took it personally and was rude and stroppy.

_It didn’t make the phobic part of it any worse it just kind of annoyed me as well as feeling ratshit anyway; feeling cross as well was kind of a double insult to my psyche._  
_Pat p. 5_

The accounts of Elaine Scarry (1985) are useful here in articulating the vulnerability of the human body and although she writes about pain, her commentary has equal application in this study. She describes the compounding effect of health professionals’ failure to hear patients’ expression of pain or distress.

Scarry (1985) notes that if the only outward sign of the felt experience of pain or distress is the patient’s verbal report, then to ignore the voice is to by-pass the bodily event, in effect to by-pass the patient or the person in pain or distress. Yet for the person who experiences the intense fear and panic associated with needle phobia, there is no doubt about the reality and terror of that experience. So by questioning and doubting the reported experience, health professionals often add to the suffering of the person in distress.

A number of the participants commented on the value of distraction and likened the approach to that used with children, whether it is the company of a support person, music, or conversation.
Both Fran and Pip always took their own support person with them when they had procedures done, partly in an advocacy role.

*Just talking to you throughout the procedure about different things to take your mind off it.*  

Meg p. 5

*The lovely nurse at the last place she sort of treated me like a child if you like, but nicely so, and talked me through it and gave me a sweet to eat and made a bit of fun of it too and said – look I understand, how can we... where would you like to sit, would you like to stand by the window, would you like a glass of water and was so really really helpful. I seemed to be okay then.*  

Fran p. 5

Cam felt all of the health practitioners he had met had been particularly caring and supportive and that there was nothing more they could have done. Their response had made him realise that other people had similar problems and he was not on his own.

*Yeah do it at your own pace when you are ready, when you feel comfy. So you know they were all good.*  

Cam p. 8

*I must say, the doctor who took it [immigration blood test] was great and in fact he said – I admire people like you that have these problems, but still manage to get it done, so I thought that was a nice comment to make.*  

Cam p. 8

Pat needed someone to listen and allow him a sense of control and then to get on with it skilfully and efficiently.

*What’s best for me is not to talk about it and just get on with doing it and to do it fast really. I don’t need warnings or explanations just get on with it.*  

Pat p. 5

Another dimension of vulnerability is power, or the extent to which a challenge guides or limits action, and the person recognises the possibility for change. Spiers (2000) notes that power is particularly important in interpersonal relationships and may hinder a person’s ability to express vulnerability. For this reason genuine empathy, distraction and the appropriate use of humour seemed to make all the difference for participants. Above all someone that showed empathy rather than sympathy and really listened, accommodating their requests and allowing them to maintain some sense of control. Maintaining a sense of control was also a key theme in the case study research of a pregnant woman with needle phobia (Searing et al., 2006). In short, this is
what is termed a ‘nursing partnership’ (Christensen, 1995) or ‘therapeutic partnership’ (Madjar, 1998), which should be familiar approaches to care for nurses.

Searing et al. (2006) also highlighted the importance of establishing trusting relationships with health care providers. In many settings where needle access occurs there is little opportunity to establish long-term trusting relationships. A premise of this study, however, is that with a considered partnership approach, trusting, caring interactions are possible.

‘Piercing the Protective Cocoon’

While the two previous sections have given some inkling of the nature and the realities of living with a fear of needle procedures, there remains an as yet unexplored sense of something untoward which clearly affects the participants deeply. Their narratives grapple with and try to make sense of something that defies reason, and that is beyond rational thought and control. Chapter one described the important role basic trust plays as a ‘protective cocoon’ against risk and danger and as an integral part of the integrity of self (Giddens, 1991). Needles and needle phobia ‘pierce the protective cocoon’ by causing the body to behave in an unreliable and erratic manner arousing a sense of shame and threatening the usual competent face presented to the world. The following discussion therefore explores the sense of shame and the threat to competence as needle phobia is a condition, while seen as acceptable and “normal” in children, has a definite stigma when it persists or occurs in adulthood. Spiers (2000) queries whether challenges to integrity that are stigmatised, in turn have a greater influence on the acknowledgement and experience of vulnerability.

A Sense of Shame

Giddens (1991) tells us that shame bears directly on self-identity and is essentially an anxiety stimulated by feelings of humiliation and inadequacy. So shame depends on feelings of personal insufficiency and should be understood in relation to the integrity of the self while guilt derives from feelings of wrongdoing. While shame is often viewed as a visible phenomenon (Sartre as cited in Giddens, 1991) it may also be felt while entirely alone and may be a persistent and deep-lying feeling; the visible signs of which are simply triggered by certain experiences or negative comments by others.

Initially participants tended to deny that needle phobia influenced the way they felt about themselves, but the language they used conveyed a different picture.
I kind of regard myself as a big strong male who can do anything kind of thing and this in a minor way is a disabling thing.  

*Pat p. 1*

One feels kind of foolish about it, because it’s not easy to describe or do anything about.  

*Pat p. 1*

I was just apologising for being a wimp  

*Pat p. 4*

I mean I guess I think of myself as a woos, ... but I wouldn’t put myself down or anything because I don’t like needles.  

*Pip p. 2*

I get really anxious and put it off if I can. I feel myself getting all hot and the less layers on the better and my heart starts racing. **It all sort of sounds so stupid.**  

*Pip p. 1*

I don’t put myself down, but it just seems so stupid; it’s just a simple thing and you can’t do it.  

*Cam p. 6*

And it doesn’t matter what anyone says to you as well you know. It’s annoying because it’s the only sort of phobia I’ve probably got. I suppose because it’s the only one I make a bit more of a mountain out of it.  

*Cam p. 6*

I often ask why – as it just seems so irrational if you like.  

*Fran p. 1*

Interestingly in the course of the interview the perspective of the participants tended to change. There was certainly an emerging picture of a condition that was a source of stress, and of shame that ‘something so simple’ cannot be mastered, although only Pat used the term shame. It is a fear that they tried not to think or talk about and which they have tried to master, but which kept on being, if anything getting worse. By the end of the interview or in subsequent email contact the following comments were made:

*But I just want to be, I want to get to the stage where I can be a bit more comfortable about it and not mind so much... I’d really love to get over it actually...*  

*Cam p. 9*

*No what I’ve thought is there some way to be cured of this, but I thought probably not...*  

*Pat p. 5*

*I mean I’m fascinated by it. Why the hell it happens, and to some and not others.*  

*Pat p. 6*

*Thank you for letting me participate, it’s interesting when I talk about it I’ve realised it affects me more than I had thought.*  

*Meg p. 6*
I found that talking to you really helped instead of hiding it under the carpet and hoping it does not rear its ugly head.

These comments suggest an experience that affects the person far more deeply than a superficial injury or event. It is an experience that they all struggle to explain and to understand themselves; it is an insult to the psyche, a source of shame, an ongoing horror; one that they have all learnt to live with and cope with in varying ways and to varying degrees, but one that they would dearly love to be rid of.

Giddens (1991) tells us that shame and trust are also closely bound up with one another and an experience of shame may threaten or destroy trust. Shame is the negative side of the motivational system of a person, while the other side of shame is pride, or self-esteem and confidence in the integrity of self or the narrative of self-identity. Because pride is founded in this social bond of trust, it is continually vulnerable to the reaction of others and the experience of shame often focuses on the body as the ‘visible’ aspect of self (Giddens, 1991). This has obvious relevance for people with needle phobia where the participants’ narratives clearly reflect the hurt and ‘insult to the psyche’ of negative or derogatory comments. So while the participants used words like ‘woos’ and ‘wimp’ when referring to themselves, such terms from the mouths of others, were deeply hurtful, just as health practitioners’ perceived or actual lack of empathy and failure to listen were an affront to their sense of self identity; fragile at least in relation to their ability to cope with needle procedures. Benner (2000) also comments how the Cartesian view of the separate mind and object body, imparted a moralistic system of blame and shame that placed too much responsibility on the mind’s ability to control the body and too little sense of the ‘will’ of the body and limits of rational control.

A Threat to Competence

There is something about the nature and intensity of the participants’ embodied reactions to needle procedures that suggest it has a deeper significance still. While none of the participants specifically used the terminology of integrity of self or competence, their narratives clearly reveal both a sense of shame, frustration and even anguish that they fail to manage ‘something so simple’ and that their body continues to behave in such an irrational manner. This discussion will again draw on the work of social theorist Anthony Giddens.
As described in Chapter one, the self is an embodied self, as the child’s awareness of the form and properties of the body begins their original exploration of the world, whereby they learn the features of objects and others. The child learns primarily about his or her body through practical engagement and activity in the day to day world. Hence the body is experienced as a practical mode of coping with external situation and events (Merleau-Ponty, 1965). Facial expressions and other gestures are critical in the process of everyday communication. To learn to become a competent agent – able to socialise on an equal basis, requires one to continuously exert and successfully monitor the face and body (Giddens, 1991). Goffman (1971) also describes how the individual is expected to maintain close, complete and continuous control over the body in all social interaction, and to be a competent agent means not only maintaining this control but also being seen to do so by others. Hence, routinely maintaining control of the body in Gidden’s (1991) terms sustains the individual’s ‘protective cocoon’ in situations of day to day interaction and socialisation. Bodily discipline is intrinsic to being seen as a competent social agent and to being accepted and trusted by others as competent.

People who dread needle procedures are simply not able to behave in a rational and controlled manner when faced with a blood test or needle procedure. The bodily sensations they describe vary significantly from an overwhelming sense of panic and feeling of being trapped where the only way out is to escape the situation, to faintness, sweating, flushing, crying and maybe even passing out completely. It is something over which they have little or no control and there is a sense of the body just taking over, requiring the mind to furiously work to take charge, with varying degrees of success. It is both an exhausting and hugely stressful experience. Not only is the body out of control, but their behaviour is a source of shame and threatens their sense of competence and the competent face they usually present to the world. Madjar (1997) also noted in her study on clinically inflicted pain that the body with its ‘intentionality’, can facilitate the jobs required of medical professionals, or it can act as an obstacle, increasing the likelihood of pain and distress. So not only must the person with needle phobia endure the distress of the procedure, but in presenting a marred, uncooperative or in some way inadequate body the person becomes implicated in the generation of the pain and distress.

Giddens (1991) goes on to explain that modern society portrays the ideal life as free from disease, crime, madness and death in what he terms the ‘sequestration of experience’. Society is able to shut these issues away from everyday life and promotes a healthy happiness attained through the individual’s own effort. In turn Giddens (1991) maintains that to be a human being means to
know, virtually all of the time, both what one is doing and why one is doing it. In other words people continuously monitor their activities and can generally explain the reasons for their behaviour. For the patient, or the person with needle phobia, not only does the disease or condition challenge the ‘protective cocoon’, but the symptoms persistently break through reminding them that all is not well. The person fails to fit their own and society’s ideal but also must endure a violation and unpleasant, if not overwhelming, experience that is a source of shame and threatens their sense of competence and certainly the competent face usually presented to the world.
Chapter 5 – The Nurse Experience

The nurse interviews aimed to explore both the nurses’ understanding of needle phobia and their personal experience, and strategies for carrying out procedures on patients who are needle phobic. The interviews are all quite different, which was expected given the wide range of background experience. All the nurse participants noted some prior contact with patients with needle phobia and certainly all had stories to tell. Chapter five introduces the nurse participants and then follows the thread of the interviews under five broad themes, some with associated subthemes: An etic perspective explores the nurses’ understanding and perception of needle phobia, an interesting contrast to the participants’ view. Personal challenges describe the emotional and practical realities of performing needle procedures on fearful distressed patients, particularly intense for the novice practitioner. At the same time the nature of the nurses’ work in medical imaging emphasised getting the job done, as quickly and efficiently as possible and the practicalities of the role are expanded upon. On caring and coping investigates the dichotomy of caring and inflicting pain along with strategies the nurses used to manage their own reactions, provide care and complete the required task. In the course of their narratives a number of ethical dilemmas emerged from their practice. The nurses’ use of ethical decision making and weighing up of the options is explored in the ambiguities between the pathic and instrumental touch, learning versus caring for, weighing up the greater good, and autonomy and self determination versus paternalism. Finally ‘piercing the protective cocoon’ explores how the challenges the nurses faced in caring for and carrying out procedures on patients with needle phobia also posed a threat to their sense of competence.

The Clinical Context

The nurse participants all worked in medical imaging at the time of the interviews. This multidisciplinary setting is strongly procedure or task-orientated with departments designed and organised around equipment rather than patient needs. There is typically short patient contact time and often minimal patient information, especially with outpatients. In the medical imaging setting nurses typically insert intravenous cannula for computed tomography (CT) scans requiring intravenous contrast. Intravenous access is also required for a range of angiographic procedures and image guided biopsies and the nurses are typically responsible for this, at least with the outpatient community, as part of the assessment and admission process. Some nurses are also
certified to administer intravenous radioisotopes. Others nurses have undergone additional training to place peripherally inserted central catheters (PICC) for antibiotics or for chemotherapy. A wide range of fine needle biopsies are also undertaken, although the stories the nurses relate involve either insertion of intravenous cannula or PICC, which the nurses are directly responsible for. Hence there are a significant number of daily procedures involving needle access and a high probability of meeting patients who find this problematic.

Qualitative research on nursing and the nature of nursing has typically occurred within the context of an inpatient and longer term care environment (Benner & Wrubel, 1989; Christensen, 1995; Madjar, 1998). Hence little is written about situations where the contact is brief and episodic as is the case with medical imaging and the phlebotomy service. In this regard the findings of this study stand alone.

The Nurse Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>Kim</td>
<td>Is around 15 years post registration and engaged in postgraduate study. She has extensive radiology experience and is a specialist IV access nurse.</td>
</tr>
<tr>
<td>Sue</td>
<td>Is 20 plus years post registration with extensive management experience. She is relatively new to radiology and had only started to insert intravenous cannula again after years in purely management roles</td>
</tr>
<tr>
<td>Jill</td>
<td>Is more recently registered, new to radiology and to intravenous cannulation.</td>
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An Etic Perspective

The nurses all saw needle phobia as a fear of needle procedures and recognised or described a spectrum of response from tolerating procedures with varying degrees of difficulty to avoiding them entirely.

*Being afraid of needles is the first definition. Phobia I think is stronger – it means you are terrified or petrified of needles and can’t stand the very thought of anything coming near you.*

*Sue p. 1*

*Being afraid of needles whether it’s being stuck into you or just seeing or even sticking them into someone else I think.*

*Jill p. 1*

*Needle phobia to me is patients having a severe reaction, an emotional reaction to a needle coming close to them. Most people don’t like being punctured by a needle they don’t like the
Kim’s comments contrast with the participant’s description of a total body physiological response and an overwhelming sense of violation and of panic. There was also a tendency to equate the fear to the experience of pain and the pain threshold.

*If you take two different patients, one who is not needle phobic and one who is and do the same procedure – the needle phobic person may experience pain at a higher level. It’s their perception and their feeling.*  

Jill recognised the signs of anxiety and fear in her patients but acknowledged not really understanding what it was all about and had never asked her patients.

*You can tell by just looking at them that they are afraid of the needle, but what exactly about the needle I don’t know, I’ve never actually asked them – is it the pain, is it the blood, I don’t really know what makes them afraid, but I’m sure that every patient’s feeling and experience will be different.*

Sue made a point of always asking about her patient’s prior experience of intravenous access, in part because she disliked needle procedures herself and liked to explain everything in a step by step manner. They all commented on the need to respect the fear and try and understand what their patients were going through, a difficult process when the participants themselves struggle to explain what the fear is all about.

*I’m always concerned for them. What I’ve found within my practice, specifically with oncology patients they have had a lot of needle sticks, lots of treatments over a short space of time and that’s built up a phobia. I try to understand what they are going through and I try to put them at ease and to explain everything that I can to them.*

*You have to respect the fact that they do have a phobia and treat that whole condition with respect.*

None of the nurses had received any specific training or instruction on care of patients with needle phobia but were all familiar with strategies for caring for patients with anxiety. While Jill had read the document on needle phobia in the orientation package (written by myself), she noted that the
sheer volume of orientation material, lessened its impact and clinical reinforcement was required. Kim noted that they often discussed how a procedure had gone within the small PICC team or at least with their team member for the day and how she always took note when she saw another nurse handle a situation well, but there was otherwise little evidence of reflection or the sharing of stories with other nurses. In contrast they all shared stories willingly within the context of the interview and seemingly found this a useful time for reflection.

The nurses’ limited understanding of needle phobia and equating it with pain was not unexpected given the minimal amount of literature, particularly qualitative studies on the subject, its absence from the intravenous training packages and the difficulty even the participants had in describing what they disliked so intensely. However, their respectfulness and willingness to understand was commendable.

The Personal Challenges

Carrying out a procedure on a patient with needle phobia clearly presented particular personal challenges for the nurse participants. This was especially so for Jill who had limited experience of intravenous cannulation and the medical imaging setting. Jill describes her own reaction at trying to insert intravenous cannula into patients with needle phobia.

*It just absolutely petrifies me and the experiences I have had with people who I know are afraid because they have told me or they look afraid – I haven’t had much success at actually putting it [the IV cannula] in.*

*I’m absolutely petrified to do it again, to try again, even if they’ve got good veins and I haven’t been able to get it in on the first go. I won’t try again because I’m so nervous, which is probably a bit cowardly of me, but because I don’t want to cause the patient any more pain I hand over to a more senior staff member.*

Jill’s stark and disturbing description raises obvious issues regarding the support and guidance offered to new nurses during their orientation. Her comments also clearly indicate the challenges that patients with needle phobia present for healthcare practitioners, especially those who are inexperienced and who really care about their patients. Benner and Wrubel (1989, p. 1) note that “caring (having things matter) puts the person in a place of risk and vulnerability. If the person does not care the event cannot be stressful.”
Madjar (1998) explains that the dissonance a nurse new to the experience of inflicting pain encounters comes from two sources. In order to accomplish the task that she knows is distressing for the patient she firstly must distance herself from the person on whom the task is being performed. While distancing and detachment may help her to accomplish the task they also leave her dissatisfied, knowing that she had failed to ‘be present’ for the patient in a caring and supportive way. At the same time there is an inner conflict between the nurse’s desire to respond with compassion to a patient and what her role or job requires of her. Madjar (1998, p. 160) comments that “the inner dichotomy is difficult to sustain and there is a risk that the compassionate response will be suppressed, robbing nursing intervention of its warmth and feeling and thereby dehumanising both the patient and the nurse”.

Kim is aware that she gets a little nervous when faced with an anxious patient but has learnt to manage this to some degree.

> It always makes you a little nervous because the patient before you is nervous and uncomfortable and exhibiting emotional signs.  
> Kim p. 2

> So I get a bit anxious along with them I think, but I try and control that because if they see I’m anxious then they’re going to get even more anxious. So you try and control it but you do feel anxious as well.  
> Kim p. 2

Sue initially denied any personal unease, but on further reflection remembered a incident with a patient with ‘very thick skin’ when the needle bounced back at her, so despite being a very confident person she does keep these experiences in the back of her mind.

> So those experiences keep me grounded enough to know that – hey something might go wrong here and I have to talk myself out of that to do my job properly. So yes that’s a silent thing that I go through.  
> Sue p. 2

**Getting the Job Done**

The task-centred nature of practice in the medical imaging setting came through strongly in the nurse interviews. So while the nurses were clearly concerned about their patients, the nature of their work still required them to focus on the procedure and to get this done as quickly and efficiently as possible. This is particularly the case in modalities such as CT where bookings are tight and pressure is likely to be applied from other members of the multidisciplinary team if the
nurses do not keep up with ‘the flow’. Both Sue and Jill commented on the tight timeframes and that it then came down to the confidence and assertiveness of the nurse as to whether they let it bother them. In contrast, the small, nurse-led PICC team just accepted that procedures ‘took as long as they took’ and this may be because it was a technically difficult procedure or that the patient was very anxious and needed additional support.

The nurses all focused on the importance of thorough explanation and ensuring that their patients understood the procedure and that consent to proceed was well informed.

I always tell them what I am doing with the needle as well and what it’s for even if they know what it’s for half the time.  

Sue p. 1

I try to put them at their ease and I try to explain everything that I can to them so I’m really concerned for them that it’s a good experience, even if it’s never going to be a ‘good’ experience if you’ve got a phobia.  

Kim p. 1

Kim also noted that some patients do not want to be told anything and they accept that to some degree, but the nurse still needs to lessen the likelihood of them moving.

...but you give them a pre warning – like – you’re going to feel a sharp scratch now, it’ll be two seconds, right we’re done.  

Kim p. 2

While explanations offer a valuable time for interaction and perhaps helped the nurses feel they were doing all they could to lessen their patients anxiety the patient narratives made it very clear that no amount of explanation helped and as Richard Matthews (personal communication, April 2009 p.4) commented: “Whilst I needed information to understand what was happening, this information had no impact on my phobic response.”

There was a common concern that patients would tense up or move their arm both of which jeopardised the success of the procedure and made the procedure more difficult for both parties.

I only want to ‘stick’ them once because I know it’s an anxious and terrifying thing for them.  
The thing that concerns me is them jumping and me having to ‘restick’ them so that’s always a concern.  

Kim p. 2

I think that makes it harder if they are tense and also if I know that they are afraid I don’t think I’m as... I don’t put enough pressure and so it affects my ability to do the job.  

Jill p. 2
Chapter 5

If the patient stiffens up really badly it makes my job so much harder and you know you are going to cause pain to that person because they are not relaxed. Yeah stiffening up is one of the worst things they can do.  

Sue p. 2

So while the nurses were undoubtedly very focused on the procedure and task at hand they were all concerned for their patient. All the nurses commented on the difficulty of patients tensing up and the importance of trying to get them to relax and breathe deeply and verbally coaching them to do this while they do the procedure. Kim was particularly concerned that patients had support during the procedure, a tacit acknowledgement that she could not support and care for someone that was particularly anxious and at the same time carry out the procedure to the best of her ability. There was a realisation of the need to separate the caring and mechanical role, especially if it was a technically difficult procedure or the patient needed additional support.

I’m also concerned that they’ve got support – whether it’s a member of family or another nurse. So that’s a concern for me if they’ve arrived on their own, don’t know what’s going to happen and if they don’t have any support, so we try and use one of the nurses as a support tool.  

Kim p. 2

Kim’s use of forceful metaphor in describing her role and actions should be noted. She uses a range of what Madjar (1998) terms ‘wounding metaphor’ to describe her role: my job is about needle sticking people and repeatedly refers to ‘being stuck’ or ‘punctured by a needle’, ‘a sharp scratch’, ‘poking and prodding’ or on another occasion; ‘I told him when I was going to stab him’. This language is an graphic acknowledgement of the ‘wounding’ nature of the job, both for herself – the nurse and for the patient, a mark of ‘expert’ nursing practice (Benner, 2001). It also contrasts markedly with Madjar’s (1998) study where some of the nurses minimised the pain, while the patients used ‘wounding’ metaphor to make their experience more explicit.

The nurses were all clearly distressed by overt signs of fear and anxiety. While they understood or attempted to understand this response they all acknowledged that it made their job more difficult. Kim recounted inserting a PICC in a patient who had become needle phobic after multiple procedures and treatments over a short space of time. The team allowed his wife in the room as support and he sobbed loudly throughout the procedure holding his wife’s hand.
He cried. That was sobering for me. I don’t like to see men cry. It always makes me emotional if I see men cry, that’s how I feel anyway. It must be pretty bad for a man to cry because you always see men as big, strong...

Kim p. 5

There is little acceptance within medical imaging of the use of sedation or even local anaesthetic cream for what are perceived, from a clinical perspective, as ‘simple’ procedures. While the nurses have anaesthetic cream available its use requires extra time and ideally prior planning. The use of sedation would require specific advocacy on the part of the nurse, to get the medication charted and ideally prior planning as the sedation must be worked around the consent process. The use of sedation was discussed with Kim in relation to this particular PICC insertion. Her initial response was that they do not use sedation, but then qualified this by commenting that they can use sedation if they know a patient is particularly anxious, but they need to know beforehand so the consent can be done in the ward prior to oral sedation being given. This is then dependent upon appropriate information being passed on from the ward. Timing of PICC insertions is also often worked around commencement of chemotherapy so rescheduling appointments can be difficult.

We need to know and it’s not information we’re given when the patient arrives. We’re told the clinical history, we’re not told about any emotional things and sometimes we’re not told about a lot of things and so we get what we get when we get it if you like. Kim p. 6

So in his case that’s what I would have suggested. You know if he’s that anxious – that we would have ‘consented’ him before and sedated him [orally]. I felt quite emotional about that because I felt he felt really vulnerable and being a man crying in front of women must have been awful, embarrassing for him. Kim p. 6

I think it helped that his wife could be there and he virtually just focused on her all the time and almost blanked us out, but was sobbing; I mean his chest was heaving, he was sobbing so much and that was emotional for me. Kim p. 6

It was just as well we did a good job. [Kim reflecting at the time] Let’s hope you’ve got veins we can see and let’s hope we get it in first time, because sometimes we can’t get in first time.... Kim p. 6

‘Getting in first time’ [inserting the intravenous cannula at the first attempt] is commonly equated with doing a good job. Madjar (1999) comments that the instrumental aspect of nurses work can be personally and professionally satisfying, while at the same time eliciting stress and concern.
Given the task-focused nature of the department, job satisfaction and pride is readily associated with a successful cannulation. For nurses new to the area of practice this not surprisingly becomes the focus, and as Jill’s comments indicate, especially during the learning phase of intravenous cannulation it is difficult to focus on both the technical procedure and the patient. Clearly ‘getting in first time’ is also in the patient’s best interests. There is also, however, clear evidence of the nurses’ care and concern for the patient, at least in their narratives. These ambiguities will be explored further in the later section on ethical dilemmas.

In contrast to the above procedure, Jill described a man who was ‘really needle phobic’ but from her perspective had put a lot of effort into managing it, which in turn had made her job much easier.

*He would look away and would squeeze his eyes and I was continually asking him if he was okay... He was doing deep breathing and doing everything himself to get in a different place. He was brilliant; I was really impressed with him that he’d gotten through it. And that was the one time I got it in, knowing that he was trying to deal with his fear made me more confident and I knew that he wasn’t as afraid, which was great and I actually got it in that time.*  
  
  *Jill p. 4*

As Madjar (1999) describes from her study of clinically inflicting pain, there is an underlying expectation with adults, as opposed to children, that they will respond to reasoning, information and verbal assurances. Also that they are expected to show composure, self control and above all cooperate fully with the procedure, irrespective of how painful or distressing it is. In Madjar’s (1998) study the patients who failed to do this were considered by the nurses to be immature in some way, and like children, beyond help by rational means. In the course of my own clinical practice I have also seen patients with needle phobia berated (by medical staff) for making the procedure more difficult for the practitioner. Kim also noted seeing such responses in the course of her work:

*I have seen that attitude expressed, especially if it’s men. Oh for God sake what a baby, stop being such a souk. You just think – don’t you really realise that it’s not something he has any control over, he may be the biggest, bravest man in the world, but he don’t want you to stick a needle in him anymore.*  
  
  *Kim p. 7*
Chapter 5

Such restraint, however, is often not possible for people with needle phobia as their fear overwhelms them; their body takes over, and behaves in a manner that by their own admission is quite irrational. The nurses’ comments clearly show, however, that they do struggle to handle these emotional reactions and yet there appears to be little written about this aspect of the job, guidance, or discussion around how to cope. Spiers (2000) comments that the ‘emic’ view of vulnerability includes the idea that both nurse and patient are vulnerable in any interaction. While ‘mutual vulnerability’ is often poorly understood, it is particularly significant for nurses given that nursing care largely involves direct personal interaction. ‘Mutual vulnerability’ is an important notion for understanding how nurses respond to the emotional risk of caring (Spiers, 2000).

So while the nurses commented on their concern for the patients and especially their emotional state, there was no comment made of the possible physiological response and tendency to vasovagal reactions and syncopal attacks. It is unclear from the interviews whether the nurses were simply unaware of the possibility of a severe vasovagal reaction and the need for vigilance and to take measures to protect the patient from injury, or simply overlooked this in the course of the conversation. With PICC insertions the patient is already supine on the table and with insertion of intravenous cannula for contrast CT scans the patients are typically on a ‘lazyboy’ chair which at least can by reclined if necessary, so in that regard the potential for vasovagal syncope is partially attended to. The impression from the interviews however, is that needle phobia is largely viewed as an emotional or psychological condition, something that clearly needs addressing in approaches to care and training of staff.

On Caring and Coping

While the title of this section seems like an anachronism, the nurse’s ability to care for and support their patient was closely aligned with their own coping strategies. Kim’s following narratives clearly show her care and concern for her patient and while she finds it stressful doing something that she knows is causing pain or distress she also recognises her own expertise and the importance of controlling her own anxiety and focusing on the procedure, getting it right first time, and ultimately saving her patient from further procedures.

*I just try and be very professional. I feel sympathy and empathy for the person, but that’s your job as a nurse I think to feel sympathy and empathy for the person....*  

Kim p. 2
I will try and be very focused on what I’m doing to try and only do it once and ninety percent of the time I do only have to do it once, just to save that person from any more pain. But emotionally it’s only the anxiety and I try to master and control that. Usually afterwards you think ‘phew’. It is quite draining, usually a bit of a sigh of relief you know, when you are finished.  

Kim p. 2

Benner and Wrubel (1989) comment that:

Because caring sets up what matters to a person, it also sets up what counts as stressful, and what options are available for coping. Caring creates possibility. This is the first way in which caring is primary. (p. 1)

Caring should always be viewed and understood in context. In other words, when the situation calls for technical proficiency, then swift, accurate action is experienced as caring and is of paramount importance to the patient. When the patient situation does not require technical performance, then expressive actions such as taking the time to chat and empathise are identified as caring (Benner & Wrubel, 1989). This is an important concept in the procedurally and technically focused medical imaging context in helping nurses come to terms with the dichotomy of their role.

Madjar (1998) talked of detachment and objectification in her study, where some nurses concentrated on the technical task at hand rather than on the patient, accepted the patient’s pain as inevitable and largely ignored their subjective stress. While such an approach is always a risk if nurses feel powerless to manage pain and distress or simply believe that they know best, such an attitude was not apparent in this much smaller and more limited study. Interviews alone, however, are also less likely to reveal such attitudes or approaches.

In contrast to the other narrative, Kim described a very different interaction with an eighteen year old man who presented for a PICC insertion without a support person. A colleague was physically doing the insertion so Kim stepped into the supporting role.

He was laughing and joking but sometimes that is inappropriate as well and you think… oh, oh something’s wrong here, [laughter] this is covering up something. He was quite jolly, being quite loud but agreed to have it done so we came into the room. But he was terrified, you could see from his eyes that he was terrified, even though he was laughing and joking.

We pretended we were going to wax his arm and that would be the worst thing, worse than
the needle and we just chatted to him. He was good because we could just chat, chat, chat and he was going ‘ten to the dozen’ and it wasn’t until I held his hand, because I could assess that he was anxious and I said look I’ll hold your hand seeing as how your Mum’s not here (and being a big lad you know I wondered if he’d accept the support). He held my hand and left nail prints in my fingers because he was that anxious and hadn’t realised until the end and I said “look, look what you’ve done” and he went “oh I’m so sorry, I’m so sorry, it wasn’t that bad”. But it just shows that anxiety doesn’t always appear as anxiety or what you would assume was pain and anxiety it can be the other end of the scale with jolly and happy and chatting away, but it’s there all the time.

Kim p. 7

In this narrative Kim and her team seem to expertly assess this young man’s bravado as his way of coping with anxiety and fear and they respond in kind with humour, and chat while at the same time offering a supportive caring hand. In this instance raising or confronting his anxiety would probably have caused embarrassment and even denial and not allowed him the space to cope in his own way. Benner (2000) comments that:

The common human condition (e.g. embodiment, finitude, language and culture dwelling) allow for meeting and understanding the other, albeit imperfectly. Facial expressions, tone of voice, gestures and postures allow persons to read another’s responses and feelings. (p. 11)

Reading emotional states is relevant to skilled nursing practice which requires perceptiveness and a commitment to check out assumptions and interpretations in order to learn directly from patients. But Benner (2000) notes even asking the appropriate questions requires an attuned reading of the patient’s concerns. Reading felt meanings of another is also open to error, but can be experientially learned and therefore improved over time through cultivated openness and attentiveness.

We do use humour and laughter, because I don’t think you can be anxious if you’re laughing... not inappropriately because it’s not right for everybody, but again it’s part of the ‘nursing process’; you assess your patient and assess what they are like and you can immediately build a rapport with them and depending on their personality know what would be right for them. But showing empathy and holding their hand goes much further I think, because you are there for that person in that moment and I think that helps. Kim p. 4
As Kim noted earlier she always likes to have a support person present, either a family member or another nurse, if a patient is particularly anxious and this enables her to just focus on the procedure knowing that the patient is still being cared for. Sue also emphasised the importance of respecting the patient and their fear, encouraging them to verbalise it and ‘take some of the power back’. The nurses all talked of the value of thorough assessment skills and assessment skills training, but there was little evidence of this being a two way process. There is no mention of ‘therapeutic partnership’ (Madjar, 1998) or even involving the patient in decision making and determining what made things easier for them in any of these interactions. At the same time, a more extensive and, ideally, observational study would be required to see if this in fact happened or if the assessment process is somewhat one sided and objective.

Both Kim and Jill emphasised the importance of distraction, whether by involving a family member, chatting, having the radio on in the background and generally making conversation. Interestingly in the course of discussion they both queried why similar distraction techniques to those used in the paediatric service were not more widely considered. Kim had attended a lecture by a paediatric specialist where he recounted the use of a ‘magic glove puppet’ who took pain away. The children were given the puppet to play with while blood was taken or IV lines inserted. In my own clinical setting a number of patients with needle phobia have commented with some delight and amusement on having CT scans in a paediatric department setting and being presented with a certificate of bravery, complete with stickers and a lolly.

*I think we can learn a lot from paediatricians about how they psychologically deal with pain. But maybe with adults we don’t use enough psychological material or psychological strategies. I think some things I use are psychological, but I don’t know that they are deep enough.*  

Kim p. 6

As noted there is little acceptance within medical imaging of the use of sedation or even local anaesthetic cream for what are perceived as simple procedures and the use of these would require specific advocacy on the part of the nurse and ideally prior planning as they all take extra time. My own recent clinical practice, however, has demonstrated that minor tranquillisers used either orally or sub-lingually are highly effective in reducing the trauma of particularly fine needle biopsies in patients with needle phobia.
The nurse participants all commented on the importance of encouraging and coaching the patient and trying to get them to breathe deeply and relax as much as possible prior to the needle insertion.

*Try and distract the patient. Recently I’ve just realised that once I acknowledged that they’re tensing up, just to help them or ask them to relax, to just breathe and relax. I don’t know if I do enough to help them...*  
*Jill p. 4*

Benner and Wrubel (1989, p. 190) comment that: “The phenomenological view of stress and coping requires an understanding of the meanings at work for people in their own terms: how they experience their concerns and what options those concerns open up or close off”. With experience and growing expertise the ‘habitual skilled body’ also gives the nurse increased sensitivity to signs and patterns within their specialist area of practice. This may be palpating and selecting the most appropriate vein for needle access, or handling a guide wire, with direct effortless understanding. In this way the ‘habitual skilled body’ becomes a major coping resource, enabling technical tasks to be completed with ease. In contrast the newcomer to the department has to acquire a ‘habitual skilled body’ in response to the patterns and actions required by the new environment (Benner & Wrubel, 1989) and this initially requires total concentration on the task.

Caring and coping strategies are therefore an area of practice that requires further individual reflection and also discussion between staff in the medical imaging setting. Although there was discussion within the small specialist PICC team around these sorts of issues there is little evidence of this happening within the very busy wider department. Acknowledgement of these challenges and offering a range of helpful approaches is critical for the orientation and support of new staff members.

**The Ethical Dilemmas**

The nurses’ narratives showed clear evidence of ethical decision-making and a weighing up of the options, although it is unclear as to whether they were aware of their active use of ethics. Tschudin (2003b) explains how principle-based approaches to ethics often have little relevance to daily patient care and yet the stories collected from nurses often show ‘an exquisite attuning’ of nurses to the needs of their patients. The ethics seem to emerge from practice, centred on the particular patient in the particular context (Tschudin, 2003b). Benner (2000) also notes that clinical judgement cannot be separated from ethical reasoning because each clinical judgement assesses
what good is at stake and what to do in each particular situation. Good clinical decision making therefore relies upon a combination of sound ethical reasoning in combination with a good grasp of pathophysiology and medical and nursing interventions within a context (Benner, 2000).

Inevitably those decisions involved the ambiguity between their technical versus caring role, a clash between their own learning needs versus doing the best for their patient and weighing up the greater good, in particular getting an implanted line in and removing the need for their patient to have further needle procedures versus the immediate distress they were causing. Tschudin (2003a) notes that reflection is not simply a mode of learning or explanation, but is a vital aspect of ethical thought and action. Therefore combining reflection with the clarity of hindsight also provides an opportunity to consider how practice might be improved.

The Ambiguity between the Pathic and Instrumental Touch

It is important at this stage to explore touching or the tactile encounter as it is used in nursing practice as it comes with significant ambiguities. Distinguishing between the different aspects of touch helps to explain their relative roles and how they may relate together in providing both technically skilled, but still patient focused supportive care. An understanding of the various aspects of touch also offers avenues and possibilities for both managing the stressful aspects of care while still engaging with the patient.

Van Manen (1999) reflects on the different kinds of touch that nurses use in the course of their work, a discussion that helps to clarify some of the ambiguities experienced both when teaching students, but also for experienced or expert practitioners. There is the probing gnostic touch of palpation; “literally (dia)nostic meaning to know thoroughly in the sense of seeing through the body and the palpating hand can bring about this diagnostic view” (van Manen, 1999, p. 24). Hence palpation primarily belongs to the medical or gnostic side of healthcare and may be used by both doctors and nurses. Merleau-Ponty (1968) wrote at length of the reciprocity of touch in his final unfinished manuscripts. Hence when one experiences the touch of another person one not only feels the skin of the others hand, but also ourself through our own skin: true also when the right hand touches the left. Similarly in a handshake the other’s hand feels like our own or what Merleau-Ponty (1968) described as a kind of ‘physical reflection as if it were my own’. So there is a dual aspect to touch whereby we get to know what is outside of us, while at the same time become aware of ourselves together with what is being touched (van Manen, 1999).
In addition van Manen (1999) explores the **private pathic touch** of intimacy and a loving relationship in comparison to the **personal pathic touch** which may be experienced as supportive, caring, comforting, healing or therapeutic, but remains professional in intent. The ‘pathic hand’ and the ‘pathic knowledge’ that supports it can be seen to lie at the heart of nursing practice. The effect of this caring pathic touch is ‘to reunite or reintegrate the patient with his or her body’ (van Manen, 1999, p. 29). And yet the distinction from the private pathic touch may seem nebulous, especially for the student or inexperienced practitioner and a possible source of ambiguity. To add to the complexity of the picture, the nurse’s hand, especially in specialised areas like medical imaging and intensive care, can increasingly be seen as technical or instrumental. Madjar (1997) notes that this instrumental touch may be determined by technical purposes, often breaking through, penetrating, or invading the patient’s body. The nurse may treat the body as an object, as a field on which he or she performs with skill and expertise and this may be done with distance and detachment. Alternatively it can be both an instrumental and caring hand, one that acknowledges the patients concerns and fears, and accommodates their wishes. van Manen (1999) notes that pathic thought is always directed to the person and is specific and unique to that interaction.

Van Manen (1999) also explores the differences between gnostic and pathic thought and practice. The gnostic medical practice searches for symptomatic clues, and significant factors in the patient’s history and leads to a certain idea of the meaning of healing; the gnostic approach is to locate the pathology and then to ‘remove’ the intrusion. Van Manen (1999) notes that sometimes it may seem to the patient that in the process of diagnosis he or she had been ‘given’ a tumour, a neurosis, or a paranoia. Once the patient has been ‘given’ an illness then medical treatment consists of removing it again. This medicalisation of increasing aspects of life and bodily functions tend to fragment the body and may leave the patient feeling ‘not themselves’. Herein lies the importance of the pathic nursing role which complements the gnostic medical act in the sense of reuniting the patient with his or her body, thus making life liveable again (van Manen, 1999). That is not to say that the gnostic medical approach precludes a meaningful caring relationship or that the nursing hand is always pathic.

The nursing narratives (pages 85-87, 90) revealed the dissonance of trying to care for a patient overtly distressed by the procedure and at the same time focus on carrying out the procedure to the best of their ability. Kim’s narrative demonstrates that she recognises the ambiguity or her role when she explains the value of having a support person to provide care while she
concentrates on getting the PICC skilfully and quickly inserted. Here Benner and Wrubel’s (1989) comments on the importance of context need reiterating, as in this instance technical proficiency is of paramount importance to this patient.

Learning versus Caring

There has always been an uneasy tension between the learning needs of health practitioners in the clinical setting and the best interests of the patient. Interestingly in the clinical setting we are very thorough in introducing and requesting permission for students to be present during examinations, but less forthcoming when it is a novice qualified staff member undertaking a procedure with a senior staff member present. This is partly done to protect the novice staff member and give them the required ‘clinical practice’ and build up their confidence, but does not necessarily sit comfortably when considering the patients’ best interests. Jill describes this dilemma with considerable clarity in the following narrative as does Sue in the final section (page 93).

It’s probably good for the patient that I do that [hand over to someone else] because they need someone with more experience, but then I need to find a place where I’m confident enough to learn to cope with these patients. So I should really give it another go and just learn to deal with it.  

In both of these narrative examples the nurses hand over to someone more ‘expert’ and experienced, but as Sue noted “Hindsight is a great thing, you should just step away immediately before you get to that point I think”. Sue acknowledges persisting for longer than she should have and ultimately causing the patient distress and herself embarrassment, not helping her already fragile sense of competence in relearning intravenous cannulation.

Benner (2000) describes the important links between embodied emotions, perception and experiential learning in opening up distinctly different understandings at different stages of skill acquisition in nursing practice. Nursing as a practice requires both techne and phronesis. Techne includes procedural, formal and explicit scientific knowledge while phronesis in contrast is the kind of practical reasoning engaged in by a skilled nurse within a specialist practice area; who through experiential learning and the sake of good practice continually lives out and improves the quality of care (Benner, 2000).
There is an important lesson to be learnt from these narratives. Jill’s experiences of trying to insert intravenous cannula in patients with needle phobia make disturbing reading. These experiences clearly knocked her own fragile confidence in her instrumental touch and in her ability to combine this with a pathic caring touch. She would have benefitted considerably more from watching an expert staff member complete the procedure from the outset accompanied by a later discussion on approaches. This interaction was neither in the patient’s or the nurse’s best interest.

**Weighing Up the Greater Good**

The narrative below is part of Kim’s reflection on an insertion of a PICC in a patient who had had multiple procedures done and was very distressed at the prospect of another. He had agreed to the insertion but wanted no further information.

_So he told me he didn’t want to know anything about it [PICC line insertion]. He didn’t want me to tell him what I was doing and when I was doing it. My concern was that if I _stab_ you without you knowing that you’re going to jump – and if you jump I might miss the vein and then have to start again and I really don’t want that. So I gently tried to explain that to him – look just let me tell you when I’m going to _stab_ you with the needle, it will be very quick, but I don’t want to have to do it again and he agreed to that but he was sobbing the whole way through the procedure and his wife was holding his hand and comforting him…_

_I tried not to talk and I tried not to rush the procedure but be as efficient and effective as possible to get it all over and done for him. I didn’t want to rush it and do a bad job but I wanted it to be quick so it was finished for him._

Kim expertly weighs up the issues and proceeds as quickly and skilfully as possible to get the procedure over for him despite her own discomfort at his distress. At least a PICC would remove the need for further needle punctures. Madjar (1998) notes that being able to combine pathic knowledge with expert instrumental or technical touch within the framework or structure of a therapeutic partnership offers nurses a way of providing both expert technical and supportive patient focused care.

**Autonomy and Self Determination versus Paternalism**

There was another option available in the above interaction, namely the use of sedation, but it is not widely used in the imaging setting and generally requires forward planning as described earlier (p. 86). This ‘culture’ or acceptance of a particular style of practice is described by Madjar (1998) in
her study on clinically inflicted pain where the expectation of many of the nurses in the burns unit was that patients would stoically accept and tolerate the pain of wound debridement with minimal, and often inadequate, pain relief. The alternative approach or the “ethic of partnership” (Madjar, 1998, p. 170) requires a collaborative approach and the sharing of decision making, planning of care and evaluation of progress rather than a paternalistic assumption that the health professional knows best. In the medical imaging setting it requires an acknowledgement that procedures may be intensely distressing for patients and that sedation should at least be offered. In this particular case it may have been refused in preference to just getting the procedure over and done with as quickly as possible, but at least this would have allowed some sense of involvement and control. Once the ‘ethic of partnership’ is established it then allows the nurse “to coach” and support the patient through frightening, distressing and painful experiences (Benner, 2001, p. 89) lending her wisdom and empowering the person to retain a sense of control and personal integrity in a situation that may otherwise cause helplessness and despair. In fostering and developing such a partnership the nurse also lessens the stress of the procedure for herself as she can genuinely feel she has done everything possible to care for her patient.

It is important in this short contact, procedurally focused medical imaging setting to consider the culture that exists as it so easily becomes such an integral part of ‘what we do’ that it escapes attention. When autonomy and self determination are suppressed either because ‘that is not the way we do things’ or ‘for the good of the patient’, paternalism can easily take over. Rather than sharing control with the person in distress, the nurse (perhaps unwittingly) submits to the paternalism of others by acting without consultation with the patient simply assuming the benefits of her actions (Madjar, 1998).

‘Piercing the Protective Cocoon’

Giddens’ (1991) concept of ‘the protective cocoon’ in maintaining the sense of self integrity was explored in relation to the participants with needle phobia and in turn how the failure of their body to behave in a controlled and rational manner was a source of shame and embarrassment and threatened their sense of competence. An unexpected reciprocity and mutual vulnerability emerged in the nurses’ narratives as particularly the nurses learning or reacquiring their intravenous cannulation skills described the challenges patients with needle phobia presented.
A Threat to Competence

A number of the nurse narratives showed very clearly the issues that patients who are afraid of needle procedures present for nurses, especially when the nurse is still developing her technical skills. As described previously, patients with needle phobia are often unable to show composure and self control or fully cooperate with the procedure as is the expectation with adults. This is graphically illustrated in Jill’s narratives below, where the patient’s distress somehow reinforces or exacerbates her own doubts in her ability to do the job, destroying her still fragile confidence as a relatively novice member of the team.

There are a range of emotions for me and for the patient because of what they are going through and I know in my head that I’m just a learner, and oh you’re not good enough, you can’t do it.  

Jill p. 1

Basically they look afraid and that makes me afraid which doesn’t help me do my job very well. It makes the process more difficult.  

Jill p. 1

I guess I felt incompetent, I was really afraid that I was going to hurt her so I didn’t do it again. I felt like... I actually felt like a bit of an idiot  

Jill p. 4

So not only does she fail to successfully insert the intravenous cannula but she is also unable to provide the care and support that her patient needs and must turn to her preceptor for assistance. This was clearly a very distressing experience for Jill, the sort that would make a nurse question why she was working in the field.

Sue recounted the challenge of relearning IV cannulation skills after being in management roles for some time. She had to request and accept training and support from other senior staff redevelop her confidence and be prepared to step back and ask for help. Here she recounts one particularly distressing experience for both her and her patient.

I was warned that she was a difficult patient [difficult IV cannulation] and I thought I’ll give this hard one a go. Well that was rubbish. I couldn’t do it and I made the patient even more... She wasn’t terrified of needles, but she had a fear of them and I think I got to the point where she didn’t have any confidence in me whatsoever, so I had to apologise and step back and allow an expert to do it.  

Sue p. 6
I probably wouldn’t try as many times, persevere and end up losing the patient’s confidence, which is exactly what happened. Hindsight is a great thing, you should just step away immediately before you get to that point I think.  

Sue p. 6

I mean it’s an embarrassing thing to happen because I’m a nurse of many years and you think oh my god I’ll never learn this, so that’s been a recent thing.  

Sue p. 6

This narrative shows considerable courage on Sue’s part. By her own admission, in hindsight, she should not have attempted the cannulation in the first place, but she ultimately apologised, stepped back, and asked for help. She was also prepared to acknowledge her mistake, embarrassment and insecurity and above all recount the episode so others might learn from it.

Both of these narratives reveal the challenges of learning or relearning new skills, but particularly when the learning involves vulnerable patients. We also know little about how nurses behave when their sense of competence is threatened; do they readily step back and ask for help or does this threaten their sense of pride even further; do they disregard the patient’s complaints and persevere? This is an area of practice that requires reflection, discussion and further research. Does this reciprocity in the threat to competence ultimately impact on the quality of care the patients receive?
Chapter 6 – Recommendations

Van Manen (1990) tells us that phenomenology is not about generalisation as this may prevent us from developing understandings that remain focused on the uniqueness of human experience. While this is partially true, obvious contrasts have emerged between the participant and nurses understanding and accounts of needle phobia along with a range of implications for clinical practice. Holloway’s (2005a) assertion that phenomenology seeks transfer of meanings and unique variations is therefore a more accurate depiction.

The final chapter will pull together the emergent themes from Chapter four and five in response to the aims of the study. Significant implications for clinical practice have emerged both in terms of caring for patients with needle phobia and supporting and assisting nurses to provide expert technical and pathic care and these will also be explored along with implications for future research. The final section draws together the many strands of the study.

The Lived Experience of Needle Phobia

The participants’ descriptions of needle phobia are their own embodied experiences. None of them had researched the condition in any way. What they described is what they live and feel uncoloured by other influence. There are few assumptions that can be made about needle phobia; in essence it defies generalisation. The following section picks up the emergent themes from Chapter four to elucidate the lived experience of needle phobia. *Unravelling the fear* pieced together and tried to explicate what the fear was about. In reality it is a fear characterised by personal idiosyncrasies in its origins, presentation and severity. While blood tests posed the greatest difficulty for most of the participants they were endured if absolutely necessary, although one participant had managed to go for 45 years without one. One participant, however found subcutaneous or intramuscular injections ‘completely awful’ and all experienced vicarious reactions when witnessing others undergoing procedures. Neither can one assume that because a patient has tattoos, or piercings that they are not needle phobic. In fact all of the female participants in this study had piercings and one of the men a tattoo. It is likely that challenges perceived to be within one’s sphere of control result in a different experience of vulnerability (Spiers, 2000).
A fear evolves traced the origins of the participants’ fear. These were not clear-cut either, although most of the participants vaguely remembered at least one traumatic event of possible significance. There was no clear hereditary component with any of the participants, contrary to Hamilton’s (1995) findings. The subsequent impact of poorly managed venepuncture or other needle procedures, however, was vividly remembered and clearly had a compounding negative effect.

The participants struggled to verbalise what they intensely disliked about needle procedures other than it was not primarily about pain. They describe a sense of repulsion, of something quite barbaric, but a source of morbid fascination nevertheless, so that even when averting the gaze, the whole process can be visualised in the mind. There was a sense of intrusion or violation by something that should not be there, initially of the integrity of the skin surface, but also a deeper sense of violation of the integrity of self. Above all they describe an intensely physical experience that may involve all the senses and one that threatens to overwhelm – likened by one participant to “standing on the edge of a whirlpool.”

Living with the fear delved more deeply into the bodily responses and impact on lives. It is the participants’ descriptions of their wayward body and total body or embodied response that are most poignant and probably the most unrecognised aspect of this fear. This is Merleau-Ponty’s ‘phenomenal body’ or the body intensely aware of itself. Again these responses are highly individual and may be an acute awareness of heart rate, sweating, intense flushing or an overwhelming sense of panic requiring escape from the situation. Faintness, blurred vision, unpleasant taste, nausea and on occasions syncope are also described. These sensations present a ‘challenge to integrity’ with a corresponding uncertainty about the ability of the body to respond adequately (Spiers, 2000); leave the person feeling drained and exhausted and may take quite some time to ease. Despite the participants’ attempts to minimise and downplay the impact this fear had on their lives – in one participant’s words “it kept rearing its ugly head.” For some it had limited career choices especially in the medical field, had threatened to stymie an attempt to emigrate, and undoubtedly made medical visits considerably more stressful. There was an underlying fear of how they would cope in a medical emergency or if intensive medical or surgical care was required.

The participants all described actively trying to manage or cope with these challenges seen as the ‘capacity for action’ (Spiers, 2000). Management strategies included lying down, breathing deeply...
and trying to relax all in an attempt to avoid complete syncope. Actual episodes of syncope accentuated the problem, and made subsequent experiences even more terrifying. Hence the participants described a wayward, irrational, out of control body, a body that was essentially foreign to these otherwise highly competent people, in control of other aspects of their lives. Submitting to procedures effectively required the person to hand their body over to be hurt or ‘wounded’ implicating them in the actual distress (Madjar, 1998). The most common coping strategy was not thinking or talking about the fear, at times avoiding and certainly delaying medical visits or particularly having blood taken. Initially the participants denied that needle phobia had impacted on their lives in any significant way but in the course of conversation there was an increasing acknowledgment of its significance.

‘Piercing the protective cocoon’ drew on the words of Anthony Giddens (1991) and involved a more in-depth analysis of two important components of self integrity; threatened by the participants embodied reaction to their needle fear. The embodied experience of needle phobia affects the person far more deeply than a superficial injury or event. It is an experience that they all struggled to explain and to understand themselves; it is an insult to the psyche, an ongoing horror, one that they have all learnt to live with and cope with in a range of ways and to varying degrees, but one that they would dearly love to be rid of. Above all there is a sense of shame and embarrassment that “something so simple can’t be mastered”. In addition people who dread needle procedures are simply not able to behave in a rational and controlled manner when faced with a blood test or needle procedure. Not only is the body out of control, but their behaviour is a source of shame and poses a threat to competence or the competent face they usually present to the world, correlating to a piercing or disruption of Giddens’ (1991) ‘protective cocoon’ and a violation of the integrity of self.

The Nurses’ Experience of Needle Phobia

The nurse participants in an etic perspective acknowledged a limited understanding of needle phobia and while recognising a spectrum of responses, equated it with anxiety, or a severe emotional reaction related to pain, in marked contrast to the participants’ descriptions. They were caring and respectful, but were seemingly unaware of the associated vasovagal reflex and potential for serious physiological reactions.

Carrying out a procedure on a distressed needle phobic patient presented a significant personal challenge especially for the inexperienced practitioner. The necessity of focusing on the task
rather than the patient sets up a dissonance, made even more acute by a failure to even insert the intravenous cannula successfully. Such a ‘petrifying’ experience placed this nurse in a place of risk and vulnerability. Anxiety was noted by the all the participants but with experience and growing expertise the technical task became easier, and the practitioners became more adept at managing their own reactions, while still being able to focus on the patient. This is Merleau-Ponty’s (1962) ‘habitual skilled body’, where the technical task becomes automatic allowing an alternative focus. The use of forceful metaphors such as stick and poke and puncture was a tacit reflection of the ‘wounding’ nature of the job.

**Getting the job done** explored the task orientated nature of medical imaging where timeframes were often tight and the nurses were expected to maintain the flow of patients. All the nurses focused on the importance of thorough explanation, both as a means of allaying anxiety, connecting with their patient, but also ensuring that the patient did not move at critical times and jeopardise the procedure. There was obvious contrast with the patients’ narratives which made it very clear that no amount of explanation helped their phobic response and in fact simply getting the procedure done as quickly as possible was often preferable. There was a common concern that patients would tense up, so effort went into verbally coaching them to relax and breathe deeply to make the job easier for both parties. The use of a support person was also encouraged to help with or fill the caring role, allowing the nurse to focus on the procedure. ‘Getting in first time’ was commonly equated with doing a good job, reflected in Madjar’s (1999) comment that the instrumental aspect of nurses work can be professionally satisfying while at the same time eliciting stress and concern.

**On caring and coping** reflects the reciprocity between the nurses ability to cope with their own reactions while at the same time providing care and support for their patient. The nurses were all disturbed by overt signs of distress and anxiety and while they attempted to understand this response, they all acknowledged that it made their job more difficult and they had to somehow shut this out or transfer the caring role so they could focus on their task. Similarly there was obvious admiration for the patients who did manage to control their own reactions, reflecting the unspoken expectation that adults will respond to reasoning and behave in a composed and controlled manner and facilitate the nurses’ work (Madjar, 1998). The nurses also emphasised the importance of assessment and the appropriate use of humour and distraction techniques and ‘being there’ and holding a hand, although there was little evidence of the patient being involved in the decision making.
In the course of the nurses’ narratives a number of obvious ethical dilemmas emerged from their practice and evidence of ethical reasoning was apparent. The dissonance of trying to carry out a procedure on an overtly distressed patient required both the pathic caring touch of support and a technical instrumental touch which the nurses struggled to combine. Use of another support person provided an obvious solution. The tension between the learning needs of the nurse and the patient’s need to have the procedure completed quickly and adroitly was also obvious and a source of particular distress for the nurses learning or relearning skills, especially when the procedure did not go well. Another practice exemplar showed a weighing up of the greater good or quickly proceeding with the insertion of a PICC in a distressed patient to avoid the need for further intravenous cannula. This latter example could have been managed differently, however, if the staff had been forewarned and sedation offered.

The most unexpected aspect of the study, however, was the reciprocity or mutual vulnerability the nurses expressed, likened to piercing the protective cocoon or the main emotional defence system which allows us to get on with day to day life. Particularly the novice nurse revealed how the patient’s fear reinforced or exacerbated her own doubts in her ability to do the job, destroying her still fragile confidence and leaving her feeling incompetent as not only did she fail to insert the cannula successfully but she was also unable to provide the care and support her patient needed and had contributed to their distress. Loss of the patient’s confidence was also embarrassing and in turn having to request help from other staff all potentially threaten the sense of competence.

Implications for Clinical Practice: Care of Patients with Needle Phobia

The most important clinical implication of the study is the picture it offers of the ‘lived world’ or experience of being needle phobic through the eyes of the participants. While this picture is still blurry in patches as the participants grappled to describe what they disliked so intensely, it is still illuminating. They describe an experience that is not primarily about pain, an experience that is intensely physical rather than emotional and about which few assumptions can be made. There is a sense of violation involving all the senses which threatens to overwhelm; where the wayward body takes over and behaves in an irrational and unpredictable manner, while the mind struggles to gain control of the situation and avoid syncope. It is deeply distressing and a source of shame that threatens the competent face they normally present to the world. It is a fear they would dearly love to be rid of but which keeps on being and which makes needle procedures truly terrifying. Not only, however, do the participants offer us a much clearer picture of this puzzling
condition, they also offer very clear directives or strategies as to how they want to be cared for, which have obvious implications for clinical practice and fulfil an objective of the study.

This following account is written on the premise that nurses need to not only listen to their patients but to also learn from them. As one participant commented during the interview – *the person knows themselves and knows what they need*. Only patients can teach us about their own lived bodies, the things that matter to them and the ministrations that they find appropriate and that make a difference (Madjar, 1998). This approach is critical given the variable presentation and intensity of this condition. Notably the participants’ stories revealed with considerable clarity and insight what they required from health professionals in relation to their needle phobia.

*I suppose just having people aware that it is a real problem for some of us poor folk and not to take it personally or anything like that and as I say get on with it.*

*I mean I don’t want too much talk and sympathy beforehand; I just want it over with really.*

The participants asked to be respected as people, and have the significance of their fear genuinely recognised and acknowledged. They were all very sensitive to negative comment and were embarrassed by their inability to manage ‘*something so simple*’, so any perceived criticism or negativity on the part of health practitioners further eroded their sense of trust and already fragile sense of personal competence in relation to their phobia. In addition they asked that nurses not see their fear as a personal affront or take offense at their inability to behave in a calm and controlled manner. It also needs to be recognised and acknowledged that needle phobia has a stigma. There is an acceptance that young children are fearful of needle procedures and special care and distraction techniques are required to minimise the trauma of the experience. An expectation exists, however, that with age and maturity the fear diminishes. For some people, as a result of a complex variety of reasons and experiences, the fear remains and may even intensify. Although the participants were generally accepting of the way they were, they clearly also felt a sense of shame.

Above all they asked to be really listened to akin to Madjar and Walton’s (1999) ‘listening gaze’. A number of them talked about ‘throw away lines’ where the health practitioner made stock comments like; ‘it’s not going to hurt’, or ‘no-one likes blood tests’, which minimised their fear and left them feeling misunderstood and even more anxious. For the person who experiences the
intense fear and panic associated with needle phobia, there is no doubt about the reality and terror of that experience. So if health professionals question and doubt the reported experience, they often add to the suffering of the person in distress. Alternatively when the health practitioner really listened, appreciating the reality of their fear and responded to their requests this built up trust, gave them some sense of control and they felt better able to cope.

The Practicalities

A number of practical things made a significant difference for the participants. Positioning was important in lessening the likelihood of a vasovagal reaction. Being able to lie down from the outset of the procedure or be in a position where they could readily lie down if required helped significantly. None of the participants liked to watch the procedure so positioning was also important in ensuring that they didn’t inadvertently witness the event and this was easier to accomplish supine. The pacing of the procedure was also important, but here the requirements differed markedly. While some of the participants needed to be given time and reassurance to do things at their own pace so they could maintain some control, others wanted minimal talk and explanation and to just have the procedure over with as quickly as possible so they could ‘get out with a Band-Aid on’.

None of the participants wanted step by step accounts of what was being done, endless explanations, or warnings as the needle touched the skin. This comment contrasts markedly with the nurses’ narratives where considerable emphasis was placed on step by step explanation and the coaching part of their role. All the participants found distraction helpful and this could be idle chat or having a family member or another staff member present to talk to and focus on. Several of them also commented on distraction techniques used with children such as music and videos and how these might also be helpful. Similarly it was appreciated when staff offered praise and acknowledged their ‘bravery’ in coping with a procedure.

One participant commented that – ‘It’s the way they [the nurse] approach the task they are doing’. In short, the participants in this study are asking for a ‘therapeutic partnership’ or collaboration with the nurse or phlebotomist (Madjar, 1998). Their experience was improved by someone who genuinely listened, showed empathy and above all acknowledged and accommodated their particular fears and concerns and therefore inspired trust. They all wanted a nurse who combined technical competence and expertise with care and attention for them as a person. Technical
competence included good organisation and having everything discreetly ready to go, so syringes and needles were not flashed around or blood too apparent.

It must also be remembered that the intense physical response the participants described correlates with the neurophysiology of the vasovagal reaction described in Chapter one. There is therefore a risk of syncope and subsequent falls and injury, or seizures and other possible medical emergencies as a consequence of rapid changes in heart rate and blood pressure on an already compromised vascular system. Lying patients down for procedures is therefore an essential step and ongoing vigilance is required, something the nurses in the study were seemingly unaware of.

Comments by the participants also highlighted the need for further discussion in the clinical setting and the offer of local anaesthetic cream for those people where pain is an issue. Similarly oral or sublingual minor tranquillisers should be offered to fearful patients given that negative experiences have a compounding effect on subsequent procedures. People with needle phobia have special needs that must be recognised, understood and accommodated. The participants’ narratives have helped to illuminate those needs and most importantly a partnership approach to care that is not new to nursing, but that can be overlooked in a technically focused, short-contact environment such as medical imaging, the context in which needle access commonly occurs.

**Implications for Further Research**

The previously noted dearth of particularly qualitative research on needle phobia means that the study was only ever going to provide insights or partially unravel this puzzling condition, but it has affirmed the need for such research and made a valuable beginning. It has also demonstrated that it is possible to conduct qualitative research with ‘the authentic source’ without putting the participants at undue risk. The participants all felt that it had been useful talking about the fear. Their responses along with comments made by a number of ‘regular’ patients seen within the outpatient setting suggests there would be potential benefit in offering informal support to patients struggling to undergo needle procedures. A significant improvement in the coping strategies of some of these patients; usually undergoing chemotherapy and having regular CT scans or bone scans as part of the treatment process, has been noted. They comment on the reassurance provided by a trusted familiar face and an established pattern of action. Often there is little in the way of conversation until the procedure is finished and both parties can relax. Similar comments are made about relationships with ‘regular’ phlebotomists.
Questions remain as to why this condition occurs in some people and not others and why the presentation is hugely variable in terms of the specifics and the severity of the fear, along with the actual sequence and combination of physiological reactions. These were the questions the participants wanted answered. Some of these questions could be addressed by conducting a quantitative study, in conjunction with patients having other blood work done, to collect further biochemical data in combination with a questionnaire exploring their needle phobic history, without placing people at undue risk.

The true impact of needle phobia on health seeking behaviour or avoidance of medical treatment in general is still unknown. This study also deliberately focused on ‘healthy’ people not actively involved in medical treatment. From clinical experience there are a significant number of people who develop a fear of needle procedures as a direct result of intensive medical treatment such as chemotherapy, particularly as venous access becomes more difficult. Are the issues similar for these people as they were for participants in my study? A larger scale qualitative study would help to illuminate some of these issues better, especially if it was conducted over a longer period of time and included some episodes of needle access, considered from both the patient and practitioner perspective. Gaining ethical approval and finding participants for such a study would, however, present challenges. Alternatively an action research approach involving a smaller group of patients similar to Searing et al. (2006) would be an option.

A number of other observations would be interesting to pursue. Two of the study participants and a number of other patients in clinical practice recounted a traumatic event when they were aged about six years old, which they believed was significant in the development of their phobia. Is this age particularly significant in the development of trust? The question remains as to why this condition is so poorly researched. Its classification as a psychiatric disorder has been limiting and has seemingly presented a conundrum for ‘sufferers’ who experience it as an intensely physiological reaction. It has remained largely invisible, or has been dismissed as a ‘child-like’ response leaving those who experience it to conduct the research and provide the support (Emanuelson, 2010; Hamilton, 1995; Lamb, 2009). My study has clearly demonstrated its significance for both those who experience it and live with it on a day to day basis and for the practitioners carrying out procedures.
Implications for Clinical Practice: Support and Training of Nurses

While the study provided a valuable picture of the realities of living with needle phobia it has also revealed a mutual vulnerability on the part of the nurses. The nurses acknowledged limited understanding of needle phobia and found it challenging caring for and carrying out procedures on distressed and fearful patients. This was particularly so for the novice staff member interviewed, raising questions around the orientation and support of new staff or staff that are relearning. Procedural documentation in radiology needs to be reviewed to incorporate information on needle phobia as do District Health Board-wide learning packages on intravenous cannulation. The model of nursing practice and approach to patient care within medical imaging needs reflection and discussion. Investigation is also required on the most appropriate oral or sublingual medication for patients with needle phobia and its use, availability and benefits in lessening the trauma of procedures requires further discussion.

The patients’ overt displays of emotion and fear were clearly distressing for the nurses. Madjar (1997) comments that nursing education focuses on preparing nurses to provide comfort and care, and on easing pain and relieving suffering. Nurses do not usually view themselves as the inflictors of pain and discomfort, neither is this a commonly held public perception. In reality, however, nursing practice often includes tasks that result in pain or distress. This is an aspect of nursing practice that is seldom discussed or acknowledged, but can be a source of personal stress and unease for nurses because it challenges our view of ourselves as kind and caring professionals (Madjar, 1997). With nurses taking on more technical and interventional roles further consideration of this element of practice is required. As Madjar (1998) notes, without adequate deliberation and support there is a risk that a nurse’s main strategy for coping with a patient’s distress becomes to distance and detach themselves from the patient and to no longer listen.

Consideration of van Manen’s (1999) pathic and gnostic dimensions of touch offers possibilities for understanding and managing stressful aspects of care. Nurses need to understand that it can be both an instrumental and caring hand, one that acknowledges the patient’s concerns and fears, and accommodates their wishes. The importance of viewing caring in context is also helpful in the medical imaging setting; so when the situation calls for technical proficiency, then efficient and deft action is seen as caring and is paramount to the patient (Benner & Wrubel, 1989). At other times expressive actions such as taking the time to chat and empathise are seen as caring. These
are all important concepts in the procedurally and technically-focused medical imaging context in helping nurses come to terms with the dichotomy of their role.

The approach to teaching intravenous cannulation needs to be reviewed so the patient is foremost and not simply an object on which to work. While the technical aspects of the job need to be mastered so too is there a need to remain attentive to the pathic knowledge and touch. It is important for the novice nurse to know that ‘experts’ may also find inflicting pain stressful, so approaches to care can be worked through and discussed. At the same time preceptors should encourage novice nurses to focus on developing their confidence and skills before attempting intravenous cannulation on people with needle phobia, as this can potentially end up being a negative experience for both parties as two participants described. The orientation stage is critical in mastering the necessary skills while acquiring the confidence to practice in a patient-focused manner. Even experienced nurses need to realistically know their own technical skills and get the best person available for difficult intravenous cannulation, especially if the patient is fearful of needle procedures. Having a support person available also helps significantly. It is critical that patients with needle phobia have technically skilled staff perform their procedure, as negative experiences will continue to be played over in the mind and impact further on the severity of their fear.

The nurses had limited understanding of needle phobia and tended to see it as an emotional reaction or related to pain. Such a response is not surprising given the limited information about the condition and the fact that even the participants had difficulty describing what they disliked so intensely. At the same time the nurses’ narratives reflected respect, attentiveness and regard for their patient. Guidelines or maxims for practice when caring for patients with needle phobia will be developed from the existing literature and the findings of the study. This information also needs to be disseminated more widely through District Health Board clinical practice documents. Current intravenous cannulation teaching packages also require a stronger nursing focus and reference to needle phobia. The findings will also be of value to the phlebotomy service. Of concern, however, was the seeming lack of awareness that severe vasovagal and other physiological reactions were possible. Encouraging the patient to lie down and the importance of ongoing vigilance is necessary in averting possible injury. This is clearly an area requiring further discussion and education. Presentation of the research findings in regard to needle phobia will be done within the wider department with the aim of increasing understanding and improving care for this group of patients.
While the instrumental and technical requirements of practice within the medical imaging setting dictates what needs to be done it does not dictate how it is done. A partnership approach to patient care (Christensen, 1995) is not new to nursing practice and has been an integral part of training undergraduate nurses since the 1990s. Its ongoing relevance has perhaps been overlooked in the short contact highly technical environment of medical imaging. This study of needle phobia has reconfirmed the value of a partnership approach in acknowledging the uniqueness of the individual and their ‘lived experience’. A therapeutic partnership (Madjar, 1998) offers an open, but questioning approach to care. A few well-chosen questions indicate a willingness to really listen, acknowledge concerns and adapt care accordingly. Setting clear boundaries and adhering to these is also vital. This is an approach that does not necessarily take more time and offers benefits for both patient and nurse. For the patient with needle phobia it allows a sense of control while for the nurse it allows a feeling of doing everything possible in terms of care and support. Completion of the technical task is made easier for both parties within a context of mutual understanding.

**Implications for Further Research**

The nurse interviews were equally significant in the issues they raised. As previously noted, finding nurses who were prepared to talk about needle phobia was difficult. Would nurses in other clinical settings respond in a similar manner to the dichotomy of carrying out procedures on distressed patients? It is also possible that a larger sample group would have produced quite different results, given the variation in the three interviews. Do nurses trained in other countries respond differently to New Zealand registered nurses or does the ‘culture’ of the area prevail? The stress of carrying out procedures on a distressed patient appears to be a poorly acknowledged aspect of practice and as a result is probably poorly managed in orientation programmes for new staff. With nurses taking on more interventional roles in areas like medical imaging it is vital that these issues are addressed so nurses remember the pathic caring touch along with their instrumental role. A larger qualitative study combining both observation and interview would be required to adequately explore this issue but would come with significant challenges, not least finding nurses who were prepared to participate.

There also appears to be little research on how nurses behave when they feel vulnerable and their sense of competence is threatened. Do they distance themselves from the patient and persevere or step back and ask for help? Given the stories from patients at times of nurses having multiple
attempts at intravenous cannulation the former is likely, but will also be influenced by the culture of supportiveness amongst the staff. Although reflection is encouraged within educational settings and the nurses in this study clearly used it personally, there was little evidence of these thoughts being shared with other colleagues within the wider department, or as a clinical learning exercise. Perhaps the casual reflection was somewhat superficial and avoided deeper self-knowledge. An opportunity for sharing clinical scenarios is a vital part of learning and improving practice.
Drawing the Threads Together

Phenomenology as a human science enables us to gain a deeper understanding of the nature and meaning of our everyday experiences. Phenomenological thinking has made it possible to focus on the individual participant’s experience of needle phobia to explore their stories, feelings, bodily reactions and explanations of their fear. There is also a natural affinity between nursing practice and phenomenological enquiry, allowing valuable insight into some of the challenges and clinical dichotomies described by the nurses in the study. In turn the common threads have been collated and analysed to further our understanding of living with a fear of needle procedures. These combined understandings offer an approach to care that takes account of the mutual vulnerability that emerged.

Central to our understanding of the lived experience of needle phobia is the recurring theme of embodiment. From a phenomenological perspective the body is our basic mode of being in the world or the ‘touchstone of existence’ and is therefore the starting point in understanding human experience (Merleau-Ponty, 1962). In contrast Cartesian or western tradition viewed the mind and body as separate entities, with the direction of influence usually from the mind to the body. For this reason the ways in which the body responds to meaningful situations without explicit conceptual clarity was missed. Hence needle phobia has been researched and classified as a psychiatric disorder with its physiological manifestations studied in isolation or as part of medical case studies. Such an approach imposes a moralistic system of ‘blame and shame’ that places too much responsibility on the mind’s ability to manage the body and too little sense of the ‘will of the body’ and the limits of rational control (Benner, 2000). Consequently needle phobia has been both stigmatised and inadequately researched as a condition that likely involves a backdrop of genetic mechanisms and biological preparedness combined with environmental learning pathways (Du et al., 2008).

Merleau Ponty’s (1962) account of the ‘lived body’ as it is experienced rather than viewed by natural science or casual observation, in particular the dimensions of embodied intelligence, offered fresh perspectives on how the body learns and responds to situations seemingly without effort or conscious control. ‘The habitual body’ has the capacity to recognise and respond to vague problems and previously encountered situations and set the body up for action, a process that exacts a toll on people with needle phobia as does ‘the phenomenal body’ intensely aware of itself (Merleau-Ponty, 1962). Similarly the concept of the ‘habitual skilled body’ is valuable in explaining
the ability of the expert nurse to support and verbally coach a patient while carrying out a procedure. The work of Anthony Giddens (1991) formed the important connection between the role of the physical body, immersed in the interactions of day to day life, and the development and sustenance of a coherent sense of self identity. Hence embodiment in all its permutations is a recurring theme and central to understanding the study findings.

The key contribution of the study is the picture it offers of the lived experience of needle phobia. The participants attempted to unravel the fear, but struggled to describe what they disliked so intensely. It is a fear notable for its personal idiosyncrasies and variable origins. A fear experienced as intensely physical and embodied but not primarily about pain. A needle piercing the skin violates the integrity of the skin surface, but there is also a deeper sense of violation of the integrity of self. They describe a wayward body that behaves in an unpredictable manner involving all the senses and one that threatens to overwhelm – likened by one participant to “standing on the edge of a whirlpool.” While they had all developed certain ‘capacities for action’ such as minimising and not thinking or talking about the fear, it continued to ‘challenge integrity’, had impacted upon career choices, made medical appointments particularly stressful, and was an ongoing cause for concern as to how they would cope in the event of serious ill health. Above all there is a sense of shame and embarrassment that “something so simple cannot be mastered”. Not only is the body out of control, but their behaviour is a source of shame and poses a threat to competence or the competent face they usually present to the world, correlating to a ‘piercing of the protective cocoon’ and a violation of the integrity of self.

Equally important is the picture the study provides of the personal challenges the nurses described in caring for patients with needle phobia. They acknowledged a limited understanding of needle phobia and equated it with an emotional response related to pain, very different to what the participants described. The necessity of focusing on the task rather than the patient caused a dissonance, particularly acute for the novice practitioner and made worse by a failure to insert an intravenous cannula successfully. While the nurses all focused on getting the job done considerable effort went into careful explanation, to try and allay anxiety, but also to ensure that the patient did not ‘tense up’ or move at critical times. Use of a support person was encouraged to fill the ‘caring’ role. The nurses were also disturbed by overt signs of distress and reciprocity emerged between their caring and coping strategies. While they emphasised the importance of assessment, the appropriate use of humour and distraction techniques there was seemingly little appreciation that serious vasovagal reactions were possible. A range of ethical dilemmas emerged
from practice such as the tension between their learning needs versus the patient’s best interests. Of particular significance was the mutual vulnerability that emerged likened to ‘piercing the protective cocoon.’ The patients fear reinforced the novice nurse’s self doubt in her ability to do the job, destroying her still fragile confidence and threatening the sense of competence.

While the participants with needle phobia and nurses who took part in the story told different stories, a mutual vulnerability emerged as did an obvious solution to the challenges they both described. In effect, needle phobia requires us to set the name aside and study the complexity and subjectivity and variability of people’s lives. While this would suggest the need to get really close and have prolonged and ongoing contact, in ‘the privileged place of nursing’ that is not necessarily the case. Establishing a ‘therapeutic partnership’ in a short stay medical imaging setting is about openness, an empathic approach and use of the ‘listening gaze’ and a few well chosen questions. In light of the participants comments it should be termed the really listening gaze. It is about acknowledging their fear, ensuring that the person wants to proceed with the examination, setting clear limits and then asking for their guidance on the best way to do this. This allows some sense of control as well as building trust and confidence.

Reflecting on and exploring these research narratives has revealed other ways of doing things, which are not unfamiliar but are readily lost sight of in such a technically and task focused environment. Nurses need to learn how to attend to another’s experience of distress without becoming overwhelmed by it or detached and immune to calls for help. They need to not only listen to their patients, but to learn from them since only patients themselves can teach them about their own lived bodies, what matters to them, and the ministrations that they find appropriate and helpful. As Madjar (1998) tells us, the ability to combine technical knowledge and clinical expertise with attentiveness to the lived experience of the patient allows the nurse to develop understandings that are attuned to a patients subjective experience. This process of sharing and collaboration allows the patient a sense of control so preserving their integrity of self and the competent face they present to the world. In turn it also allows the nurse to know she has genuinely done everything possible for her patient. By working in partnership the procedure becomes easier for both parties.
References


References


Morse, J. (1999). Myth #93: Reliability and validity are not relevant to qualitative inquiry. *Qualitative Health Research, 9*, 717.


References


Appendix A: Study documentation

Living with Needle Phobia

Information for Participants

My name is Shona Matthews and as part of my Masters of Health Science degree at Unitec I am conducting a research study exploring what it is like to live with needle phobia. My interest in this subject has emerged from my work as a nurse in medical imaging where many procedures involve the insertion of intravenous lines or injections, which many adults find distressing. As part of the study I wish to interview a number of people who see themselves as needle phobic as well as a small group of nurses working in medical imaging and caring for patients with needle phobia.

What is the purpose and benefits of the study?

There is little research looking at the personal experience of needle phobia, the impact it has on day to day life and on health seeking behaviour. Similarly needle phobia amongst adults receives little attention in medical texts. There are no direct benefits for you other than the opportunity to share your thoughts and personal experience about the topic. However, by exploring the experiences of a group of participants with needle phobia I hope to increase awareness and understanding of the condition and in turn help nurses and other health care professionals develop supportive strategies in caring for people who find procedures involving needles distressing.

What it will mean for you?

I want to interview you and talk about:
- Your personal experience of needle phobia and how it makes you feel
- How it has impacted on your life
- Your experience of procedures involving needle puncture and your personal coping strategies
- Approaches or practical things health care providers can do to make things easier for you

I would like to meet with you for about an hour to talk about these kinds of things. We will meet at a mutually convenient time and place. The interview will be recorded and will be transcribed (the conversation typed out) later. You will be invited to check the transcription if you wish to.

Confidentiality and withdrawal from the study

All features that could identify you on the tape will be removed and the tapes erased once the transcription is done. If you agree to participate, you will be asked to sign a consent form. This does not stop you from changing your mind if you wish to withdraw from the project. However, because of my schedule, any withdrawals must be done within 2 weeks of the interview or sending out of the transcript.

Your name and information that may identify you will be kept completely confidential and you will be given a pseudonym. All information collected from you will be stored for a period of five years on a password protected file and only you, the researcher and my supervisors will have access to this information.

Your participation in this study is voluntary. You have the choice of not answering specific questions and I will be sensitive to any signs of discomfort and will willingly turn off the tape if necessary and provide any necessary support.

Please contact me if you need more information about the project.
Appendix A

Shona Matthews
Tel: 09 3781046 or 027 3232857
Email: shonamatthews@clear.net.nz

At any time if you have any concerns about the research project you can contact my supervisors:

My supervisors are Dr Elizabeth Niven and Jillian Phillips phone 815 4321 ext. 8320 or 5063 or email eniven@unitec.ac.nz or jphillip@gw.unitec.ac.nz

UREC REGISTRATION NUMBER: (2009-915)
This study has been approved by the UNITEC Research Ethics Committee from (30 April 2009) to (30 April 2010). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 7248). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix A

Information for Participants (Nurses)

My name is Shona Matthews and as part of my Masters of Health Science degree at Unitec I am conducting a research study exploring what it is like to of live with needle phobia. My interest in this subject has emerged from my work a nurse in medical imaging where many procedures involve the insertion of intravenous lines or injections which many adults find distressing. As part of the study I wish to interview a number of people who see themselves as needle phobic as well as a small group of nurses working in medical imaging and caring for patients with needle phobia.

What is the purpose and benefits of the study?
There is little research looking at the personal experience of needle phobia, the impact it has on day to day life and on health seeking behaviour. Similarly needle phobia amongst adults receives little attention in medical texts. There are no direct benefits for you other than the opportunity to share your thoughts and personal experience about the topic. However, by exploring the experiences of a group of participants with needle phobia I hope to increase awareness and understanding of the condition and in turn help nurses and other health care professionals develop supportive strategies in caring for people who find procedures involving needles distressing.

What it will mean for you?
I want to interview you and talk about:
- Your understanding of needle phobia
- Your experience caring for patients with needle phobia.
- Strategies and practical approaches you have developed in caring for patients with needle phobia

I would like to meet with you for about an hour to talk about these kinds of things. We will meet at a mutually convenient time and place. The interview will be recorded and will be transcribed (the conversation typed out) later. You may check the transcription for accuracy if you wish.

Confidentiality and withdrawal from the study
All features that could identify you on the tape will be removed and the tapes erased once the transcription is done. If you agree to participate, you will be asked to sign a consent form. This does not stop you from changing your mind if you wish to withdraw from the project. However, because of my schedule, any withdrawals must be done within 2 weeks of the interview.

Your name and information that may identify you will be kept completely confidential. All information collected from you will be stored on a password protected file for a period of five years and only you, the researcher and my supervisors will have access to this information.

Your participation in this study is voluntary. You have the choice of not answering specific questions.

Please contact me if you need more information about the project.
Shona Matthews
Tel: 09 3781046 or 027 3232857
Email: shonamatthews@clear.net.nz

At any time if you have any concerns about the research project you can contact my supervisors:

My supervisors are Dr Elizabeth Niven and Jillian Phillips phone 815 4321 ext. 8320 or 5063 or email eniven@unitec.ac.nz or jphillip@gw.unitec.ac.nz
UREC REGISTRATION NUMBER: (2009-915)
This study has been approved by the UNITEC Research Ethics Committee from (30 April 2009) to (30 April 2010). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 7248). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
WANTED

PARTICIPANTS FOR A RESEARCH STUDY

- Do you dread having blood tests or any needle procedures?
- Do you faint or feel faint at the sight of needles or blood?

I am a nurse conducting a Masters research study entitled “Living with Needle Phobia”

What is involved?
An hour long, one on one recorded interview at a time and place that is convenient for you

For further information please contact:
Shona Matthews
Email: shonamatthews@clear.net.nz
Home: (09) 378 1046
Mobile: 027 323 2857

UREC Registration : 2009-915
HDEC Registration : NTY/09/17/EXP
Participant consent form

Living with Needle Phobia

I have had the research project explained to me and I have read and understand the information sheet given to me.

I understand that I don’t have to be part of this study if I don’t want to and I may withdraw within two weeks of the completion of the interview or sending out of the transcript.

I understand that everything I say is confidential and none of the information I give will identify me and that the only persons who will know what I have said will be the researcher and my supervisors. I also understand that all the information that I give will be stored securely on a computer for a period of 5 years.

I understand that my discussion with the researcher will be taped and transcribed.

I understand that I can see the finished research document.

I have had time to consider everything and I give my consent to be a part of this project.

Participant Signature: ………………………….. Date: ……………………………

Project Researcher: ……………………………. Date: ……………………………

UREC REGISTRATION NUMBER: (2009-915)
This study has been approved by the UNITEC Research Ethics Committee from (30 April 2009) to (30 April 2010). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 7248). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix A

Interview Questions (participants)
I am very aware that ‘needle phobia’ is a label that implies a certain set of reactions and behaviours. The focus of this study is to explore what the term means for you and particularly how it makes you feel.

Can you tell me what the term needle phobia means to you?
Do you think there is a better way to describe it?

Tell me how do you feel when faced with having a blood sample taken?
- How does your body react and do you feel as if you have any control over this?
- Does it always react in the same way and how does this make you feel?
- Do you think needle phobia influences the way you feel about yourself?

Can you tell me what you specifically dislike about having needle procedures done?

Can you tell me about your family in relation to needle phobia?
- Are other members of your family afraid of blood tests?
- Has this influenced the way you feel?
- Were/are your family sympathetic?

Can you tell me about your first memory of being needle phobic?
Have you always been afraid of needles or was there a specific event that triggered the fear?

Can you tell me about the impact needle phobia has or has had on your wider life eg. Career choices, decisions about having children, piercings, tattoos

Can you tell me about how needle phobia affects your health seeking behaviour?
- have you ever missed medical appointments because you can’t face the thought of a blood test or contrast for a CT scan
- Do you think you would be able to inject yourself if diagnosed with diabetes?

Can you tell me about any strategies you have developed to cope with your fear?
- have you ever sought any sort of treatment or counselling for your fear.

Do you have contact with other people with needle phobia / ever joined a support group / explored the subject on the web or generally tried to find out more about it?

I would like you to think about a specific incident involving needle puncture that was particularly difficult for you?
Can you tell me about it?

I am interested in how health care providers can make a difference when caring for people with needle phobia

Can you tell me about specific approaches or practical things that health care providers have done that make a difference for you?

Do you have any other thoughts or ideas that we haven’t covered that might be useful for this study?
Appendix A

Interview Questions (Nurses)

I am very aware that 'needle phobia is a label that implies a certain set of reactions and behaviours. The focus of this study is to explore what the term means for the participants with needle phobia but also for you as a nurse providing care and carrying out procedures involving needle puncture.

Can you tell me what the term needle phobia means to you?
Do you think there is a better way to describe it?

Tell me how you view patients with needle phobia?

Do you think the experience of being needle phobic is the same for all people?

Tell me how you feel as a nurse faced with carrying out a procedure on a patient with needle phobia. Is it an issue for you?
Are there a range of emotions?
How do you cope with your own reactions?

Tell me about any specific concerns you have when carrying out procedures on patients with needle phobia?

Do you think other members of the radiology team respond in a similar manner to patients with needle phobia?

When caring for patients with needle phobia do any accommodations you make impact on the work flow?
Do they affect relationships within the team?

Tell me about any information or instruction you may have received in caring for patients with needle phobia?
Has this been helpful / Do you think there are other things that could be done?

Tell me about practical strategies you have developed caring for patients with needle phobia?
How have these come about?
Have you shared these experiences with your colleagues?

I would like you to tell me about a specific incident you have had with a patient with needle phobia.
How did the patient react?
How did you react?
How did you feel?
What was the outcome?

Is there anything that we haven’t covered that you think would contribute to this study?