

"Experiences of Pregnant Women Receiving Acupuncture Treatment from Midwives"

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Professional Doctorate Thesis

Submitted in Partial Fulfilment of the Requirements of
the Degree of Professional Doctorate, 2015

**School of Nursing Midwifery Social Work & Social
Sciences**

College of Health and Social Care

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Acknowledgements

I would really like to thank my academic supervisors Dr Alison Brettle and Professor Martin Johnson for their continued help and support in completing this thesis.

I am very grateful to the women who agreed to participate in this study. I felt privileged to hear and record their stories and experiences.

I would also like to thank my colleagues for their encouragement and support particularly Dr Lesley Choucri as my manager and midwifery supervisor.

Most of all I would like to thank my family especially my husband Dave and my children Ted, Hattie & George for their unwavering support over the last 5 years, for having faith in me.

Abstract

Title: "Experiences of pregnant women receiving acupuncture treatment from midwives"

Acupuncture is potentially an effective treatment for common conditions of pregnancy and labour pain with midwives being well placed to offer it. The aims of this study were to explore the experiences of pregnant women receiving acupuncture treatment from midwives, to provide insight into their perceptions of effect including the influence and value of the midwife on this experience. The lack of qualitative evidence has provided the rationale for this study. Within a phenomenological methodology an 'Interpretative Phenomenological Analysis' (IPA) approach was adopted, with 10 women attending the Salford Midwifery Acupuncture Service (SMAS) being recruited to this study. Data was collected via semi-structured interviews and the IPA analysis identified five main themes; justification of choice, relief & relaxation, trust & understanding, regaining self, discovering and sharing a secret. The women were happy to access acupuncture if recommended by a health professional; they gained pain relief and improved function, with more ability to care for their children and to continue working. They were grateful for the opportunity to access acupuncture, finding it enjoyable and reporting intense emotional and physical sensations. It offered prolonged effect, improving sleep and wellbeing, and it correlated well with purported neurophysiological mechanisms. Responses seemed more intense than in previous reports, possibly due to their pregnant state or heightened affective component. A midwife-acupuncturist was advantageous having knowledge and understanding of pregnancy, with 'understanding' being more important than professional background. The women felt optimistic and empowered to make plans for birth and parenthood and were wishing to share their experiences with others. The 'lay network' was an important factor within the women's choice to access acupuncture. These findings indicate acupuncture is an acceptable treatment which can provide relief, improved wellbeing and support normality. Midwives could offer acupuncture as an adjunct to their role to facilitate individualised reflexive practice.

Chapter 1: Introduction and background to the study

1.1: Introduction

This study has been developed to address the deficit of evidence regarding the experiences of women receiving acupuncture treatment in pregnancy. It seeks to provide insight into pregnant women's perceptions of the effects of acupuncture treatment provided by midwives and the influence and value of the midwife on this experience. The study also explores the acceptability and appropriateness of acupuncture treatment being offered during pregnancy and the possibility of acupuncture being an adjunct to the midwife's role

Acupuncture is often categorised as one of a number of alternative therapies generally termed Complementary and Alternative Medicine (CAM). Medical acupuncturists consider it to be a valid treatment that deserves a place alongside conventional drugs and surgery as a form of somatosensory stimulation (White, Cummings & Filshie, 2008). There is now sufficient evidence to be reasonably confident that its' effects are real rather than placebo and recent large reviews of trials show acupuncture to be better than placebo in treating nausea & vomiting, back pain, headache and chronic knee pain in the non-pregnant population (Ezzo, Streitberger & Schneider, 2006; Furlan, Van Tulder & Cherkin, 2005; Linde, Allais & Brinlhaus, 2009; Manheimer, Cheng & Linde, 2010). Acupuncture has been used to treat pregnant women within Traditional Chinese Medicine (TCM) for centuries but the evidence demonstrating its efficacy within the western medical model is still developing. There is limited evidence of its positive effect on common conditions of pregnancy; such as nausea and vomiting, and back pain and for the turning of a breech presenting fetus using moxibustion a form of treatment derived from acupuncture (Coyle, Smith & Peat, 2012; Matthews, Dowswell & Hass, 2010; Pennick & Young, 2007).

Thus acupuncture seems to offer potential as an effective treatment for these conditions and midwives are in an ideal position to offer it being the health professionals providing ongoing care for pregnant women. Acupuncture is known to be a holistic treatment able to affect nerve and muscle by stimulating the production of opioid peptides to reduce pain, and by having additional effects to promote wellbeing (Campbell, 2006; White et al., 2008). This holistic

treatment could complement individualised midwifery care providing a tool to relieve pain, discomfort and promote wellbeing, avoiding treatments that may have potentially teratogenic effects. Acupuncture it could be argued can support normality within pregnancy and childbirth by reducing the need for medical intervention and empowering women to feel in control of their pregnancy increasing their confidence in their ability to cope with pregnancy and birth.

1.2: Context of Midwifery

The paradigm of midwifery has forever been predicated on women supporting women throughout pregnancy, birth and motherhood from the earliest civilisations to the 20th century professionalisation of the role (Donnison, 1977; Leap & Hunter, 1993). The role of protector and supporter for pregnant women, essentially a midwifery role, has evolved from the innate need to protect and promote the health of the next generation. Humans instinctively feel that the health and wellbeing of the mother will have a significant impact on this outcome (Chamberlin, 1999; Cronk, 2000; De Vries, Benoit & Van Teijlingen, 2001).

Ancient civilisations have demonstrated their nurturing of pregnant women through various cultural and religious practices. The Chinese for example regard pregnancy as a potential imbalance or disharmony within the body and as such strive to protect the pregnant woman supporting her wellbeing both physically and psychologically to promote harmony (Deadman, Baker & Al-Khafaji, 2001).

The miracle of pregnancy and childbirth is fundamental to human existence and as such remains a fascination bound up within the culture in which the woman presides (Davis-Floyd & Sargent, 1997; Jordon, 1997). Over the last century developed countries have seen this fascination change in nature from an emphasis on nurture and protection to that of control and suspicion of pathology. The benefits of this significant shift to more 'medicalised birth' in statistical terms has seen a reduction in maternal and perinatal mortality (Tew, 1998), yet the impact of the corresponding improved health and living standards of these populations on this reduction in mortality and morbidity remains difficult to assess (Barros, Victoria & Barros, 2005; Walsh, 2007). The morbidity associated with this more reductionist approach to birth is something of concern, over the last half century the emphasis on a more biomedical approach

to birth has invariably led to increased medical intervention which in turn has been demonstrated to reduce women's autonomy and satisfaction within the birth process (Sandall, Soltani & Gates, 2013). Evidence demonstrating the improved outcomes resulting from reducing intervention and increased continuity of midwifery care is merely acknowledged yet rarely leads to changes in policy or practice (Sandall et al., 2013; Walsh, 2007).

Over the last twenty years evidence demonstrating the importance of pregnancy wellbeing to the short and long term outcomes for both mother and baby has been growing in significance supporting the putative beliefs of many women and midwives. Research into the effect of anxiety and stress during pregnancy has convincingly been demonstrated to have a negative effect on the neurodevelopment of the fetus (Clarke, Wittwer & Abbott, 1994; Huizink, Mulder & Buitelaar, 2004; Teixeira, Fisk & Glover, 1999; Welberg & Seckl, 2001) affecting cognitive skills, behaviour and increasing the risk of mental health problems and relationship problems in adulthood (Mulder, Robles De Medina & Huizink, 2002; Talge, Neal & Glover, 2007; Van den Berg, Mulder & Mennes, 2005).

These significant findings have impacted upon social policy within the UK with recommendations emphasising the need to address perinatal mental health problems and promote development of good infant-parent relationships. These issues are now an integral part of government public health strategy (Department of Health- (DH) 2009a; DH, 2013; NICE 2014b; Wave Trust, 2013). The emphasis on the importance of the psychosocial wellbeing of parents, baby bonding and attachment and on the development of good parenting skills puts midwives at the forefront of these recommendations being well placed to promote and augment these important public health proposals. Midwives are able to assess the holistic needs of pregnant women and their families and to offer services that address those needs. The government are investing in this approach offering choices in models of care for pregnant women that promote normality, and recognising the benefits that continuity of care can have on birth outcomes and on parental self-efficacy (Hodnett, Downe & Walsh, 2010; Klaus & Kennell, 2002; Sandall et al., 2013). Other national drivers focusing on the centralisation of obstetric and neonatal services can create opposing challenges in terms of the National Health

Service (NHS) provision, with reduced funding and organisational changes resulting in midwives struggling to offer continuity of care, and at times being unable to offer the psychosocial support needed to improve these outcomes for women and families (Davies, 2011; Downe & Walsh, 2008).

For the 21st century midwife, remaining within this purported holistic woman centred paradigm is challenging when working within an environment that is dominated by policies, procedures, guidelines and the threat of litigation (Stahl & Hundley, 2003; Waldenström, Hildingsson & Rubertsson, 2004). This emphasis on risk reduction with its' corresponding reduction in capacity to offer individualised care reduces the women's and midwives autonomy (Hodnett et al., 2010; Mitchell & McClean, 2014). Midwives in the UK are mainly employed within the NHS and as such are subject to the needs and guidance of the organisation and the national strategies of the day (Kirkham, 2010; Walsh, 2007).

The midwife mother relationship is dependent on an ability to achieve 'reciprocity' to ensure a caring relationship between the woman and the midwife (Kirkham, 2010). This is difficult to achieve within a hierarchical system such as the NHS, where midwives feel controlled and unable to work in an autonomous manner (Deery & Kirkham, 2006). Midwives in turn can feel unable to empower women in their care without the opportunity to listen and get to know them, due to the imposed demands of the organisation (Deery & Kirkham, 2006; Hunter, 2004; Kirkham 2007). In contrast strong levels of reciprocity and empowerment for women and midwives have been demonstrated when midwives work in environments with little hierarchy and more autonomy such as in small midwifery led units or as caseload or independent midwives (McCourt & Stevens, 2009; Walsh, 2007).

Following this philosophy of holistic women centred care, many midwives seek alternative ways of helping women to feel empowered by looking for methods of helping women cope with the physical, social and psychological needs of pregnancy which are not dependent on the medical model (Burns, Blamey & Ersser, 2000; Tiran, 2006). CAM is an example of tools which midwives turn to offering a way of supporting women without resorting to pharmacological treatments or requiring medical intervention (Williams & Mitchell, 2007; Adams, 2006; Tiran,

2006). This could be seen as a way of resisting the power of the medical model by returning to the roots of midwifery which are steeped in folklore and witchcraft (Ehrenreich, 2010; Harley, 1990) or merely a practical response to the lack of acceptable conventional treatments.

Like women within the wider population midwives often view alternative therapies as having a whole body approach which is congruent with their own philosophy of care (Mitchell, Williams & Hobbs, 2006; Tiran, 2006). This attraction to therapies that offer what is often considered a more natural treatment is criticised by some, feeling it could have detrimental effects, or undermine a woman's confidence in her ability to cope with pregnancy and birth by suggesting nature needs assistance (Leap, 2010; Westfall, 2004). Others are concerned by the lack of governance within these practices and feel they could be detrimental to women and babies (Ernst, 2011b; Ewies & Olah, 2002; Tiran, 2006). However midwives see the effects of the often debilitating physiological conditions of pregnancy and wish to offer effective practical help and advice (Williams & Mitchell, 2007; Mitchell et al. 2006; Tiran, 2002).

In medical terms these symptoms for example; nausea and vomiting, pelvic girdle pain, headache, constipation, carpal tunnel syndrome and many more are considered minor, often being referred to as the 'minor ailments of pregnancy' (Henderson & Macdonald, 2004). Indeed in the UK the NHS choices website (www.nhschoices.uk) refers to these conditions as 'pregnancy niggles'. These conditions can be devastating in terms of a woman's physical and psychological wellbeing affecting her relationships with children and family, her ability to perform daily tasks or to attend work. They also can cause physical pain, depression and at worst become life threatening or affecting long term health (Power, Tompson & Waterman, 2010; Greenwood & Stainton, 2001). Furthermore for some women these conditions make pregnancy miserable enough to consider termination or affect decisions regarding future pregnancies (Power et al., 2010).

Women are generally reluctant to resort to pharmacological treatment due to concerns about effects on fetal development, with knowledge of previous calamities such as the Thalidomide disaster in 1960 driving such fears (Bossley, 2010; Locock, Alexander & Rozmovits, 2008).

Doctors are often also very reluctant to offer pharmacological treatment for the same reasons

(Matthews et al. 2010). This leaves pregnant women in the situation where they have a medical condition which in the non-pregnant woman would be considered significant enough to require treatment yet due to the constraints already discussed they are often left to manage, being given little advice and support. Sometimes these women can be suspected of fabricating or exaggerating symptoms this being attributed to their psychological state (Lockwood et al., 2008) as well as being considered by staff as timewasters, who are not deserving of care (Power et al., 2010; Greenwood & Stainton, 2001). Additionally these conditions of pregnancy attract little research interest possibly due to the limited financial gain for pharmaceutical companies, the bodies who would generally fund research on suitable treatments (Matthews, Dowswell & Haas, 2010).

So it seems understandable in this situation that both women and midwives look for alternatives treatments. Women have been shown to be the largest users of CAM in and out of pregnancy (Hopton, Curoe & Kanaan, 2012), thus it would seem that even if midwives or obstetricians do not offer treatment or support women still seek out alternative treatments presumably using them without the health professionals knowledge, and potentially increasing risks for mother and baby (Tiran, 2006). Health professionals are expected to advise women regarding CAM as described in the most recent guidance for health professionals:

“Pregnant women should be informed that few complementary therapies have been established as being safe and effective during pregnancy. Women should not assume that such therapies are safe and they should be used as little as possible during pregnancy” (NICE, 2008, p.17)

This discussion regarding individual therapies is left to the discretion and knowledge of the individual health professional resulting in a significant disparity in the quality of advice and support women receive (Tiran, 2006). There is no distinction made between the differing levels of evidence available for individual therapies, thus health professionals may feel unprepared and avoid such discussions (Mitchell et al., 2006). This in turn may lead women to believe midwives and obstetricians disapprove of alternative treatments and the topic is rarely

broached within antenatal care, with such discussion becoming almost a clandestine activity (Mitchell, 2010; Power et al., 2010; Tiran, 2006).

1.3: Professional and personal position

As a midwife working both as a community midwife and public health lead for 20 years in Salford I have had the privilege of working with many families from a variety of social backgrounds. I have mainly worked in areas of social deprivation within a facilitative culture which was/is open to new ideas and initiatives. Working within the public health role particularly enabled me to practise midwifery in a more autonomous manner resulting in many innovations and improvements in the quality of midwifery care (Lythgoe & Metcalfe, 2012; Lythgoe, Waterhouse & Wray, 2012).

Within my day to day work I came across many women suffering greatly with the physiological changes of pregnancy and felt quite powerless to help. Advice of simple changes in diet or posture seemed inadequate with women tending to look disappointed at my lack of solutions and coming back week after a week reporting little improvement or even further deterioration. I did not have a great deal of motivation to explore the possibility of suggesting CAM as my own educational background had emphasised the need to practice evidence based care and I presumed that no CAM therapy had any significant evidence of effect. Occasionally women who suffered from chronic conditions such as severe migraine or long term pain from injury would report that the only effective treatment for them was acupuncture. They would attend for acupuncture treatment during pregnancy, not wanting to resort to pharmacological analgesia. My own interest in this phenomenon was compounded by my own personal experience of attending my General Practitioner (GP) with repeated migraines. Despite offering me the option of acupuncture treatment he seemed a little sceptical of its effects. He had just completed a short course in medical acupuncture and was offering to try it on me. I was equally sceptical, not expecting a one off treatment lasting only ten minutes to have any effect. I was really just being polite in accepting his offer whilst also being slightly intrigued as to how this treatment would feel. To my surprise my headaches did not reappear for at least six weeks.

These experiences motivated me to investigate the possibility of a midwife undertaking training to become an acupuncturist. Unfortunately I could only find a three year course to become a Traditional Chinese Acupuncturist; this was an expensive option requiring a lot of travelling when I really just wanted to find a way of using acupuncture to help the pregnant women in my care. I then chanced upon a poster advertising an acupuncture foundation course for health professionals run by the British Medical Acupuncture Society (BMAS). This course is based on a medical acupuncture approach developed for registered health professionals aimed at promoting research and use of acupuncture within western medical practice (Cummings & Reid, 2004). In 2003 I decided to fund myself to undertake the course and was the first midwife to undertake the BMAS foundation course. This four day course took the form of lectures and needling skills workshops learning alongside doctors, physiotherapists and nurses from a variety of clinical practice environments. Training alongside colleagues who were equally keen to explore the use of acupuncture to help their patients was invigorating. However, after completion of the course I felt unable to practice within my midwifery role and unsure how to take these skills forward.

I was then fortunate to gain a new role as Midwifery Sure Start Co-ordinator developing initiatives to address the health needs of the pregnant women of Salford. My colleagues and I submitted a proposal to fund another midwife to undertake the BMAS foundation course and a community midwifery assistant to undertake a course to offer auricular acupuncture to support women wishing to stop smoking in pregnancy. This proposal was accepted and we were subsequently able to establish a weekly group for those wishing to stop smoking and an antenatal acupuncture clinic in 2006 entitled the Salford Midwifery Acupuncture Service (SMAS) (Lythgoe & Metcalfe, 2008; Lythgoe, Waterhouse & Wray, 2012). In line with NHS governance requirements we developed guidelines for acupuncture practice with the support of midwifery managers, the Salford Council stop smoking team and the supervisors of midwives (SoM) group. We were able to present these guidelines to the clinical governance committee which were subsequently ratified. Salford Midwifery Acupuncture Service (SMAS) was therefore established to treat women with symptoms or conditions of pregnancy suitable to be treated by acupuncture, these generally being:

Nausea & vomiting/ hyperemesis

Headaches/migraine

Pelvic girdle/lower back pain

Carpal tunnel syndrome

Anxiety

Prolonged pregnancy

Moxibustion for breech presentation

The service did not include acupuncture for labour but offered advice on acupressure techniques that could be utilised during labour.

Audit and evaluations of the SMAS have been undertaken since the inception of the service to provide evidence of referral uptake and outcomes, including effectiveness and women's satisfaction. These evaluations support the use of acupuncture as an additional role for midwives. The women were found to value the service highly and the midwife acupuncturists reported improved job satisfaction in being able to offer women acupuncture as an alternative treatment during pregnancy and as preparation for birth. Further information regarding these audits can be found in Appendix 7 of this thesis.

In May 2012 as part of the preparatory work for this Professional Doctorate study I conducted a survey to determine the availability of acupuncture services to pregnant women within the UK. The existing national networks of the Supervisors of Midwives (SoM) and university Leads for Midwifery Education (LME) were selected as accessible and able to provide current information. These networks of stakeholders offered potential access to all UK Midwifery Services. The request for information was emailed to all 15 UK Local Supervising Authority (LSA) Officers and to all 35 LME's based in UK Universities, requesting information regarding acupuncture services offered within their local maternity services or available to pregnant women within their area including both NHS and private clinics (excluding that available on the

high street). The recipients LSA Officers & LME's were requested to disseminate this email to all local maternity units and to LSA supervisor contacts (approximately 1,400 Supervisors of Midwives (SoMs) across the UK.

Results of Survey:

Only 17 organisations responded to this survey which might indicate limited service provision across the UK; two trusts offered acupuncture treatment within hospital services for back pain in pregnancy, this service being provided by physiotherapists. One trust did offer a limited NHS sponsored service delivered by an external organisation. Four trusts said acupuncture was available in their local area within the NHS (e.g. via GP& Physiotherapy) and privately. Acupuncture services were reported at two London hospitals; one delivered by a consultant obstetrician and the other by a TCM practitioner, with the details of these services remaining vague. Overall, the number of acupuncture services delivered by midwives was difficult to assess from the information available but likely to be very limited. As this survey did not include physiotherapist networks some additional acupuncture availability may exist within physiotherapy services not contacted within this survey. The one well established NHS midwifery acupuncture service delivered by midwives in Plymouth was reported to have closed in 2013.

Thus this survey seems to indicate that outside London the only NHS midwifery acupuncture service in the UK at present is the SMAS service developed by myself and three colleagues. The SMAS is now being delivered within the maternity services of Bolton Foundation Trust. Since this survey was conducted an obstetric acupuncture service has been started at University College Hospital London and at Warrington Trust in Cheshire.

Although the response to the survey was limited it did seem to represent quite a broad range of UK geographical areas. Considering that those services offering acupuncture would presumably be more likely to respond to the request for information, it seems likely this survey is reflective of the acupuncture services offered by maternity units across the UK. This limited service provision within the UK demonstrates the unique opportunity this study presents in being able to explore the experiences of the women receiving acupuncture in pregnancy from midwives

within the SMAS. It is important to explore the experiences of these women to gain insight into the acceptability of a service delivered by midwives and for future service development.

1.4: Position of Western Medical Acupuncture

Acupuncture treatment used within the western world is derived from Traditional Eastern Medicine. Acupuncture styles include; Traditional Chinese Medicine (TCM), Japanese, Korean, Five Element, Auricular acupuncture and Western Medical acupuncture (WMA) sometimes also referred to as 'dry-needling'(MacPherson, et al., 2008).

i) Traditional Chinese Medicine (TCM):

Acupuncture is one of the major components of Traditional Chinese Medicine (TCM). It has been successfully practiced by the Chinese for over 2000 years, with references to the practices recorded on sheets of silk in the tomb of the Lord of Tai, in 168 B.C. (Baldry, 1998; White et al., 2008). Archaeologists examining a frozen human male skeleton discovered in 1992 in the Austrian Alps found marking on the body indicating repeated use of sharp instruments along his spine indicative of acupuncture like treatment. They also found signs of pathology around his spine and postulated he would have been likely to have had significant pain. The skeleton known as 'Otiz' is thought to be over 50,000 years old (32,000 BC) from the Neolithic period; an indication that acupuncture type techniques were probably practiced at that time (<http://www.iceman.it/en/copperage>). TCM philosophy is bound up with the Chinese views of the whole living world particularly their belief in the existence of two cosmic regulators known as Yin and Yang these being essential components of all things, built upon two opposing aspects, interdependent and interrelated. TCM aims to maintain the harmonious relationship between these two aspects so as to achieve physical health and longevity (Yuanyi & Chun, 1988). When considering health and illness TCM treats the body as a whole, making a diagnosis based on holistic assessment of physical and emotional health, and using assessment of the tongue and quality of the pulse to aid this diagnosis. There are wide variety of treatments involved within this approach such as diet and drug therapy, acupuncture, moxibustion, massage, breathing exercises, and spiritual therapy (Deadman, Baker & Al-Khafaji, 1998).

TCM features the art of acupuncture that is thought to have originated in the Stone Age using stones, needles and knives as its precursor (Firebrace & Hill, 1988). Through the manipulation of acupuncture, theoretical knowledge about vessels or channels within the body gradually developed, creating the concept of meridians, a network of interrelated, interacting pathways. TCM believes that the maintenance of the quality, distribution and even flow of 'Qi' (life - energy) through the meridians to be of utmost importance for health aiming to correct any imbalance by the realignment or redirection of this vital energy, 'Qi' (West, 2001; Baldry, 1998).

ii) *Acupuncture as a global concept:*

The art of acupuncture was spread abroad to the East, Japan and Korea. In 1673, W. Rhijne, a physician of the East Dutch India Company introduced acupuncture/moxibustion into France. Meanwhile, E. Kampfer, a German physician introduced it into Germany (Baldry, 1998; Unschuld, 1985). Acupuncture remains a complex intervention passed down the centuries as an oral in part text based tradition, leading to a proliferation of styles and schools of practice (Unschuld, 1985). This diversity is seen as normal within Chinese culture yet more recently China has seen a systemisation of acupuncture, resulting in some calling this a westernised style of acupuncture (MacPherson, Hammerschlag & Lewith, 2008). Thus the practice of TCM today bears only partial resemblance to that practiced in the past and is now diverse in style, practitioner and setting.

Despite information reaching Europe regarding acupuncture practices in the 17th century only limited use was made of it for another two centuries, as physicians in the west were completely mystified as to how the treatments achieved their effects (Baldry, 1998). One Dutch physician Gerhard van Swieten did study the reasons acupuncture created an analgesic effect and concluded it must be for reasons entirely different from those put forward by the Chinese (Baldry, 1998). It was another 200 years after this that research into the neurophysiology of pain was able to demonstrate Swieten was correct (Lu & Needham, 2002). Even with this new information only a few 19th Century doctors in the west were brave enough to try to popularise it. Mainly the practice was met with scepticism, with most doctors:

"preferring to prescribe potentially toxic substances with little evidence base rather than trying a relatively harmless procedure of inserting needles" (Baldry, 1998, p.21).

There were a small number of European physicians writing about their successes with this unusual treatment they had learned from travels to the east, such as Berstein from Germany and Sarlandiere from France whose book detailed the first use of electric currents within acupuncture (Baldry, 2005). In England a doctor named James Moross Churchill was the first to write about patients being treated with acupuncture reporting positive results but admitting he didn't know "the nature of its action" (Baldry, 2005, p.24), this seemed a brave admission. His book still arouses a lot of interest being translated into French and German and inspiring English doctors to try acupuncture. Although not really evident as a practice in America, in Canada Sir William Osler at that time Regius Professor of Medicine at Oxford University was writing in 1912 about the successful treatment of lumbago with acupuncture. Although this interest was intermittent there was case reports in *The Lancet* being documented in 1871 cited as a favourite traditional practice at Leeds General (Baldry, 2005).

Further understanding regarding the physiology of pain and myofascial pain syndrome in the early 20th century provided scientific interpretation of the effects of acupuncture including the work of Jonas Kellgren at University College Hospital London who published his seminal work in 1939 demonstrating pain referral patterns using injections of saline to stimulate muscle pain, Kellgren discovered that pain could be alleviated by injecting local anaesthetic into tender points on the muscle (Baldry, 2005). These findings are significant for acupuncturists, as using more recent neurophysiological understanding of pain referral patterns developed by Kellgren can be utilised by acupuncturists to achieve the same relief (Melzack, Stillwell & Fox, 1977). Over the first half of the 20th century acupuncture practice remained limited but interest grew in the 1970's due to events such as President Nixon's visit to China in 1977 witnessing use of acupuncture on a colleague and improved relations with the east (Lu & Needham, 1980).

iii) Western Medical Acupuncture is derived from TCM but adapted to:

Re-interpret it in modern terms valuing its significance using the scientific viewpoint and applying the present day understanding of the way the body works to explain what happens when the needles are inserted and manipulated (White, Cummings & Filshie, 2008, p.4).

The western approach is described as being adapted to fit within modern medicine alongside the conventional understanding of the body and its treatment (Baldry, 2005; White et al, 2008). Treatment is seen as valid, but traditional explanations are not considered satisfactory by the scientific community of the modern world (White et al., 2008). Western medical acupuncture strives to understand the mechanisms of its action to modify and develop it in the light of research enabling it to become acceptable in an evidence based health service (White et al., 2008). The analgesic effects of acupuncture are now based on knowledge of neurophysiology of the nervous system and muscle activity (Baldry, 2005). Discoveries such as the 'gate control theory' (Melzack & Wall, 1965) and the release of endorphins in response to acupuncture (Hughes, Smith & Kosterlitz, 1975), have helped to establish acupuncture as a valid treatment within western medicine. Further studies on brain activity using new technologies such as magnetic resonance imaging (Hui, Liu & Makris, 2000), and on myofascial trigger points using ultrasound (Gerwin, Shannon & Hong, 1997) are improving neurological understanding and providing credible explanations of acupuncture effect.

These discoveries influence the treatment regimes of medical acupuncturists who are focused on needling locally into affected muscle and skin, using the effect of 'action potentials' within the autonomic nervous system and segmental analgesia to determine point allocation. This is achieved by needling an area that shares the same nerve innervations at a spinal level in the dorsal horn this approach inhibits the nociceptive pathway producing an analgesic effect (White et al., 2008). Medical acupuncturists do use TCM points as they recognise them as useful reference points often eliciting a good response or 'de qi' (dull aching sensation). This 'de qi' response is considered by TCM and medical acupuncturists to be indicative of effective stimulation (Baldry, 2005; White et al., 2008). The debate around where to insert needles,

what dose to give, the number of needles to use, the depth of insertion, the length of needle retention and more abound with some medical acupuncturists questioning the importance of these issues (Baldry, 2005; Yu, Wang & Wang, 1995; Mann, 1998).

Other less invasive forms of treatment have also been developed using the same principles with meridians as reference points. These treatments use pressure or electrical stimulation to the actual acupuncture points. Acupressure uses external pressure via self-administration or bands/devices, facilitating treatment over a longer time period or administration by a support person (Betts, 2006). A common form of acupressure available for purchase is bands on the wrist to treat nausea placing a button found on the band over the acupuncture point PC6 (a point known to affect gastric activity), (Shin, Song & Seo, 2007). Acupressure can also be used in other situations on other acupuncture points, for example in labour as a form of pain relief (Betts, 2006; West, 2001) or for substance addiction and nausea in the form of seeds or other pressure placed on points in the ear (Puangsricharern & Mahasukhon, 2008). Another form of treatment is Transcutaneous Electrical Nerve Stimulation (TENS), consisting of pads placed over relevant acupuncture points administering low levels of electrical stimulation through the skin (Keskin, Onur & Keskin, 2011). Again this treatment is non-invasive and self-administered and often used for the treatment of back pain or again for pain relief in labour (McMunn, Bedwell & Neilson, 2009; Smith, 2009; West, 2001). The evidence base related to the use of acupressure and TENS is very limited yet it is commonly used by the public. Both these forms of non-invasive treatments aim to utilise the potential neuro-physiological effects and could offer a more practical and economical alternative to acupuncture. The issue of whether the actual needling of points is more effective than these non-invasive alternatives has been explored in some small studies, but again the evidence as yet is limited (Dowswell, Bedwell & Lavender, 2009; Knight, Mudge & Openshaw, 2001; Rosen, De Veciana & Miller, 2003). Many acupuncturists believe these non-invasive alternatives are more useful as an adjunct to acupuncture and promote their use between acupuncture treatment appointments (Betts, 2006; West, 2001).

iv) Additional treatments related to acupuncture:

Another form of acupuncture used with or without needles is 'moxibustion'. This is the burning of 'ragwort' over an acupuncture point, again thought to improve stimulation depending on the TCM diagnosis. This is suggested as a treatment to turn a breech presenting fetus (Betts, 2006; Mitchell & Allen, 2008; West, 2001). Again this treatment can be self-administered with guidance and is used by some women wishing to avoid a caesarean birth for a breech presenting baby (Coyle et al., 2005). Evidence to-date, although limited, does not seem to identify any risks to mother or fetus and so again this may be a reasonable option to try before agreeing to an invasive manual turning of the fetus (External Cephalic Version)(ECV) or an operative birth (Coyle, Smith & Peat,2012).

Acupuncture is now a recognised and popular therapy across the world, being offered by practitioners trained both in Traditional Chinese Medicine (TCM) and those following alternative approaches such as Western Medical Acupuncture (MacPherson et al, 2007). The last 30 years has seen many health professionals across the world, doctors, nurses and physiotherapists undertake additional training in acupuncture, offering treatment within their roles or in a private capacity (Lim, 2010). Approximately 7% of the adult population in England has received acupuncture (Thomas, Nicholl & Coleman, 2001). A recent survey mapping acupuncture in the UK has estimated that at least 4 million acupuncture treatments are given annually, approximately 42% in the NHS and 68% in the private sector (Hopton et al., 2012). The health professionals practicing acupuncture have trained in a variety of styles, with some focused on TCM and others medical or mixed. Some organisations have developed such as the British Medical Acupuncture Society (BMAS) or the Acupuncture Association of Chartered Physiotherapists (AACP) offering training to health professionals. Other health professionals access TCM schools affiliated to organisations like the British Acupuncture Council (BACc). All these organisations do offer continued professional guidance and support. In more recent years the divide between traditional and medical based organisations has started to narrow with organisations sharing conferences working together on research and practice issues. This

collective offers a strengthened position and future for acupuncture (MacPherson & Altman, 2009; Xu & MacKenzie, 2012).

v) *Summary:*

There has never been an agreed framework for acupuncture practice and it has been transmitted to the west in many ways (MacPherson et al., 2008). The effect and benefit of acupuncture treatment is obvious to those who administer and deliver it yet the establishment of a robust evidence base is problematic within this myriad of treatment styles and approaches. Further research is needed but also more flexible methods of assessing existing research as suggested within the STRICTA guidelines for reporting on acupuncture trials (MacPherson & Altman, 2009). More appropriate analysis of studies will hopefully help to strengthen the evidence base. There is a dearth of qualitative studies exploring the additional effects of acupuncture despite evidence related to its impact on neurophysiology. This study addresses this issue making an original contribution to the evidence base by exploring pregnant women's experiences of receiving acupuncture from a midwife.

1.5: Structure of the thesis

This thesis is presented over six chapters; Chapter 1 details the background to the study, the aims and objectives of the study and my personal and professional positions as a midwife-acupuncturist. This chapter also discusses the position of western medical acupuncture within the context of acupuncture practice.

Chapter 2 provides a literature review offering a critical appraisal of the available studies related to acupuncture practice and the care of women within the childbirth continuum. This chapter outlines the search strategy utilised and presents the literature related to the physiological mechanisms of acupuncture, the evidence related to acupuncture as a treatment for pelvic girdle pain (PGP), pregnancy related lower back pain (PLBP) and nausea and vomiting (NVP) in pregnancy. It also offers an overview of the literature related to the general use of acupuncture in pregnancy and birth for other conditions. This chapter ends with discussion on the limited available qualitative evidence related to the experiences of having acupuncture

treatment within both the non-pregnant and pregnant population, considering the role of the midwife within this literature.

Chapter 3 details the philosophical approach underpinning phenomenology as a qualitative research methodology explaining the rationale for choosing interpretive phenomenological analysis. My epistemological stance is discussed along with consideration of my position as an insider-researcher. This chapter also explains the methods used to conduct this study, including the recruitment strategy, ethical approval, data collection and data analysis. This chapter ends with a discussion on the reflexivity used within this study.

Chapter 4 presents the findings of the study, considering the women's responses within the five main themes identified. The individual stories and voices of the women are presented utilising quotations from the women to support the description of the findings including examples of the individual cases studies.

Chapter 5 presents a discussion of the findings considering their relevance within the existing evidence identifying where the literature supports these findings. This chapter highlights the new information and understanding that has been discovered from this research study explaining the original contribution it has made to the evidence base. This chapter ends with a discussion on the limitations of the study.

Chapter 6 provides a conclusion of the findings in relation to the aims and objectives of the study, highlighting where new discoveries have been made and detailing the unique contribution of this study to the evidence base and practice. This Chapter also makes recommendations regarding future research and practice development. The Chapter ends with a discussion on my own development within the Professional Doctorate research journey and concludes this thesis.

Chapter 2: Literature Review

2.1: Introduction

The aim of this literature review is to provide context and a rationale for the study and its findings. It will also demonstrate the unique contribution this study makes to the literature and justify the methodological approach. Section 2.2 presents the search strategy used to collate the available evidence related to the research aims explaining the adopted appraisal methods. Sections 2.3 to 2.5 consider the evidence related to acupuncture as; a potentially effective treatment focusing upon the common conditions of pregnancy, as a safe somatosensory treatment and as a potential tool for midwives. Section 2.6 considers the evidence related to the experiences of pregnant women receiving acupuncture and section 2.7 refers to the evidence related to women's perceptions of the effects of acupuncture treatment. Section 2.8 offers a summary of the literature review demonstrating the gaps in the evidence base and identifying the relevance of the study aims and approach.

2.2: Search strategy and critical appraisal methods

Initially a systematic approach to searching for literature related to *'Pregnant women's experiences of acupuncture treatment from a midwife'* was adopted specifically addressing both the available qualitative and quantitative evidence related to acupuncture treatment during pregnancy including treatment for common conditions of pregnancy, particularly those most often treated within the Salford Midwifery Acupuncture Service (SMAS). These conditions include nausea and vomiting in pregnancy (NVP), pelvic girdle pain (PGP) and pregnancy related low back pain (PLBP). As the paucity of related literature became clear during this search the systematic approach became less appropriate requiring a more iterative approach to inform the methodology of the study and its findings. For the purposes of this thesis all the related evidence has been included in the literature review chapter.

2.2.1: Literature Review Strategy

i) Inclusion criteria:

Studies regarding pregnant women receiving acupuncture treatment including treatments specifically for common conditions treated in the Salford Midwifery Acupuncture Service (SMAS); nausea and vomiting in pregnancy and pelvic girdle pain (PGP) /pregnancy related lower back pain (PLBP)

All types of acupuncture

Studies of any controlled type & qualitative studies

Studies in the English language

ii) Exclusion criteria:

Studies examining TCM diagnosis specifically

Search engines and databases:

A preliminary literature search was conducted using the University of Salford on-line system accessed via SOLAR: The databases accessed were:

Medline (Ovid), AMED, MIDIRS, Cochrane library, Pubmed & Google Scholar using the Mesh words detailed in each section of the literature review. The search covered the year 2000 to present day for studies written in English. Other literature sources were searched for by hand from acupuncture texts, journal articles, professional publications, Department of Health (DH) guidance and editorials. Grey literature related to the topic was gathered from newspaper articles, professional organisations and networks, bulletins and websites related to pregnancy and parenting.

It is acknowledged for the purpose of this literature review that acupuncture treatment used within the western world is derived from Traditional Eastern Medicine, acupuncture styles include Traditional Chinese Medicine (TCM), Japanese, Korean, Five Element, Auricular acupuncture and western medical acupuncture. The focus of this study is on acupuncture treatment within a western medical approach, however studies using TCM and other styles were included within this literature review. For the purposes of this review acupuncture styles other than the western medical approach are included under the TCM heading. The details of

the actual treatment choices of acupuncture styles, other than western medical acupuncture are only discussed in terms of their influence on the study design and outcome. I do not practice in a TCM acupuncture style and thus am unable to comment on the diagnosis and treatment involved in these acupuncture styles.

Only studies in English are included in this literature review, as it is beyond the scope of this project to translate studies written in other languages. It is felt that the available studies written in English should offer a reasonable representation of the available evidence (Long et al. 2011).

To assess the quality and rigour of the studies identified from this literature search, critical analysis tools were utilised (Steen & Roberts 2011). Critical analysis of quantitative and qualitative studies utilised the appropriate Critical Appraisal Skill Programme (CASP, 2006) checklist. Clinical trials have been reviewed using CONSORT recommendations, to aid understanding of the design, analysis, interpretation, and the validity of its results (Schulz et al. 2010). Acupuncture studies were also reviewed utilising the STRICTA guidelines, enabling considerations of elements specifically relevant to acupuncture studies. This guidance has been developed to improve the quality and reporting of acupuncture studies (MacPherson & Altman, 2009).

iii) Results:

A preliminary literature search was conducted using the on-line University of Salford database SOLAR system, accessing:

<u>Medline(Ovid), AMED</u>	2000-2014	
Acupuncture and patient experience and pregnancy		359 results
Qualitative research and acupuncture		11 results
Acupuncture and acupressure		356 results

Acupuncture and experiences		13 results
Complementary therapies		500 results
Therapeutic relationship		18 results
<u>Pub Med, Google Scholar</u>	2000-2014	
Acupuncture		671 results
Acupuncture and pregnancy		344 results
Acup and qualitative studies		99 results
Combined		3 results

The literature search of the above databases was followed by a hand search for literature of Acupuncture in Medicine this resulted in finding 11 related articles and 2 studies. The Journal of Alternative and Complementary Medicine was searched on-line and resulted in a number of relevant studies being identified. Use of reference lists from articles was used to widen this search and qualitative studies related to complementary therapies and pregnancy that included acupuncture as a complementary therapy were included, to facilitate discussion of their relevance within the proposed study objectives.

From this hand search 17 studies were identified as relevant with 8 fulfilling the original criteria. Synthesis tables containing these studies can be viewed in Appendix 4.

The systematic approach to searching for literature related to this study was adopted to specifically address literature both qualitative and quantitative related to acupuncture treatment for common conditions of pregnancy, those most often treated within SMAS. These conditions being nausea and vomiting in pregnancy (NVP), pelvic girdle pain (PGP) & pregnancy related low back pain (PLBP). As the paucity of literature related to this study became clear the systematic approach to the literature search became less appropriate requiring a more iterative approach to be adopted to inform both the methodology and the study findings. For the

purposes of this literature review all the related evidence has been included in Chapter 2 of this thesis.

2.3: Acupuncture as a potentially effective treatment in pregnancy, including specific common conditions

This section explores the evidence regarding the use of acupuncture in pregnancy particularly for the most common conditions of pregnancy treated within SMAS. Section 2.3.1 gives an overview of the use of acupuncture during pregnancy and birth to provide context and to position this thesis within the wider use of acupuncture treatment throughout the childbirth continuum. Sections 2.3.2 to 2.3.4 discuss the evidence base related to the treatment of specific common conditions namely NVP and PGP/PLBP, considering the efficacy for acupuncture as a treatment.

2.3.1: The use and effectiveness of acupuncture during pregnancy and birth

Interest in acupuncture as a treatment during pregnancy has increased in line with the emergence of acupuncture as a treatment in general within the west, particularly in Europe, Australia and New Zealand (Betts, 2006; West, 2001; Mårtensson & Wallin, 2006). It is often considered as a complementary or alternative form of medication (CAM) offered as a treatment to enhance in-vitro fertilisation (IVF) procedures (Cheong, Hung & Ledger, 2008), to treat common conditions of pregnancy such as nausea and vomiting NVP and PGP/PLBP (Matthews, Dowswell & Haas, 2010; Pennick & Liddle, 2013), as an analgesic for labour (Smith, Collins & Crowther, 2011b), as a method of inducing labour (Smith, Crowther & Grant, 2013), and even in the form of moxibustion or acupuncture to turn a breech presenting fetus (Coyle, Smith & Peat, 2012).

Acupuncture has also been considered as a method of treating anxiety and depression within the childbirth continuum (Dennis & Allen, 2008). Acupuncture treatment is often purported to offer pregnant women an opportunity to reduce use of pharmacological treatments and therefore consequential concerns about teratogenic or toxic effects (Matthews et al., 2010; Xu & MacKenzie, 2012). The following section offers a summary of the evidence related to the use

of acupuncture as an adjunct to IVF, an analgesic for labour pain, a method of induction, a treatment to encourage the turning of a breech presenting fetus and a treatment for anxiety and depression. Specific conditions of pregnancy more commonly treated in the SMAS, (NVP and PGP/PLBP) will then be analysed in depth in order to effectively support the thesis methodology, method and the study findings.

2.3.1.1: Evidence of effectiveness for In-vitro fertilisation, labour pain, induction, breech presentation and anxiety and depression in pregnancy

There are a wide range of studies covering acupuncture in relation to these pregnancy related issues. This section presents an overview of this evidence drawing on results from high quality systematic reviews. In relation to IVF, evidence on conception rates is mixed with Ho, Huang & Chang (2009) and Moy, Milad & Barnes (2011) and a meta-analysis by El-Toukhy, Sunkara & Khairy (2008) suggesting insufficient evidence on improved conception rates. Yet trials by Westergaard, Mao & Kroglund (2006), Balk, Catov & Horn (2010) and a Cochrane review by Cheong et al., (2008) suggest a beneficial effect on the live birth rate.

In relation to labour pain Smith et al., (2011b) reviewed 13 trials involving 1,986 women and concluded that:

“Acupuncture and acupressure may have a role with reducing pain, increasing satisfaction with pain management and reduced use of pharmacological management. However, there is a need for further research” (Smith et al., 2011b, p.2)

Jones, Othman & Dowswell (2012) reviewed wider methods of pain relief for labour and categorised acupuncture and acupressure as methods that may work, whereas opioids commonly used in labour and recommended by NICE (2014a) to be available to all women were categorised as having insufficient evidence (Jones et al., 2012). The NICE (2014) Intra-partum Guidelines: ‘Intrapartum Care: care of healthy women and their babies during childbirth are based on the NICE (2007) Intra-partum Guideline and advise that:

“Acupuncture acupressure or hypnosis should not be offered, but women who wish to use them should not be prevented from doing so” (NICE 2007/14a, p.335).

This is despite a meta-analysis in the same report concluded that:

“Acupuncture significantly reduced the use of pharmacological pain relief, epidural analgesia and the need for augmentation of labour” (NICE 2007/14, p.334).

The Cochrane review on 'Acupuncture for induction of labour' (Smith et al., 2013) included 14 trials, with data reporting on 2,220 women. The overall conclusion was that there was very limited benefit from acupuncture to induce labour due to insufficient evidence compared with controls for any primary endpoint. However benefit was found from individual trials of both sham and usual care controls with further well designed trials being recommended. It is also worth noting that the outcome measure used, delivery within 24 hours, was potentially an unrealistic outcome from one treatment of acupuncture.

Following a review of eight trials involving 1,346 women, Coyle et al. concluded:

“There is some evidence to suggest that moxibustion may reduce the number of non-cephalic presentations at birth” (Coyle et al., 2012, p.13)

This finding is further demonstrated in a positive RCT conducted by Vas et al., (2013).

Studies on the use of acupuncture for emotional disturbances in pregnancy are rare with only one inconclusive American study being of an acceptable quality to be included in a Cochrane review of 'Interventions for treating antenatal depression' (Dennis & Allen, 2008). Da Silva (2007) however studied the effects of acupuncture on emotional complaints in pregnancy and demonstrated a significant reduction in intensity of emotional distress in the acupuncture group when compared with the control group.

The reviews above show in the most part that the evidence for the effectiveness of acupuncture when reviewed according to a biomedical model is equivocal. Although evidence via well designed quantitative research is the ideal, it is probable that within such a complex psychosocial situation such studies may struggle to capture the subtler effects of acupuncture, particularly related to practitioner patient relationships. Yet it is difficult to ignore the positive benefits to wellbeing reported by many women and acupuncturists. Acupuncture therefore

could be offered to women who are seeking an alternative approach to the pharmacological or medical route.

The recommendation by NICE (2008/2014) regarding CAM including acupuncture is that “women should be informed that few complementary therapies have been established as being safe and effective during pregnancy” (NICE 2008/2014, P.17) suggesting women be advised to use them as little as possible. These equivocal statements demonstrate the dilemmas created by the need to develop guidelines based on gold standard trials when the associated ethical and existential issues prevent the evidence meeting these requirements (Greenhalgh, Howick & Maskrey, 2014). Acupuncturists will generally use individual treatment regimens, making it difficult to develop a robust controlled trial. It is also challenging to develop a control group without the use of sham acupuncture particularly as the use of alternative TCM points or using devices to mimic needling may also have a treatment effect (White, Cummings & Filshie 2008). The lack of this type of evidence leaves health professionals in a difficult position with regard to advising women and results in women being unable to access potentially helpful treatment alternatives unless they have the funds and networks to facilitate this for them-selves.

2.3.2: Nausea and vomiting in pregnancy

This section of the literature review will focus on the treatment of nausea and vomiting in pregnancy (NVP) as one of the most common conditions of pregnancy and for which women often seek treatment at SMAS (Bishop, Northstone & Green, 2011). Nausea and vomiting in pregnancy (NVP) is a common symptom in early pregnancy experienced from as early as four to six weeks gestation (Woolhouse, 2006; Smith, Crowther & Beilby, 2002a; Gadsby, Barnir-Adshead & Jagger, 1993). The condition is usually self-limiting, often subsiding around sixteen to twenty weeks of pregnancy, however for up to 20% of women the nausea and vomiting may continue throughout pregnancy (Jueckstock et al., 2010; Gadsby et al., 1993). The condition is commonly referred to as ‘morning sickness’ yet it can occur at any time of the day or night, be with or without vomiting, last for a varying amount of time and can include other symptoms such as retching, excessive salivation (ptyalism or sialorrhoea) and even affect how women smell and taste of foods (Shannon, Clark & Maged, 2012; Jueckstock, Kaestner & Mylonas, 2010;

Woolhouse, 2006). For around 0.3% to 3% of women the nausea and vomiting is excessive and persistent, this condition is known as hyperemesis gravidarum (HG) and is diagnosed when leading to dehydration, ketonuria and or a loss of over 5% of body weight (Shannon et al. 2012; Power, Tompson & Waterman, 2010).

Since we still do not have a clear understanding of the cause of NVP and HG, the conclusion drawn by many is that these are complex conditions, with likely multifactorial causes and as such require a multifactorial response (Jueckstock et al., 2010; Chou, Avant & Kuo, 2008). Over the last sixty years treatment of NVP within the western world has been significantly affected by the Thalidomide disaster of the late 1950's and early 1960's, being described as one of the darkest episodes in pharmaceutical research history (Science Museum, 2012) and involving the birth of 10,000 children with thalidomide related disabilities worldwide, with 466 being in the UK (Boseley, 2010). As a consequence of this disaster pregnant women are often reluctant to take pharmacological medication and equally doctors, midwives and other health professionals are reluctant to suggest medication for NVP (Shannon et al., 2012; Koren, Maltepe & Gow, 2011). The result is that women try to manage without pharmacological help, turning to other remedies and treatments that may offer some relief, such as ginger, acupuncture and acupressure (Hopton, Curoe & Kanaan, 2012; Locock, Alexander & Rozmovits, 2008).

Systematic reviews of the evidence related to pharmacological medications have found there is no strong evidence of effectiveness of any of the antiemetics commonly used, mainly due to the paucity of studies and high levels of heterogeneity within the studies available. (Koren et al., 2011; Matthews et al., 2010). In relation to non- pharmacological options the use of ginger was concluded to possibly be helpful but that evidence of effectiveness was still limited and not consistent (Matthews et al., 2010). Despite there being limited evidence as to their effectiveness health professionals do often advise these dietary and lifestyle changes, including the intake of ginger (Hall, McKenna & Griffiths, 2012; Mitchell, Williams & Hobbs, 2006). These suggestions are also recommended in the UK within the NICE Antenatal Care guidelines as having possible beneficial effects (NICE, 2008).

2.3.2.1: Psychological impact of NVP & HG

Unfortunately the theory of NVP having psychological causes is still seen to impact upon how some health professionals view NVP today particularly for those women who require hospitalisation for HG treatment (Power et al., 2010; Locock et al., 2006). In a recent qualitative UK study exploring the experiences of women and staff about the treatment of HG it was clear that staff attitudes remain quite negative towards women who suffer with this condition and that these attitudes can have a negative impact on how the women feel and recall their care throughout pregnancy (Power et al., 2010). Similar findings regarding staff attitudes have been shown in previous studies (Soltani & Taylor, 2003; Munch & Schmitz, 2006; O'Brien & Naber, 1992).

Qualitative studies have highlighted the impact of NVP on women's lives. O'Brien & Naber, (1992) demonstrated that women believed the worst aspects were the pervasiveness of the nausea and the change in role from the person offering others support and care, to being the one needing it. Most women reduced their social commitments and some left their jobs. This study showed the distressing nature of NVP which affected women's self-esteem and left them feeling anxious and out of control. Women reported that even their families and friends did not believe them. This study also highlights how methods used in research studies have ignored women's feelings and opinions throughout a large percentage of that related to NVP (O'Brien & Naber, 1992; Power et al., 2010).

Locock et al., (2006) identified that NVP was considered something to be expected, to be survived or resisted, to be resented but not acknowledged by others (Locock et al., 2008). The challenge of coping with NVP was found to be something the women endured differently; for some in a sense it was to be celebrated as recognition of a pregnancy that was unlikely to end in miscarriage. Many did not want to take medication for fear of it affecting their growing baby. Some women found the condition so unbearable they considered termination or voiced feelings of hatred towards their growing baby, others saying they could never contemplate another pregnancy (Locock et al., 2008; O'Brien & Naber, 1992).

What is concluded from most studies exploring the psychological effects of NVP & HG is the need for health professionals caring for these women to have a real understanding of the condition, the potential impact their attitude and approach could have on the condition and the longer term functionality of the woman and her family (Power et al., 2010; Soltani & Taylor, 2003; Munch & Schmitz, 2006).

2.3.2.2: Acupuncture and acupressure as a treatment for nausea & vomiting (NVP) and hyperemesis gravidarum (HG) in pregnancy

The literature search for studies on acupuncture as a treatment for NVP & HG revealed only 4 studies (Carlsson, Axemo & Bodin, 2000; Knight, Mudge & Openshaw, 2001; Smith et al. 2002a/b) although more studies have been undertaken on acupressure as a non-invasive self-administered form of treatment. However surveys indicate that acupuncturists are regularly treating women with acupuncture for NVP particularly in European countries such as Sweden and Germany and southern hemisphere countries such as Australia and New Zealand (Hopton et al., 2012; Bishop, Northstone & Green, 2011; Schytt, Halvarsson & Pedersen-Draper, 2011; Betts, 2006).

A challenge peculiar to NVP studies is that it is generally a condition that resolves at around 16 weeks of pregnancy thus it is difficult to distinguish between natural improvement and the effect of any treatment being administered. This has led to many studies on NVP being conducted over a short time span of 2 to 3 weeks or only including women who are admitted to hospital for a short period of treatment (Neri, Allais & Schiapparelli, 2005; Puangsricharen & Mahasukhon, 2008). These issues of complexity affect many aspects of conventional medical care with some concluding that within acupuncture research it is “neither feasible nor sensible to isolate every potential active ingredient “(MacPherson, Hammerschlag & Lewith, 2007, p.6). The STRICTA guideline (Appendix 11), has been developed specifically to analyse acupuncture trials aiming to ensure acupuncture studies are not judged on these complexities of practice but rather on their overall quality and contribution to the evidence base (MacPherson et al., 2010).

One of the studies identified is a placebo controlled randomised single blind crossover study on 33 women in Sweden, assessing if midwife delivered acupuncture in addition to standard

treatment could hasten the improvement of HG, the severe pathological form of NVP (Carlsson, Axemo & Bodin, 2000). The results demonstrated a significantly faster reduction of N&V in the real acupuncture group ($P= 0.007$ & 0.01) irrespective of whether the real treatment was given first or second, supporting the use of acupuncture alongside conventional treatment for HG. A randomised study comparing TCM acupuncture with sham acupuncture was conducted in the United Kingdom (UK) on 55 women recruited by community midwives for the treatment of NVP (Knight, Mudge & Openshaw, 2001). Overall this study seems to have struggled to achieve its objectives due to organisational and data collection difficulties. The results may reflect the natural reduction in nausea and vomiting over a 3 week period although the authors contest this commenting the reduction may be more likely attributable to the 'placebo effect' or from changes in diet and lifestyle as a result of the leaflet issued to the women.

The largest study conducted on the effect of acupuncture treatment on NVP and the health status of pregnant women was conducted in Australia in 2002 including 593 women (Smith et al. 2002a). This was a single blind well powered RCT with women being randomised into 4 groups where women in the TCM acupuncture, sham acupuncture and PC6 point groups were found to have less symptoms than those in the none acupuncture group. An adjacent study by the same author (Smith et al., 2002b) assessed the risk of adverse effects of acupuncture administered during pregnancy. The same cohort of 593 women was followed up to assess perinatal outcomes including; congenital abnormalities, pregnancy complications, such as pre-eclampsia, haemorrhage and pre-term birth. Other infant outcomes, including numbers of stillbirths, birth weight and placental weights were also recorded. This study is the first large trial of acupuncture treatment in early pregnancy to report on pregnancy outcome. This study found no evidence that acupuncture had any adverse effects on mother or baby.

The four acupuncture studies discussed represent the contemporary evidence related to the treatment of NVP. Each study has a different focus from the treatment of HG in the short term to the treatment of NVP within 3-4 weeks. Each study design uses a different type of sham making them difficult to compare, the sham having additional potential for treatment effect. The Carlsson et al., (2000) and Knight et al., (2001) studies are both small and struggle to ensure

the data collection meets the requirements of the statistical power calculation. The large study conducted by Smith et al., (2002a) offers a more robust design demonstrating a positive effect particularly for the TCM approach and the use of treatment over a longer period. The Smith et al., (2002b) study is able to demonstrate that treatment in early pregnancy does not seem to place mother or fetus at additional risk. Matthews et al., (2010) reviewed all forms of treatment for NVP with inconclusive results, furthermore noting that:

“Few studies reported maternal and fetal adverse outcomes and there was very little information on the effectiveness of treatments for improving women's quality of life” (Matthews et al., 2010, p.2).

This suggests a need for further research to address this issue. Three of the studies outlined above also pointed to a need for further research on the experiences of the women in relation to the acupuncture they received. For example Smith et al., (2002a) considered within their discussion that weekly treatments may have provided an opportunity for the development of a relationship with the practitioner and that the women in the trial may have found this supportive, improving their wellbeing and thus the severity of their symptoms. This is considered by the authors as a possible placebo effect concurring with previous studies discussed on the positive effect of continuity and support on wellbeing (Homer, Brodie & Leap, 2008; Leap & Pairman, 2006; Glazier, Elgar & Goel, 2004). Carlsson et al., (2000) reported that midwives in their study did not discuss the treatment with the women during the trial however it is hard to believe they did not discuss symptoms or other issues related to pregnancy with the women. The women were receiving special attention 3 times a day from these midwives thus both real and sham acupuncture groups may have felt more cared for. Sham acupuncture has also been demonstrated to have therapeutic effects and so cannot be considered a placebo within trials (Lund & Lundeberg, 2006). Finally, Knight et al., (2001) comment that the women:

“particularly enjoyed the opportunity to discuss their problems with midwives and to have their symptoms recognised and accepted by professionals” (Knight et al. 2001., p.188).

It is interesting that all the studies highlight improvement in 'wellbeing' and/or the women's positive regard for the contact and support received from a midwife or acupuncturist. None of the studies explored the experience of the treatment itself or the interaction between the women and the health professional yet most comment that this contact seemed to influence the outcome. This review has identified a gap in the evidence base related to the experience of receiving acupuncture for NVP providing the rationale for this study.

2.3.3: Acupuncture as a treatment for PGP/PLBP

Pelvic girdle pain (PGP) and pregnancy related lower back pain (PLBP) are common complications of pregnancy with a prevalence of between 24-74% of all pregnancies (Pennick & Liddle, 2013). There is a wide variation in clinical presentation and symptoms from mild to severe with 25% suffering serious pain and approximately 8% having severe disability, possibly requiring physical aids, such as crutches or a wheelchair (Ee, Manheimer & Pirota, 2008; Wu, Meijer & Uegaki, 2004). It is one of the commonest reasons for women attending SMAS which correlates well with findings from other published audits and studies (Soliday & Hapke, 2013; Wang, Dezinno & Maranets, 2004; Hope-Allan, Adams & Sibbritt, 2004). There may be additional psychosocial effects for women suffering back pain in pregnancy, however within the available empirical studies psychological and social factors are largely ignored (Greenwood & Stainton, 2001). Despite the obvious negative impact of back pain on the pregnant woman and her family, there still seems to be a lack of interest in the topic from health professionals and researchers alike (Wang et al., 2004; Wu et al., 2004). The result is a lack of robust evidence with most guidance being based on studies conducted on the non-pregnant population. Due to high levels of heterogeneity and small numbers of studies being available there is limited evidence available as to the most appropriate treatment for PGP & PLBP.

Reviews of the evidence by the European Guideline group (Vleeming, Albert & Östgaard, 2008) and the Cochrane Review of 'Interventions for preventing and treating pelvic and back pain in pregnancy' (Pennick & Liddle, 2013) make similar recommendations for practice, focusing on adequate advice concerning activities of daily living and avoidance of maladaptive movement patterns using individualised exercise regimes including stabilising exercises. They suggest this

may include use of a pelvic belt for PGP, massage, Aquanatal and other exercises/programmes such as Pilates and acupuncture treatment. They also suggest a preventative exercise programme for women at risk of PLBP may act as a prophylactic treatment (Pennick & Liddle, 2013; Vleeming et al., 2008).

Within both these reviews the best evidence of positive effect was for acupuncture in reducing pain and improving function in both PGP & PLBP. However the European guidelines do not list acupuncture as an effective treatment in their final recommendations, yet the Cochrane review states:

“Physiotherapy, OMT, acupuncture, a multi-modal intervention, or the addition of a rigid pelvic belt to exercise relieved pelvic or back pain more than usual care alone. Acupuncture was more effective than physiotherapy in relieving evening lumbo-pelvic pain and disability and improving pain and function when it was started at 26 rather than at 20 weeks’ gestation, although the effects were small” (Pennick & Liddle, 2013, p. 27)

Both reviews highlight the need for more consensus in the diagnosis and assessment of PGP & PLBP and the need for more research (Pennick & Liddle, 2013; Vleeming et al., 2008; Ee et al., 2008).

The literature search (Appendix 4) identified seven studies related to the use of acupuncture in pregnancy (Da Silva, Nakamura & Cordeiro, 2004; Ekdahl & Petersson, 2010; Elden, Ladfors & Olsen, 2005; Korving, Holmberg & Grennert, 2004; Lund, Lundeberg & Lonnberg, 2006; Wang, et al, 2009; Wedenberg, Moen & Norling, 2000;). These were conducted in Sweden, Brazil and the US, with sample sizes ranging from 60-386. The quality of studies was mixed, with some conforming to the STRICTA guidelines (Da Silva et al., 2004; Elden et al., 2005; Lund et al., 2006; Wang et al., 2009; Wedenberg et al.,2000) and some being considered of sufficient quality (Ekdahl & Petersson, 2010; Elden et al., 2005; Korving et al., 2004; Lund et al., 2006; Wedenberg et al.,2000) to be included in the Cochrane review by Pennick & Liddle, (2013).

When considering the evidence related to acupuncture as a treatment for back pain in pregnancy the level of heterogeneity makes meta-analysis difficult as concluded by the most recent Cochrane review (Pennick & Liddle, 2013). All the studies reviewed demonstrate a positive effect from acupuncture, two in comparison to conventional treatments such as physiotherapy and pharmacological treatments (Da Silva et al., 2004; Elden et al., 2005) and one in comparison to no treatment (Kvorning et al., 2004). In all these recent studies acupuncture seems effective in reducing pain, improving mobility and improving wellbeing, however the Cochrane review concludes the evidence to be moderate in quality stating that "further research is very likely to have an important impact on our confidence in the estimates of effect and is likely to change the estimates" (Pennick & Liddle, 2013, p.2).

These research methods are able to demonstrate positive effects on pain yet find it difficult to explain the improvements they find in functionality expecting this to remain static (Da Silva et al., 2004; Kvorning et al., 2004). The tools used were generally developed for use in the non-pregnant population and seem unable to accommodate the normal physiological changes in pregnancy, naturally improving flexibility and therefore functionality (Artal & O'Toole, 2003). There are some questionnaires developed to measure the holistic patient centred outcomes of acupuncture treatments such as; energy, self-concept and relaxation. However, these were not utilised within these particular studies (Gould & MacPherson, 2001; MacPherson, Maschino & Lewith, 2013; Paterson, 2006/2004).

Only one study attempts to address the social and psychological aspects of acupuncture treatment despite most of the studies finding the women to have more positive attitudes to their pain and improved wellbeing. The reductionist methodology adopted seems to inhibit these studies from quantifying the subtle additional effects which those traditionalists would claim to be the holistic nature of acupuncture (Cassidy, 1998; MacPherson et al., 2008; Paterson, 2006/2004). The Ekdahl & Petersson (2010) study includes a qualitative element exploring the experiences of the women via semi structured interviews. These provide some interesting insights in terms of what is acceptable treatment and the women's priorities, such as being able to function within family life and continue working. It is both interesting and

pleasing that this study has been conducted by midwives demonstrating their desire to meet the needs of the women within a real life context, focusing on not only the physical problems but also the holistic benefits of acupuncture. The addition of a qualitative aspect to this study has clearly improved the quality of the data demonstrating the multidimensional effect of acupuncture possibly not identifiable within a quantitative framework.

Two of the studies discussed within this review are conducted by midwives and two others clearly have strong midwifery involvement (Ekdahl & Petersson 2010; Elden et al.2005/2008; Lund et al. 2006; Kvorning et al. 2004) yet none consider the interaction with the midwife nor its potential impact on the effects of the acupuncture treatment. This strong presence within the literature demonstrates the integration of acupuncture within Swedish midwifery practice and provides a model that may potentially be adopted by UK midwives. The studies offer insight into midwifery acupuncture practice and pose questions regarding best practice for those developing acupuncture services.

In response to a lack of robust evidence a new UK study has been developed, the EASE BACK study (Evaluating acupuncture and standard care for pregnant women with back pain), funded by the National Institute of Health Research. This study based in Staffordshire is testing two types of acupuncture treatment for back pain in pregnancy, provided by physiotherapists <http://www.keele.ac.uk/easeback>. The findings are due to be published in 2015.

2.3.4: Summary

This review of the evidence related to acupuncture as an effective treatment for the common conditions of pregnancy demonstrates that although there are a limited number of good quality studies with positive outcomes, the level of heterogeneity results in a need for further research to demonstrate efficacy. There is also a clear lack of evidence regarding the experiences of these women in terms of their condition and the acupuncture treatment. More qualitative studies would improve understanding of the women's experiences and help to make recommendations for the most appropriate and acceptable treatments. This lack of qualitative studies demonstrates the gap in the evidence base and provides the rationale for this study.

This literature review will be discussed in line with the findings of this study in Chapter 5 of this thesis.

2.4: Acupuncture as a safe somatosensory treatment

This section provides an overview of the present understanding regarding the mechanisms of acupuncture as a pain relieving treatment, discussing the development of this knowledge base in line with current understanding of anatomy and physiology. Reference to the research published over the last 70 years will be used to support this discussion. The neurophysiology related to pain is complex and there remain gaps in understanding including the mechanisms of acupuncture action. This overview informs this thesis supporting the analysis and interpretation of the women's accounts of acupuncture treatment. The five mechanisms considered to offer the best explanation of the phenomena of acupuncture to-date will be explained, including local effects, segmental and extra-segmental analgesia, central effects and myofascial trigger points. This review will also consider the current understanding of acupuncture points, the de qi sensation, acupuncture 'dose' and recent evidence regarding safety.

i) Development of the scientific knowledge of acupuncture action:

In line with the development of knowledge related to the neurophysiology of pain the scientific understanding of acupuncture action was also initiated. In the 1950's studies began to understand the origin of myofascial pain with a corresponding study conducted in Peking demonstrating that acupuncture took 15 to 20 minutes to produce an analgesic effect on myofascial pain proposing it to be related to the production of chemical substances (Kawakita & Kaoru Okada, 2014). In the 1970's these chemicals were identified as endogenous opioids found to rise after acupuncture treatment and the effects to be reversible by the use of the opiate antagonist naloxone (Mayer, 1977). Also in 1973 Chiang et al. demonstrated that when a nerve is blocked by local anaesthesia, acupuncture is ineffective in the territory supplied by that nerve proving that the acupuncture effect is conducted along nerves. This finding was followed by Clement-Jones et al., (1980) who demonstrated the rise of opioid peptides in humans after having acupuncture. Melzack & Wall's 'gate control theory of pain' documented in 1965 offered physiological explanation of acupuncture demonstrating its potential to inhibit the

transmission of nociceptive stimuli, and Melzack & Stillwell, (1977) went on to demonstrate a correlation between acupuncture points and myofascial trigger points.

In the 1980's evidence began to expand based on these seminal studies demonstrating neurotransmitter release in response to acupuncture needling (Han & Terenius, 1982). In addition, clinical trials were conducted on acupuncture for pain in a number of conditions (Lundeberg et al., 1991, 88, 84) and a placebo controlled trial demonstrated positive outcomes for acupuncture over placebo for the treatment of nausea (Dundee et al., 1986). By 1996 Vickers was able to write the first positive systematic review on acupuncture for nausea. In effect these studies provided a scientific basis from which western medical acupuncture is derived, offering neurophysiological understanding of TCM teaching, in turn enabling medical acupuncturists to demonstrate the validity of acupuncture treatment alongside conventional drugs and surgery (White et al., 2008). These findings created more interest for health professions in adopting acupuncture into their practice, seeing the development of professional interest groups such as the BMAS founded in 1980 (White et al., 2008) with a consequential expansion in experimental studies testing the efficacy of acupuncture (Vickers & Zollman, 1999).

The question as to whether acupuncture is more effective than placebo is persistent within the literature due to the level of heterogeneity found within studies, emphasising the need for further large placebo controlled trials (Zeng et al. 2014; Kim et al. 2012; Ernst et al. 2011; Tough et al. 2011). However in 2014 the UK 'Acupuncture Trialists' Collaboration' based at the University of York published secondary analysis of an individual patient data meta-analysis based on literature searches of acupuncture trials involving patients with headache and migraine, osteoarthritis, and back, neck and shoulder pain. Twenty nine trials met inclusion criteria, 20 involving sham controls (n = 5,230) and 18 non-sham controls (n = 14,597). They concluded acupuncture was significantly superior to all categories of control group. For trials that used penetrating needles for sham control, acupuncture had smaller effect sizes than for trials with non-penetrating sham or sham control without needles. The difference in effect size

was -0.45 (95% C.I. $-0.78, -0.12$; $p = 0.007$), or -0.19 (95% C.I. $-0.39, 0.01$; $p = 0.058$) demonstrating acupuncture to be superior to placebo (MacPherson et al., 2013).

Modern technology is continuing to enhance understanding of acupuncture action particularly with the use of magnetic resonance imaging (Asghar et al., 2010; Chae et al., 2009; Hui et al., 2000). Understanding of the significance of these cerebral responses in terms of acupuncture treatment will hopefully continue to develop and inform the evidence base.

ii) Five mechanisms of acupuncture action:

Although there are five distinct mechanisms within present day understanding of acupuncture action there remains considerable overlap between them and treatment will often involve activation of more than one mechanism (White et al., 2008). The mechanisms of acupuncture need to be understood by western practitioners in order to ensure adaption to the individual's condition. The following overview has been taken from texts detailing the mechanisms of acupuncture, (Cagnie et al., 2013; Kawakita, & Okada, 2014; Lee & Hsu, 2014; White et al., 2008).

iii) Local effects:

Evidence suggests that small myelinated nerve fibres in the skin and muscle mainly $A\delta$ fibres are stimulated by an acupuncture needle. Stimulation of these free nerve endings produce action potentials that spread locally around the network of nerve endings in that tissue creating what is known as an 'axon reflex'. This leads to the release of several neuropeptides causing vasodilation and increased local blood flow. One of the main neuropeptides in relation to acupuncture is calcitonin gene-related peptide (CGRP). This promotes vasodilation and healing after injury thus there is often redness of the skin after needling indicating release of CGRP and histamine, and it may also feel itchy. If the needle is advanced from the skin into muscle blood flow is increased. These effects can be achieved by needling anywhere on the body but some areas have come to be regarded as specifically effective generally the classical acupuncture points (White et al., 2008). The amount of stimulation may be more significant than the location of the needle, this is known as the 'dose' of acupuncture and is dependent on a variety of factors such as the number of points being used at the same time, the depth of the needle

and the strength of stimulation achieved by manipulating the needle or by using electro-acupuncture. The evidence regarding these issues remains very limited due to the level of heterogeneity within existing evidence however these factors would generally be decided related to the individual patient and condition. Some acupuncturists and acupuncture teachings have differing approaches believing gentle needling to be preferable to stronger manipulation or they reject conventional acupuncture points (Mann, 1992). A recent meta-analysis of outcomes from a dataset of 17,922 patients found there was little evidence that different characteristics of acupuncture or acupuncturists modified the effect of treatment on pain outcomes. Increased number of needles and more sessions appeared to be associated with better outcomes when comparing acupuncture to non-acupuncture controls, suggesting that dose is important (MacPherson et al., 2013).

iv) *De qi sensation:*

The sensation of the needle in the skin can produce a sensation known to TCM acupuncturists as 'De qi', creating a numb heavy or aching feeling, sometimes also causing feelings of warmth or tingling (Hui et al., 2000). These feelings are separate from the sensation of being pricked with a needle and are generally considered to indicate the nerve has been successfully stimulated this sensation being increased when the needle is manipulated (rotated or moved up and down). Clinical experience suggests to acupuncturists that patients who feel de qi are more likely to respond to treatment (White et al., 2008). FMRI brain imaging studies using the individual components of de qi of different subjects as covariates in the analysis of percentage change of bold signal, have shown pressure was a striking sensation, contributing to most of negative activation of a limbic-paralimbic-neocortical network (LPNN) (Wang et al., 2013). This ache felt from de qi is comparable to the muscle ache experienced after exercise.

v) *Segmental analgesia:*

The Segmental analgesic effect of acupuncture is related to the spinal cord, particularly the dorsal horn. Acupuncture can have an effect on somatic or musculoskeletal structures and on the autonomic nerves that supply the viscera or internal organs. Table 3.1 provides a summary of these mechanisms of action of acupuncture.

vi) *Somatic afferents:*

The afferent nerve fibres both A δ (myelinated fibers) and C (small unmyelinated fibres) enter the dorsal horn of the spinal cord and both project onto a neurotransmitter cell in the dorsal horn. The C fibres pass through a short chain of substantia gelatinosa (SG) and the A δ fibres directly. The A δ also make collateral connections to intermediate cells causing them to release the neuromodulator 'enkephalin' blocking the transmission of pain in the SG cells. The axons from the transmission cells then cross to the opposite side of the spinal cord (anterolateral tract) and project up the reticular formation in the brain stem, from there projecting onto cells in the midbrain and thalamus. From the thalamus axons then project to the somatosensory cortex which registers the sensory aspect of pain and the limbic system which deals with the unconscious processing of pain. The limbic system has various parts, with one of the most important being the anterior cingulate cortex (ACC) which registers the affective component of pain, its psychological impact and how unpleasant it feels. This physiological response to acupuncture needling is part of the nociceptive pathway and the effect of 'enkephalin' is to create a general depression of activity in the dorsal horn, this effect being known as segmental analgesia, which can take some minutes to develop (e.g. 10 to 15 minutes) but then can possibly last several days (Figure 2.1).

vii) *Clinical application:*

Segmental analgesia can be achieved by stimulating the nerves in the same spinal segment as the origin of the pain. The spinal segment that supplies a joint also supplies the muscles around it, therefore needling those muscles will generally suppress pain in that joint. Thus needling near to an area of pain could produce both local effects and segmental analgesia. Afferent nerves usually influence more than one segment in the spinal cord therefore needling in adjacent segments may also increase the analgesic effect. This segmental analgesic effect may also reduce and increase muscle tone and thus improve mobility which could lead to increased blood flow and healing.

viii) *Visceral afferents:*

Acupuncture can have a similar effect on visceral structures such as the bladder or uterus by inhibiting the nociceptive pathway however consideration needs to be made of the difference

in autonomic nerve pathways. This activity is controlled by the hypothalamus as the autonomic centre and segmental reflexes from visceral afferent fibres. As both the somatic and visceral structures have afferent pathways into the dorsal horn the pathways converge creating one pathway and the brain is receiving one type of signal. Acupuncturists can take advantage of this as needling a muscle can affect a target organ.

ix) Autonomic effect:

When acupuncture needles are inserted they generally stimulate a sympathetic response, this can be related to the strength of the stimulation and can last for some time once the needle has been removed. There can also be longer term sympathetic effects as depression of the dorsal horn can result in a blocking of autonomic reflexes and reduce smooth muscle spasm. Segmental acupuncture is planned by using dermatomes, myotomes, viscerotomes and sclerotomes to guide acupuncture practice and maximise effect (White et al., 2008).

x) Extrasegmental analgesia:

The extra segmental effects of acupuncture are generally considered to be due to the release of naturally occurring opioid peptides, the four identified now being β -endorphin, enkephalin, dynorphin and orphanin. They are all predominant in a different area of the central nervous system (CNS); β -endorphin in the brain with enkephalin & dynorphin mainly in the spinal cord and orphanin throughout the CNS. They are often referred to as neuromodulators as they not only transmit but have a prolonged effect causing the cell to change behaviour for a period of time. The seminal study by Clement- Jones et al., (1980) offered the first proof that acupuncture stimulated the release of β -endorphin and studies since this time have demonstrated the slow onset of this release peaking at around 20 minutes and lasting for a while when the needles are removed, with the effect being reversible with opiate antagonists (Han & Terenius, 1982) . This pattern is consistent with opioid release and the effect can accumulate over treatment sessions, possibly due to enhancement of the gene expression as the more the opioid peptide is released and stored at the terminal the more it will release when it is next stimulated (White et al. 2008). Thus it is useful as a practitioner to encourage the patient to continue regular treatment over a period of weeks to maximise effect.

xi) *Non-opioid mechanisms:*

As already stated there are still many gaps in the understanding of the mechanism of acupuncture and one such area is the generalised analgesic effect throughout the body. The midbrain is activated and the descending fibres return to every level of the spinal cord and inhibit the dorsal horn. This descending pain inhibition is controlled by a small part of the mid-brain named the periaqueductal grey (PAG) activated by β -endorphin released from nerve fibres descending from the hypothalamus, from an area known as the 'arcuate' nucleus'. This area is also where some of the A δ fibres terminate. The PAG also receives input from the limbic system explaining the link between psychological states and the perception of pain.

Thus extrasegmental acupuncture can enhance segmental analgesia yet the position of the acupuncture needle is not as important, as this creates a general effect throughout the body rather than being specific to the area of pain. There can be a considerable difference in the way people respond to acupuncture treatment; some are classified as strong responders and a small number as non-responders with most people falling between these two extremes generally considered normal. This pattern of response is commonly seen in animal studies (Takeshige et al., 1990).

xii) *Central Regulatory effects:*

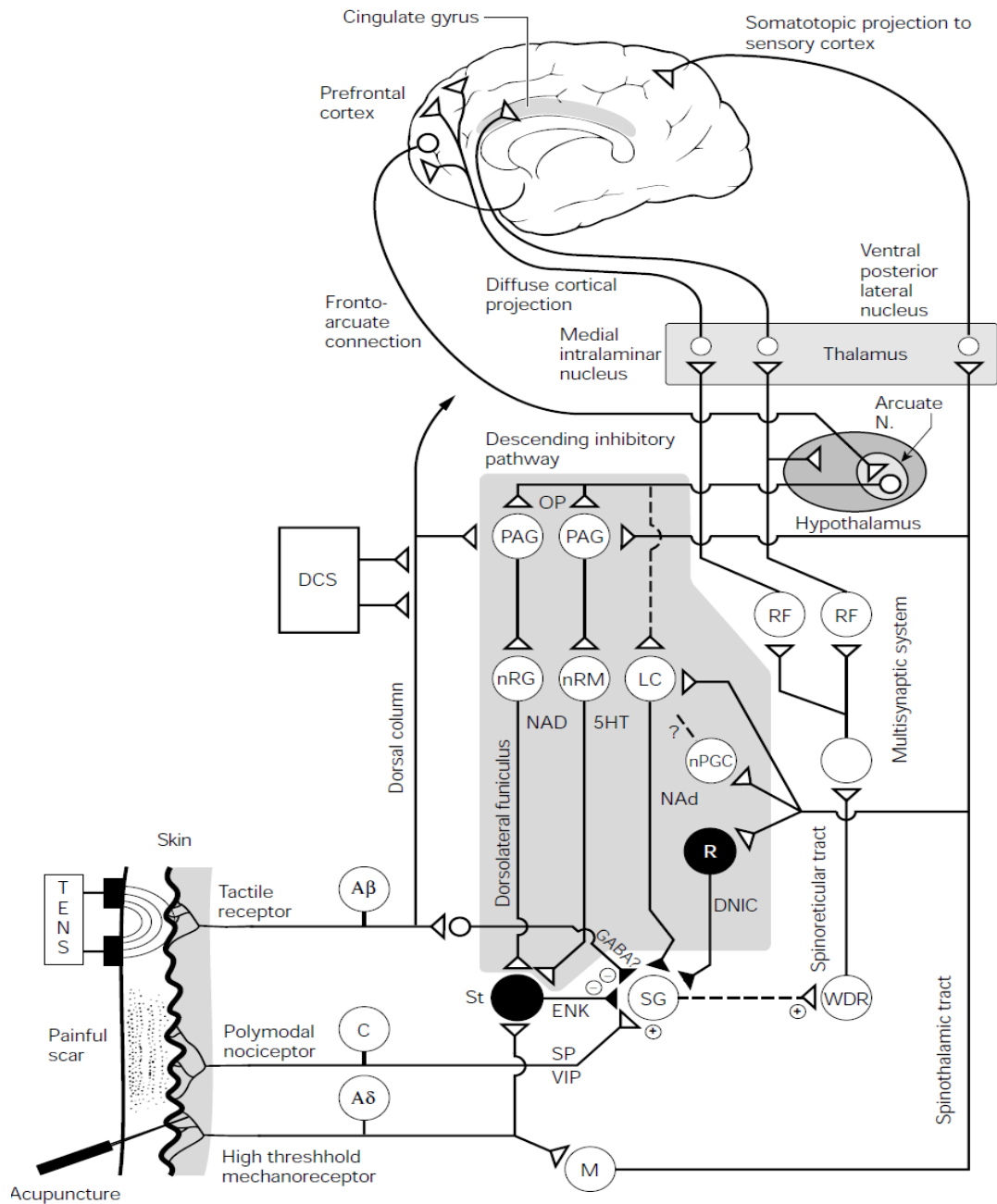
There is now good evidence from MRI imaging studies as discussed above that acupuncture affects the limbic system including the amygdala, hippocampus, parahippocampus anterior cingulate cortex (ACC), prefrontal cortex septum, nucleus accumbens, hypothalamus, insula and caudate. This again is general and not dependent on needle site, although it may be affected by the level of stimulus and the patient's own beliefs or expectations. This effect although not fully understood is likely to be due to stimulation of the C afferent fibres possibly as a result of touch (Lundeberg et al., 2012). The imaging studies have demonstrated that the activation and deactivation patterns following acupuncture stimulation are suggestive of the haemodynamic response reflecting the sensory, cognitive, and affective dimensions of the pain (Chae et al., 2013). This could explain why real and sham acupuncture have been found in some studies to have similar effects on conditions such as migraine or back pain it is suggested that due to the high affective component of these conditions they respond to non-specific needling

well benefiting from centralised effects of acupuncture (Lund & Lundeberg, 2006). This central effect can help patients to gain psychological effects commonly being described as calming and relaxing, creating a sense of balance and improved sleep. Occasionally quite strong emotional responses are observed such as weeping, giggling or even anger. Uncommonly there may also be fainting or extremely rarely seizure or a temporary comatose state (White et al., 2008).

The clinical potential of the central effects of acupuncture are yet to be established with mainly anecdotal reports of effects, including effects on the endocrine system for example creating the need to change insulin regimes, and effects on the hypothalamic-pituitary-ovarian axis to change menstrual timing and reduce dysmenorrhoea (White et al., 2008). Some studies have indicated a potential of acupuncture to improve the immune system (Andersson & Lundeberg, 1995; Joos, 2000) and to help with addiction (Smith, 2011; White et al., 2008) however the most proven central effect remains on nausea and vomiting (Ezzo et al., 2006; Holmér Pettersson & Wengström, 2012). Recent studies suggested that acupuncture may have an impact on the inflammatory process, thereby reducing pain and ongoing pathology. Indeed a recent ground breaking study on mice conducted by Torress-Rosas et al., (2014) using electro-acupuncture to stimulate the sciatic nerve suggest:

“a new anti-inflammatory mechanism mediated by the sciatic and vagus nerves that modulates the production of catecholamines in the adrenal glands” (Torress-Rosas et al. 2014,p.11).

The authors conclude the effects of selective dopamine agonists mimic the anti-inflammatory effects of electro-acupuncture and can provide therapeutic advantages to control inflammation in infectious and inflammatory disorders. This finding has potential for the inhibition of inflammatory changes in the presence of sepsis, a leading cause of death. Future studies on humans in the clinical setting are now being undertaken (Chavan & Tracey, 2014).



This diagram shows the neuronal circuits involved in acupuncture and TENS analgesia: Abbreviations: A δ , C, A β , represent the cells of small myelinated A delta fibres, C fibres and large myelinated fibres respectively. PAG= Periaqueductal grey; SG= substantia gelatinosa cells; ENK=enkephalineric mechanism; CCG= calcitonin gene related peptide; WDR= cells deep in the spinal grey matter; RF=reticular formation OP= opioid peptides; NRM= nucleus raphe magus in the midline of the medulla oblongata; NRG=nucleus raphe gigantocellularis; 5-HT = serotonergic fibres; GABA= γ -amino-butyric acid; GLU=glutamate; Nad=noradrenaline=norepinephrine; SP=substance P; T=transmission cell; VIP= vasoactive intestinal polypeptide; W= Waldeyer cell; + = stimulant effect; - = inhibitory effect (Filshie & Thopson 2004 The Oxford Book of Palliative Medicine 3rd edition Chapter 8.2.9)

Figure 2.1: Mechanisms of acupuncture

xiii) Myofascial trigger points:

A myofascial trigger point (MTrP) is a particular type of tender point on the muscle developed perhaps after injury or as a hyperirritable spot, a phenomenon identified by Travell & Simons in 1983. They usually cause persistent pain and can cause referred pain quite a distance from the injury in patterns identified by Kellgren in 1939. It seems logical that MTrP's will have been treated over the centuries with acupuncture and it can be observed that common trigger points are often found at known acupuncture points and that they generate electrical activity of very low voltage (Ge et al., 2011). MTrP are commonly found in approximately 30% of patients referred for pain and can be perpetuated by exhaustion and certain metabolic conditions such as hypothyroidism (White et al., 2008).

Treatment with acupuncture can be quick and effective with precise needling into or superficially around the MTrP providing relief and hopefully preventing further effects to the muscle and joint functions.

2.4.2: Safety of acupuncture

2.4.2.1: General safety issues:

Acupuncture is considered generally safe with a 'very low' incidence of adverse events. The risk of a serious injury estimated to be 0.01 per 10 000 acupuncture sessions (Witt et al. 2011). The most common adverse events were found to be pneumothorax and infection (White et al. 2001). Minor incidents are more common, being estimated to occur in approximately 7-11% of consultations (MacPherson et al., 2004; White et al., 2001).

These are generally;

Pain from needle penetration and/or manipulation

Bleeding

Bruising

Drowsiness (endorphin effect)

Syncope (vagovagal faints) in susceptible patients

Worsening of pre-existing symptoms

Concern regarding the safety related to the increased use of acupuncture within the UK triggered the National Safety Agency to conduct a survey (Wheway et al., 2012). From 2009-2011, 325 safety incidents were reviewed; their conclusions highlighting that the adverse events reported include retained needles (31%), dizziness (30%), loss of consciousness/unresponsive (19%), falls (4%), bruising or soreness at needle site (2%), pneumothorax (1%) and other adverse reactions (12%). The majority (95%) of the incidents were categorised as low or no harm. The authors felt the majority of incidents were not severe but were concerned regarding the possibility of underreporting or incidents being categorised as due to other causes when acupuncture may have been implicated. They recommended practitioners and patients to be aware of the possibility of adverse incidents and for practitioners to ensure they are prepared and competent regarding any significant harm from treatments.

Safety does remain one of the main concerns regarding the use of acupuncture within the western world. Ernst et al., (2011b) when conducting a review commented “doubts about its effectiveness and safety remain” (p.775). Ernst et al. reviewed 11 databases without language restriction and found ninety-five cases of severe adverse effects including 5 fatalities, pneumothorax and infections being the most frequently reported adverse effects. This review does not state the number of patients included in the review overall but does acknowledge that the proportion of serious incidents is minute and that most were not intrinsic to acupuncture, but more related to bad practice. They concluded that where therapists were adequately trained such incidents were rare and that more incidents were reported in the east, perhaps reflective of the fact that more acupuncture was practiced there (Ernst et al. 2011b). However the issue of adequate reporting remains an issue with practice being conducted in a variety of contexts and including a variety of professional bodies. Fear of litigation and accusations of malpractice may also inhibit practitioners from being integral to investigations of serious incidents.

2.4.2.2: Safety in Pregnancy

The use of acupuncture during pregnancy creates an additional layer of concern due to perceived additional risks regarding maternal and fetal wellbeing (Park et al., 2014). Relatively large studies on the use of acupuncture during varying stages of pregnancy have reported no increased risk in terms of maternal and fetal outcomes with no adverse events (Elden et al., 2005; Smith et al., 2002b). Elden et al., (2005) did report an increase in minor events in the acupuncture arm of her study but felt this may be related to the fact participants were specifically asked to report on these events. In order to address the question of risk Park et al., (2014) conducted a recent systematic review with regard to adverse events (AE) within studies using acupuncture in pregnancy, this included approximately 22 283 sessions of acupuncture in 2460 pregnant women, and 105 incidents were reported in the 25 studies reviewed (25.7%). AEs evaluated as certain, probable or possible were classed as mild to moderate in severity, needling pain being the most frequent complaint. Severe AEs or deaths were few and all considered unlikely to have been caused by acupuncture. The incidents considered to possibly be related to the acupuncture treatment represented 1.3% of the overall number leading the authors to conclude that acupuncture during pregnancy seemed to be related to few incidents when correctly administered.

This study offers some reassurance regarding the use of acupuncture during pregnancy but does highlight the essential need for appropriate training and professional development for acupuncturists, with robust clinical governance arrangements including accountability in recording adverse incidents.

2.4.3: Summary

This section has provided an overview of the present understanding regarding the mechanisms of acupuncture as a pain relieving treatment, discussing the development of this knowledge base in line with current understanding of anatomy and physiology. This overview informs this thesis, supporting the analysis and interpretation of the women's accounts of acupuncture treatment. Consideration has been given to the current understanding of acupuncture points, the de qi sensation, acupuncture 'dose' and recent evidence regarding safety highlighting the

importance of appropriate training, professional development and clinical governance to protect the public and to validate acupuncture as a safe option for pregnant women.

2.5: Acupuncture as a tool for midwives

Acupuncture is without doubt used within Europe, Australia and New Zealand as a tool by midwives to support the women and families in their care (Betts & Lennox 2006; Gisin et al., 2013; Martesson et al., 2011; Munstedt et al., 2009; Rüdiger Wiebelitz, Weyert Goecke & Brach, 2009; Schytt et al., 2011). Anecdotal evidence gathered at international meetings and conferences would indicate that the use of acupuncture by midwives is widespread across Europe yet the literature search for specific evidence related to acupuncture as a tool for midwives revealed a limited amount of literature, maybe due to a lack of publications in English or perhaps a general lack of research within this area of midwifery practice.

The studies identified are mainly focused on the implementation of acupuncture clinics (Denny, 1999; Hope-Allan et al., 2004; Lythgoe & Metcalfe, 2008) moxibustion services (Weston & Grabowska, 2012; Budd, 2000) pain relief in labour (Gisin et al., 2013) and evaluation of effectiveness for specific obstetric conditions such as miscarriage (Betts & Lennox, 2006; Betts, Smith & Hannah, 2012). Midwives Zita West (2001) and Sharon Yelland (2005) from the UK and Deborah Betts (2006) from New Zealand have published books on the use of acupuncture within pregnancy and birth based on a TCM approach. These books form the basis of guidance for midwives considering the use of acupuncture within their practice and to that extent promote the potential for acupuncture becoming an extended skill for midwives. Acupuncture practice by midwives within the UK remains scarce as identified within the survey conducted for the purposes of this thesis (see Chapter 1.1), mainly due to restrictions of practice within Department of Health (DH) guidance (NICE 2008, 2014), the requirement for professional indemnity (NMC 2014) and the resources required to self-fund acupuncture training.

When considering acupuncture as a CAM therapy there is a larger body of literature related to the promotion and application of CAM within midwifery practice (Adams, 2006, 2009; Hall et al., 2012, 2013; Mitchell et al., 2006, 2008, 2010, 2014; Tiran, 2002, 2006; Warriner et al., 2014), surveying attitudes of midwives, obstetricians and other health professionals in relation

to the efficacy of offering CAM to women during pregnancy and birth. This literature makes links to the potential impact of midwifery care using CAM as a means of addressing the needs of women and families, promoting normality and enabling women to take control of their own health and wellbeing.

Section 2.5.1 will firstly discuss the CAM literature considering the midwife's role. Secondly section 2.5.2 will discuss the use of acupuncture by midwives in the UK and abroad. Section 2.5.3 will then review the studies related to the use of acupuncture by midwives in practice considering the potential for enhanced care and the further development of acupuncture within the UK as a tool to support women in pregnancy and birth.

2.5.1: Acupuncture as a CAM therapy

Acupuncture is often considered as one of a group of therapies known as CAM these therapies generally sitting outside of the medical system and having a holistic approach to health (Adams, 2006; Mitchell et al., 2006). There is no clear definition of CAM as it can include a wide range of therapies and treatments from homeopathy to colonic irrigation (Bishop et al., 2010). Surveys on the use of CAM within the general population indicate women are the most frequent users of CAM (Adams et al., 2009; Thomas & Coleman, 2004), being more likely than men to self-treat with CAM preparations (Bishop et al., 2010). A UK survey of CAM use within pregnancy conducted within the Avon Longitudinal Survey of parents and children (ALSPAC), including 14,541 people, found that over 26.7% of the women had used CAM at least once in pregnancy rising from 6% in the first trimester to 26.3% in the 3rd trimester (Bishop et al., 2011). The most commonly used CAMs were herbal teas to encourage labour and arnica cream for bruising after birth, with only 1% of CAM accessed being other treatments such as acupuncture and acupressure. This survey found a wide range of CAM being used and suggested women were using it as a self-care approach. They found the women commonly used both prescribed medications such as antibiotics and analgesics along with over the counter products and herbal medicines; something that may create risk dependent on the particular combinations used (Bishop et al., 2011; Tiran, 2006). The authors seem to assume the women were not being advised to use these medications by health professionals yet there is evidence that midwives

are very supportive of CAM and may in fact be encouraging its use a part of their normal practice (Hall et al., 2011,2012,2013; Mitchell & Williams, 2007).

Hall et al., (2012) conducted a literature review on midwives level of support for the use of CAM within pregnancy and birth including 13 studies from a variety of western countries, including 3 from the UK. The review concluded that CAM use was widespread within midwifery practice for indications such as labour induction, N&V, PGP/PLBP, mal-presentation perineal discomfort, postnatal depression and lactation problems. The most popular therapies were massage, herbal medicines, relaxation techniques, nutritional supplements, aromatherapy, homeopathy and acupuncture. The authors concluded that midwives used CAM because it was congruent with their own philosophical approach to pregnancy and birth, and considered to provide a safe alternative to medical interventions, increasing their autonomy and empowering the women in their care. Concerns regarding the lack of evidence related to CAM and education for midwives was highlighted, prompting a further qualitative study by Hall et al., in 2013. This study involved interviewing 25 midwives with the aim of explaining the processes midwives engage in when considering the use of CAM by pregnant women. The findings demonstrated that midwives used an iterative process when working with women interested in using CAM, adopting an individualised care approach with the aim of minimising risks related to childbearing. The authors found the midwives practice was mediated by a number of factors including the context within which they worked, their knowledge and beliefs and the women's expectations. Again the authors concluded more education and professional guidance was needed to enable midwives to respond to women's needs and to have greater understanding of the increasing demand for CAM within maternity care. These findings are echoed by Warriner et al., (2014), who conducted a recent survey of women's attitudes towards CAM within a large UK Trust, including interviews with 10 women included in the survey. The results demonstrated that the women saw CAM as outside of the biomedical model providing a more holistic approach to health and wellbeing and offering them personal control. Non-disclosure of their CAM use to health professionals was common, and this was considered by the authors to indicate a lack of realisation from health professionals of the importance women placed on being able to retain control over decisions about their own health and wellbeing. Tiran (2006a) also highlighted

these concerns after conducting an evaluative audit within a UK Trust. She interviewed 28 staff including 6 obstetric consultants and 22 midwives from a variety of clinical settings. She found that despite having a CAM clinic running in their hospital staff had little knowledge regarding appropriate referral and risk related to the CAM therapies available. Midwives did not seem to have considered discussing the qualifications of the practitioner with the women and seemed to assume the women would always disclose use of CAM. The obstetricians interviewed were less enthusiastic than the midwives regarding CAM use but both groups of staff seemed to have little knowledge regarding the evidence base or appropriate discussions with the women. Tiran (2006) like Warriner et al., (2014), concluded that midwives and obstetricians need more training and awareness of CAM use. Mitchell et al. (2010) has suggested that the reason pregnant women are increasingly interested in using CAM is related to our cultural concept of the 'risky society', with women responding to this biomedical focus on risk resulting in them becoming increasingly anxious and uncertain about pregnancy and birth, and searching for alternative ways of gaining control of their own health (Mitchell et al., 2010).

The evidence related to midwives use of CAM therapies seems to indicate a generally positive attitude yet this is quite difficult to assess due to the wide definition in what is considered a CAM therapy or treatment. CAM has always been part of the midwife's role; throughout history midwives have used massage, breathing techniques and water along with other methods to help women cope with pregnancy and birth (Donnison, 1977). In fact some midwives may not consider aspects of their routine practice such as using hypnosis techniques and water birth as CAM therapy. Rosalind Padget (1855 -1948), famous for her tireless campaigning for the registration of midwives (Midwives Act, 1902) and the establishment of the Central Midwives Board, was also a qualified masseuse and was instrumental in the regulation of some complementary therapies in the 1880's. Interestingly despite some progressive doctors finding her therapies helpful for their patients', lack of regulation caused problems and in the 1890s the British Medical Journal warned its readers against the use of massage 'because of the number of unscrupulous persons involved in it' (http://www.iolathe.org/Award_Dame_Paget.cfm p1). This level of suspicion and resistance regarding CAM therapies remains a problem today over a century later with health

professionals struggling to integrate CAM into mainstream services (Mackereth, 2005). Mitchell et al., 2006 conducted a survey of the use of CAM within maternity services in England, including the opinions of potentially 221 Heads of Midwifery (HoM). The response rate was 75% with 64% of maternity units stating they offered some form of CAM. The 4 therapies offered most widely were massage, aromatherapy, reflexology and acupuncture. Attitudes of staff and HoM's were positive with 70% of staff convinced of the benefits and 94% believing it important they be available for women. The respondents felt they increased consumer satisfaction, promoted normal childbirth, decreased medical intervention and increased midwife's job satisfaction. However Mitchell et al., (2006) concluded that the integration of CAM into maternity services is very patchy with considerable variation in service provision. This sporadic integration of CAM seems dependent on motivated individuals developing these services but having to cope with unfavourable attitudes and resistance to change. Similar challenges are documented for staff attempting to develop CAM services within other specialities such as palliative care, with staff requiring positive leadership and tenacity to establish sustainable services (Mackereth & Stringer, 2005).

For many health professionals it is quite difficult to understand why patients use CAM despite the fact that research generally fails to provide evidence of efficacy (Fønnebo et al., 2007). Small CAM studies tend to have positive results yet conventional research methods struggle to capture the total effects of the therapy focusing on the one component considered to be the active ingredient (Fønnebo et al. 2007). This lack of evidence results in professional guidance was non-committal and advising Health Professionals not to promote CAM use, yet recommending the support of patients who are choosing to use them. For example the NICE Antenatal Care guideline (2014) recommends:

“Pregnant women should be informed that few complementary therapies have been established as being safe and effective during pregnancy. Women should not assume that such therapies are safe and they should be used as little as possible during pregnancy” (NICE, 2014, p.94)

The dilemmas created by such a neutral stance within a climate of increasing interest in CAM leaves HPs and women in a difficult situation. HPs have to act in a covert way when advising women fearing criticism and reprisals and women feel compelled to conceal their use of CAM for fear of disapproval (Adams, 2006; Hall et al., 2013). Midwives in particular often position CAM within the midwifery naturalistic paradigm offering an alternative approach with the aim of helping women to maintain normality and avoid intervention. In contrast some obstetricians may view CAM as a challenge to their professional dominance, resorting to ridiculing midwives and women who use it and regarding it as a challenge to their medical model of care (Adams, 2006). This type of medical dominance tends to be more prominent in a hospital setting midwives working in community and birth centre environments often finding it easier to offer it or support women's use of CAM (Mitchell & Williams, 2006).

The promotion of CAM by a midwife could be said to reduce the woman's belief in her own body's ability (Leap & Pairman, 2006) yet the findings from the studies discussed above indicate both women and midwives feel it may be helpful to improve conditions of pregnancy and wellbeing, to promote normality and to offer women more choice and control over their own health. However, grouping such a large variety of therapies together as CAM can be problematic as therapies often do not share the same philosophical understanding. Being defined as a CAM can result in the therapy being considered only as good as the CAM with the worst track record in terms of evidence base and risk (Mitchell & Williams, 2007). This issue also affects CAM research as data regarding opinion use and outcome within such a wide variation of therapies can make results difficult to analyse and apply to practice (Fønnebø et al. 2007).

Lack of regulation also affects the credibility of the CAM therapy as without clear standards of training, governance and accountability CAM therapies can be considered to expose patients to unnecessary risk (Hall et al., 2013; Tiran, 2006). Thus the challenges of developing CAM services within the mainstream are often overwhelming with some senior staff preferring to avoid the issue and reject proposals, despite women's calls for increased choice (Adams, 2006).

Worldwide evidence indicates midwives do offer and support the use of CAM despite these difficulties in order to provide themselves with additional tools to meet the needs of women in

their care (Mitchell & Williams 2007). Despite reports of substantial clinical benefit, efficacy remains an issue, and more appropriate research design is needed to capture the synergistic effects of the various CAM therapies and thus improve understanding (Fønnebø et al. 2007). Midwives and all HPs caring for women who choose CAM need to respect these choices developing services and training according to need. Professional guidance and support is desperately needed yet there seems to be reticence from midwifery and obstetric professional bodies to address this problem (NMC, 2010b; RCM, 2010).

The issues highlighted above clearly apply to acupuncture as a CAM therapy and possibly explain why so few midwifery acupuncture services have been developed within the UK. Acupuncture as an invasive treatment requiring training and additional resources can be viewed as particularly risky in comparison to non- invasive techniques such as hypnosis and acupressure, despite acupuncture having a greater evidence than most CAM and even some conventional medical treatments (Jones et al., 2012; Matthews et al., 2010; MacPherson et al., 2008; White et al., 2008). Despite studies demonstrating the potential benefits of using acupuncture as a treatment during pregnancy and birth, the challenges of implementing services particularly in the UK remain significant, resulting in very few UK midwives to-date being able to use acupuncture as a practice tool.

2.5.2: The use of acupuncture by midwives in practice

i) Midwives delivering acupuncture in the UK and abroad:

Studies related to the use of acupuncture by midwives are generally published from outside the UK, being mainly quantitative studies regarding treatment for a specific condition of pregnancy and involving midwives in the administration of the acupuncture protocol (Betts et al., 2012; Carlsson et al., 2000; Ekdahl & Perersson, 2010; Elden et al., 2005; Knight et al., 2001; Korving et al., 2004, Vixner et al., 2014). These studies demonstrate midwives across Europe, Australia and New Zealand are using acupuncture. Use of acupuncture by midwives within the East is assumed to be higher due to acupuncture being integral to the cultural and philosophical approaches of these health care systems (Betts & Budd, 2011; Deadman et al., 2001). There are

a small number of studies referring to its use as part of the midwife's role in China (Harris, Belton & Barclay, 2009; Zeng, Zhou & Chen, 2014) and Japan (Gepshtein, Horiuchi & Eto, 2007), but it remains difficult to confirm widespread use of acupuncture by midwives in other eastern countries. Within a couple of the study papers reviewed, the influence of midwives on the outcomes is considered, particularly regarding the women's appreciation of the time and discussion offered by the midwife (Knight et al., 2001; Korving et al., 2004). However there seems little discussion within these papers regarding the potential for acupuncture as a tool for midwives, with the authors almost assuming that it is normal midwifery practice. Evaluations of midwifery acupuncture practice conducted in Sweden (Martesson et al., 2006; Schytt et al., 2011) and Germany (Munstedt et al., 2009; Rudiger Wiebelitz et al., 2009) do offer some insight into the practices and training of midwives in countries with successful integration of acupuncture into maternity services.

Martesson et al., (2006) conducted a survey of 45 Swedish maternity units to establish the conditions midwives were treating with acupuncture and what type of training they had undergone to offer this to women. The results indicated the most common indications were for relaxation, pain relief, retained placenta, after pains, milk stasis during lactation, hyperemesis and pelvic instability. The authors report that acupuncture was used in most labour wards but that its rate of use was relatively low and related to the enthusiasm of individual midwives or consumer demand. Some of the midwives participating in the study suggested that lack of professional development and women requesting epidural analgesia may have also impacted on its decline in use over the last decade. The authors found that whilst the midwives had attended training courses, the quality of the training was not considered to be important by the senior doctors who authorised payment for these courses. This was concluded to be a concern as those commissioning the training did not have an understanding of the subject area. The lack of an evidence base for acupuncture treatment and the lack of practice development led the researchers to suggest the acupuncture practice should be stopped until there was sufficient evidence to demonstrate its effectiveness. They also highlighted that the Swedish National Board of Health and Welfare had recommended that acupuncture should only be used in connection with research due to the lack of efficacy; this is another factor that may have

reduced its use within Swedish maternity units. This group of researchers have also reported on the incompleteness of local clinical guidelines for acupuncture treatment during childbirth within Sweden. They reviewed 27 labour ward and 22 postnatal ward guidelines and concluded none of the guidelines were based on scientific principles and lacked enough detailed information to guide the practitioners. They again commented on the lack of academic rigour within the acupuncture training, implying a level of incompetence and risk (Schytt et al., 2011).

These Swedish surveys offer an interesting perspective indicating that although acupuncture is practiced by Swedish midwives there are still concerns regarding efficacy and application probably leading to its decline in use. It is acknowledged within the surveys that midwives promotion of acupuncture within the antenatal period could also impact on the women's demand for acupuncture, and suggestions that academic leads do not approve of its use may also have triggered a spiral of decline in interest overall. Interestingly the papers didn't discuss the possible reasons for the lack of evidence or propose how this could be addressed. They did however highlight that acupuncture training was generally delivered outside of the university establishments by midwives. This may indicate a level of bias within the reports as the authors may have a vested interest in encouraging acupuncture training to become more scientifically based, enabling the academic organisations to take control of such programmes.

A similar regional survey of maternity units was conducted in North Rhine-Westphalia, Germany. Results demonstrated that the majority of obstetric acupuncture indications related to labour and birth: retained placenta (21.1%); induction/augmentation of labour (16.0%), intra-partum analgesia (15.0%); obstructed/protracted labour (11.7%) (Munstedt et al., 2009). They again found that the decisions about acupuncture were made by midwives in the majority of cases.

Rudiger Wiebelitz et al., 2009 also explored the implementation of CAM including acupuncture within seven midwifery schools in Germany. A total of 309 midwives and midwifery students were questioned by means of a structured questionnaire. Of the respondents 63.1% estimated CAM to be applied frequently (>25%) by midwives. The available training was considered to be inadequate by 88.4% of the midwives with more than 90% of the respondents having been

taught by midwives rather than doctors. The authors concluded that quality assurance was required to ensure the establishment and evaluation of CAM training within the scientific framework of universities and midwifery schools. This paper again criticises the lack of scientific rigour within CAM training.

These European studies do highlight the tensions within countries where acupuncture is commonly practiced, indicating a preference for a medicalised approach to acupuncture training and governance. Although it is positive to learn that despite these tensions the majority of midwives in these countries are still able to offer acupuncture it is interesting that there is a move towards the medical model of practice rather than considering acupuncture as a traditional holistic therapy. When applying these findings to UK midwifery practice it should be considered that for the successful development of acupuncture services those leading such initiatives must consider these issues within their proposals. Perhaps adapting their approach to fit within the medical paradigm would help to demonstrate scientific knowledge, training and governance. Acupuncturists practicing a more traditional TCM approach may feel this inappropriate, but perhaps for the west to integrate acupuncture within conventional medicine with the necessary funding and infrastructure, acupuncture needs to try to encompass the biomedical model whilst ensuring it retains its holistic approach to care. Acupuncture offered within the two countries cited above is based on a medical model as opposed to the TCM and does seem to fit more easily within conventional medicine. This could go some way to explaining the reason they have been more successful in integrating the delivery of acupuncture by midwives and doctors already working within maternity services. This in turn may explain why the UK has struggled to implement acupuncture within maternity services, with most UK midwife-acupuncturists following the TCM approach and as such sitting outside of conventional care (Betts & Budd, 2011; Yelland, 2005).

As discussed in Chapter 1 acupuncture services delivered by midwives in the UK are rare with only three NHS midwifery clinics known to be running presently. There are two other NHS clinics offered by obstetricians in London hospitals and some independent midwives or other health professionals, primarily physiotherapists, may offer acupuncture within their practice.

Most women wishing to access acupuncture will need to seek it privately. However interest in acupuncture as an additional skill for midwives is growing within the UK, and we are seeing the development of acupuncture training courses for midwives (www.medical-acupuncture.co.uk; www.expectancy.co.uk) and increased membership of professional organisations such as the British Medical Acupuncture Society (BMAS). The BMAS has seen a growth in the number of midwives attending foundation and specialist pregnancy and birth courses. BMAS midwifery membership has increased from just myself as the first midwifery member in 2003 to 16 in December 2014 (BMAS, 2015).

Recent collaborative work between myself and an obstetrician Dr. David Carr has resulted in the development of a training package for UK midwives to learn the skills specific to offering intra-partum acupuncture (www.obstetricacupuncture.com). The training is offered as a non-profit making course with accreditation from the BMAS. The aim of this training course is to enable midwives to use specific acupuncture points as a tool to support women in labour, to offer pain relief, relaxation, promote normality and offer midwives increased job satisfaction (Carr & Lythgoe, 2014). Over 200 midwives have now undertaken this one day training course (www.uclhcharitycourses.com/courses/obstetrics-and-gynaecology/intrapartum-acupuncture).

The rationale for the training is:

- Midwives are already providing one-to-one care to women in labour
- There are no additional staffing costs
- The cost of acupuncture needles is negligible
- The clinical environment meets necessary standards for acupuncture

(Carr & Lythgoe, 2014, p.11)

It is to be hoped that this training will also promote the use of acupuncture within maternity services encouraging the development of maternity acupuncture services outside of labour care. The charity facilitating delivery of this training for midwives to offer acupuncture to labouring women is also offering subsidised acupuncture training with the BMAS to further encourage midwives to become acupuncturists and use these skills within their role.

A recent series of international studies on the impact of midwifery care has concluded that:

“Midwifery is a vital solution to the challenges of providing high-quality maternal and newborn care for all women and newborn infants, in all countries” (Renfrew, Homer, & Van Lerberghe, 2015 p.2).

This series has developed a framework for the delivery of quality maternal and newborn care (QMNC), identifying strategies that could improve care within the scope of midwifery. It supports a shift from care focused on the identification and treatment of pathology, to care that is able to strengthen women's capabilities ensuring respectful relationships and offering care tailored to their needs which is focused on the promotion of normal reproductive processes. Evidence indicates the outcomes for women and neonates are improved when midwives are able to offer continuity of care, in turn facilitating more individualised care that responds sensitively to women and their family's needs (Beake, Acosta & Cooke, 2013; McCourt, Rayment & Rance, 2012). Holistic women-centred care is the approach purported by policy and professional guidance (NICE, 2008; NMC, 2015), yet this approach is difficult for midwives to accomplish within the biomedical paradigm dominant within western maternity care (Kirkham et al., 2010).

The centralisation of services, the reduction in resources and a focus on risk results in midwives becoming restricted in their practice, bound by guidelines and protocols, losing their ability to offer women choice and support (Edwards, 2005; Thomson, Dykes & Singh, 2013). Within this context midwives need to find ways of working in partnership with women and demonstrating sensitivity to their needs. The studies cited above demonstrate the potential for acupuncture to become a tool for midwives to support women during pregnancy and birth. As a holistic CAM treatment, acupuncture can not only positively impact on common conditions of pregnancy but also improve wellbeing, providing a reason for a woman to seek additional support and helping her to feel in control of her own health. Acupuncture is congruent with the midwifery paradigm, offering the opportunity for midwives to deliver enhanced continuity of care through this therapeutic relationship and addressing existing gaps in maternity services.

The process of administering acupuncture can also facilitate discussion regarding public health issues, offer reflection on choices, improve confidence and therefore self-efficacy, promote normality and encourage positive parenting practices. The knowledge and skills of the midwife make her ideally positioned to use acupuncture within her role, offering an economical solution to improving women's choices and meeting their needs. As an enhanced skill, acupuncture can improve the midwife's level of autonomy offering improved job satisfaction and stimulating creative and innovative thinking to empower both women and midwives. Despite these potential benefits there is very limited evidence available exploring the impact of midwives using acupuncture as an adjunct to their role. This study addresses this gap in the evidence base and is able to explore the potential for acupuncture to become an adjunct to the role.

2.6: Experiences of pregnant women receiving acupuncture from midwives

The experiences of the non-pregnant population have been explored within a small number of studies considering the potential additional benefits and effects of acupuncture treatment for chronic conditions (Cassidy, 1998; MacPherson, Stewart & Mercey, 2003; Paterson, 2004). These studies use a mixture of data collection methods from specifically developed tools such as the 'Measure Yourself Medical Outcome Profile' (MYMOP) assessing sensitivity and change over time and the Medical Outcomes Study Short-Form 36 (SF-36) (Hull, Page & Skinner, 2006). These studies report benefits such as improved levels of self-confidence, self-esteem, reduced anxiety, feeling more in control and able to manage symptoms, able to manage work and family better and adopt a more positive lifestyle; all demonstrating improved wellbeing (Gould & MacPherson, 2001; Rutberg & Ohrling, 2009). There is a small body of evidence focused specifically on women's experiences of receiving acupuncture for conditions outside of pregnancy for example women receiving IVF treatment (de Lacey, Smith & Paterson, 2009) migraine (Rutberg & Ohrling, 2009), hot flushes (Alraek & Malterud, 2009) or for the treatment of fatigue post chemotherapy treatment for breast cancer (Molassiotis, Bardy & Finnegan, 2012).

Most of these studies have chosen questionnaires as a method of collecting qualitative data from larger numbers of participants. This approach seems to create limitations in terms of data

quality with results remaining quite superficial. The Alraek & Maiterud (2009) study included 127 respondents completing questionnaires after 10 weeks of acupuncture treatment. The women reported a substantial impact from the treatment with respect to a reduction in frequency and intensity of hot flashes both by night and by day. Changes related to improved sleep pattern were also reported and a variety of different physical and psychological changes were described (feeling in a good mood, not so run down and calmer). Several women were uncertain whether any changes had occurred. A few reported feeling worse. These results do highlight some interesting effects but are limited in terms of transferability and application to practice. Whereas Rutberg & Ohrling, (2009) chose to interview 10 women about their experiences of having acupuncture for migraine and were able to detail the experience not only in terms of effects on the condition but also the impact of the patient-therapist relationship. The women in this study were able to describe their feelings as their condition improved reporting they could live life to the full again, feeling family and work did not suffer as they had prior to the treatment. The women felt they had control over their migraine and therefore felt safe in the effect of the acupuncture. This depth of information was able to inform practice of the potential benefits of treating migraine providing insight into the impact the migraines had on their lives and the holistic effect of the treatment in helping them to move forward.

An American study exploring the 'Patient-reported benefits of acupuncture in pregnancy' aimed to address the gap in the research on subjective patient experiences (Soliday & Hapke, 2013). The study involved 265 former acupuncture clinic patients of which 51.7% responded to an internet survey regarding the acupuncture they received during pregnancy. The questionnaire designed by the authors contained open-ended questions related to their pregnancy and birth. Analysis of the data identified themes these being; effects on the chief concern, holistic benefit, no benefit, how it assisted in childbirth and if the women achieved their desired birth. This study has many limitations and potential for bias related to its methodological processes. Firstly the study sent questionnaires to women who attended the clinic from up to 10 years previously, thus for some their experience would possibly no longer be relevant or have been affected by subsequent treatment events. Secondly the acupuncturist who was not a midwife was described as an experienced acupuncturist or his apprentice, thus the professional

background and treatment approach of the practitioner was not made clear, possibly also being one of the authors of the paper. These issues put into question the validity and credibility of the study. Again due to choice of data collection method analysis seemed superficial and not able to explore the underlying issues regarding additional holistic effects, practitioner patient relationships and the women's on-going use of acupuncture for them and their family. Indeed the study reports on effects related to the birth yet they state these aspects were to be reported on at a later date.

The search for evidence related to the delivery of acupuncture by midwives identified only two qualitative studies: one an Australian pilot study evaluating an antenatal acupuncture service (Hope-Allan et al., 2004) and the other a Swiss study exploring the experiences of women receiving acupuncture in labour from midwives (Gisin et al., 2013). The Australian study by Hope Allan et al., (2004) is a pilot study evaluating an acupuncture service offered in an Australian hospital antenatal clinic. Upon completion of a course of acupuncture 52 women were given a questionnaire of which 71% were completed and returned. The aim of the study was to chart the circumstances of use and the patient perspectives regarding the acupuncture services offered. The questionnaire consisted of 17 questions regarding previous CAM use, reasons for having acupuncture and how their condition affected their lives before and after treatment as well as various aspects of the actual treatment. The results found that the women accessed the service after being referred by a midwife or via leaflets and signs advertising the service. The average attendance at the acupuncture clinic was 4.1 treatments (SD=1.9) but 79% of the women said they would have liked more treatments. Interestingly 49% of the women had previously used at least 1 CAM therapy with the most popular being acupuncture. The most common reason for attending the clinic was for a painful condition but there were also 19 reports of anxiety related conditions and 15 reports of known obstetric complaints. All of the women responders said the acupuncture improved their wellbeing and the improvement was measured via a VAS scale (0-10), whereby – 0=not well to 10= excellent health, prior to and after the last treatment ($p<0,001$). The women also reported a decrease in their work absenteeism. This study seems to have a sound methodology and has positive results in terms of the effectiveness of the treatment and the ability to identify some additional benefits for the

women. The acupuncturist is described as a midwife with additional acupuncture training but it does not state what treatment approach is taken or if she is also one of the authors of the study which does create potential for bias. However the study advises caution when applying these results to other clinical settings and stresses the need for in-depth studies on the experiences and perceptions of all stakeholders related to the provision and use of acupuncture in maternity care. The authors do not specifically explore the issue of acupuncture as an enhanced role for midwives.

The Swiss study by Gisin et al., (2013) explored women's experiences of acupuncture during labour with the aim of identifying factors related to midwifery care. This study was set in a Swiss maternity unit and involved seven women treated with acupuncture during normal labour. Using an exploratory qualitative approach, semi-structured interviews were conducted with the women within a month of giving birth. In this study the midwives working on the delivery suite all received acupuncture training and so they were able to offer the service to women within their midwifery role.

The findings identified three overall themes; the physical, emotional and cognitive dimensions of the acupuncture experience. Each theme had 2 to 3 subthemes:

Physical dimensions of the experience: Needling experience; increased contractions and pain relief.

Emotional dimensions: Positive and negative bodily feelings; motivation.

Cognitive dimensions: Resources from prior knowledge, information received, belief in acupuncture.

This study identified some really important information due to its in-depth methodological approach. The discussion highlights that none of the women requested acupuncture in labour but accepted it readily when offered by a midwife. This study confirmed the midwives as the prime initiator of acupuncture use rather than maternal demand, as suggested by Munstedt et al., in 2009. The women in the Swiss study seemed to feel no pain from the needle insertions, but once the treatment was started they then feared it would be withheld, identifying the need

for the midwife to ensure once commenced that the treatment can be continued, even if the midwife has to leave. The practice of the midwives in this study is to use electro-acupuncture thus some of the feelings described by the women may be particularly pertaining to this form of acupuncture. However this study makes a significant contribution to the evidence base offering insight into the women's experiences and also the influence of the midwife on the woman's motivation and willingness to use acupuncture for labour pain. Inclusion of a more idiographic approach may have added depth of analysis, as although they were described as a homogenous group, more understanding of the women's social and psychological context may have provided more evidence related to the impact of the midwife-mother relationship and the woman's approach to labour.

The IPA methodology used within this study addresses the gap in the evidence base exploring the experiences and perceptions of women receiving acupuncture from midwives in the antenatal period. The double hermeneutic focuses firstly on the idiographic and then the whole, assessing the impact of the midwife and the acceptability of a midwife offering acupuncture as an enhanced skill.

2.7: Women's perceptions of the effects of acupuncture

The evidence regarding women's perceptions of the effects of acupuncture is extremely limited, corresponding to the small number of qualitative studies exploring women's experiences of acupuncture focusing on perceptions related to specific conditions such as hot flushes associated with breast cancer (Walker, de Valois & Davies, 2007) and IVF treatment (de Lacey et al., 2009). Studies on patient perception of acupuncture over the last decade have generally included both genders focusing on patients attending private TCM acupuncturists for a variety of conditions. Data collection methods have included questionnaires, focus groups and interviews (Gould & MacPherson, 2001; MacPherson et al., 2003, 2006; Paterson, 2004; Price, Mercer & MacPherson, 2006). A study by Gould & MacPherson, (2001) explored patient perspectives, aiming to explore the deeper and subtler effects of the treatment and trying to understand what patients valued. Key questions were developed based on the findings of a seminal study by Cassidy (1998) who reported patients gaining relief of symptoms in 91.5% of

cases with improved psychological coping, self-awareness, faster healing, improved relaxation, empowerment, balance and centeredness, and patients placing great value on the close patient practitioner relationship. Gould & MacPherson wanted to test if these findings would hold true in the UK, debating which outcome measures were most suitable to assess self-perceived health and assessing change in levels of physical, psychological and social function. Well validated tools such as the SF-36 were considered however the MYMOP questionnaire was decided to be easier and most likely to capture the subjective data required with the addition of interviews to provide more qualitative data. 72 patients responded to the questionnaire with 75% being female. The researchers found that although 90% described their reason for attending as being physical problems by the end of the survey this had changed to 64% with a general rise in concerns about general health and wellbeing, this changing significantly more if they attended for over 21 treatments ($p < 0.1$). 40% of the patients also reported changes to lifestyle including diet and exercise showing a more positive outlook and view of their health, with 54% reporting definite change.

Interviews conducted within the Gould & MacPherson study demonstrated these 11 participants placed great value on the therapeutic relationship not only for the treatment effect but more especially the effect on emotional and wellbeing changes (Gould & MacPherson, 2001). They also valued the holistic style of care and the close practitioner-client working relationship. Patients commented on how this approach offered the opportunity for general maintenance of health and improving their quality of life. The authors remark on the usefulness of acupuncture as a treatment and the cultural tendency to need a 'real' reason to attend for treatment an issue also highlighted by Cassidy in 1998. This study highlights some very interesting findings regarding the benefits of a holistic patient-centred educative approach to acupuncture that is able to facilitate change on many levels, with patients placing great value on such benefits. This study supports the holistic approach of TCM and questions if such effects could be achieved when working within a western medical model of acupuncture a comment supported by Evans, Paterson & Wye, (2011), who also concluded from telephone interviews of TCM acupuncture patients that self-care talk was an integral part of TCM facilitating individualised care. However, since these studies are based within TCM clinics this position may

be considered to be biased to that model. Also some of the study participants attended acupuncture for prolonged periods of time within which there may potentially be natural changes to a patient's condition and attitude, which may also be related to developing a more dependant or changing relationship with the practitioner. These study findings raise many interesting questions regarding the effects of acupuncture, identifying the gap in the evidence related to the perceptions of patients attending for western medical acupuncture. These findings have informed this study design, particularly highlighting the need for in-depth qualitative analysis within an idiographic approach to enable the exploration of the deeper and subtler effects of acupuncture.

One of the most recent qualitative studies was aimed at measuring patients' perceptions of practitioner empathy at the initial consultation and its relationship with patient enablement (Price et al., 2006). This study prospectively reported changes in symptoms using a selection of specifically designed tools including the MYMOP questionnaire (Paterson, 2004). The study recruited 52 acupuncture patients who completed these questionnaires before treatment and then after 8 weeks of treatment. The study concluded that "The empathy of practitioners as perceived by patients has a direct impact on patient enablement and health outcome" (Price et al., 2006, p.239). These findings although based on a more quantitative approach to data collection again support the findings of Gould & MacPherson (2001) demonstrating the potential impact of the quality of the relationship the patient has with their acupuncture practitioner.

An interesting phenomenological study by Griffiths & Taylor, (2005) was conducted in Australia with the aim of informing nurses of the people's experiences of having acupuncture and providing nurses with the language to explain the experience to the patients so that they could offer it to them as an informed choice. This study highlighted the World Health Organisation's listing of 40 conditions known to be successfully treated by acupuncture (WHO, 1980), commenting on the wealth of scientific evidence available demonstrating its effect on some conditions and the lack of evidence related to the patient experience. The study interviewed 12 participants, seven male and five female, recruited by advertisement in local newspapers or

attending a university acupuncture clinic. The interview data was collected and analysed using the Van Manen's phenomenological method. Themes within the analysis were located in the patient experiences before, during and after treatment. The results found the patients sought treatment as a choice, being intrigued yet fascinated by the holistic approach, commenting on the caring attitude of the practitioner and feeling they were viewed as individuals.

The participants described the sensations they felt in a variety of terms such as 'different', 'bearable', 'tingling but comfortable', 'sharp and electrical', 'being bitten by a tiny wasp', 'nothing', 'just there', 'hot wire' and a variety of other descriptions. The participants also commented on differences in acupuncturists in relation to the sensation of needling and their approach. After the treatment the patients describe sensations such as feeling 'spaced out', 'giddy', 'relaxed', 'feeling very drained of energy', 'going to sleep for quite a few hours', or 'wiped out for most of the day' and other similar comments. Overall the study was able to identify language that could be used to explain the experiences and sensations of having acupuncture, also capturing the patients perceptions of the treatment approach including the influences of the different practitioners and how they understood the treatment effects, and how they felt it worked for them but how they felt it might not work for everyone. This phenomenological study makes a significant contribution to the evidence base offering practitioners and researchers the language to explain the subtle or additional sensations of acupuncture as they are understood by lay people, and to inform acupuncturists and other health professionals to prepare and explain it to new and potential acupuncture patients.

These studies exploring perception do represent current understanding of the potential effects of acupuncture on physical social and psychological outcomes, going some way to explaining what patient's value and how the practitioner-client relationship impacts on these outcomes. These findings have informed the development of this study, highlighting the gaps in the evidence base particularly regarding the perceptions of women receiving acupuncture within a western medical approach, regarding women receiving acupuncture during pregnancy and the potential influence of a midwife –acupuncturist. There are presently no studies available that specifically explore the perceptions of pregnant women receiving acupuncture from midwives

in pregnancy thus this study is able to make a unique contribution utilising evidence from the non-pregnant population to inform the study development and focusing specifically on the similarities and difference related to perceptions of receiving acupuncture in pregnancy from a midwife.

2.8: Summary

This literature review has provided an overview of the evidence related to the effectiveness of acupuncture use in pregnancy, providing a detailed review of the studies related to the most common conditions of pregnancy treated in SMAS (NVP and PGP/PLBP). The review has considered the evidence related to acupuncture as a safe somatosensory treatment and as a tool for midwives. The evidence related to the experiences and perceptions of pregnant women receiving acupuncture has then been reviewed considering the gaps in the evidence and demonstrating the rationale for this study and its unique contribution to both knowledge and the potential for acupuncture to act as an adjunct to the midwife's role. This thesis will now detail the methodology and methods utilised within this study.

Chapter 3: Methodology

3.1: Introduction

This chapter details the epistemological and methodology adopted for this thesis demonstrating alignment with the aims and objectives of this study “Experiences of pregnant women receiving acupuncture treatment from midwives”. Section 3.2 provides an overview of the aims and objectives and the philosophical focus. Sections 3.3 & 3.4 provide an explanation of phenomenological methods, epistemological considerations and rationale for choosing Interpretative Phenomenological analysis (IPA). Section 3.5 provides a discussion on my own epistemological position demonstrating its’ fit with the research methodology and method chosen. Sections 3.6 to 3.8 detail the methods including recruitment, ethical considerations, data collection and the IPA analysis. Section 3.9 discusses reflexivity within the research process and Section 3.10, summarises the chapter.

3.2: Aims and objectives

Aim: To provide insight into pregnant women’s perceptions of the effects of acupuncture treatment provided by midwives.

Objectives: To describe the:

Pregnant women’s experiences of acupuncture

Perceived influence and value of the midwife on their experience

Perceived additional effects of the acupuncture treatment

Perceived effects of the acupuncture treatment

In order to address the aims and objectives of providing insight into pregnant women's perceptions of the effects of acupuncture treatment provided by midwives, this study methodology will follow a qualitative approach. Qualitative research is considered to focus on experiences, thoughts, feelings and behaviour aiming to gain understanding from the participant’s perspective and the meaning of their experiences (Crotty, 1996; Steen & Roberts,

2011). This approach has enabled the exploration of the pregnant women's expectations and experiences from their own explanations of, and reflections on, acupuncture treatment provided by midwives (Anfara & Mertz, 2006; Rolfe, 2006). The overarching paradigm of this humanistic methodology fits well within the midwifery philosophical stance, being a woman centred and individualised philosophy, by creating an understanding of the lived experience (Roberts, 2008; Denscombe, 2010). In order to focus on the individual experiences of the women and interpret these in terms of my own knowledge and experience I have chosen to use the Interpretative Phenomenological Analysis approach (IPA) (Smith, Flowers & Larkin, 2009). This qualitative research process will be explained fully within this methodology chapter.

There are three major qualitative research methodological approaches; Phenomenology, Ethnography and Grounded Theory. There are also research models which may use both qualitative and quantitative approaches such as feminist research, historical research and action research (King & Horrocks, 2010; Steen & Roberts, 2011). In order to choose an appropriate research methodology for this study the three major qualitative approaches have been considered. Ethnography did not seem a suitable methodology as although it does study the individual in terms of its' use of observation and other forms of data collection its main focus is on the interactions between individuals in relation to their environment, organisations, communities or cultures (Denscombe, 2010). This approach enables the researcher to immerse themselves in a particular culture to gain understanding of a group and apply this learning to recommend improvement (Clark, 2000). This methodology is particularly applicable to studying an organisation or culture, therefore useful within research of clinical environments or behaviours. However, in terms of this study, Ethnography does not provide an adequate focus on the individual and their experience, and has therefore been rejected as a research approach for this project.

The second major qualitative research methodological approach considered was 'Grounded Theory' this was developed in the 1960s by social scientists Glaser & Strauss (1967), focuses on generating a theory from the research data to describe what is happening in a given social situation (Glaser & Strauss, 2009; Parahoo, 2006; Strauss & Corbin, 1994). Rather than having a

research question or hypothesis, the researcher selects an area of interest and seeks to explain what is happening by observing this situation (Davies, 2007). This methodology has been popular within nursing and midwifery research as it enables the researcher to explore an area of interest, allowing them to be led by the data to provide new perspectives on midwifery care (Roberts, 2008). Grounded Theory was not considered suitable as a research approach for this study to 'explore the experiences of pregnant women receiving acupuncture treatment from midwives' as the research question has already been developed, however it should be acknowledged that there are clear similarities between Grounded Theory and the chosen approach of Phenomenology (Smith et al., 2009). They both aim to identify themes that are progressively integrated until super ordinate and main themes are developed, capturing the nature of the phenomenon (Biggerstaff & Thompson, 2008; Brocki & Wearden, 2006; Willig 2013). Some elements of Grounded Theory have been utilised within the development of this research project; this involved the development of the literature review as a continuum throughout the research process and the parallel process of data collection and analysis to enable an iterative process of interpretation (Larkin & Watts, 2006; Smith et al., 2009). Both these elements of Grounded Theory were considered of benefit for this study facilitating this iterative process to improve understanding and interpretation of the data.

The consideration of other research approaches such as the feminist approach could be relevant within a study involving pregnant women and within the context of a very female dominated profession. However, feminist research is more complex than just being related to a study of women by women as it has to involve issues of oppression and the reasons for this (Kralik & van Loon, 2008). Feminist research aims to create change in order to develop knowledge as a theoretical perspective. It is not a research methodology but more a way of considering the feminist perspective within a methodology appropriate to the planned study (Steen & Roberts, 2011). As this study does not strive to consider feminist issues specifically, it does not have this feminist approach and cannot therefore be considered feminist research.

It must be recognised however that this study exclusively involves women as participants and myself as a female researcher, thus consideration needs to be given to the potential influence

of gender on the research process. This particularly relates to the care ethic regarding women's attitudes to caring for themselves and others. Psychologists such as Carol Gilligan (1982) and Nel Nodding (1984) consider the ethics of caring to be affected by gender with women exemplifying care, having a more inclusive morality that solves problems without regard for rules and authority. This emphasis on care is considered to contribute to feminist ethics challenging the writings of influential psychologists such as Sigmund Freud on theories regarding differing levels of moral development (Gilligan, 1982). In her work 'Caring: A Feminine Approach to Ethics and Moral Education' Nodding outlines a feminine approach to ethics with an emphasis on receptivity, responsiveness and relatedness. She defines two types of caring, natural and ethical; natural being when someone feels joy when helping another as with a mother caring for her child and ethical as an extension of natural care when this care is extended to others. Ethical care is generally when strong attachment is not present; perhaps for example in a nursing type role (Nodding, 1984). These theories can be applied to the participants of this study as Gilligan concludes that women tend to tackle their problems by seeking resolution and mediation, this being bound up in a desire not to hurt others, even judging themselves within their ability to care for others (Gilligan, 1982). In the context of this study such activity can be viewed as the woman's desire to protect her growing baby, wanting to find effective treatment for her condition and thus be to effective in her role as a mother. Women may feel vulnerable when they are unable to achieve their moral ideals, compelled to look for alternatives and being more likely to reject or ignore the binding authority of rules and principles that dominate within contemporary medical practice.

This care ethic can also be applied to myself as a practitioner using acupuncture as a method of offering treatment to others within a more distant relationship, engaging within "concentric circles of caring" (Andre, 1986, p.90). This type of caring could be viewed as a desire to find alternative solutions for the suffering of women within my care prompting a need to challenge conventional practice. This may also explain my drive to research the acceptability of acupuncture treatment during pregnancy in order to justify my actions.

These issues of morality and the caring ethic are intrinsic to this study and have been considered within the methodological approach. Adopting an IPA analytical process has facilitated an idiographic dimension, capturing the influence of the women's moral and ethical stance and thereby informing the interpretation of their experiences. Reflexivity has enabled me as the researcher to consider my own caring ethic and its impact on this research process.

After consideration of ethnography, grounded theory and the feminist approach I concluded that a phenomenological approach was the most appropriate qualitative methodology to address the aims and objectives of this study, utilising IPA as a phenomenological tool to capture women's individual experiences, taking into account that "phenomenological research is expressly interested in people's experiences and particularly the experiences of those people who are usually ignored" (Levering, 2006, p.457). Women suffering with physiological conditions of pregnancy could be considered a population that are generally ignored making IPA an appropriate method. The epistemological development of phenomenology is discussed below with reference to its significance within IPA.

3.3: Phenomenology

Phenomenology is a method of enquiry created by the German philosopher Edmund Husserl (1859-1938), wishing to explore the 'lived experience'. Husserl believed that scientific experimental research could not be used to study the human experience and that it was actually obstructing our understanding of ourselves (Crotty, 1996). This epistemological stance focuses on seeking to explain how to overcome the prejudices which stand in the way of pure consciousness, believing that "consciousness was the condition of all experience" (Moran, 2000, p.61). Husserl's aim was to identify the essential qualities of that experience to transcend the particular circumstances of their appearance, illuminating the phenomena for others (Smith et al., 2009). This method proceeds through a series of 'reductions', each reduction offering a different way of thinking and reasoning about the experience. This is intended to lead the researcher away from the distraction of their own assumptions and preconceptions (Moran, 2000; Smith et al., 2009), and Husserl wanted to get to the core of the subjective experience to ie; the 'essence' or 'eidos' (Husserl, 1997). He actually wanted to go further to look at the

nature of consciousness, calling this 'transcendental reduction'. These aspects of Husserl's work have strongly influenced the use of phenomenology within psychology, including IPA which focuses on the process of reflection, with the researcher having to be reflexive and able to understand their own distractions and the influence they may have on the interpretation of another person's description of their experience (Smith et al., 2009; Uehlein, 1992).

Phenomenology aims to provide insight into the experiences of individuals at a particular time or event in their lives by searching for meaning and serendipity (Moran, 2000). This usually involves obtaining individual accounts via one-to-one interviews which are transcribed and analysed to create meaning and understanding (Moustakas, 1994). The Husserl model advocates that the researcher suspends their own preconceptions and beliefs so as not to influence the findings, known as 'bracketing' (Parahoo, 2006). Husserl felt that consciousness could only be "properly assessed if naturalistic distortions are removed" (Moran 2000, p.78). This idea has mathematical roots indicating Husserl's scientific approach related to the separating out as would be done within equations " Putting it in brackets shuts out from the phenomenological field the world as it exists for the subject in simple absoluteness; it's place, however, is taken by the world as given in consciousness" (Husserl, 1927, para.3).

In 1919 Martin Heidegger (1889-1976) became Husserl's pupil, developing a broader attitude to phenomenology and eventually coming to criticize Husserl's emphasis on theoretical knowing and cognition over practical lived experience (Moran, 2000). Heidegger felt the suspension of the researcher's beliefs was difficult to achieve feeling it to be important for the researcher to bring their own understanding and experience to the research process (Mapp, 2008). In his work 'Being & Time' (1962/1927), Heidegger talks of 'Dasein', literally meaning 'there-being' (Heidegger, 1985; Smith et al., 2009). For Heidegger this means 'always already' thrown into an existing world of people, language and culture being unable to meaningfully detach from it (Moran, 2009). He viewed the person as always worldly, including the concept of 'inter-subjectivity', describing the shared overlapping nature of the world (Larkin et al., 2006; Smith et al., 2009).

This phenomenological approach was supported and developed by French Phenomenologist philosopher Maurice Merleau-Ponty (1908-1960). Whilst sharing Husserl and Heidegger's commitments to understanding our 'being in the world' he also supported Heidegger's wish for a more contextualized phenomenology emphasising the interpretative nature of our knowledge about the world around us (Merleau- Ponty, Davis & Baldwin, 2004). He suggested that humans see themselves as different from everything else in the world, "I cannot conceive myself as nothing but a bit of the world, a mere object of biological, psychological or sociological investigation"(Merleau- Ponty 1962/1996 p.ix). Merleau- Ponty concluded that whilst we can empathise with others ultimately we can never truly share another's experience as it belongs to their own position in the world, "For him these situations are lived through, for me they are displayed" (Merleau- Ponty 1962/1996, p.414). For IPA researchers the view that we can never entirely capture the lived experience is a crucial consideration; equally we cannot ignore or overlook the fact that the physical and perceptual aspects of a person's world are more significant than abstract or logical ones (Anderson, 2003).

Jean Paul Sartre (1905-1980), another early 20th century French philosopher extended Husserl's & Heidegger's views of existential phenomenology developing his ontology by attempting to discover what it is to be human and trying not to be caught up in the world (Sartre, 1970). Sartre believed that things that are absent are as important as those that are present; this in essence defines who we are and how we see the world (Smith et al., 2009). Within his philosophical text 'Being and Nothingness,' he defines two types of reality that lie beyond our conscious experience: 'the being of the object of consciousness and that of consciousness itself' (Sartre, 1956, p.42). Sartre's overriding concern is to demonstrate that human free will exists, and that man is a creature haunted by a vision of "completion"; what Sartre calls the 'ens causa sui', literally meaning 'a being that causes itself' (Sartre, 1956). He views human nature as being more about becoming, having the freedom to choose and therefore being responsible for your own actions (Smith et al., 2009). This view develops Heidegger's emphasis on context, using our personal and social relationships to enable us to understand our experiences as being dependent on the presence and absence of our relationships to others. Sartre's theories are significant for IPA researchers as they demonstrate

the need to consider how people engage with the world and how these human encounters impact upon the experience, rather than seeing a person in isolation.

A major theoretical principle of IPA is hermeneutics this being the existential theory of interpretation (Smith et al., 2009). Within his writings Heidegger considered this historical and contextual understanding as being a form of 'hermeneutic' analysis (Walters, 1995). This method of interpretation was originally used to provide more realistic explanations of biblical and historical texts to detect their original meaning (Annells, 1996). Philosophers such as Schleiermacher, Heidegger and Gadamer considered hermeneutics integral to the multi-faceted and dynamic process of interpretation, believing that considering a phenomenon 'the thing itself' influences the interpretation, which in turn influences the researchers existing understanding again influencing the interpretation itself (Gadamer, 2004). Thus, rather than trying to declare and set aside preconceptions prior to interpretation, the researcher will only really get to know their preconceptions when engaged with the data. This way the researcher needs to be open-minded and reflective, engaging in a dialogue with the data and with knowledge from both the past and the present (Annells, 1996).

Fredrich Schleiermacher (1768 – 1834) was a German theologian and philosopher being the first to write systematically about hermeneutics in the early 19th century;

“Every person is on the one hand a location in which a given language forms itself in an individual manner, on the other their discourse can be understood via the totality of the language. But then the person is also a spirit which continually develops and their discourse is only one act of this spirit of connection with other acts” (Schleiermacher & Bowie, 1998, p.8-9).

For him interpretation was a craft or art requiring a range of skills, including intuition. The aim of interpretation was to understand the actual writer as well as the texts Schleiermacher believed that if you engaged in a detailed and holistic analysis you could develop an understanding of the speaker or writer better than they understood themselves (Schleiermacher & Bowie, 1998). In terms of IPA this seems a very enlightened theory from a theologian of the time, suggesting that comprehensive and holistic analysis may offer insights

which exceed those even of the research participant, thereby adding value. This may come from connections within a group of participants with the researchers experience and knowledge, or from dialogue with the literature (Smith et al., 2009).

Hans Georg Gadamer (1900-2002) another German philosopher writing in the 20th century argued within his primary work 'Truth and Method', that people have a "historically-affected" consciousness (*wirkungsgeschichtliches Bewußtsein*), embedded in the particular history and culture that shaped them (Gadamer, 2008/1960). He felt that rather than deciding your preconceptions at the start, a researcher needs to be active within the interpretation process before they can really get to know what those preconceptions may be (Gadamer, 2004/1960). Our preconceptions are inevitably present, thus interpretation requires openness and a dialogue between past and present.

One significant hermeneutic theory is the 'hermeneutic circle', identifying the relationship between the part and the whole as a series of levels (Heidegger, 1985). This idea is considered by most of the hermeneutic writers describing the creation of a dynamic non-linear process, concluding that to understand any given part you need to look at the whole, yet to understand the whole you need to look to the parts (Denzin & Lincoln, 2000).

3.4: Interpretative Phenomenological Analysis (IPA)

The phenomenological approach of IPA as a method chosen for this study follows the Heideggerian ideology of the hermeneutic circle, enabling the researcher as an 'insider researcher' to interpret the data in terms of the individual and the knowledge and experience of the researcher; "we can never entirely step outside it to see things objectively as they are" (King & Horrocks, 2010, p.76). In terms of this study my experience and knowledge as a midwife and acupuncturist has influenced my interpretation of the data particularly as the study is focused on not only the experience of acupuncture treatment but also the influence of the midwife-acupuncturist on this experience. In terms of IPA reflexivity is an important element of the interpretative process enabling me to pay attention to, and reflect on, my own perceptions (Halling, 2009). IPA's systematic and holistic analysis has facilitated this reflection to continue throughout the process as a live dynamic activity (Smith et al., 2009).

IPA has emerged as a research method within the last 20 years developed by Jonathon Smith within the discipline of psychology (Smith et al., 2009). Along with colleagues within the psychology field Smith detailed processes and applications aiming to develop a method that could not only capture perceptions of health and life, but also capture the individual experience (Smith et al., 2009; Smith & Osborn, 2007). This method was firstly adopted by psychology researchers but has rapidly spread to other disciplines such as the educational and social sciences (Roberts, 2008). It has recently begun to be considered by nursing and midwifery researchers, being seen as a way of understanding individual responses and differences to illness whilst being able to consider the wider issues and application to practice. A midwifery study exploring disability within pregnancy, childbirth and motherhood has demonstrated its value as a method that matches the midwifery model of women centred holistic care (Walsh-Gallagher, Sinclair & McConkey, 2012). IPA uses the analytical process within an idiographic focus capturing the participants meaning-making as the first layer of the hermeneutic circle, and the researchers sense-making as the second layer, thereby creating the double hermeneutic (Broki & Wearden, 2006; Smith et al. 2009). This process involves a detailed examination of each participant as a case involving different levels of interpretation to ensure that a deeper level of interpretation is achieved. This idiographic focus allows the women participating in this study to have their own voice to tell their individual story in the context of their world. This I feel is an important element of IPA, congruent with the midwifery philosophy of individualised woman centred care.

Many of the women in this study have complex and busy lives which are a major influence on their perceptions of their experiences. The ability via IPA to consider these individual aspects facilitates a more realistic and 'true' interpretation of the experience, providing insight and understanding. The IPA analytical process is an iterative and inductive one leading to the development of super-ordinate themes for each individual case. These super-ordinate themes are then examined together searching for patterns and similarities, developing main themes from across all the cases. The themes are discussed separately and then in context with each other (King-Hill, 2013; Larkin, Watts & Clifton, 2006; Smith et al., 2009). This process has enabled an interpretation for each participant or case before the themes have been considered

across a group of participants. This process has facilitated a deeper level of interpretation and understanding characterised by a set of common processes; moving from the particular to the shared and from the descriptive to the interpretive (Reid, Flowers & Larkin, 2005). This IPA analytical process is detailed in this Chapter in section 3.8.

3.5: Epistemological positioning

The integrated ontological and epistemological stance of the researcher is considered central to any methodological approach to ensure 'epistemological integrity' (Marshall & Rossman, 2010), providing a philosophical grounding for the study (Creswell, Hanson & Plano, 2007). My own epistemological stance is derived from my own experiences and studies leading me towards an Phenomenological approach using an IPA method, allowing the voice of the individual to shine through the academic rhetoric that often dominates within the search for a definitive answer. This echoes the thoughts of Sartre who felt that our background and situation determine how we see the world and how we react within given situations (Sartre, 1956). In order to respect and effectively interpret the women's experiences I felt it important to have this idiographic focus and the double hermeneutic of interpretation offered by IPA.

When considering my epistemological stance my background as a clinical midwife and medical acupuncturist seems to have resulted in me being juxtaposed between two paradigms; on the one hand a positivist drive for an unequivocal evidence base, and on the other the relativist approach striving to construct the individual's perspective (Lincoln, Lynham & Guba, 2011). Working within such disparate ideologies creates dilemmas for many in the caring professions, respecting the need for efficacy within the development of treatments yet finding application to practice inextricably linked to the individual context (Greenhalgh, Howick & Maskrey 2014).

Within my masters degree I conducted a qualitative study exploring men's involvement in breast feeding and found this a powerful and interesting way to give this important group a voice. Since completing that study in 2003 I have worked within leadership roles both as Midwifery Sure Start Co-ordinator and as a Midwifery Lecturer committed to giving women and families a voice. As a founder member of the Salford Maternity User Forum and Maternity

Services Liaison Committee I have learnt the power of harnessing the views of women/users to bring about change to improve services.

These experiences have led me towards the constructivist paradigm, being relativist, transactional and subjective, recognising the importance of the interactivity between the investigator and those being investigated as a collaborative process resulting in a diversity of interpretations that can be applied to the world (Lincoln et al. 2011). The constructivist paradigm embraces hermeneutics as collaborative reconstruction, with the researcher and the participants negotiating the outcomes (Guba & Lincoln, 1994).

Within my Professional Doctorate journey I have had the opportunity to consider research methodologies in further depth. I particularly enjoyed a module focused on the professions and professionalism stimulating me to explore the issues regarding biomedical dominance and the position of allied professionals within this hierarchical structure. This study helped to frame my constructivist approach, with this epistemological stance in essence creating my original motivation for conducting this study and resulting in my choice of IPA as a method that is able to achieve the study aims and objectives. The IPA process used to conduct this study is explained in the next section 3.6.

3.6: Method

3.6.1 Introduction

This chapter details the methods used to undertake this IPA study. Sections 3.6.2 to 3.6.4 explain the recruitment strategy; including sample and selection, inclusion and exclusion criteria and the relevant ethical considerations including working with midwifery and obstetric colleagues. Sections 3.7.1 to 3.7.6 then detail the data collection methods used, including the interview process, data collection and storage, the handling of field notes, consideration of the interview environment and the potential impact of pregnancy and postnatal issues. Sections 3.8.1 & 3.8.2 then explain the IPA analytical process including the data analysis steps and applying the process to this study. Chapter 3 (Section 3.9) ends with a discussion on the

challenges of practitioner research considering the issues related to the insider researcher, reflexivity and the potential limitations of the study.

3.6.2: Recruitment strategy

Women were recruited from the local SMAS maternity acupuncture clinics by midwife-acupuncturist practitioners. The three midwife-acupuncturists who normally work within the SMAS were requested to recruit the women on my behalf to reduce the risk of bias related to the recruitment of women I had personally treated, and reducing the risk of the women feeling coerced or obliged to participate in the study (Smith et al., 2009). The 10 women recruited to this study had not had contact with me as a midwife-acupuncturist however one woman had met me previously when I had facilitated a parent education session during her previous pregnancy. The issues this raised in terms of her feeling coerced or obliged were discussed and after consideration the woman decided she would still like to participate in the interview. Another woman recruited was known to be a midwife but had not worked with me as a midwifery colleague, and it was considered that her participation in the study would offer an additional perspective and would not impact on the validity or credibility of the study. Discussion related to the recruitment of these two women can be found in this chapter, section 3.9.

The midwife- acupuncturists were midwives facilitating the local maternity acupuncture services within the NHS. Women were given an information sheet (Appendix 1), explaining the aims of the study and what was required from them as participants. It also informed them that the study was being conducted as part of a Professional Doctorate qualification supervised by the University of Salford, providing my contact details and those of my supervisors so that they could contact us with any further questions or concerns.

i) Sample and selection:

The women were recruited as a purposive sample as they needed to have experience of acupuncture use during pregnancy (Mapp, 2008). Women recruited needed to have attended for at least 3 acupuncture treatments during pregnancy within the previous 6 months. This was to ensure the women participating in the study had experienced the phenomena being

explored as acupuncture is known to have a cumulative and gradual effect (White et al., 2008). Pregnant women attending the SMAS are generally advised by midwife acupuncturists to attend for 3 to 4 treatments before deciding if the treatment is effective, thus for the purposive sample it was prudent to only include women who had experienced at least 3 treatments to ensure they had an opportunity to assess and reflect on their acupuncture experience effectively. This approach excluded women who had attended once or twice and found the treatment unpleasant or unhelpful, however as the aim of this study was to explore the phenomena of 'experiences of acupuncture from a midwife', it was appropriate to only include those women that had current and consistent experience of acupuncture.

In order for the experiences of the participants to be explored in depth it was considered better to have a small sample as recommended by Merriam (2002). The aim was to recruit 8 to 10 women over a 3 month period which was achieved, although due to one of the women recruited becoming unwell and requiring admission to hospital another woman had to be recruited three weeks after the 3 month period had elapsed. The recruitment of 8 to 10 women is in line with the sample size suggested by Smith et al. (2009) for a Professional Doctorate study, providing sufficient participants to develop meaningful areas of similarity and difference yet ensuring the researcher does not create an overwhelming amount of data too large to successfully follow the IPA process effectively. As IPA has an essentially idiographic focus the saturation of data is not a consideration as each participant will bring new aspects to the study related to the context and their own unique situation (King & Horrocks, 2010).

The women recruited for this study were required to be attending or have attended acupuncture for a condition related to pregnancy and to fulfil the inclusion criteria. It was considered that the midwife acupuncturists recruiting the participants for this study may create bias within the study by recruiting women who had found acupuncture beneficial. As this study focused on the women's individual experience this was not considered to impact on the validity of the study.

ii) Inclusion criteria:

Women who had attended for at least 3 acupuncture treatments from a midwife during pregnancy within the previous 6 months.

iii) Exclusion:

Women under 18 years of age

Women who could not communicate in English, as the researcher had no access to funding for interpreter services

iv) Recruitment arrangements:

Any woman who fulfilled the above inclusion criteria was given an invitation/ information sheet by the midwife-acupuncturists (Appendix 1), explaining the aims of the study and what was required from them as participants. Women were also asked to complete a consent form (Appendix 2), to confirm their participation and agreement for their personal details to be recorded to facilitate future contact by me as the researcher by phone or e-mail within 3 weeks. E-mail was not considered as the primary method of contact within the development of the study but it became clear during the study that many of the women preferred to communicate via e-mail. The women were encouraged to discuss the study with the midwife-acupuncturists suggesting this would take around 15 minutes. They were able to ask questions and also encouraged to take the information sheet home to consider this decision further. Once they had decided they wished to participate in the study the women were asked to inform the midwife –acupuncturist who asked for their agreement for me to contact them by telephone within the next three weeks and requested that they complete the consent form (Appendix 2).

The consent form was a university designed consent form specifically adapted for this study. A signature box was added on the recommendation of the Research Ethics Committee to ensure participants understood they were giving permission for their quotes to be used anonymously within the thesis and within any subsequent publications or presentations.

The women were reassured by the midwife-acupuncturists verbally and via the information sheet that they could opt out of the study at any time and that their personal information and recorded responses would only be used for the purposes of the study.

On contact by telephone the woman's agreement to participate was again confirmed and any questions answered. I then arranged a suitable interview date and venue; the interviews were undertaken in the woman's own home or at a local Children's Centre/Health Centre on a date and time convenient to the woman. The women were again informed that taking part was voluntary and that they could withdraw from the study at any time and did not have to give any reasons for why they no longer wanted to take part. It was emphasised that this would not affect their midwifery, obstetric or acupuncture care.

If the woman was unsure if she wished to participate and wanted time to consider the issue she was given one month to consider if she wished to participate in the study and was only contacted once within the month by me as the researcher by phone to inquire if she had made a decision. She was given my contact details and informed she could contact me any time within this period to ask questions or agree to participate. No contact or agreement from the woman regarding participation within a month was considered an indication she did not wish to participate in the study and she was not contacted again. All the women recruited in this study agreed to participate and signed the consent form, unfortunately one woman had to cancel the interview due to being unwell and admitted to hospital requiring an additional woman to be recruited.

3.6.3: Ethical approval & considerations

Ethical guidance and principles should be considered by all those contemplating research to safeguard and protect people's rights and dignity. A researcher must demonstrate that the participants of a study retain their autonomy and that their wishes are respected. It should be ensured that any benefits will outweigh the risks avoiding harm and ensuring that participants are treated fairly (Beauchamp & Childress, 2001; Riddick-Thomas, 2009).

Ethical approval for this study involving pregnant women attending antenatal services was required from the University of Salford and also the Health Research Authority (National Research Ethics Service (NRES) Greater Manchester West Committee as the study involved the recruitment of NHS patients. The ethical application to NRES was made via the Integrated Research Assessment System (IRAS) (Appendix 3).

The Research and Development (R&D) lead for the host Trust was included in the application for ethical approval, both for the study as part of a Professional Doctorate qualification and for the application made via the Integrated Research Assessment System (IRAS).

Ethical issues of significance within this study will be discussed below including; ensuring informed consent, confidentiality & anonymity causing no harm (Steen & Roberts, 2011). Absence of coercion is discussed within the recruitment strategy section 3.6.2.

i) Informed consent:

Any woman who fulfilled the inclusion criteria of the study was given an information sheet and prior to agreeing to participate was encouraged to discuss the study with the midwife-acupuncturist. Approximately 15 minutes was allocated to this discussion giving the women time to read the information sheet and the midwife-acupuncturist time to discuss the study answering any questions. If women were unsure they were able to take the information sheet home to consider it further. The women were encouraged to discuss it with others, such as their partner or their named midwife who would have knowledge about the study.

ii) Confidentiality & Anonymity:

Demographic details of participants were collected as a method of identifying consent to participate and to facilitate the arrangement of the interview and validation of interview transcriptions. Once registered as a participant personal details were stored on a personal laptop password protected personally to myself and stored in a locked office. The participants were allocated an identification number to ensure they remained anonymous within the research process.

A recording device, the property of the university was used to record the interviews. Tapes of these recordings were kept within a locked cabinet personal to me. The interviews were transcribed from the tape recordings verbatim and these documents are stored on a personal laptop which is password protected and stored in a locked office. The data will be stored and archived for a minimum of 3 years after the graduate award has been made to allow verification of data from external sources if necessary, or longer if used for further research.

Transcripts of each interview were sent via email back to the participants to enable them to read the transcript and confirm if they felt the contents reflected their responses within the interview. Participants were able to add any further comments or request comments to be removed if required. However all the participants responded to the email confirming they felt the transcripts reflected their responses accurately.

The publication of direct quotes may be used within the thesis and within subsequent publications and presentations. These quotes will remain anonymous, using pseudonyms where appropriate. Permission from participants to retain interview recordings and to use quotes was requested within the consent form (Appendix 2).

iii) Cause no harm:

It was anticipated that this study would not cause any harm to participants. However, in order to minimise the additional demand it may have placed on women in agreeing to participate in the study interviews were conducted at a venue chosen by them. The participants were informed that any problems or concerns regarding their pregnancy must be referred to their community midwife or doctor or the hospital that was providing their care. Whilst I am a midwife, in this instance I was in the role of researcher and it was inappropriate for me to take on the role of their midwife. Women who experienced any problems or illness during pregnancy or birth were able to opt out of the study at any time if they no longer wished to participate in the study. During this study only one woman opted out of the study due to being admitted to hospital during her pregnancy. There were no instances before or during the interviews that indicated the women were at risk of harm from participating in this study.

3.6.4: Working with midwifery and obstetric services

i) Trust approval and support:

To undertake this study access to NHS patients was required in order to recruit pregnant women attending the SMAS. This access to recruit NHS patients needed approval and support from the Head of Midwifery (HoM) as a managerial representative, approval was also required from the Research and Development (R&D) Lead for the Trust.

Approval was sought first by approaching the HoM to discuss the proposed study, requesting her support in principle. She was keen to support the research project as it involved the development of evidence related to the SMAS, a service agreed to be continued within Bolton Foundation Trust following the reconfiguration of maternity services within Greater Manchester. In order to fulfil the standards for researchers working within NHS organisations set by the National Institute for Health Research (NIHR) she approved my application for an honorary research contract to enable me as the researcher to access patient records and request their participation in the study (Steen & Roberts, 2011).

The R&D department of the Trust were contacted initially for advice and support regarding the research proposal and the ethical application for this project. The Trust R&D department provided written approval for the study to be conducted within the Trust, after ethical approval from both the University and NRES ethics committees had been secured (Appendix 3).

ii) Midwife Acupuncturists:

The SMAS is provided by 4 midwives all trained as acupuncturists within Western Medical Acupuncture principles by completion of the British Medical Acupuncture Society (BMAS) Foundation Course. They have each now gained at least 8 years experience as acupuncturists, facilitating the two acupuncture clinics running weekly within the Salford area. They each continue to maintain their skills and competence by engaging in professional development activities (NMC 2008), including attending national study and scientific meetings, local peer support groups (Manchester & District Acupuncture Group- MADAG), conducting local audit and utilising professional developmental opportunities, including on-line resources provided by

the BMAS. Two of the midwife acupuncturists have also completed further study successfully gaining a Post Graduate Certificate in Medical Acupuncture from the University of Hertfordshire.

The midwife acupuncturists all hold substantive posts as midwives within a variety of roles each having many years of midwifery experience. One is a Community Midwife, one a Stop Smoking Midwife Lead, one a Parent Education Co-ordinator and myself a Lecturer in Midwifery. This variety of skills and experience enhances the quality of the acupuncture service enabling women to gain information, support and advice from the midwives as appropriate. A discussion on the position of western medical acupuncture within the wider orthodoxy of acupuncture can be found in Chapter 1, section 1.4.

Midwife-acupuncturists were involved in the development and in the recruitment of participants for this study. Their experience and knowledge was utilised to inform the study proposal to ensure consideration of issues related to the practical application of the research method, particularly regarding recruitment and data collection. As the midwife-acupuncturists were involved in the development of the process they had a good understanding of the study protocol and were able to recruit participants in line with this. As midwives delivering this service they were keen to see the study progress and interested in its findings in terms of application to practice.

iii) Midwifery and Obstetric team:

The wider midwifery and obstetric team including midwives, medical and ancillary staff was kept informed about this study via presentations at forums, such as the SoM meetings and opportunistic discussion with staff, both within the Trust and University settings. This communication process included the community midwifery team to ensure they understood that I would be conducting interviews in the women's homes. This enabled me to improve arrangements with regard to safety and security for myself and the woman concerned, adhering to the NHS Lone Worker Guidance (NHS Employers, 2010), by informing the community team of my planned interviews and communicating with them by mobile phone before and after these home visits.

iv) User Involvement:

It is considered good practice within the development of research studies to include the user perspective, as this helps to ensure quality and improve understanding regarding what they think is important (Steen & Roberts, 2011). The development of this study has been discussed with the local Salford Maternity User Forum at one of their regular meetings resulting in the study proposal, particularly the information sheet and interview schedule being improved accordingly. Example of such improvements are; a change to the structure of the information sheet to include a question and answer format, and the inclusion in the interview schedule of a prompt to consider how the participants felt about advising other women regarding acupuncture treatment during pregnancy. The user involvement definitely enhanced the development and validity of this study.

3.7: Interviews

After recruitment to the study by the midwife-acupuncturists and completion of the 'Participant information sheet' (Appendix 6), women were contacted by me as the researcher by phone or email within 3 weeks of receipt of the 'participant information sheet' and an interview time and venue was arranged. The three weeks gave potential participants time to consider their agreement to participate and to ask any further questions prior to the interview. The interviews were planned as face-to-face interviews conducted in the venue preferred by the woman, in her own home or another local venue. Interviews by telephone may have been considered however in a study conducted by Holbrook, Green & Krosnick (2003) it was found that response rates tended to be lower than when face-to-face interviews were conducted and that participants could become less engaged, even displaying dissatisfaction with the process.

The women agreeing to participate in this study were given a number of opportunities to withdraw from the study as described in section 2.6, to ensure they did not feel coerced into engaging in the interview process. Women accessing maternity services may have felt obliged to participate not wishing to be impolite or feeling to refuse may affect their midwifery care or access to acupuncture services (Steen & Roberts, 2011).

3.7.1: Interview arrangements

Once the time and venue was arranged the woman was sent a text message the day before the interview as a reminder. I ensured midwifery colleagues were aware of the arranged visit adhering to the NHS 'Lone Worker Policy' (NHS Employers, 2010), and with mobile phone contact available at all times. Women were informed that the interview would last no longer than one hour. Women who had not completed and signed a consent form prior to the interview were requested to do so before the interview commenced. The interviews all commenced with an introduction of the study aims, ensuring the women had read and understood the information sheet and answering any further questions that they had. The tape recorder was checked and tested and it was ensured that the woman had consented for the interview to be recorded. The interview was conducted when the woman was comfortably seated and ready to start, being informed that should she wish to stop at any time or if there was an interruption that this was acceptable and the tape recorder would be stopped and the interview would be continued only with her agreement.

3.7.2: Interview schedule

The semi structured interview schedule (Appendix 5) was developed in line with the phenomenological IPA approach, designed to capture the woman's lived experience of having acupuncture treatment in pregnancy from a midwife. The aim was to elicit the women's accounts of aspects of their experience rather than collate answers to specific questions (King & Horrocks, 2010). The interviews commenced with the open question:

"Could you tell me about your experiences of having acupuncture in pregnancy"

This question was able to introduce the phenomena to be explored and allow women to describe their experience or story in their own words (King & Horrocks, 2010; Smith et al. 2009). The aim when conducting IPA interviews is to set them up as an event, facilitating the discussion of a topic which in turn can allow the research question to be answered subsequently by analysis (Smith et al. 2009). The inclusion of interview prompts in the schedule enables the researcher to set a loose agenda, allowing the researcher to ask questions that may

be pertinent to the topic. However, the researcher needs to be flexible to facilitate a comfortable interaction between the interviewer and interviewee (King & Horrocks, 2010). As a midwife I have gained a wealth of experience of interviewing women within clinical practice yet conducting interviews as a researcher was more challenging despite having conducted some interviews for my Masters study in 2003. To prepare for these interviews I read relevant literature (King & Horrocks, 2010; Silverman, 2011; Smith et al., 2009) and attended a seminar on conducting interviews provided within the university postgraduate research training programme, I also conducted a pilot interview with a colleague to practice my skills and familiarise myself with the use of the interview schedule. The interviews for this study were initially led by the research question, led by the women's concerns, and as the researcher I tried to follow up any discussion relevant to the research question using the interview schedule as an aide memoire. I tried to be generous remembering this was an opportunity for the women to share their experiences and as such they needed to feel satisfied they had been able to achieve this (Smith et al., 2009). The interview prompts included asking about their previous experiences of acupuncture, why they chose to attend for acupuncture in pregnancy, their expectations of the treatment, attitudes of their family and friends, their interaction with the midwife and future plans regarding acupuncture treatment (Appendix 5). These prompts helped to maintain the flow of the dialogue particularly when the woman was more reserved or less forthcoming. The interview schedule was to a certain extent changeable developing as insights were gained in the process of carrying out the first few interviews, informing subsequent interviews, facilitating exploration of the issues highlighted previously for example; exploring how they felt about using acupuncture in their future life and how they discussed their treatment with family and friends (King & Horrocks, 2010).

3.7.3: Data collection & storage

Women were informed that the interview would be taped and that this would be kept secure by the researcher and that within the tape recording she would remain anonymous, being allocated a code number known only by me as the researcher (Steen & Roberts, 2011). The women were also informed via the study information sheet and consent form that their

personal details would be kept separately and securely by the researcher and not revealed to anyone outside the project and that on signing the box on the consent form they had given consent for their words to be quoted anonymously in publications reports and in other research outputs.

The women were also informed that the tape recorder was used only by the researcher for the duration of the study and any recording of the interviews would be destroyed at the end of the study. The transcriptions of the study would be kept on a laptop which is password protected and only used by the researcher, the laptop being kept in a locked office or house at all times.

3.7.4: Writing field notes

Women were informed that as the researcher I would also be making some brief notes during the interview and their agreement was assured before any notes were made. Field notes were made before and after each interview to remind me of the environment and context of the interview, the presence or location of other adults and children within the vicinity and any particular issues I wished to remember such as the woman's appearance, demeanour, emotional and physical responses to the interview. All the women in this study agreed to field notes being taken and in fact on two occasions made further comments after the interview was completed and the tape recorder switched off so I was able to make note of these comments and include them in the data analysis. All the information recorded within the field notes was considered within the idiographic analytical process conducted for each participant, and examples of these can be found in Appendix 9 & 10. These field notes were integral to my reflections of each interview and this reflexivity contributed to the creation of the analytical account of this study. Further discussion and evidence of this reflexive activity is offered in section 3.9.

3.7.5: Consideration of environment - other children/partner

Women were able to have another adult present during the interview if they wished and the baby or other children could be present, although women were advised that mobile children may be distracting, with child care being preferable. Although when conducting in-depth

interviews it is preferable that the participant is able to talk about their experiences without external influence, it must be considered that pregnant and new mothers are potentially vulnerable and need special considerations (Sheilds & Winch, 2008). It was acknowledged within this study that the participants may have felt more confident and comfortable if their partner or a supportive adult was present or just in the vicinity. One woman wished her partner to contribute to the interview and this did seem to help them remember events acting as a discussion trigger. Another woman chose for her partner to sit working in an adjacent room where he was able to hear the interview but not contribute. The effect of this dynamic is discussed within the findings section in Chapter 5 of this thesis.

The interviewer does need to be prepared for difficult situations, such as the woman becoming upset or disturbed during the interview or even a partner or supporter dominating the interview (King & Horrocks, 2010). Within the interviews conducted within this study these difficulties did not occur, even in the one instance where the partner contributed to the interview process. The presence of a new born baby was encouraged, as when interviewing new mothers as a health professional I wished to promote bonding and attachment and the baby often needed to be present simply to facilitate breastfeeding or for mum to offer comfort. There is some evidence that during counselling sessions women's responses are altered when their baby is present, however as this was not a counselling situation I did not consider this significant enough to prevent the woman's baby from being present (Onozawa, Glover & Adams, 2001). The presence of more mobile children may have been an issue as they may have caused distraction, resulting in the woman not being able to articulate her thoughts due to needing to address the children's needs. For pragmatic reasons children were able to be present if no other arrangements for child care could be made. However, within the interviews conducted no mobile children were required to be present.

3.7.6: The potential impact of pregnancy gestation or postnatal issues

The women included in this study were either pregnant or new mothers; they could therefore be identified as vulnerable; physically, psychologically or socially (Sheilds & Winch, 2008). Within the interviews the women's individual needs were addressed to ensure they felt able to

contribute and share their experiences effectively. This may have been of particular importance if the woman's condition had led to her using physical aids. Eight of the women in this study were interviewed in the comfort of their own homes and seemed relaxed and happy to share their experiences. Two of the women were interviewed in Children's Centres/Health Centres in a private room away from the busy clinic areas. They were helped to feel as relaxed as possible in a comfortable chair, being offered refreshments and given time to prepare for the interview. These two women also seemed able to share their experiences effectively. None of the women participating in this study had a disability or other particular need that required adaption to the interview arrangements. The next section details the process of thematic analysis.

3.8: Data Analysis

3.8.1: Interpretative Phenomenological Analysis (IPA)

The analytical process in IPA is not meant to be a prescriptive 'single' method for interpreting data, rather a set of common processes and principles which are flexible (Smith et al., 2009; Reid, Flowers & Larkin, 2005). IPA has an analytical focus but should be an iterative and inductive cycle (Smith & Osborn, 2007), with close analysis of the data leading to the identification of emergent patterns; firstly for single cases and then across multiple cases (Smith et al., 2009). There should be development of a dialogue between the researcher, the data and their own knowledge about what it might mean for participants within that particular context. This should then lead to further interpretation and eventual development of a frame or 'gestalt' (essence or shape of an entity's complete form), illustrating the relationships between these patterns or themes (Larkin et al., 2006; Broki & Wearden, 2006). This analysis needs to be in a format that is clear, enabling the analytical process to be traced from the initial comments, through the development of initial super-ordinate themes, to the development of the main themes. The robustness of this process should also be supported and facilitated by the use of "supervision, collaboration or audit to help test and develop the coherence and plausibility of the interpretation" (Smith et al., 2009, p.80). Evidence of such development is demonstrated within a full narrative of the data interpretation and evidence of my reflexive

activity during this process (Smith & Osborn, 2007), found in section 3.9 and in the study findings in Chapter 5 of this thesis.

For the purposes of this study the IPA analytical model or heuristic framework developed by Smith et al., (2009) was utilised. This approach offered a structure which was intended to be flexible but as a first-time IPA researcher it provided me with a clear framework encouraging reflective engagement and acknowledgment that the process was unlikely to be linear (Smith et al., 2009). This clear structure gave me confidence as a novice IPA researcher helping me to be creative and innovative within the overarching IPA analysis steps suggested. A chart outlining the IPA steps used within the analysis for this study can be seen below (Table 3.1.) followed by a short explanation of the activity involved at each step of the process.

IPA Data Analysis Steps	(adapted from King-Hill, 2013; Smith et al., 2009)
<u>Action</u>	<u>Rationale</u>
Reflections on interviews	This allows the researcher to reflect on their own feelings regarding the interviews and the research process
Interviews transcribed verbatim	Listening to the recordings and transcribing the recordings as this enables the researcher to immerse themselves in the data, to engage in reflexivity
Reading and re-reading of transcripts & listening and re-listening to recordings	This ensures the process remains idiographic, each case being analysed as the sole focus. Effectively slowing down the analytical process to allow in-depth examination of the data

Initial & Descriptive noting	Key words, phrases, language examined to consider deeper meanings and understanding
Linguistic noting	Examine language used, repetition, emphasis, symbolism, to understand underlying meaning
Conceptual noting	Interpreting concepts, participants understanding of the experience and their pregnancy
Developing emergent themes	Using the interpretation of the descriptive, linguistic and conceptual elements to examine the data as a whole and develop patterns and themes
Develop connections across emerging themes	Emerging themes examined together in a non-chronological order to consider connections and grouping of similar themes
Subsumption of themes leading to super-ordinate themes	Groups of related themes examined to develop super-ordinate themes
Analysis cycle repeated for the next case	Each case has the above analysis conducted to create super-ordinate themes for each case
Looking for patterns across cases	Super-ordinate themes are examined together - patterns, similarities across cases being considered
Development of main themes	Grouping of super-ordinate themes to

	develop main themes related to all cases
Interpretation of main themes	Main themes interpreted using the literature, researchers own knowledge and experience supported with direct quotes from the participants. The main themes will then be discussed separately and in context with each other

Table 3.1 IPA data analysis steps

3.8.2: Applying the IPA process

i) Reflections on interviews & transcriptions:

Reflection on each interview was a continual activity facilitating the emergence of new ideas and insights that could be explored within following interviews as an iterative and inductive process. The use of field notes facilitated consideration of the woman's story enabling reflection on what has been said, noting the interview environment, the woman's body language, her reaction to the interview and other noticeable factors. Often the women made additional comments once the interview had ended which again could be noted with her permission. As the researcher I was able to record and reflect upon the woman's 'life story', and her physical, psychological or social history, which were being important considerations within the interpretation of the interview data.

ii) Reading and re-reading of transcripts & listening and re-listening to recordings:

The interviews were transcribed verbatim by me with the help of an administrative assistant; no transcribing technology was used as I felt it important to the analytical process to use transcribing as an opportunity to immerse myself in the data. This process enabled me to listen and re-listen to the taped interviews, to stimulate recollection of the interview environment, to enter the 'woman's world', and to explore the contradictions and paradoxes within her discussion, noticing patterns in the flow or rhythm of the interview from more general

comments to specific details of the phenomena. This process helped me to focus on the individual words, what the woman was actually saying rather than thinking about the condition or the pregnancy in more general terms. It helped me to consider wider influences and pressures the women may have been feeling offering greater insight into the complexity of their situation.

iii) Initial & Descriptive noting:

The descriptive noting followed the method suggested by Smith et al., 2009, using a hard copy of the transcript with wide margins. One margin was used to document initial comments and the other to document the next stage of developing the emergent themes. Examples of this theme development process can be seen below in Table 3.2 and in Appendix 9 & 10.

Emergent themes	<u>Transcript Interview 5 - 12A</u>	Exploratory comments
Some knowledge and experience of acupuncture	<p>What made you come for acupuncture in pregnancy?</p> <p>My midwife suggested that I have some acupuncture and that it was service that was available so would I like to have acupuncture and I said yes I would because I was having a lot of back and pelvic pain. I had acupuncture before for an injury on my elbow so I knew that it was something that could possibly help.</p> <p>What was your expectation when you came along to have acupuncture?</p> <p>I knew what was going to be happening and I knew it was a process of needles being put into points in your body to relieve the pain and increase blood flow</p>	<p><u>My midwife suggested that I have some acupuncture</u></p> <p><u>I had acupuncture before for an injury on my elbow so I knew that it was something that could possibly help.</u></p> <p><u>needles being put into points in your body to relieve the pain and</u></p>

<p>As expected</p>	<p>to that area to encourage renewal sort of thing but yeah I knew what to expect. In a funny kind of way it was what I expected, sometimes it was a little bit sensitive and painful for a split second but other times you didn't feel like you had had the acupuncture done but you felt the benefits later.</p>	<p><u>increase blood flow to that area to encourage renewal sort of thing</u></p>
<p>Benefits later</p>	<p>What about where you had the acupuncture done?</p>	<p><u>In a funny kind of way it was what I expected, sometimes it was a little bit sensitive and painful for a split second</u></p>
<p>Different people but fine</p>	<p>I had acupuncture in places that were easily accessible and the staff were always pleasant. I had different people for the acupuncture and each time they asked how I was and made notes each time I went and it was fine.</p>	<p><u>you felt the benefits later.</u></p>
<p>Physio. wasn't working</p>	<p>When you had trouble with your elbow who did the acupuncture on your arm?</p>	<p><u>I had different people for the acupuncture and each time they asked how I was and made notes each time I went and it was fine</u></p>
<p>Physio. wasn't working</p>	<p>A physiotherapist at a local physiotherapy clinic, the treatment on my elbow wasn't working so they suggested acupuncture instead which did help at the time but ultimately I ended up having an operation on it. However acupuncture was one of the things which helped at the time. It was explained to me by the midwife that is was going to be midwife led.</p> <p>Did it make any difference that the</p>	<p><u>physiotherapist at a local physiotherapy clinic, the treatment on my elbow wasn't working</u></p> <p><u>acupuncture was one of the things which helped at the time</u></p>

Assumption	acupuncture was midwife led?	<u>It was explained to me by the midwife</u>
Reputable	It didn't make a difference either way. I just thought they are there to help you deal with the pain and if you are a pregnant women than you go to see a midwife. I think trust is important but you just take it for granted if you see a midwife then you just assume they are a professional and qualified in this area.	<u>It didn't make a difference either way.</u>
In so much pain		<u>I think trust is important but you just take it for granted if you see a midwife then you just assume they are a professional and qualified in this area</u>
Need an alternative	Also I felt that my midwife would not have sent me to someone that was not a recognised and qualified person.	<u>I felt that my midwife would not</u>
Trust in midwife		

Table 3.2: Descriptive noting excerpt

Although time consuming this descriptive noting allowed familiarisation with the data transcript noticing key words, phrases or explanations. It was clear from this noting that the women had comments they needed to make to talk about what mattered to them. They were able to talk about other factors such as relationships or processes and the relevance of these issues to the phenomena. As the researcher I was able to note the language they chose to use considering their choice of words noting descriptions, sound bites, acronyms, idiosyncratic speech and emotional responses to develop understanding about the context of their concerns. Identifying alternative concepts helped make sense of the meaning of their accounts, noting similarities and differences, amplifications and contradictions. This enabled me to engage in analytic dialogue with each line of the transcript, asking questions about each phrase or expression. As this process developed I was able to engage in a deeper level of analysis linking these findings to create deeper understanding of such important issues.

iv) *Linguistic noting:*

The noting of specific language use was undertaken to highlight the use of specific words, the repetition of a word, the use of metaphors, pronouns and even the use of laughter or pauses to indicate an emotional response. Metaphor can be particularly powerful as a way of describing an emotion and is something that can be used to link descriptive notes to more conceptual ones.

v) *Conceptual noting:*

This is a much more interpretive part of the process, dealing with the data at a more conceptual level, trying to move towards the participants overarching understanding of the phenomena they are discussing. This conceptual element required me to reflect on my own experiential and professional knowledge, to draw upon my own perceptions and understanding in order to explore the meaning of events for the women themselves. This process required me to ask questions, and to stretch the interpretation moving the analysis beyond the superficial and descriptive. This development of concepts is continual through the process with some of the stronger conceptual ideas being revised and redeveloped. This reflective engagement was challenging, requiring me to use my own thoughts and feelings as a touchstone whilst remembering the analysis is primarily about the woman.

vi) *Developing emergent themes:*

This process involved the management of data, simultaneously reducing the volume of detail whilst maintaining the complexity. This is an analytical shift using initial noting and exploratory commenting to identify emergent themes. This process is one manifestation of the hermeneutic circle whereby the original whole becomes a set of parts to become another whole at the end of the analytical process. This analysis initially seemed to take me away from the woman using my own knowledge and thoughts to develop the themes, however keeping focused on the process as being woman-centred ensured it was a collaborative process.

vii) *Develop connections across emerging themes to develop super-ordinate themes:*

For this process it is important to keep an open mind, as it is not prescriptive, with not all emerging themes needing to be included. This process needs the researcher to consider the research question, looking for a way of drawing the emerging themes together, and producing a structure that draws out the most important points of the woman's account. In order to develop these connections I chose to print out a list of the themes and by cutting the list up put each theme on a large table. This enabled me to explore how the themes related to each other, those with parallel or similar understanding being placed together. Abstraction was used to identify patterns within the themes putting like with like and developing a new or overarching name for this group of themes. Subsumption was used when a theme became stronger to give it super-ordinate theme status, bringing together a series of themes. In some cases the use of numeration was deployed to consider these connections, particularly when a theme repeatedly appeared within the data transcript indicating the level of importance and relevance of the theme to that woman.

Once super-ordinate themes were developed these were documented within a table demonstrating the structure of the emergent themes. Examples of such tables can be seen within Appendix 8. Examples of the in- depth analytical commentary/essay used to develop the super-ordinate themes can be seen in Chapter 4, section 4.4.

viii) *Development & interpretation of main themes:*

The above process was repeated for each participant within this study developing super-ordinate themes for each woman before moving on to the next case. Each case was treated on its own terms, to do justice to the woman's individuality as far as possible, bracketing the emerging ideas from one case while working on the next. This is in keeping with the idiographic focus of IPA and the midwifery philosophy of an individualised, woman-centred approach. Inevitably I am sure I was influenced by what I had discovered within previous interviews, however I tried to ensure I allowed new ideas and consequential themes to emerge with each case.

Once all the women's interviews had been analysed and super-ordinate theme essays developed, consideration was then given to the development of patterns across all the cases. This is a creative task requiring the researcher to lay out all the super-ordinate themes and decide which themes are the most dominant or potent. This process can require the analyst to move to a more theoretical level recognising that themes which are particular to an individual can also represent more conceptual issues and be shared by other cases. The development of the super-ordinal and main themes for this study is demonstrated graphically below in Table 3.3 and in Appendix 8.



Table 3.3: Development of Super-ordinal and main themes

Additional reassurances to reduce researcher bias and increase rigour were provided by the women being given an opportunity to review the transcript of their interview to ensure they felt it reflected their responses, giving them an opportunity to reconsider the issues discussed and to make further comment or retract any comment if they wished to. Additionally two of the transcripts were viewed by my academic supervisors facilitating review by an experienced researcher ensuring themes developed were not based on my personal opinion. This sample of transcripts and the subsequent analytical commentaries/essays were also reviewed by my academic supervisors facilitating discussion of the theme development within supervision. Ideally all of the transcripts and commentaries would have been reviewed by my supervisors but this was not practically possible, however the structured analytical collaborative approach of the IPA process does provide evidence of transparency and rigour increasing the trustworthiness of this study (Steen & Roberts, 2011). Use of reflexivity within data collection and analysis also demonstrates my accountability as a researcher detailing the auditable research process (King & Horrocks, 2010). The use of reflexivity within this process will be discussed in the next section 3.9. The limitations of this process will be discussed in Chapter 5, section 5.7 of this thesis.

3.9: Reflexivity within the research process

Reflexive practice is an integral part of the midwife's role considered essential to develop and embed knowledge by continually reflecting on the care given and the context in which it occurred (Kirkham, 2007). Personal reflections and those conducted together with colleagues enable the growth of knowledge acting as guidance and a sense of professional security (Berg, 2010). Reflexivity within research practice similarly increases the validity and credibility of the study by acknowledging the researchers role in the creation of the critical account, revealing their subjective values, understanding and perspectives within their creation of the analytical account (Finlay & Gough, 2008). Reflexivity requires the researcher to undergo critical self-reflection to look inwards and consider, for example within the interview situation, how they may have influenced the participants and how their own knowledge and experiences may also influence their interpretation of the resulting data (King & Horrocks, 2010; Lee, 2009).

Reflexivity additionally requires the researcher to look outwards to explore the impact of existing knowledge including the wider political issues and the policies and practices of the social world (Kingdon, 2005). Reflexivity is a central facet of qualitative research and the potential for producing an uncontaminated research account is considered impossible (Willig, 2013). All researchers have particular motivations and agendas that need to be reflected on and included within the creation of the critical account in order to demonstrate accountability, increasing the reliability and validity of the study (King & Horrocks, 2010; Lee, 2009; Smith et al., 2009). Willig, (2013) identifies two types of reflexivity; firstly 'personal reflexivity' relating to the impact that beliefs, interests and experiences might have on the research, including; how the data is collected, analysed and documented; as opposed to 'epistemological reflexivity' concerning the impact of the wider political and social issues on the phenomena being explored. The researcher's epistemological stance is integral to this complex activity requiring acceptance of uncertainty, and using it as a resource to "augment and intensify social research" and not to inhibit creativity (King & Horrocks, 2010, p.126).

In order to practice reflexivity within this research process I have maintained a personal journal recording my feelings throughout this journey, documenting my preconceptions and developmental thinking as an aide memoire. These records have enabled me to track my progress and acknowledge my changing attitudes and beliefs throughout the process (Lee, 2009). As essentially an insider researcher investigating an area of practice I am closely involved with I have found it additionally challenging to self-reflect on my motivations and frustrations regarding the midwifery acupuncture service, trying to ensure these were not evident within my interactions with the women during the interviews and thus influencing their responses or my interpretation of the data. At times during the interviews when the women asked questions I found I had to refrain from revealing my own opinion and although I feel I managed that on the whole, I was still concerned about having possibly implied certain opinions through my body language or reservations in answering questions about the acupuncture service or treatment. Through the use of field notes and documenting reflections on the interviews I feel I have been able to achieve a greater depth of analysis by considering these reflections when developing the analytical commentaries for each participant. An example can be found below in

Table 2.4, in an excerpt from my reflections on the interview of Case 7 (Vicky). Examples of the individual analytical commentaries can be seen in Chapter 4, section 4.4.

Vicky was obviously quite anxious about being interviewed yet was really willing herself to do it. She explained that something in her past had caused her to find it difficult to talk with people she didn't know well. The interview took place in her home during the day her partner being out at work at that time. She seemed nervous despite greeting me quite warmly; she appeared very slight, pale and tired looking. Her little girl was lying on a play mat on the floor looking very content and she seemed very proud to be able to show me her little girl. The house was quite sparsely decorated but there was a lot of baby equipment in the room, pram, crib and baby toys which brightened the room up substantially.

I was conscious that she was being very courageous seeing me on her own as she said she normally didn't do anything without her partner, I realised she was quite vulnerable and felt privileged she had agreed to the interview. I was aware of being worried that her discussion may focus on her mental health issues rather than the acupuncture and perhaps she was seeking additional support as I was aware of the lack of services for new mums. I felt disappointed in myself as my fears were unfounded, she needed little prompting during the interview and did not seem to expect any other support from me or the acupuncture service but was very keen to talk about her acupuncture treatment as said she wanted it to help others. I realised I had made a judgement based on her appearance and demeanour which belied her true motivations. It also made me refocus on the potential for acupuncture as a treatment for anxiety in pregnancy.

Table 3.4: Excerpt from field notes

This reflection of Case 7 reveals my preconceptions regarding Vicky a woman with a mental health problem, suspecting that she may have accessed acupuncture as a treatment for a psychological rather than physical problem and was potentially using it as a method of gaining additional support and counselling. I realised my preconceptions regarding some women's motivation to continue attending for acupuncture treatment once their original problem has been resolved, feeling perhaps they also may actually use the sessions to seek additional support during their pregnancy. These thoughts quite surprised me and could have potentially

impacted on my interpretation of the interview data, however in general within the women's responses my preconceptions seemed to have been unfounded, making me consider my own biases against the effectiveness of acupuncture treatment itself leaning to a more biomedical explanation of placebo effect. In essence this reflective activity made me question my beliefs regarding the mechanisms of acupuncture demonstrating my internal conflict between the need to rationalise the effect of acupuncture set against my clinical experience of its effectiveness in reducing pain (Kirkham, 2010). This revelation triggered me to consider my interpretation of these issues very carefully within the analytical process of IPA.

As a clinician and lecturer I am naturally a reflective learner and finding this process beneficial but at times overwhelming when my constant reflections inhibit further progress and development. Within this research process I have tried to have the sensitivity and understanding to engage in meaningful relationships with the interviewees whilst maintaining 'disciplined self-reflection' (Miller, 1998), by attempting to ensure my reflections relate to the research process without becoming too self-indulgent and therefore restricting knowledge production (King & Horrocks, 2010).

Reflections on the interviews within this study have also highlighted the challenges for me when not engaging with the women as a midwife, finding myself beginning to advise them on issues related to pregnancy or postnatal care before remembering my new role as a researcher and advising them to get support and advice from their midwife. This approach and dialogue may have influenced the women's responses during or after the interview realising I was a midwife and perhaps feeling obliged to discuss their acupuncture treatment in more positive terms.

I have tried throughout this study to ensure these potential biases have not been evident within my engagement with the women or my analytical account however this was a challenge and needs to be acknowledged as such. These examples of my reflexive activity demonstrate my engagement with the co-construction of this study, extending understanding and insight of the experience of receiving acupuncture treatment from a midwife, offering further validity, reliability and credibility. Reflexivity by its very nature can never be complete and thus as a researcher I can only strive to achieve it, in order to offer trustworthiness and be open to

scrutiny. I have attempted to reveal the beliefs and ideologies that have informed this research. Further discussion on the limitations of this process can be found in Chapter 5, section 5.7.

3.10: Summary

This chapter has provided a detailed explanation of the research methodology including the philosophical underpinning of the study, including a discussion on the development of phenomenology as a qualitative research approach and the rationale for choosing IPA as the methodology for this particular study. My own epistemological stance has been discussed, demonstrating my philosophical approach as a constructivist confirming epistemological integrity and explaining the development and design of this qualitative study. The recruitment strategy has been described in detail including discussion regarding the process of gaining ethical approval and consideration of the relevant ethical issues. The interview process has then been described in detail considering its development, interview arrangements, data collection and storage. Consideration has also been given to the practical issues related to the interview process and the potential impact of the environment on the women's responses including the impact of the baby, children and other relatives/people being present. The potential impact of pregnancy, birth and motherhood have also been discussed. Lastly the importance of reflexivity within the research process and the challenges of being an insider researcher have been considered demonstrating trustworthiness and accountability and thus providing evidence of reliability and validity. The next chapter will detail the findings of this study.

Chapter 4: Findings

4.1: Introduction

This chapter details the findings from the 10 interviews conducted using the five main themes developed from the super-ordinal themes identified within the analysis of each interview as part of the IPA process. This development is illustrated in Table 3.3 and in Appendix 8. These main themes will be detailed using quotes from the women to support the analysis and examples of critical commentaries/case studies in section 4.4. In Chapter 5 these main themes will be discussed with reference to the relevant literature. The participants will be identified throughout this chapter by the use of pseudonyms. These can be found in Table 4.2 along with demographic details of each participant.

i) Demographics

Most of the participants in this study were in employment with just three women not working at the time of the interview; one was a student, one had given up work and another had never been able to work as a result of having Post Traumatic Stress Disorder (PTSD) since the age of 15 years. Half the women had previous experience of having acupuncture treatment outside of pregnancy but none had received acupuncture from any other service during this pregnancy. For seven of the women this was their first pregnancy, in the women with other children, two had pre-school aged children and one had two school aged children one of whom sadly was terminally ill. The women with other children did reflect throughout their interviews on the difficulties and guilt involved in caring for their other children whilst having a debilitating condition such as pelvic girdle pain (PGP) or pregnancy related lower back pain (PLBP). Interestingly all the participants seemed to have supportive partners and/or families which hopefully will have helped them attend appointments to access the acupuncture clinic. I feel the variety in the participant's personal circumstances and stages of parenthood does offer broader reflection on acupuncture treatment in terms of its impact on the physical social and psychological aspects of the women's lives. This does not necessarily mean they are representative of the local population of Salford.

Eight of the women originally attended for acupuncture treatment due to PGP or PLBP, with only one woman attending for abdominal scar pain and one for PTSD. This is in line with the

most common reasons for accessing the midwifery acupuncture service. However some of these women went on to have further treatment for preparation for birth and /or had acupuncture treatment for other problems such as headaches or anxiety and stress. This change or additional treatment was discussed within the interviews depending on whether the interviewee wished to disclose or discuss these issues, and it did offer an additional dimension to the interview data. It would have been beneficial to have included women with other conditions of pregnancy such as hyperemesis, but the very nature of that condition makes them transient users of acupuncture, who are likely to have treatment in the first trimester of pregnancy and at that point not feel well enough to participate, or they may not have had enough acupuncture treatments during pregnancy to meet the inclusion criteria. Some of the women participants attended both the acupuncture clinic and the group acupuncture session. This was either due to requiring twice weekly treatment or for additional treatment for relaxation.

The women were very generous with their time, keen to participate in the study, and wanting to share their experiences with others. This issue may signify a bias within the sample, indicating all the participants are likely to have found acupuncture beneficial and thus be more likely to focus on the positive aspects of the experience rather than highlighting any unpleasant or unsatisfactory experiences. It was a privilege to hear their stories, to capture the idiographic influence within IPA by the thorough and systematic analysis of each woman's experiences. This process allowed more depth of analysis, creating understanding from each person's perspective rather than the 'nomothetic' approach adopted within most qualitative studies that only make claims at a group level (Smith et al., 2009).

Case no.	Pseudonym	Age	Parity	Employment	Partner	Ante/Postnatal	Approx. Number of times attended for acupuncture	Previous acupuncture
1	Jane	39	PG	FT Admin assistant	Husband	AN-- 36 wks gestation- (IVF pregnancy)	6	Yes for fertility treatment
2	Susan	28	P2 4yrs& 10yrs- (terminally ill)	PT Shop worker	Husband	AN-38 wks gestation	8	No
3	Lucy	28	P2- 6mths + 3yrs	FT Admin manager	Partner	PN- baby 6 mths old	16+	Yes in first preg.
4	Zoe	19	P1	Student	Living with parents/has partner	PN- baby 6 wks old	5	No
5	Alison	39	P1	Given up work	Husband	PN-baby 7 wks old	12	Yes
6	Ellie	33	P1	Office Manager	Partner	AN- 37 wks gestation	6	No
7	Vicky	23	P1	Unemployed – (Has PTSD)	Partner	PN- baby 3 wks old	7	No
8	Deborah	32 Ukrainian	P2- 3mths & 3 yrs	Pharmacy assistant	Husband	PN- baby 3 mths old	8	Yes
9	Amy	35	P1	Midwife	Husband	PN-baby 6 mths old	5	No
10	Hannah	36	P1	House wife	Partner	AN-32wks gestation	10	Yes

FT= Full time PT = Part time PG= First pregnancy P1= Second pregnancy P2= Third pregnancy;

Table 4.1: Demographics of participants

4.2: Overview of Main Themes

The IPA analytical process resulted in five main themes being identified; these will be outlined below and then discussed in detail using the subheadings to demonstrate the conflation of the identified super-ordinal themes, examples of quotes and narrative extracted from the interview dialogue will be used to support the explanation of these findings.

- 1) **Theme 1: Validating choice:** Justification for accessing an alternative treatment
 - i) Expectations
 - ii) Following professional advice
 - iii) Following and challenging personal and shared beliefs
 - iv) Proof it works

- 2) **Theme 2: Relief and relaxation:** Reduction of pain and improved wellbeing
 - i) Level of pain and suffering
 - ii) Relief and reduction in disability
 - iii) Relaxation & contentment

- 3) **Theme 3: Trust & Understanding:** Feeling safe when recommended by a midwife or health professional
 - i) Importance of the health professional
 - ii) Understanding of pregnancy and their condition
 - lii) Empowerment

- 4) **Theme 4 : Regaining self:** Control of symptoms and adaption's to daily living:
 - i) Self- efficacy
 - ii) Autonomy

- 5) **Theme 5: Discovering and sharing the secret:** Finding a solution and wanting other women to benefit:
 - l) Indulgence
 - li) Equity & Advocacy

4.3: Detailed analysis of the Five Main Themes

4.3.1: Theme 1: Validating choice: Justification for accessing alternative treatment

i) Expectations:

Most pregnant women would consider acupuncture to be a complementary or alternative therapy (CAM) within a group of therapies often accessed in addition to conventional western medicine including for example aromatherapy, hypnotherapy and reflexology (Mitchell et al., 2006). In accessing a CAM such as acupuncture the women were stepping outside conventional antenatal care, something they seemed to need to justify either to themselves or to their partners, supporters or carers.

Half of the participants in this study had not previously experienced acupuncture treatment, expressing their initial doubts regarding the possible effectiveness of it as a treatment for their condition. Some didn't think it would work but were willing to try it, others were sceptical but perhaps more hopeful or open to an alternative form of treatment:

"I thought it would perhaps work for a few minutes but I don't suppose I really thought it would work" (Lucy)

"My friend had had acupuncture that day and she said it was fantastic and I still thought how can it be?..... I was a bit dubious thinking what can this really do because the pain was that bad" (Susan)

"I wasn't expecting it to work but I was quite open minded though just thinking I'll just try it and see" (Amy)

"I didn't know what to expect when I first went to be quite honest" (Debbie)

The five women without previous acupuncture experience were keen to try the treatment despite their initial scepticism mainly driven by their desperation to find something to help with the pain:

“Well I was offered it by my midwife in sheer desperation” ...“I asked if there was anything that could help with the pain and when I had acupuncture I couldn’t believe it” (Susan)

“It was that sore if she’s offering something it must be, it must help” (Debbie)

“I thought if it can help I am happy to try it even if I have to pay” (Hannah)

Lucy who was suffering with scar and abdominal pain also said:

"to be honest I was willing to try anything" (Lucy).

The women who had previous acupuncture experience were more positive about its potential, four had sought out the treatment being proactive in accessing it, asking their midwife or doctor for referral particularly if they had spoken to friends who had received acupuncture in pregnancy.

Ellie was very positive and seemed to regard a belief in the treatment as part of the healing process:

“I knew other pregnant women who were having it so the other women told me about it” ...“being a bit cynical isn’t helpful no I was quite sure it was going to work” (Ellie)

Hannah was anxious to avoid the problems she suffered in her first pregnancy so she sought the acupuncture service soon after finding out she was pregnant again:

“This time I decided to get the acupuncture early to try and avoid the problems I had last time” (Hannah).

For these participants’ previous experience seemed to be justification alone to choose it as a treatment for their condition:

“I had acupuncture before for an injury on my elbow so I knew that it was something that could possibly help” (Alison)

“So I had acupuncture prior to pregnancy to try and help fertility” (Julie)

Ellie attended acupuncture prior to pregnancy after referral from her General Practitioner (GP) for poor circulation:

“I had quite a few sessions around the soles and fingers and the whole experience was really nice and there was a lovely girl doing it and I felt it was working” (Ellie)

Amy whose only experience of acupuncture was via her mum said: “ Well my mum had been for acupuncture once before but quite a few years ago maybe 15 years ago in her neck and up the back of her head and she didn’t really like it”, yet Amy was still willing to try acupuncture. As a midwife by profession Amy said:

“I knew they were fine needles that went in and every now and again they were given a little twist and stuff so that is what I was expecting really and that is what I got”(Amy)

Amy seemed sceptical:

“I wasn’t expecting it to work but I was quite open minded though just thinking I’ll just try it and see and then I just wiggled out“(Amy)

By using the term ‘wiggled out’ Amy explained that after the acupuncture treatment she found she could move around more easily, without experiencing pain and so felt the need to move her body around excited at being able to wiggle her bottom without pain. This seemed to offer Amy enough justification for accessing the treatment.

ii) Following professional advice:

Many of the women commented on their reluctance to use pharmacological treatments during pregnancy and used this issue as a reason to try acupuncture to reduce the need to use analgesia. Interestingly none of them seemed concerned about the safety of having acupuncture during pregnancy. During the interviews they were asked if they were worried about the effect of having acupuncture treatment on their pregnancy but all the women without exception seemed surprised at this question. They had confidence in the fact that the service was offered by a midwife or that it had been suggested by another health professional such as a physiotherapist or doctor. Some of the women had considered trying a

complementary therapy for their condition previously but either did not seek the treatment until a health professional specifically suggested it or due to past experience asked their midwife if it was possible to access the treatment.

“They said it was midwife led and that’s why” (Debbie)

“Also I felt that my midwife would not have sent me to someone that was not a recognised and reputable place to have acupuncture” (Alison)

Zoe however did not seem concerned about the service being delivered by a health professional as she said: "I expected it to be like a little Chinese lady, that’s what I expected and it wasn’t it was my midwife" (Zoe), indicating she considered it to be a treatment delivered outside maternity services. Zoe did not actually like her midwife and complained that she never suggested attending for acupuncture until a midwifery student working with her suggested it:

“I couldn’t walk from about 22 weeks and I didn’t get diagnosed properly until about 36 weeks. The midwife had a student with her who suggested it could be SPD and she was the one who referred me” (Zoe) (SPD – symphysis pubis dysfunction, usually now referred to as PGP)

Despite these communication problems Zoe was still confident about attending for acupuncture although surprised that it was her named midwife who was the midwife-acupuncturist, she still continued to attend presumably because she found it helpful.

“I was actually really surprised to see her because she never even mentioned it was her or anything but it was good I was quite pleasantly surprised because I did know her but she wasn’t very nice to me” (Zoe)

Some of the women certainly had an interest in complementary therapies and revealed that they also attended for other therapies prior to and during pregnancy, believing they could gain benefits from such treatments:

Wouldn't want to overload and stop having reflexology, because I have built up a really nice bond with her and she sort of pushes me to do things I would have probably sat and not done in relation to IVF (Julie)

"I felt like a right hippy because I was having hypnobirthing and loving that and having acupuncture and loving that as well" (Amy)

iii) Following and challenging personal & shared beliefs:

The decision to access or accept acupuncture or other complementary therapy in pregnancy may have been influenced by their own personal beliefs or that of their relatives and friends. Some of the women who had previous acupuncture experience talked of being interested in alternative medicine, explaining that their family or friends were keen to avoid using medicines and as such they had developed a desire to try to avoid medical intervention themselves, particularly in pregnancy.

Ellie talked of her interest in homeopathic and alternative treatments saying:

"so if I ever get ill I like to look at that side first before medicines because I don't really like taking tablets or things messing with your body..... have a different sort of treatment away from the conventional" (Ellie)

She also explained about her childhood in the Ukraine saying:

"my parents believe you shouldn't take tablets unless you really need them so we never really had a big habit of taking tablets" (Ellie)

Ellie's personal beliefs and support of her family seemed to influence her choices despite her working as a pharmacy assistant and having a good working knowledge of the possible pharmacological treatments she could try.

Julie said of her relatives "to be honest they don't have an opinion one way or the other" "it's a taboo subject" (Julie). During the interview Julie focused on the expense of the acupuncture she accessed prior to pregnancy "I have struggled to get pregnant and it is an expensive hobby to keep up" (Julie), these comments may reflect those of her relatives? Julie's choice of word

'Taboo' was interesting as it has connotations of something that is forbidden or not acceptable to talk about, "forbidden to profane use or contact because of what are held to be dangerous supernatural powers" (Merriam-Webster, 2014 <http://www.merriam-webster.com>). This may have indicated more disapproval than Julie was willing to indicate when she said her relatives "didn't really have an opinion" (Julie). Perhaps they had disagreed on the suitability of accessing acupuncture treatment during pregnancy resulting in Julie and her relatives no longer discussing it? Certainly during the interview Julie's husband and mother in law stayed in hearing distance but chose not to contribute. Disharmony between personal and supporters' beliefs may well have created increased pressure on Julie when accessing the acupuncture treatment for back pain in pregnancy.

iv) *Proof it works;*

Most of the women who had not experienced acupuncture previously were suspicious about how it could offer pain relief. Interestingly although these women were willing to try acupuncture as a potentially effective treatment due to their desperation to find relief they did not necessarily have personal beliefs in alternative medicine and had not accessed other complementary treatments prior to pregnancy. They also found their partners and wider family not to be as confident or accepting of such treatments.

Susan discussed the reaction of her partner as supportive, being able to see the difference in her levels of pain and increased activity:

"My partner has seen how much acupuncture has helped me so he has seen how good it is whereas my parents think that if it has relieved it then you must not have been in that much pain but I was literally in agony" (Susan).

Discussing her dad's negative reaction Susan says:

"My dad said after the first session, you only think it's done something to you because you have paid a lot of money for it and I said well I didn't pay anything for it, it's on the NHS so I can't be making this up" (Susan)

This fact seemed to offer Susan justification for accessing the acupuncture treatment.

Lucy who had significant problems during her first pregnancy with scar pain requiring many hospital admissions and the early birth of her baby said her mum was quite worried about her accessing acupuncture treatment in this pregnancy. Lucy also talked of her obstetric consultant's opinion regarding her accessing acupuncture saying:

"I don't think she really believed it worked but she was interested in it though, I am not really sure what she thought about it, but she didn't say don't do it she just said it was up to me what I did" (Lucy)

Lucy seemed to feel her consultant might not actually approve but was pleased she was at least interested enough to ask her about the treatment. Lucy seemed to feel more confident to access it because her consultant did not specifically advise against it.

The women mainly justified accessing the treatment by saying they could demonstrate its positive effects. Most of the women described their partners bearing witness to this seeing how much improvement they had in movement and sleep after treatment:

"My husband thought it was great, anything that helps you let's do it" (Alison)

"I think my husband can definitely see a difference" (Debbie)

"He could tell when I hadn't been or I was ready to go, he said I just seemed much more like my old self "(Lucy)

"I would even go home to my husband and say look I can move and it's not hurting"
(Amy)

Overall the women accessed acupuncture to try to relieve their pain no matter what their personal beliefs regarding the use of complementary or alternative medicine. They felt their choice to access acupuncture was justified by it being available within maternity services, recommended by health professionals and by it actually helping to improve their levels of pain and physical function. These positive effects were witnessed by relatives and friends offering further validation of the treatment and offering justification for their choice.

4.3.2: Theme 2: Relief and relaxation: Reduction of pain and improved wellbeing

i) Level of pain and suffering:

The reason all the women interviewed initially accessed acupuncture was to try to reduce the level of pain they were suffering. Their perception of the levels of their pain was clear by their descriptions;

“I had horrendous back pain they thought the baby was lying on my sciatic nerve” (Julie)

Susan used the word ‘pain’ 26 times within her interview, she expressed: “it was just constant agony”

“Even changing gear I would get a sharp pain which made me feel ill “ (Zoe)

“When my back was really painful the heavier the baby got and the longer the pregnancy went on it would have become much more painful and difficult to deal with”
(Alison)

The women also described the effect of the pain on other aspects of daily living with a great emphasis on sleep deprivation, the lack of sleep indicating the level of suffering and impact on their lives:

“I used to cry in bed because it was that painful and I didn’t know if I could face the next 10 weeks. I had never experienced pain like it” (Susan)

“There were some nights I would have to cling to the bed because I thought I was going to fall, I felt like my legs and pelvis couldn’t support me “(Amy)

“I’ve not slept properly for weeks obviously getting up in the night to go to the toilet and things in general. But turning over in bed was a massive issue” (Debbie)

Debbie’s reference here to the pain when turning in bed describes one of the classic symptoms of PGP thought to be caused by the softening of the pelvic ligaments during pregnancy.

“I was so tense, so wound up not able to sleep with the pain” (Lucy)

In order to try to cope with the pain the women resorted to medication, often reluctantly. Some were offered quite strong analgesia by their doctors due to the level of pain they seemed to be suffering:

“I did get some codeine from the doctors but I didn’t really want to take it” (Julie)

“The pain killers don’t really work very well and I have ended up on morphine which I don’t want to take especially when I am pregnant” (Lucy)

“You can only really have paracetamol and it doesn’t do much for you in general anyway. Paracetamol for me can only just about clear a headache”“when you’re pregnant you can’t make this better until you’ve had the baby so other than that it was a case of just putting up with it to be honest” (Debbie).

ii) Relief and reduction of disability:

The women seemed to judge the success of the acupuncture treatment in terms of how much pain reduction it offered but often explained this in relation to improvements in sleep patterns, daily activity and relaxation:

“I could get through the day more because I had more sleep at night and when I did sleep through the day I had restful sleep instead of disturbed sleep due to the pain” (Alison)

“It was like it had switched something off, when I got home I felt so relaxed, I went to sleep and had the best sleep I had had since being pregnant” (Lucy)

“After I had it, I was sleeping, I could walk around and I could go shopping probably why she’s got so many clothes to be honest” (Zoe)

Susan discussed the changes in her levels of pain and ability to be active using very expressive language saying:

“It is like they have performed a miracle on you. It is amazing because there is no other way of getting rid of the pain, paracetamol doesn’t touch it and obviously you can’t have

anything else then you have these needles put in you and the pain goes. It's madness"
(Susan)

References by the women to feeling benefit from the acupuncture treatment were not only confirmed by reduction in pain and improved function, but also seemed to involve their physical experiences both during and after the treatment itself. There are a number of interesting descriptions of the feelings from tingling and slight pain during treatment to adjectives more commonly used to describe sexual arousal or use of drugs to create a 'buzz' or 'high'.

"it's really, really strange sensation because I'm away with the fairies for the rest of the night"....." It's like eating a bar of chocolate and feeling really nice when you're eating it and it lasts all night" (Debbie)

"She put some in the bottom of the back and I felt euphoric because I had a head rush and I went a bit light headed"....."Then after I had it I was like wow. I actually felt like I fell in love with the person who did it because it was that much of a relief" (Susan)

"There wasn't any pain, just a tingling sensation then afterwards I felt a warming feeling in my body and I used to love going" (Zoe)

Hannah described her feelings when having auricular acupuncture within the group setting:

"So the midwife suggested going to the group acupuncture for relaxation, not that I was keen on having needles in my ears but actually once they were in I could feel relaxation starting to work from my head going down. Its funny as I am not really that relaxed sat chatting to the others but it still feels really relaxed and I look forward to that half hour"
(Hannah)

i) Relaxation and contentment

Interestingly when recounting their acupuncture treatment the women rarely referred to any negative experiences, this was included as a prompt within the interview schedule and thus I did ask them specifically if they had any negative experiences. This question resulted in some of

the women providing isolated examples of when the acupuncture had caused them pain or discomfort. All the women were keen to emphasize that this only happened occasionally seeming to consider it an acceptable aspect of their treatment. An example of this is Amy's response:

"It was a bit painful at times but I was surprised that it wasn't more painful sometimes I didn't feel them going in. There was one time, it must have hit a nerve or something and it felt like a real shock as if I'd been shot in the bum but that was the only time" (Amy)

Zoe recalled that the acupuncture although helping with the pain also had hurt her on one occasion and left her with discomfort: "I think she caught a nerve in my hand because my hand hasn't been right since, it hurt it really, really hurt". Zoe felt let down by her midwife as she had never suggested she could try acupuncture for her PGP despite her midwife actually being the midwife-acupuncturist who eventually treated her. Zoe found this difficult as she "didn't like the company", yet despite this and the pain she suffered she continued to attend for treatment and commented at the end of the interview "Anyone who says I've got a bit of pain, I say go and get acupuncture it will make your life totally different" (Zoe).

The women all described 'looking forward' to attending for treatment, this seemed to be related to the relief and pleasant feeling they experienced from the treatment itself. Some of the women also made referral to the fact that the pain seemed to still be present but that it 'bothered them less'. In a sense they were satisfied that they felt better than before the treatment, more contented and able to continue their daily lives with less disruption to them and their families demonstrating improved levels of wellbeing.

"The pain felt better, it was still there but not so overpowering, I felt I could cope with it better" (Lucy)

"So it is like a relaxation therapy as well as just a pain relief and you leave there calmer knowing that your pain is going to be lessened" (Susan)

"The pain doesn't completely go but it eases enough to allow me to do a lot more than I could normally do when it's really quite bad" (Debbie)

“I really like having the acupuncture it makes me feel relaxed , gives me a strange tingly feeling but my back is much better this time I’m able to cope with my little girl, I try not to lift her but sometimes I need to” (Hannah)

This response is surprising when considering acupuncture treatment involves the insertion of needles into the body but the most common reflection cited by the women regarding their acupuncture appointments was that they ‘looked forward to them’. They seem to find them a time of relaxation, finding the treatment pleasant and energising:

“I look forward to it every single week” (Debbie)

Susan again described the treatment in very evocative terms:

"I absolutely loved going for the rush when she put the needles in, the feeling of heat and relief and the head rush you get with it as well it was just amazing"(Susan)

She emphasises her feelings by referring to the monetary value of the treatment for her, saying:

"If I could go back every week until I give birth and pay money for it then I would" (Susan).

First and foremost the women found the acupuncture offered them pain relief leading to improved sleep patterns and physical activity. Small amounts of discomfort during treatment seemed to be something the women accepted to be part of the treatment and didn’t seem to have a negative effect on their overall experience. This relief improved their ability to function in their roles at work and at home particularly with child care. It also helped them to avoid using pharmacological pain relief, something they wished to avoid in pregnancy. It offered them control of their condition, helping them to cope and plan within their daily lives.

4.3.3 Theme 3: Trust and Understanding: Feeling safe when recommended by a midwife or health professional

i) Importance of the health professional:

All the women interviewed were obviously accessing a midwifery led acupuncture service, and when asked whether they thought it should be a midwife delivering the acupuncture treatment itself there was a positive but mixed response. Some of the women indicated that they really would have attended for acupuncture and would not have been concerned if it wasn't a midwife actually performing the treatment but still put trust in the health professional who recommended it to have considered their safety:

“I think trust is importantI felt that my midwife would not have sent me to someone that was not a recognised and reputable place to have acupuncture. However I was in so much pain at the time if she had just suggested acupuncture generally not done by a midwife I probably would have sourced it elsewhere because there is only so much physiotherapy you can take” (Alison)

Zoe was obviously not concerned about who was administering the treatment as she didn't expect the acupuncturist to be a midwife:

“This is going to sound really bad now but I expected it to be like a little Chinese lady, that's what I expected and it wasn't it was my midwife” (Zoe)

Debbie also felt it was not essential the treatment was offered by a midwife:

“No it probably wouldn't matter it's not a midwife as long as the person who was doing it understood how you were feeling and understood what pelvic girdle pain actually is” (Debbie).

ii) *Understanding of pregnancy and the condition:*

Most of the women were pleased the treatment was offered by a midwife acupuncturist as they seemed to feel she was more knowledgeable about pregnancy and able to understand their situation. When asked about the actual acupuncture appointments and the interaction with the midwife the women cited lots of examples of what they had talked about with the midwife, how they had used the opportunity to talk about their pregnancy. They seemed to relish this aspect of the appointment being able to ask questions and discuss issues they

perhaps had not been able to talk through at their antenatal appointments. There was emphasis on the understanding that was established within the midwife-mother relationship:

“So I do feel that a midwife understands more and they can explain it more to you as well, what it is that is wrong with me and why it’s happening” (Debbie)

“The midwife that did it was fantastic and we would have a little chat in the middle and she explained what was happening to my body and also we chatted about pregnancy and life. It was like a 20 minute therapy session” (Susan)

Lucy, having complications from scar pain used the opportunity to discuss her specific problems:

“It was good being able to chat to the midwives, it was like extra chance to chat..... I think it was like extra clinic appointments, the midwives understood what I was talking about and knew my problems so I didn’t have to keep telling everyone like I did at the hospital” (Lucy)

“Fine because she is obviously more knowledgeable than me in terms of pregnancy and can help to probably give advice better knowing what the problems could be” (Julie)

Vicky who suffered from PTSD particularly found the fact it was a midwife acupuncturist beneficial:

“PTSD is difficult for people to understand.....I could talk about anything and the midwife understood..... I didn’t have to explain it again” (Vicky)

Amy being a midwife herself felt:

“It’s easier to stop thinking like a midwife when it’s you actually having the babySo I liked that it was a midwife because it was still nice to have that input in an informal way rather than just in clinic when there is a lot going on and everything is a rush” (Amy)

Some of the women explained they did discuss pregnancy with the midwife but other times they were happy to discuss social things, emphasising they did not attend the appointments purely for discussions on pregnancy and in fact sometimes it was good to talk about something different:

“If I wanted some help with something that week I knew I could ask but other times it was just about social and general things. It doesn’t have to always be about what you were there for” (Alison)

“It is nice to chat in the session but it’s not the sole reason because if I need a chat I would talk to my girlfriends or ring up my midwife for advice” (Ellie)

Understanding was certainly a very important issue, the women showing frustration at the lack of empathy shown by some health professionals seeming to have no insight into the pressures on pregnant women:

Debbie was particularly bitter due the attitude of the physiotherapist she saw saying:

“I felt that the physio didn’t really understand ““physio said like you’ve got to stop doing that and stop doing this”“its Christmas and I’m taking my little girl to see father Christmas and my life doesn’t just stop because I’m having trouble”(Debbie)

Zoe actually voiced that she preferred not to talk during the appointments:

“Personally I would have preferred to have been left on my own, maybe have a snooze or something but that is probably because of the company” (Zoe)

However, this seemed to be related to the poor relationship Zoe had with this midwife.

iii) Empowerment

The relationship with the midwife during the acupuncture treatment seemed to help some women discuss options they had perhaps considered but found difficult to bring up within normal antenatal appointments, using the midwife acupuncturist as a sounding board or as a

way of accessing information and advice. This even led some of the women making alternative plans for birth or as new parents:

“Its nice to be able to just bat ideas off towards what her suggestions would be based on her knowledge, whereas if it was just a standard practitioner you would not be able to”“she can better knowing what problems there could be like the baby turning” (Julie)

“I am now planning a home birth and I feel more confident about it from discussing it withand other women. I have joined a home birth group and put me in touch with other local mums to talk about home birth” (Hannah)

The trust in the midwife was also born out in the fact that all the women seemed unconcerned about the qualifications of the midwife acupuncturist. A few did talk about their partners and relatives being more concerned about the safety of the practitioner and the treatment:

“My mum was more worried, she said don't be doing anything that is risky for the baby, how do you know its ok ...How can a midwife be giving you acupuncture they deliver babies” (Lucy)

“They were quite surprised it was done by a midwife though actually because they didn't think a midwife would be trained in that area” (Julie)

Others had encouraging relatives, particularly partners, indicating the partners may have more understanding of the level of their partners suffering:

“I've got a very laid back husband so he was like kind of yeah whatever if it helps it helps” (Debbie)

“Well he thought it was a really good idea” (Amy)

“My husband thought it was great, anything that helps you let's do it” (Alison)

“Not sure about, I think he must know it works because he saw the difference in me and he used to say you need to go for acupuncture” (Lucy)

The women wanted the acupuncturist practitioner to have understanding of their condition, of pregnancy and the additional pressures for women with debilitating conditions during pregnancy. They found a midwife acupuncturist to be knowledgeable and able to provide additional information and advice but also enjoyed the opportunity to discuss things other than pregnancy. They found they looked forward to the appointments and felt they improved their wellbeing.

4.3.4: Theme 4: Regaining self: Control of symptoms and adaptations to daily living

i) Self- efficacy

Most of the women interviewed had sought acupuncture treatment almost as a last resort, after having tried different methods of coping with their particular condition during pregnancy:

“I used to cry in bed because it was that painful and I didn't know if I could face the next 10 weeks” “I never had pain like it”, I didn't think anything could be done” (Susan)

“I couldn't walk from about 22 weeks and I didn't get diagnosed properly until about 36 weeks” (Zoe)

The women found their symptoms significantly affected how they felt about their pregnancy, feeling 'desperate', very anxious about its impact on them and their families. Most were trying to continue in their jobs and seemed almost embarrassed at having to take time out of work due to pregnancy. They felt guilt and pressure at not being able to fulfil their roles, feeling like they were letting people down, being an invalid requiring special arrangements for example having to move to a desk job or stop driving.

“It sounds really dramatic but when you are used to being able to walk around and just because you're pregnant you can't and get treated like an invalid it's ridiculous” (Zoe)

The impact on the family was something the women with children particularly wanted to rectify being worried they were not fulfilling their roles as mothers and carers and this in turn affecting their other children.

Lucy talking about caring for her little girl said:

“I didn't want her to feel she was hurting me so I used to have to stand it and then say quietly to Peter to take her off me, I felt awful about it” (Lucy)

Debbie also talked of her little girl saying:

“I didn't want her to feel during the pregnancy or when he is here ever pushed to one side, to stop doing stuff like getting on the floor and playing was the real hard one”
(Debbie)

This inability to perform normal activities with children was particularly an issue for Susan as she had an older child who was very sick needing constant care and frequent visits to hospital. The desperation and guilt felt by Susan due to pregnancy restricting her ability to care of her son was obvious within her comments: “I couldn't do anything, I couldn't clean, I couldn't get in and out of my car, I couldn't walk”. For Susan acupuncture offered some hope in regaining her old self and being able to continue this vital role:

“My life was restricted and the pressure on my whole family because I couldn't do anything was increased”. “The thought of getting to 40 weeks pregnant was so daunting because I was in so much pain” (Susan)

iii) Autonomy

Many of the women seemed to lose confidence in their ability to carry a pregnancy, feeling it was their duty, their role as a woman to be able to do this without creating a fuss and relying on others to help them. They felt uncomfortable with the tables turned needing care rather than being the carer, not wanting to take medication yet struggling to find a solution.

Zoe explained the extreme nature of her PGP and how frightened she was about her ability to cope with the rest of her pregnancy:

“I would have been in a wheelchair to be honest; I don't think I could have walked. I wasn't sleeping at night because every time I moved it was hurting” (Zoe)

Alison, discussing her choice to access acupuncture said: "I probably would have sourced it elsewhere because there is only so much physiotherapy you can take. Sometimes you need the alternative"

The avoidance of strong analgesic medication seemed to be associated with the women's strength and resilience as a mother, an indication of their protective instinct.

"for my baby, I didn't want to take tablets and damage my baby" (Vicky)

"I was so worried I would end up on lots of medication and not be able to cope or work or look after Lizzy" (Lucy)

Finding an alternative source of pain relief and support was seen as a positive way forward for these women, offering them glimpses of their old selves, giving an opportunity to have less pain and be more active. This in turn seemed to create an inner confidence from not only getting relief but also from finding the service itself, finding a solution.

Susan particularly emphasises the extreme nature of her pain, using the word 'pain' 26 times within the interview. She goes on to refer to the acupuncture treatment as a 'miracle' & 'fantastic' repeating these words three times.

"I was like an old woman and then walking back I was just normal. How could I be making that up, my brain couldn't do that" (Susan)

"I went from not sleeping to sleeping is the only way I can describe it. It made a big difference to my everyday life and wellbeing" (Alison)

"It is so different from my first pregnancy, I wouldn't have been able to pick Chloe up or take her to the park, last time I couldn't even drive and I was always in pain" (Hannah)

The women seemed to plan for labour with more confidence, Hannah planned a home birth and was in a social network of pregnant mums, something she had not even contemplated with her first pregnancy being so anxious about the impact of labour on her condition. Alison also planned a home water birth something she would never have considered previously due to

severe pain. She did eventually have an emergency caesarean for fetal distress at 39 weeks gestation but still seemed pleased to have had the opportunity to plan for a home birth.

Julie who had an IVF pregnancy was obviously concerned about her 'precious' pregnancy and although confident to attend for acupuncture still described how negative she felt regarding her abilities to give birth. She says: "I struggled to get pregnant, I might struggle with normal labour" comparing herself to a friend who was due on the same day who "seems to be sailing through". She was positive about the effect of the acupuncture because she could quantify that it "helps 10 fold". This positive effect seems to offer Julie some control over her life again, one the acupuncture has improved her back pain she talks about developing her birth plan and returning to reflexology treatment something she had prior to pregnancy but was nervous about accessing during pregnancy. Acupuncture seems to have offered Julie a solution, a confidence she does not want to let go, discussing how worried she would be if she had to stop attending.

Some of the women voiced frustration at not knowing about the acupuncture service earlier, feeling they had suffered unnecessarily.

"I didn't know anything about it until this student told me about and it makes me think my pregnancy could have been a lot different and I could have enjoyed it a lot more if I had known about it" (Zoe)

"I have had pelvic girdle pain since being 16 weeks pregnant and I eventually got referred for acupuncture when I was 20 odd weeks. Last time I only had to put up with it for 6 weeks but this time it's been from 16 weeks pregnant" (Debbie)

One woman actually talked about returning for further acupuncture treatment even though it didn't seem to work for her because she had been told it might get worse at first. She seemed pleased she had found the resolve to return and felt she had been rewarded for doing so.

"I spoke to another girl who had acupuncture and she said the pain gets slightly worse before it gets better, so straight afterwards it was very painful and I didn't think I would go back but after I persevered it helped a lot" (Ellie)

Most of the women struggled to think of anything negative to say, mainly suggesting more access to acupuncture treatment more than once a week or available from their own midwife at home or at their local clinic:

“There is nothing negative about it.... this might sound selfish but when you are pregnant and tired and everything is such an effort to go anywhere, maybe there could be a mobile service” (Alison)

“My only problem is only having it once a week” (Susan)

“I suppose it would be good if the midwife could do it in the clinic so you don’t have to have another appointment” (Lucy)

“I wish I could have it for my back pain due to breastfeeding as well” (Debbie)

For Julie who was an IVF pregnancy the negative aspect was considering how she would manage without it “I think I would be fearful now if just said we are going to discharge you because I would still want to go”. Julie went on to say:

“I think it would be good if your own midwife could perform this treatment on you because they can see how much pain you are in rather than having to be referred to someone else for it who then would have to fit you in” (Julie)

Overall, the women seemed to find the acupuncture a positive experience in terms of physical and psychological improvement, offering them additional confidence and empowerment in coping with their pregnancy and birth.

4.3.5 Theme 5: Discovering and sharing the secret: Finding a solution and wanting other women to benefit:

i) An indulgence:

Many of the women interviewed seemed to regard being able to access acupuncture treatment in pregnancy for free as their good fortune, often being aware it was unusual as an NHS service, something other women may not be able to access. They discussed it in terms of a luxury or an

indulgence almost a secret they had discovered, a treatment that was able to help them and that they looked forward to receiving.

Susan talked of how much she valued her time having acupuncture, time especially for her something in her hectic and stressful life she normally could not make room for:

“you leave there calmer knowing that your pain is going to be lessened and you have sat and done nothing for 20 minutes because that doesn’t normally happen in my life”

(Susan)

Amy also reflected on the special time having such pampering during her pregnancy:

“Thinking back to it then makes me get a little feeling inside like ‘aww’ because the pelvic and back pain I had would just build up during the week and I knew right I’m ready for this acupuncture now and I’d always kind of finish and I remember” (Amy).

Amy used this expressive sound of ‘aww’ to explain how she recalled the experience of having the acupuncture treatment, ‘aww’ being used to describe a pleasant relaxing feeling as the treatment relieved her pain. She goes on to discuss this feeling in more abstract terms referring to a time when she felt everything was coming together:

“When I was pregnant I did and it felt all the planets aligned it was really nice time and the acupuncture was part of that and it felt really indulgent” (Amy)

Interestingly some might describe the alignment of planets such as Jupiter, Mars and the Sun as rare events that can cause a feeling of weightlessness or a floating sensation, however others may consider it a sign of impending doom (Cessna, 2009) it is difficult to know if Amy knew what this phrase could mean or if it was just an expression she had heard and felt fitting for the description of her feelings.

Vicky who found it difficult to meet new people talked of how accessing the acupuncture for her pelvic pain was something more;

“I got so that I really looked forward to it every week, I don’t go out much at all usually just for shopping and then go straight back home, I don’t like to stay away from the house usually” (Vicky)

ii) *Equity and advocacy:*

Debbie described suggesting acupuncture to a friend at work who had a similar problem to herself only to find the women did not live in the same area and therefore could not access acupuncture as an NHS service:

“I do feel quite lucky because I do have a girl that we work with and she was going through something similar towards the end of her pregnancy as well but they couldn’t offer it because they said it was only around my area” (Debbie)

When asked if it was made available would they consider acupuncture for labour pain, all the women asked felt they would wish to try it indicating their faith in the treatment as an analgesia:

“If it was thought that acupuncture could alter your pain or threshold, anything to keep you in a certain state like hypno-birthing or if it could just help for labour in anyway then yes I’d love it and I think it would be good if midwives could be trained to do it” (Debbie)

“I didn’t have any pain relief in labour because I got to the hospital too late to have anything. But if I had had more time and if it had been offered to me I would have taken it because I know how well it works for me” (Zoe)

“I would jump at the chance to have acupuncture in labour” (Hannah)

Some of the women did go on to have acupuncture as a preparation of labour, sometimes referred to as ‘acupuncture induction’. These women seemed pleased that they had discovered this additional possible use of acupuncture, something that other women may not have known about. Again they talked of this as a discovery, something that other health professionals might not even have knowledge about:

“ I think it did help me even though didn't have it in labour it did seem to help get me into labour because my waters went on their own as if I was my body was ready” (Lucy)

“I discussed with the other midwife I saw about having the induction acupuncture” (Zoe)

“I don't know if a GP would have known about the use of acupuncture for the induction of labour or whether that was only something the midwives knew” (Alison)

However not all the women wanted acupuncture for labour preparation, Ellie explained her thoughts on this matter: “So I was offered it but I didn't take it because I just thought it would be nice to do it naturally” indicating her personal philosophy of trying to keep her pregnancy natural and normal without assistance where possible.

Most of the women interviewed wanted to spread the word about the benefits they had found from having acupuncture, some spontaneously discussed the need for more access to acupuncture for pregnant women within the NHS. They seemed to have become advocates for acupuncture often citing this as a reason for agreeing to participate in this study. They talked of recommending it to relatives and friends for other conditions outside of pregnancy. Cost was often mentioned as a prohibiting factor for some women particularly when it was not available in their local area within NHS services.

Ellie heard about the maternity acupuncture service via girl friends “so I found out from the girls that I could have acupuncture as long as you were pregnant so I thought ok maybe next time” She also thought information about acupuncture and its potential for conditions of pregnancy should be widely available adding “I think promotion and educating pregnant women is important but I definitely think it should be available to everyone”

Alison and Ellie felt strongly that acupuncture should be available on the NHS saying:

“I think it would be a shame if it was only available privately because I think it would stop mums to be having that advantage because not everyone may be in a position to afford to pay for it” (Alison)

After having the treatment Ellie said:

"it should be available on the NHS otherwise women might not go due to financial reasons and see it more as a luxury not as a necessity to help ease pain" (Ellie)

Susan talked of how much she promoted it within her network of friends and contacts saying: "I rave on about it so much they must believe me sometimes and I would like to think they would try it if they were in pain" , her husband becoming a 'convert'.

After her own struggles with PTSD Vicky considered acupuncture as something that could help prevent people having to take medication during pregnancy saying:

"It should be free from the doctors so that people don't need to keep taking tablets"(Vicky)

The issue of inequity of service seemed to create dilemmas for the women accessing it, some talked about other women they had met at work or as friends who could not access the Midwifery Acupuncture Service and it had made them feel awkward:

"I felt really indulgent and I didn't want to promote this as an amazing thing I was having because it is not available to all women. I think I got it because I was a midwife and people knew my face because I wasn't living in the area where people normally access it so that was a shame for telling others who lived near me as they couldn't access it"
(Amy)

"A girl that we work with and she was going through something similar.....its quite saddening really that it wasn't available to her, well she can but it will take longer for her to be referred whereas mine was really, really quick" (Debbie)

Overall the women were very positive about the benefits they and their families had gained from accessing this NHS midwifery acupuncture service and had a desire to help other women to have this same access both locally and wider. They had in general become advocates for the service and for acupuncture in general promoting it as a service that should be offered for free to enable all women to be able to access it no matter what their financial status. They also

promoted its use amongst their relatives and friends. Personally they were keen to continue to use it both in and out of pregnancy and would have liked the opportunity to try it as a form of analgesia in labour.

4.4: Critical Commentaries /Case studies

The following two case studies offer examples of the critical commentaries conducted for each participant demonstrating the in-depth idiographic analysis. These commentaries have served to identify the super-ordinate themes informing the development of the main themes and ensuring rigour within the research process (Smith et al. 2009).

i) Critical commentary: Case 2- Susan

Background:

This is a 28 years old woman, expecting her third baby, being around 38 weeks pregnant. She has two sons; a 4 year and a 10 year old who has profound learning and physical disabilities. Her 10 year old son requires a great deal of assistance and has a short life expectancy, attending hospital twice a week for haemodialysis, due to recently developing renal failure. She is married and has a part time job. She had been attending for acupuncture treatment for approximately 8 weeks, treatment of pelvic girdle pain (PGP) and lower back pain (PLBP). She signed the consent form and indicated she was happy to be interviewed that day. The interview lasted approximately 45 minutes, and there was no other person or child present. The interview took place in the woman's own home and she seemed relaxed during the interview. A pseudonym of Susan has been used throughout this analysis to ensure confidentiality and anonymity.

The transcript of the interview was completed and this was used alongside listening and re-listening to the taped interview. This is the process of developing super-ordinal themes for this individual participant. The super-ordinal themes can be seen below:

Super-ordinal themes for Case 2:

Desperation

Miracle

Getting life back

Dubious

Within Susan's discussion of her experiences regarding having acupuncture in pregnancy her language is full of expressive adjectives such as "agony", "miracle", "pain", "fantastic", "desperate". It is as if Susan is desperately trying to convey her true feelings and is concerned she will not be believed. This may be particularly relevant because she found the treatment beneficial. Susan has previously experienced a negative response from others she has discussed acupuncture with, for example she says that "my parents think that if it has relieved it then you must not have been in that much pain, but I was literally in agony". This use of expressive language is maintained throughout the interview, demonstrating Susan's need to emphasize the benefits she has found from having acupuncture treatment wanting to ensure she has done her best to explain the relief it has offered her.

When describing the severe nature of her pain and suffering Susan uses the word "pain" 26 times within the interview, illustrating her need to convey the level of her suffering and desperation. At one point she qualifies the level of desperation to "pure desperation", indicating that even desperation cannot describe her level of suffering. These extreme words are used as Susan feels "you can't understand until you have had it yourself". Repetition of adjectives such as 'pain' and 'agony' seem to help Susan emphasize the level of suffering, using them frequently even when discussing the beneficial effects of the acupuncture treatment, reminding the listener and herself perhaps, of the desperate position she found herself in. Other words she uses could be considered language of violence or trauma such as "torture" and "pelvis breaking", again emphasizing the profound effect of the pain on her life. Susan refers to the level of restriction on her and her family's life, "life was restricted", "life is so difficult", "pressure on all the family".

She explains in more detail the actual impact of this restriction from her pelvic pain, repeating the word "couldn't ", "I couldn't do anything, I couldn't clean, I couldn't get in and out of my car, I couldn't walk". During the interview Susan doesn't actually mention her additional duties as a mother caring for a sick child, she never refers to this aspect of her life as a burden or as something that may be contributing to the difficulties she faced, not able as active as she usually was. Yet she does allude to the fact via her comments regarding the family suffering with her as a consequence:

"my life was restricted and the pressure on my whole family because I couldn't do anything was increased", "the thought of getting to 40 weeks pregnant was so daunting because I was in so much pain".

It is only once the interview is over that Susan explains the additional needs and caring requirements of her older son, she is keen to explain that she is committed to her children and that her life is all about them. She reveals the severity of her older son's medical condition and the fact that her, her partner and her family try to enjoy each day with him as they do not know how long he has to live. This revelation provides further context as to level of suffering and desperation Susan felt when in severe pain, unable to concentrate on her family's needs rather than her own. It is also easier to understand why the thought of getting through the pregnancy was so daunting feeling nothing could be done to relieve the pain and desperately wanting to be there for her other children. As Susan states "I used to cry in bed because it was that painful and I didn't know if I could face the next 10 weeks" "I never had pain like it", I didn't think anything could be done".

The level of sadness and desperation Susan obviously felt when she had severe pelvic pain, can really be felt through her use of expressive language and description of the restrictions on her life. She does say that she has tried analgesia "paracetamol doesn't touch it" and indicates she would not take any other analgesia "obviously you can't have anything else". Presumably she feels she should not take any other analgesia because of the dangers of teratogenic or toxic effects on the baby? Again Susan is putting her own baby's welfare before her own, the severity of the pain still not resulting in her requesting more effective analgesia.

The impact of this suffering on her psychological state during this period is referred to by Susan when talking of her partners reaction to her having acupuncture treatment. She explains he could tell she had acupuncture because she wasn't "struggling as much and as crazy". This is a hint of the true impact on Susan's mental health and on relationships, particularly with her partner. She is obviously a person who is normally the carer, putting others first, thus it is a struggle for her to become vulnerable not being able fulfil her caring role, having others care for her.

Susan has a part-time job and I am sure must also feel the pressure of not being able to effectively fulfil her work role. However, Susan doesn't really mention this within the interview and so does not seem to consider this as important as the other aspects of her life, particularly her family's needs.

The pure desperation Susan feels is palpable throughout the interview demonstrating how important it was for her to find a way of coping with the pelvic pain. Not really for herself, but in order to continue her role as the main carer of her family, particularly for her older son. She described how she could not contemplate how she is going to get through her pregnancy when she was suffering the severe pain and felt there was nothing that could be done to alleviate her pain and suffering;

“when I was 30 weeks pregnant I honestly didn't think I would get to 40 weeks because it was restricting my life so much”, “ I didn’t think anything could be done”.

Susan definitely found the acupuncture treatment in pregnancy to be effect in reducing her pain, commenting that although she didn't feel anything could help her, " I walked out of the session feeling slightly better and as the day went on it felt enormously better". In comparison to the language Susan used to describe her pain and suffering from the pelvic girdle pain her description of her feelings when receiving the acupuncture treatment seem to be the extreme opposite. Discussing the treatment as a "miracle", "fantastic", "a relief". Again she uses repetition of these words to emphasis the power of her feelings, the "feeling of heat and relief". She repeats the words '*miracle*' and '*fantastic*' 3 times, also using other words that could be associated with an unbelievable event, perhaps someone performing magic, words such as

"wow", "amazing" and "madness". Susan is so pleased with the fact that she has been able to reduce her pain levels to the "usual pregnancy niggles" that she almost wants to shout it out to the world, but again seems to fear she may not be believed. She comments "you cannot understand the relief" and offers further evidence by saying:

"I was like an old woman and then walking back I was just normal. How could I be making that up, my brain couldn't do that".

"I couldn't walk when I went in there and now I can it is fantastic"

"it is like they have performed a miracle on you"

"I skipped out of there"

These comments again describing the effect as miraculous, offered within a supernatural or divine context, beyond what is humanly possible. This places the midwife acupuncturist as a miracle worker, almost saintly.

Susan describes her interaction with the midwife acupuncturist as " a little chat in the middle", saying "the midwife explained what was happening to my body and we chatted about pregnancy and life". She does equate this discussion as "*like a 20 minute therapy session*" but when questioned about the importance of it being a midwife administering the acupuncture Susan doesn't feel that it really mattered "as long as the person was nice". Susan seems more focused on the actual treatment effect rather than the type of discussion between her and the practitioner. This may indicate the effectiveness of her existing support networks, for example her relationships with her partner, friends, relatives. She perhaps has no need for further support from the midwife acupuncturist. She does say that her suggestion would be "it would be good if your own midwife could perform this treatment, because they can see how much pain you are in rather than being referred to someone else". Susan may have an established relationship with her midwife and as such does not need to seek support or advice from the midwife acupuncturist. She seems to view the relationship with the midwife acupuncturist as purely a practical one, simply to access the treatment itself.

In an effort to explain her exhilaration at finding a treatment to reduce her pain, Susan goes on to equate it to a love affair "I actually felt like I fell in love with the person who did it because it was that much of a relief", " you sort of fall in love with that person because you are in so much pain" .This metaphor of passion follows the miracle or divine paradigm and may explain the feelings Susan goes on to explain when discussing the immediate effects of the acupuncture treatment:

"I felt euphoric because I had a head rush and I went a bit light headed and she said it was a release of the pressure and energy change and stuff"

"I absolutely loved going for the rush when she put the needles in, the feeling of heat and relief and the head rush you get with it as well it was just amazing"

Susan's language regarding her feelings during the treatment may be associated with those describing love making or orgasm, as if the acupuncture treatment has stimulated an orgasmic or hormonal type response. Susan says she looks forward to this feeling as a relief from the pain "you left feeling euphoric and your body was fixed for a bit". The link between agony and ecstasy has often been related to pregnancy and birth, where the woman finds the pain of labour also stimulates orgasmic feelings helping the woman to feel empowered and able to cope even enjoy giving birth (Davis, 2010). These euphoric feelings Susan has may be related to the stimulation of oxytocin the so called 'love' hormone provoking these orgasmic type of experiences. The release of oxytocin is known to be involved in the neurological non-opioid mechanisms of acupuncture, producing an analgesic, anxiolytic and sedating effect (Uvnas-Moberg et al. 1998). This may explain Susan's reaction to the treatment. The psycho physiological feeling described by Susan could also be related to the 'De qui' sensation elicited within acupuncture treatment (Chapter 2.4). This De qui sensation is general described as a dull ache, a warm or tingling sensation, associated with a stronger somatosensory response and effective acupuncture treatment (White et al., 2008). Susan's responses may be an exaggerated form of De qui, possibly influenced by other psychosocial factors. However, it is also known that a person's response to acupuncture varies greatly some being stronger responders (White et al.

2008). Susan may be a strong responder or perhaps is just more able to describe the sensations she feels.

When asked if the acupuncture had other effects besides relieving the pain Susan again explains how happy she is to be going for the treatment saying "you have been looking forward to it for ages". She describes it as an opportunity to "chill out and relax for 20 minutes", time for her to relax. It is "like a relaxation therapy as well as pain relief", being able to leave the clinic "calmer". Susan also adds "that doesn't normally happen in my life" indicating she has no real time for herself and relishes the opportunity to sit and relax for 20 minutes, the acupuncture treatment providing her with a reason to do this. Again, this highlights the hectic nature of Susan's life and her pleasure in having a treatment that gives her some relaxation and relieves her suffering. It can be assumed this opportunity for time out has a positive impact on Susan's wellbeing and her ability to cope with her role as a mother and carer. She seems to be excited about finding acupuncture as a way of taking control of her pain and consequently her life. She seems to really look forward to the treatment and its euphoric effect analogous to an illicit or secret activity providing excitement, an interlude, a break from her worries and fears.

The reduction in pain Susan has gained is obvious; however the level of improvement may be affected by the additional effects gained during the treatment. Improvements in her wellbeing, the opportunity to relax and talk may have also positively impacted on her ability to cope with the pain. She explains that the acupuncture seemed to have a cumulative effect "after each no pain at all apart from the one thing I couldn't combat". Susan states that after the fourth session "I feel fine 99.9% of the time, it is just literally when I turn over in bed". Thus, Susan feels she now has no pain yet alludes to the fact she does feel "the normal pregnancy niggles" and "pressure not pain". It seems that the acupuncture treatment may have reduced the pain and helped her cope with a less significant pain level. This is a common phenomena within acupuncture treatment meaning the pain may 'bother her less' and may be related to the known effect of acupuncture on inhibiting the sympathetic response to pain via the limbic system, resulting in an increased feeling of wellbeing (Hui et al., 2005).

Overall, Susan seems very relieved she has found a treatment for her pain something she didn't feel was possible. She is ecstatic at discovering a way of controlling her pain, something she even finds pleasurable and has an added effect of relaxation and therapy. She is pleased to be able to care for her family, not being reliant on others to care for her. She is able to look forward finding the prospect of her continued pregnancy something she can face with confidence.

Probably the most important outcome for Susan is being able to "get her life back". Having spent half of her pregnancy wondering how she could cope, worrying how bad the pain might get, "I had it in my second pregnancy, but not as bad as this". She lamented that she "hadn't been offered this before and to be honest I didn't think there was anything they could do". This pessimistic outlook, as already discussed, relates to worries about caring for her children coping if her older son's health deteriorated further, feeling helpless, restricted and in pain. The impact of accessing the treatment was dramatic resulting in Susan moving from what she "couldn't do" to what she "could do", for example "I could do everything I could do before I was pregnant", "it was like my life was back". This language explains yet again her desperation when trying to cope with the pain implying she felt her life was not worth living. This level of depression and anxiety must have been unbearable and can explain her relief at finding a way out of this situation, released from the captivity of her disability. The link between pain and depression in pregnancy has been well documented and can be understood in terms of the pain reducing a normally active young woman into a disabled person reliant on others (Lou et al., 2012). Yet again Susan seems to have carried this burden of depression and anxiety not seeking help or medication for her pain or feelings of helplessness. It could be postulated that the acupuncture treatment was able to treat Susan's depressive and anxious state alongside her pelvic pain, explaining the dramatic positive impact of the treatment on her feelings of wellbeing and confidence (Smith et al., 2010).

ii) *Critical commentary: Case 4- Zoe*

Background:

This 19 year old woman was at the time of the interview 6 weeks into the postnatal period having had her first baby in a birth centre. The baby was a girl weighing 7lbs 2 oz and was healthy, now being breast and formula fed. The woman was at the time of the interview living with her parents but had a long term partner/fiancé who was very supportive. She clearly had a supportive family who cared for the baby in the kitchen whilst the interview took place.

The pregnancy was unplanned as the woman had been told she was unlikely to be able to have children due to a gynaecological problem. She was not working at present and had been in education prior to pregnancy.

She signed the consent form and indicated she was happy to be interviewed that day. The interview lasted approximately 45 minutes and there was no other person or child present. The interview took place in the woman's parent's home and she seemed relaxed during the interview. A pseudonym of Zoe has been used throughout this analysis to ensure confidentiality and anonymity. The transcript of the interview was completed and this was used alongside listening and re-listening to the taped interview. The analysis follows the IPA process as described in Chapter 3. The process in which the themes and super-ordinal themes were developed can be seen in Appendix 8. The super-ordinal themes can be seen below.

Super-ordinal themes for Case 4:

Hurt

Anxiety

Interaction

Improvement

invalid

Zoe had never met me before but she seemed keen to tell me about her experiences of having acupuncture in pregnancy. She had been shocked at being pregnant and seemed to have been very anxious in pregnancy due to her previous problems, being told she would be unable to carry a baby. She described having severe symptoms of symphysis pubis dysfunction (SPD/PGP) but was hurt and annoyed that her midwife had not responded to her requests for help with this problem.

"I couldn't walk from about 22 weeks and I didn't get diagnosed properly until about 36 weeks"

She described feeling as if her midwife did not like her as she didn't talk to her very much and seemed irritated by her questions. Zoe was obviously conscious of being anxious and ringing the midwife for advice "I didn't want to keep ringing". She felt the midwife didn't like her and concluded they didn't get on saying "she wasn't very nice to me". She sounded angry about the fact that a student had actually suggested her pain may be caused by SPD and suggested acupuncture. She obviously felt hurt and let down by her midwife as she had never suggested the possibility of SPD or of having acupuncture. When Zoe did attend for acupuncture the feelings of hurt and disappointment seem to have been exacerbated by the fact that the acupuncturist was in fact this same midwife "I was actually really surprised to see her because she never even mentioned it was her or anything". Presumably due to lack of explanation regarding the acupuncture clinic Zoe was not expecting a midwife,

"I expected it to be like a little Chinese lady, that's what I expected and it wasn't it was my midwife"

This situation is quite interesting as despite these feelings of hurt Zoe describes the acupuncture treatment itself in very positive terms, "it was good, I was quite pleasantly surprised because I did know her but she wasn't very nice to me". She seemed in one sense pleased and reassured it was a midwife, explaining pregnancy made her sceptical about everything, yet still angry regarding the midwife's attitude saying:

"I didnt like the company" & "Would have been nice to have a chat ask questions" but still feels "It was better that it was a midwife because she was my midwife all the way through she knew the pain and stuff so she knew".

This issue of hurt is obvious throughout the interview as she is keen to explain how the acupuncture improved her condition and her life;

"everything was just greatly improved after I had it, I sleeping, I could walk around and I could go shopping probably why she's got so many clothes to be honest".

However the hurt she felt is displayed in how she describes the midwife getting the needle in the wrong place:

"But the acupuncture didn't hurt apart from when she put it in wrong I think and she tweaked it, I nearly fainted it was horrible".

"I think she caught a nerve in my hand because my hand hasn't been right since, it hurt it really, really hurt"

Zoe demonstrates her anger and negativity towards her midwife, obviously feeling let down feeling that although the acupuncture was working well she has been left to suffer all these weeks.

"I didn't know anything about it until this student told me about and it makes me think my pregnancy could have been a lot different and I could have enjoyed it a lot more if I had known about it".

This issue may in part have been related to her own anxiety about the pregnancy transferring her frustration to anger about the midwife's attitude. However it may also have demonstrated the midwife's own inability to hide her irritation and impatience when caring for this anxious yet vocal young woman. The midwife had referred Zoe for physiotherapy, something which Zoe describes as helpful in coping with her SPD explaining "The physiotherapy made the pain manageable whereas the acupuncture took the pain away for a greater proportion of time".

Zoe confirms that the midwife was always letting her down as she also describes the time another midwife ran the acupuncture clinic and suggested acupuncture for induction of birth. Again she highlights that her own midwife had never offered this possibility of induction treatment and that she had to ask her to do this. She feels hurt and suspects the midwife of denying her treatments that may help her. This is really sad and may indicate Zoe's is feeling that she is being judged as a young mother, feeling she needs to fight her corner and show what a capable mother she will make. This in turn seems to heighten Zoe's anxiety as she expresses how importance she feels it is for all pregnant women to be given the right to have treatments such as acupuncture. She may actually have felt that the acupuncture was normally only offered to those mothers who fitted a certain socially acceptable group and that her midwife did not consider her to be within this group.

The interaction within the acupuncture sessions were discussed by Zoe in similar tones, as she says she preferred not to talk to be left alone to sleep and relax. She does explain this may be because of "the company". "I never discussed anything else with my midwife". Yet in contradiction to this Zoe does also say she thinks it is of benefit to have a midwife acupuncturist and that having the opportunity to discuss things is helpful saying; " I am more comfortable if a midwife" & "she is able to answer your questions" .

"So if I had forgotten to ask at the other appointment I could drop them in there. I suppose it was like a check up really, like a midwife appointment".

It seems the idea of a midwife delivering acupuncture treatment was very acceptable to Zoe in principle but she did not feel comfortable with her own midwife yet she also says "she didn't mind answering any questions I had or about anything that was happening but then quite often she would ask me questions". So her discussion seems contradictory in parts and may indicate that the midwife did fulfil her duty but that Zoe felt no warmth toward her.

This issue demonstrates the importance of gaining the woman's trust and confidence within a therapeutic relationship and that once this trust is lost it is very difficult for the relationship to be rebuilt.

"Personally I would have preferred to have been left on my own, maybe have a snooze or something but that is probably because of the company"

This issue is also interesting in terms of the 'placebo effect' as it would be expected that if Zoe did not like or trust the acupuncturist this would affect the outcome of the treatment, yet Zoe demonstrates a true effect of the treatment despite these relationship issues. Interestingly Zoe's partner attended most of her acupuncture appointments. This issue is discussed by Zoe as a benefit of having a local acupuncture service being able to get to the clinic easily and it being convenient for her partner to attend. His attendance may indicate both their levels of anxiety regarding the pregnancy and perhaps her concern regarding her relationship with her midwife?

"it was convenient especially because he works close by so he could come with me and we could go shopping afterwards because it's right in the middle"

It may also have indicated a good support network and close relationship with her partner. This in itself may have given her confidence. She discusses her partner being very interested in the acupuncture and becoming a 'convert'.

The improvement the acupuncture provided is evident throughout the interview as Zoe explains how she changed from being an invalid to being able to function normally " because you're pregnant you can't and get treated like an invalid it's ridiculous". Her frustration at being left to suffer again showing through, "Anyone who says I've got a bit of pain, I say go and get acupuncture it will make your life totally different"

She describes her condition in terms of a disability "I would have been in a wheelchair to be honest; I don't think I could have walked. I wasn't sleeping at night because every time I moved it was hurting". She is also to articulate her improvement by stating what she was able to do after the treatment; "then everything was just greatly improved after I had it, I sleeping, I could walk around and I could go shopping"

"It sounds really dramatic but when you are used to being able to walk around and just because you're pregnant you can't and get treated like an invalid it's ridiculous"

Zoe chooses words that demonstrate her suffering by comparing herself to a disabled person, someone whose life is very restricted and in need of assistance or aids. In this way she seems again to be displaying her frustration, discussing the amount of suffering she has had and her anger at not being offered a solution earlier. She demonstrates her improvement and also how acupuncture helped her labour to start. She seems to be seeing acupuncture as her crutch or saviour and in essence offering her control and empowerment within her pregnancy and birth.

4.5: Summary of the Findings

This chapter has demonstrated the diverse and complex response of the women who participated in this study, highlighting how the particular social and psychological aspects of their lives affected both their pregnancy and the condition they were suffering with. The idiographic focus of this study has enabled their individual stories to become clear within the findings using a conflation of the super-ordinal themes identified within each woman's discourse to be reflected in the subheadings of the five main themes identified. These five themes have been discussed within the context of the subheadings detailed in section 4.2.

The main themes identify that the women wished to validate their choice of accessing acupuncture treatment during pregnancy, often searching for justification. The women were generally looking for relief of pain and disability, wanting to improve their level of mobility and find some relief and relaxation from this suffering. The women seem to be searching for understanding, wanting to put their trust in a professional who can offer them relief, someone who can understand their situation and condition and empower them to feel more in control of their pregnancy and condition. The women want to regain their old selves, wanting self-efficacy and autonomy within their lives to help them cope with family life, work and pregnancy. Overall the women seemed to find their acupuncture experience positive with acknowledgement of minor levels of discomfort that they considered an acceptable part of the treatment. The women seemed to regard accessing acupuncture as an indulgence and something to look forward to something they felt should be available for all pregnant women free within the NHS maternity service. These findings will now be discussed in Chapter 5 with reference to the relevant available literature.

Chapter 5: Discussion of the findings

5.1: Introduction

This discussion considers the findings of this study in relation to the existing literature identifying how this research illuminates and challenges the findings of other studies (King & Horrocks, 2010; Smith et al., 2009). This chapter considers each of the five main themes utilising the sub-headings to ensure comprehensive discussion of the findings in sections 5.2-5.6. Section 5.7 summarises and explains how these findings relate to the aims and objectives of this research outlining the limitations of the study. This section also includes an evaluation of the IPA process considering what has been learnt and the implications for future midwifery practice.

5.2: Theme 1: Validating choice: Justification for accessing an alternative treatment:

i) Expectations:

The participants of this study all chose to access acupuncture, a treatment not generally offered within conventional UK antenatal care provision, being considered a complementary or alternative medicine (CAM). The women participants seemed to feel the need to justify accessing acupuncture treatment, wanting relatives, friends and carers to understand this choice. Within the western world there is a dominance of the biomedical paradigm resulting in CAM, including acupuncture, often having limited investment in research and resulting in a limited evidence base from which to develop services or facilitate informed choice (Fønnebø et al., 2007; Mitchell, 2010). Within this empirically driven culture pregnancy is considered inherently risky needing medical management to ensure positive outcomes. Accessing CAM can be seen as rejecting the medical model potentially putting the woman and her baby at risk (Mitchell & McClean, 2014; Mitchell, 2010) and such attitudes may explain the women's need to justify their use of acupuncture in pregnancy.

The women in this study were willing to try acupuncture as an alternative treatment for their pain. These findings support those of surveys on the use of CAM within the western world, finding women to be in the majority seeming to be more likely to consider trying such therapies

as a solution to physical problems (Bishop & Lewith 2010; Eiseberg et al. 1998; Fønnebø et al., 2007; Kessler et al., 2001). This issue may be related to women being more likely to access treatment for conditions generally, or it may indicate they are more accepting of alternative treatments (Young, Bayles & Benold, 2013). One recent UK survey of over 800 private acupuncture practitioners from both western and traditional backgrounds reported that treatments related to pregnancy and childbirth were the fourth most common reason for the public to access acupuncture within the ten broad categories of treatments delivered (Hopton et al., 2011). Despite issues of heterogeneity within the available evidence it seems there is an increase in the use of CAM for a variety of conditions including acupuncture and that pregnancy is a time when women may be more likely to turn to CAM, being unable to access treatment or being reluctant to use conventional medicine due to its potentially teratogenic effects (Hall et al., 2012; Hope-Allan et al., 2004; Mitchell & Allen, 2008). This may also support the theories regarding the natural caring ethic; women being more likely to solve their problems by looking for alternative means of gaining support through relationships and mediation. In this situation the women were looking for alternative ways to care for themselves and others, in order to protect their baby and family, not seeing any need to adhere to the rules or conventions of the biomedical model (Gilligan, 1982; Andre, 1984).

The women in this study who had no previous acupuncture experience had little expectation that it would relieve their pain and were only trying it because it was suggested by a health professional. Their personal beliefs did not seem as focused on a holistic approach yet when actually engaged with the treatment they found it equally beneficial to improve their levels of pain, looking forward to the treatment sessions. This finding contradicts recent CAM studies concluding pregnant women generally choose CAM as a holistic therapy or as part of their belief system, continuing the treatment throughout pregnancy (Adam et al., 2009; Mitchell & McClean, 2014; Warriner et al., 2014). These studies also indicate a link with higher levels of educational achievement and financial means (Mitchell & McClean, 2014; Adam et al., 2009) also not reflected in the background or the responses of the women in this study. This difference may relate to the SMAS being a free NHS service, with women being referred by health professionals for a specifically diagnosed condition rather than a therapy they access

privately to enhance their health. The findings from this study do however concur with an Australian study set in a public midwifery service demonstrating women accessed acupuncture from a broad range of social backgrounds for a specific condition of pregnancy when referred by the health professional (Hope- Allan et al., 2004). This supports the notion that when referred for a specific condition during pregnancy by a person they perceive as knowledgeable and trustworthy, women are more likely to consider the treatment, potentially accessing a treatment they would have never considered otherwise. These findings also indicate that when acupuncture is offered free within maternity care women from lower socioeconomic situations are as likely to access it as those who could afford to access it privately.

Previous life experiences and education may influence personal beliefs and in turn expectations, yet when suffering pain or discomfort human need remains similar responding to relief of physical symptoms with the corresponding psychological benefits, creating improved function and wellbeing (Van Dorsten & Weisberg, 2011). In this study the expectations of the women did not seem to affect their experience of benefit from the acupuncture treatment in fact the reverse, some of the women who were most sceptical seemed the most ebullient about the positive relief and improved function they gained, particularly Susan, Debbie and Lucy. This is an interesting issue that may inversely relate to the level of desperation these women were experiencing, an issue not really explored within the available literature but warranting further investigation to increase understanding of acute pain in pregnancy.

ii) Following professional advice:

Surveys of pregnant women's use of CAM generally report women accessing them due to their dissatisfaction with conventional medicine (Adams, 2009; Bishop et al 2011; Warriner et al., 2014). In contrast the women in this study accessed acupuncture treatment via a health professional (generally a midwife), and despite sometimes knowing of acupuncture as a possible treatment for pain they ensured approval from their midwife or obstetrician before attending. Except for one participant Zoe, the women did not seem unhappy with their antenatal care and did not indicate they were utilising acupuncture as a way of addressing dissatisfaction in their care; instead they focused on its potential as a method of relieving pain

to be used alongside conventional medicine. This is congruent with the findings of a recent Swiss qualitative study by Gisin et al., (2013) where despite knowing about the availability of acupuncture for pain relief in labour women did not request it yet were very happy to accept it once suggested by the midwife caring for them. It seems that to be confident in their choice of using acupuncture the women preferred gaining validation from health professionals justifying the use of this unconventional treatment. The different attitude taken by the participants of this study may be related to the nature of the acupuncture treatment as in contrast to some CAM it is usually targeted at a specific condition for example PGP/PLBP and as such provides a reason for treatment rather than being a continual therapy offered for wellbeing. A UK qualitative study of non-pregnant participants identified that many of their respondents needed a reason to attend for acupuncture treatment but then once attending continued to receive treatment for wellbeing despite resolution of their original condition; this again was reflected in this study as the women generally continued to attend for acupuncture even when their pain had resolved (Gould & MacPherson, 2001).

It is obvious from the participant's responses that they placed great faith in the advice of health professionals particularly their midwives and the fact that acupuncture and other CAM are not recommended by national bodies such as NICE was not highlighted as an issue for them. Discussion on referral for acupuncture did not seem to have included the available evidence or NICE guidance; this may reflect the midwives' confidence in the treatment, or a lack of knowledge regarding the evidence; it could also be indicative of the particular midwife's epistemological standpoint. Studies exploring midwives' attitudes to CAM use in pregnancy found they generally promoted its use, feeling it to be philosophically congruent with their role as a safe alternative to medical intervention, supporting both the women's and midwives' autonomy (Hall et al., 2013; Hall et al., 2012; Mitchell & Williams, 2007; Adams, 2006). A UK wide survey conducted in 2006 exploring midwives views regarding the contribution that CAM makes to supporting normal pregnancy and birth found that despite only 34% of maternity units offered CAM services such as massage, aromatherapy, reflexology and acupuncture, 70% of the midwife respondents thought CAM helpful to pregnancy and birth and 90% felt CAM should be available within NHS services (Mitchell et al., 2006). UK midwives seem to be

promoting CAM, unofficially mediated by their knowledge, beliefs and practice environments (Mitchell et al., 2006). A qualitative study conducted in Australia exploring how midwives coped with this dichotomy concluded that midwives work pragmatically in partnership with the women striving to offer individualised care but often lacking knowledge, and they have little professional guidance to help them facilitate informed choice for the women in their care (Hall et al., 2013). This lack of knowledge and guidance for midwives and other health professionals is concerning considering the level of trust women seem to place in them (Mitchell, 2010; Adams, 2009; Hope Allan et al., 2004).

Whilst there is little empirical evidence of risk related to the use of CAM in pregnancy it would seem prudent to improve the knowledge and quality of information provided by health professionals. This issue requires serious consideration in terms of future research and regulatory strategies (Ernst, 1995; Ernst, 2011a; Fønnebø et al. 2007; Hall et al. 2013; Mitchell & McClean, 2014; Tiran, 2006). Health professional dilemmas particularly considering the differences between philosophical approaches from the medical to more holistic models of care are probably indicative of the challenge that the increased use of CAM poses to biomedical dominance. The influence of the health professionals on the women's decision to use or even disclose use of CAMs and their potential lack of knowledge regarding these treatments or therapies creates potential risk and undeniably may negatively affect the woman's physical and psychological outcomes.

iii) Following and challenging personal and shared beliefs:

Women can often find it difficult to make decisions about their care in pregnancy finding their personal beliefs to be challenged and their choices reduced (Hall et al., 2013; Mitchell, 2010; Warriner et al., 2014). Two of the women in this study, Julie and Ellie who had previous acupuncture experience explained their personal belief in alternative treatments as a way of improving their wellbeing outside of pregnancy. These women wished to continue this holistic approach during pregnancy but only accessed the treatment once they had a physical reason, in their cases when suffering with back pain. Julie and Ellie had an expectation that the acupuncture would help and in Julie's case were happy to continue despite having the

additional risk of an IVF pregnancy. Their personal beliefs created a positive approach something that Ellie actually felt was an important component of the treatment process. Common to recent UK and Australian studies is the women's frustration regarding health professionals lack of understanding of the importance to pregnant women of a holistic approach to their care (Warriner et al., 2014; Hall et al., 2013). Women want their personal philosophy to be acknowledged this being intrinsically linked to their self-esteem and ultimately impacting on their wellbeing (Warriner et al., 2014).

Within this study the belief systems of relatives and friends were sometimes at odds with the women's particularly as the treatment progressed. None of the women disclosed that this affected their decision to access acupuncture initially despite their relatives' scepticism. Julie was the only woman who hinted at a tension between her and her partner saying it was a 'taboo' subject, yet despite having a high risk pregnancy she still had the confidence to use acupuncture, perhaps because it was advised by a health professional. As these women were essentially a self-selected group who found acupuncture treatment beneficial they may have had quite supportive relatives and friends; other women choosing not to access or continue to attend for acupuncture treatment may have been influenced by more negative responses from their family and friends. Within the studies regarding the use of CAM including acupuncture in pregnancy the influence of relatives and friends is not really discussed yet the opinions and influence of health professionals feature highly (Steel & Adams, 2012; Adams, 2006; Hall et al., 2013; Mitchell & McClean, 2014). The potentially powerful influence of relatives and friends is often referred to as 'the lay referral network' a description coined by Sociologist Eliot Freidson in his work 'Client Control and Medical Practice' in 1960. Within his work he concluded this network to have a great influence on a person's choice and acceptance of medical treatment, often a more powerful influence than that of the health professionals caring for them. The power of this lay influence is demonstrated in aspects of pregnancy and birth for example in studies related to women's birth place and infant feeding choices (Rempel & Rempel, 2011; Bedwell et al., 2011; Alexander, Dowling & Furman, 2010). This issue is not considered within the CAM and acupuncture studies indicating a gap in the evidence base and an area requiring exploration within future research. Better understanding of the influences on choice during

pregnancy and birth particularly regarding CAM and acupuncture would help to inform clinical practice facilitating women to access the information they need to make an informed choice.

iv) Proof it works:

For most of the women in this study the main reason for accessing acupuncture was justified by experiencing a positive response to the treatment. This was in terms of the women's perception of pain relief seeming to be closely linked to additional benefits such as being able to sleep and move around more easily. This proof was often validated by their partners and relatives creating an additional level of justification. Such personal evidence of effect seems to surmount empirical studies and brings into question the appropriateness of using the conventional biomedical research methods when testing the effectiveness of CAM (Steel & Adams, 2012; MacPherson et al., 2010; Fønnebø et al., 2007). It is often clinical evidence that gains the interest and confidence of health professionals in CAM treatments seeing the benefits to patients and wishing to offer an effective treatment to others (Hall et al., 2013; White et al., 2008). This issue is not confined to CAM as it is now widely recognised that the western emphasis on evidence based medicine whilst having produced a number of successful changes for conditions such as asthma and diabetes is now becoming difficult to control with an explosion of studies, the number and size of the resulting guidelines becoming unmanageable and difficult to implement in practice (Greenhalgh et al., 2014). A review of priorities with individualised care at the centre of treatment is needed to find out what matters to patients. Greenhalgh et al., suggests that effective dissemination of such findings could promote clinical reflexivity in response to patient need, reducing health professionals adherence to organisational rules, increasing choice and improving care (Greenhalgh et al., 2014; McCormack, Sheridan & Lewis, 2013). With regard to acupuncture the STRICTA guideline has been developed to facilitate more effective analysis of studies considering aspects appropriate to acupuncture and hopefully creating a more applicable evidence base to appropriately facilitate integration within western medicine (MacPherson et al., 2010).

An additional dimension to this debate is that conditions of pregnancy are not chronic in nature and the availability of evidence based treatments is limited due to ethical restrictions on

empirical studies (Matthews et al., 2010). Women consequently have 'Hobson's Choice' in terms of treatment options within conventional maternity care as health professionals have limited evidence on which to base care. CAM can be seen as a safe natural alternative to pharmacological treatments, women & health professionals seeing CAM as a way of avoiding the risk of teratogenic effects. Despite a lack of sufficient evidence to demonstrate efficacy, the absence of any evidence of harm seems to convince the public and professionals that CAM is an acceptable alternative (Hall et al., 2013; Adams, 2006). Within this study the health professionals were confident to refer the women to the acupuncture service; this may be related to the midwife- acupuncturists being their colleagues and knowing that as an NHS service it must have been given approval within clinical governance processes. Overall the women in this study did not seem to need or want empirical proof of effect, being confident in acupuncture as a treatment suggested by their midwife or other health professional, and content with their personal experience of effect with added validation from family and friends.

5.3: Theme 2: Relief & Relaxation: Reduction of pain and improved wellbeing:

i) Level of pain and suffering:

The women in this study explained their level of pain or discomfort by using expressive language to emphasise their suffering and the impact of pain on their daily lives. The use of the words 'agony' and 'desperate' were common with the women providing examples of when the pain was at its worst, such as turning in bed or getting out of the car. They referred to their emotions to emphasise the severity such as crying in pain when trying to walk to the toilet, feeling sick or not being able to contemplate how they would manage the rest of their pregnancy. Pain is known to be a personal subjective experience affected by cultural meaning, context and a host of other psychological variables (Katz & Melzack, 1999). The understanding of pain has developed over the last century from considering it a purely sensory response to understanding it as multifactorial construct being overwhelming, demanding immediate attention and affecting ongoing thought and behaviour (Van Dorsten & Weisberg, 2011).

Studies related to back pain in pregnancy, although limited, have demonstrated it to be the primary method of diagnosing PGP /PLBP, suggesting a stabbing or shooting or dull ache type

pain especially when walking, sleeping and turning in bed (Ee et al., 2008; Langshaw, 2011; Wu et al., 2004). Within the small number of studies on PGP/PLBP, tools have been used to try to measure levels of pain, however these are not always appropriate for pregnancy. It has now been established that the degree of pain felt cannot be equated to the level of effect on joints thus such tools may be considered to be of limited use (Wang et al., 2009; Wu et al., 2004). The women in this study particularly focused on sleep deprivation as a way of explaining the detrimental effect of their pain, the lack of sleep impacting on their capacity to cope with work, child care, relationships and their lives in general. This issue is mentioned in the limited qualitative studies available regarding PGP/PLBP but its particular significance is not discussed (Lena, 2004; Pierce et al., 2012). Studies on the impact of sleep deprivation in pregnancy are equally limited but indicate an increased risk of premature birth, prolonged labour and perinatal depression when the quality or amount of sleep is affected significantly (Chang et al., 2010; Lee & Gay, 2004). The studies on sleep in pregnancy do not isolate pain as a cause of sleep deprivation specifically but it could be surmised that pain in pregnancy could increase the level of risk, potentially impacting on maternal and child outcomes.

In line with the available evidence the women in this study reported their pain to have a negative impact on family life, especially in their ability to care for and play with their children. All the women with other children felt guilty about being unable to care for them as well as usual, worried that their children might feel rejected prior to the birth of a sibling and perhaps affecting their ongoing relationship with those children. They also indicated a fear that the level of pain might affect how they bonded with their new baby. Susan was particularly concerned due to one of her children being terminally ill; she felt a great burden of guilt, feeling her physical problems were forcing her to abandon him at a time of greatest need. Although one study has identified a link between PGP/PLBP and depression in pregnancy (Gutke et al., 2007), apart from Vicky with pre-existing PTSD none of the other women in this study mentioned feeling depressed, however most seemed anxious and stressed, worried about coping with the rest of pregnancy. They were concerned they may for example; need to stop work and/or face the consequences of financial constraints, when having to go back to work earlier than planned after the birth. Others were worried about becoming; very disabled, needing to use a

wheelchair, having to take strong medication or be cared for by others. The available literature does not really address these unique psychosocial issues of pregnancy in terms of their impact on a woman with overwhelming pain. This is an area in desperate need of further research due to the potential negative impact and risk to outcomes for the woman and her family physically, psychologically and socially.

Many of the women in this study described their frustration when trying the limited options available such as; mild analgesia or physiotherapy. They reported being unable to finding anything that really helped. They essentially felt abandoned by health professionals, the pain being something they seemed to be expected to cope with, and almost a test of their endurance analogous with their ability to fulfil their future role as a mother. This issue of abandonment is recognised within the qualitative literature regarding the treatment of conditions such as NVP & PGP/PLBP (Greenwood & Stainton 2001; Matthews et al. 2010). However concerns related to the risks of introducing treatments for pregnant women without evidence of their efficacy largely inhibit research and development despite evidence of efficacy within the non-pregnant population (Vlemming et al., 2008; Wilton et al., 1998). When conventional medicine cannot help the public and health professionals look for alternative solutions, CAM often becomes the focus of attention (Sherman et al., 2004). In a sense this sets CAM against conventional medicine rather than it being integral to individualised care. What seems significant within this study is that the women felt acupuncture was part of conventional maternity care and as such being referred for acupuncture was recognition of their suffering offering them choice and helping them to feel supported. The impact of just having this treatment suggested as an option seems to have given the women hope, helping them to have more autonomy over their situation. The women in this study all felt immense relief in being offered another treatment to try when all others do not seem to help. The women felt lucky to have found it and very keen to explain how much it had helped to reduce their pain and suffering.

ii) Relief and reduction in disability:

Finding some pain relief from the acupuncture treatment was common to all the women interviewed some being much more enthusiastic than others within their explanation. Susan was the most effusive using words such as 'miracle' and 'fantastic' a number of times, her emotional response was clear as she said "I actually felt like I fell in love with the person who did it because it was that much relief", equating it to a reciprocal or bonding relationship, expressing an uncontrollably intense response to the treatment, perhaps due to her vulnerable state at that time (Morris, 2005). Interestingly most of the women explained their relief in terms of an emotional response with words such as 'relief' and 'release', relief seeming integral to their experience of the treatment itself. A number of the women explained their response to treatment as an unusual feeling, such as 'tingling', 'euphoric', 'away with the fairies' 'it changed something', 'like a heat', 'like eating a bar of chocolate'. These descriptions are comparable to an exaggerated physical and psychological state not typically achieved during the normal course of human experience (Belluzi & Stein, 1977). The responses seem similar to those induced by the use of drugs or alcohol as a 'high', possibly mediated by endogenous opiates (Sanfelice et al., 2014). Within western medical acupuncture such responses are considered to be segmental and extra segmental effects, the stimulation of afferent nerve fibres inhibiting the nociceptive pathway, releasing enkephalin and β -endorphin and producing an analgesic effect with a general inhibition of the limbic system (Clement-Jones et al., 1980; Lund & Lundberg, 2006)(see Chapter 2.4 for further details).

It seems quite unusual that in this study most of the women interviewed reported quite similar intense experiences, other qualitative studies have reported some responses to needling to include 'tingling', 'numbness' and 'heat' generally attributable to the stimulation of A δ fibres creating the classic 'de qi' response from manipulation of the acupuncture needle during treatment (Kong et al., 2002). However the intense responses described in this study have not been documented in other qualitative studies (Soliday & Hapke, 2013; Hope-Allan et al., 2004; MacPherson et al., 2006; Gould & MacPherson, 2001). This may be due to the method adopted within these studies primarily using questionnaires rather than interviews. This approach may have inhibited collection of such in-depth reflections. A nursing study from Australia by

Griffiths & Taylor (2005), did attempt to describe the lived experiences of patients receiving acupuncture in order to give nurses the language to explain the experience to their patients. This study reported a proportionally large amount of negative language regarding needling such as 'like a tiny wasp', 'sharp' and 'hot wire' along with the more familiar terms of 'numbness' and 'energy flowing', but the interviews did not seem to capture the intense responses reported in this study. When asked about any negative experiences of the treatment the women in this study struggled to think of anything to say referring to any discomfort from the needles as rare and minor, something to be expected and that they didn't mind. Zoe was the only woman who referred to it as being really painful at one session, interestingly she was also the only person who reported a poor relationship with the midwife –acupuncturist, which may have had an impact on her perception of these adverse responses. However it may also have been that the other women did not wish to report negative aspects of the treatment for fear of upsetting me as the researcher, or it being reported back to their midwife –acupuncturist (White et al., 2008). This is an example of a limitation of this study where as an insider-researcher I may have impacted on the findings of the study

Minor adverse events are considered to be minimal estimated to occur in 7 to 11% of consultations, commonly including needling pain, bleeding, drowsiness and faintness (MacPherson et al., 2004). A quantitative study on PGP/PLBP asked specifically about these events finding an increased incidence of minor adverse events in comparison to other qualitative studies. This study indicated women's reticence to complain and possibly those they consider minor adverse events as an acceptable part of acupuncture treatment (Elden et al., 2005). This issue would warrant further exploration within research studies on acupuncture treatment during pregnancy and does indicate a need for practitioners to ensure patients are prepared for such minor events prior to treatment.

It is known that humans do vary considerably in their response to acupuncture from strong to even non-responders, with most being within a central band of moderate responders (White et al. 2008). It may be that some participants in this study happened to be strong responders or possibly the physiological changes within pregnancy enhanced the effects of the treatment in

some way. This research question has not been explored to-date however it is thought acupuncture may well influence the autonomic nervous system, including female hormones such as oxytocin thus it is possible that the women's reactions were unusual to pregnancy (Yan et al., 2007). The responses could also have been enhanced by the environment, or the therapeutic relationship component of the treatment. The midwife may also have helped the women to relax during treatment, which is also known to aid the affect of acupuncture on the limbic system creating pleasant feelings and impacting positively on the affective component of pain (Hui et al., 2005).

The women in this study again discussed the importance of sleep in reference to their relief, discussing the benefits of the treatment in terms of their improved sleep patterns and subsequent ability to function. This effect of acupuncture on improving sleep patterns is comprehensively reported within the literature, potentially attributable to the somatic and affective mechanisms discussed above (Soliday & Hapke, 2013; Hope-Allan et al., 2004; MacPherson et al., 2006; Gould & MacPherson, 2001). The impact acupuncture seems to have on pain and sleep could be considered to be a 'placebo' effect resulting from the supportive interaction with the midwife, listening to the woman's concerns and offering treatment (Colquhoun & Novella, 2013; Singh & Ernst, 2008; Ernst, 2006). Ernst (2006) argues that the evidence regarding acupuncture's effectiveness is not yet proven beyond doubt. Conversely a recent individual patient data meta-analysis found real acupuncture to have significant effects over sham acupuncture for various pain conditions, confirming benefit over placebo (Vickers et al., 2012).

The additional benefits of acupuncture cited by the women in this study included the ability to mobilise better, being free to move with less pain enabling them to continue with their usual roles. These findings are congruent with other studies regarding the treatment of painful conditions primarily PGP/PLBP (Pennick & Liddle, 2013; Elden et al., 2008). This reduction in pain and increased mobility seems to help the women to feel more in control of their condition, even if it only lasts a few days, reducing their levels of anxiety and stress and as such improving their wellbeing (Rutberg & Ohrling, 2009; Gould & MacPherson, 2001).

iii) Relaxation:

Inextricably linked to the positive effects on pain and sleep patterns are the relaxation effects reported by all the women in this study. No matter what their original expectations they all seemed to have found additional relaxation benefits from the treatment. They looked forward to the treatment despite the inconvenience of attending additional appointments and having needles inserted into their body. The women seemed to recognise this effect as beneficial to them, referring to it as re-energising using words such as 'contentment' or 'wellbeing'. Susan, Amy and Debbie particularly saw it as an escape from the stresses of their lives knowing they would walk away 'feeling better than before'.

This description of improved wellbeing is echoed in all the qualitative studies on acupuncture in both the non-pregnant and pregnant cohorts; for some this was an additional bonus and for others it was the reason they originally attended (Soliday & Hapke, 2013; MacPherson et al., 2006; Hope-Allan et al., 2004; Gould & MacPherson, 2001). In a study by Gould & MacPherson (2001) on patient perspectives it was found that the primary reason for attending was physical symptoms but over time many of the patients changed their reason for attending to a focus on their general health and wellbeing. The 132 patients in this study were receiving care in the private sector from TCM acupuncturists and often attending over a period of many months, thus indicating they considered improved wellbeing as a tangible benefit they were willing to pay for. It was concluded these patients needed a physical reason to attend but once attending they wanted to continue in order to address their emotional and mental health needs. This may be the case for some of the women in this study as Julie, Vicky, Amy and Ellie seemed to be more focused on the wellbeing and relaxation benefits they gained from the acupuncture, although they do say their pain was resolved by the treatment.

The levels of anxiety and stress in all the women in this study seemed raised, perhaps due to pain or pregnancy itself but some seemed particularly vulnerable such as Vicky suffering with PTSD and Julie having had assisted reproduction. Thus acupuncture may have been able to help them to feel calmer. This may be attributable to the effect of acupuncture on the limbic system, described as having a general effect on the control of motivation and improving their

understanding of emotional significance related to the situation (Raynor & England, 2010). This effect may have helped the women reduce their levels of anxiety and be able to face their lives again. Some of the women actually articulated that the pain was still present but not as severe and 'bothering them less', almost as if they had gained control over it for a while. Vicky and Lucy certainly felt that the acupuncture had helped them avoid additional medication for their specific conditions of PTSD and scar pain respectively. This effect of reducing the perception of the pain and having more ability to cope is again reflected in other qualitative studies and thought to be a result of the impact on the limbic system affecting the sensory and affective components of pain (Hui et al., 2005; Pariente et al., 2005).

By describing the relaxation as a lasting effect the women in this study illustrated the link between the segmental analgesic effect of acupuncture (which is known to be able to outlast the duration of acupuncture stimulation) and the extra segmental effects of relaxation (Sandkuhler et al., 2000). There is no doubt the supportive environment of the acupuncture consultation may have helped the women to feel relaxed but it seems that the feelings of relaxation achieved and continuing afterwards were extraordinary and of obvious benefit to these women.

5.4: Theme 3: Trust & Understanding-Feeling safe when recommended by a midwife or health professional

i) Importance of the health professional:

Within this study it was clear that the women trusted health professionals regarding their advice and care related to pregnancy and birth. Their named midwife (Community Midwife) was generally their main carer however for some, obstetricians, physicians, physiotherapists, GP's and hospital midwives may also have played a significant role in their care, dependent on any complications they may have had. Trust generally implies having a confidence or hope in that person, expecting them to take some responsibility for and with you (Earle & Cvetkovich, 1994). During pregnancy and birth women undergo continual changes in their identity, physically and psychologically making them more vulnerable to external influences (Davis-Floyd, 2004). In order to feel safe women need someone trustworthy to support them, to

understand their values and beliefs and in doing so address their vulnerabilities (Edwards, 2005; Pairman, 2006).

Some of the women in this study had struggled to find understanding and whilst striving to trust their health professionals had become frustrated at their lack of understanding regarding their situation, including, the demands on them as mothers of small children, pressures of work, financial constraints, previous medical conditions and the impact of the pain itself on their ability to function. Debbie was particularly frustrated at the comments of the physiotherapist who had made in her view unrealistic recommendations to reduce the impact of her back pain “Its Christmas and I am taking my little girl to see Father Christmas and my life doesn’t just stop because I am having trouble”. Others were frustrated at the health professional not referring them for acupuncture earlier, or that they had only heard about the possibility of trying acupuncture from a friend.

The underlying issues related to this apparent lack of understanding may derive from a number of factors; from lack of knowledge on the part of the health professionals as discussed earlier to more basic problems, such as lack of time and opportunity to get to know the woman. Health professionals working within industrial based models may be more focused on tasks, not really allowing women to ask questions or to discuss issues that they are concerned about (Deery & Kirham, 2006). This lack of knowledge or time can also be as frustrating and unfulfilling for the health professionals particularly for the midwives whose role is to offer the woman continuity and individualised care (Edwards, 2005). Zoe had a difficult relationship with her midwife obviously struggling to connect with her despite receiving continuity of care. Zoe voiced her frustration at not being able to discuss complex issues with her midwife, particularly the level of her pain and suffering, and at having to seek engagement with the student midwife for understanding and support. This ‘need to engage with the midwife’ is described by Kirkham (2009) as ‘adjustment’ when woman change their tactics when the midwife appears not to share her beliefs and values, the women responding by looking elsewhere for support and understanding. However in the main the women in this study did not complain about their

maternity care and seemed to just feel lucky to have been given the opportunity to try acupuncture for their pain.

Clearly some of the women and their relatives found it surprising that a midwife was performing the acupuncture treatment but yet still put their trust in them. They seemed to consider it unnecessary to enquire about the midwife's level of acupuncture training and competence. As acupuncture practice is not regulated in the UK this trust would seem to be something the women should consider carefully, particularly if accessing acupuncture outside of NHS services governance systems. Health professionals offering CAM therapies including acupuncture have to adhere to their own professional guidance and as such it is incumbent on them to ensure their competence to perform the treatment and to maintain currency with regard to professional development (NMC, 2010; NMC, 2011; RCM, 2010). The women's trust in the midwife –acupuncturists could therefore be said to be justified, providing women with additional safeguards of having professionals with the knowledge and skills to assess the appropriateness of the treatment, to detect abnormalities and be able to provide them with advice and information regarding pregnancy and birth.

ii) Understanding of pregnancy and the condition:

Most of the women in this study felt that the fact that their acupuncturist was a midwife was an advantage as she was knowledgeable about pregnancy and their condition, but three of the women said they would have attended whatever the practitioner's background simply because they were desperate to find something to help with the pain. As there are only two qualitative studies to-date exploring acupuncture delivered by midwives it is difficult to draw any comparisons as the importance of the midwife-acupuncturist role was not actually addressed (Gisin et al., 2013; Hope-Allan et al., 2004).

When discussing interaction with the midwife during treatment it became obvious some of the women did use the acupuncture session as an opportunity to discuss their concerns and worries regarding pregnancy, saying it was like 'an extra midwife appointment' or a 'therapy session'. The women were obviously able to use the midwife as a sounding board to discuss options they may not have had enough time, or perhaps not felt confident enough to discuss

with their own midwife. For example; Julie asked for information about the turning of a breech presenting baby and Hannah discussed the options for a home birth. This type of discussion seemed to empower the women, giving them extra confidence to broach the subject with their regular carers and in turn feeling more autonomous within the birth process.

It should be recognised that acupuncture treatment sessions do automatically offer an opportunity for discussion, as once the needles have been placed the acupuncturist is able to stay with the patient/woman. This is an advantage for the midwife-acupuncturist, as a midwife running a normal antenatal clinic would normally be busy with clinical tasks and paper work having less capacity to engage in such a relaxed conversation. Interestingly the benefits of the consultation voiced by the women in this study mirror those found in qualitative studies conducted in the USA and the UK on non-pregnant patients accessing private TCM acupuncture clinics. These patients appreciated the relief of their symptoms and the holistic approach of the treatment, regarding the information given to them about their health and life style to provide hope and the possibility of self-empowerment (Gould & MacPherson, 2001; Richardson, 2001).

Some of the women in this study also commented that whilst they talked with the midwife about pregnancy they were sometimes very happy to talk about other things, grateful for the opportunity to be themselves again. Zoe said that she would have been happy not to talk during the treatment session, yet Julie gave the opposite view saying she didn't like it during previous acupuncture sessions she had prior to pregnancy when the practitioner left her alone. All these differing responses probably reflect differing personalities and relationships with the practitioner however, it seems clear from this study that these women did not attend purely for an opportunity for interaction with the midwife-acupuncturist. Yet at times this opportunity was beneficial to their wellbeing and on-going confidence regarding pregnancy and birth.

A recent large scale review of the positive impact midwifery care can make on the outcomes for women and families across the world has highlighted the need to realise its potential in terms of developing skills to address the needs of women:

“optimising the normal processes of reproduction, embedding midwifery practice into the wider health systems.” (Renfrew et al., 2014, p.7).

Reviews of the evidence including sociological studies by Ann Oakley in the 1970s and more recent quantitative studies indicate that midwifery care improves outcomes both in terms of maternal and neonatal physical health, reducing interventions and increasing levels of wellbeing. This review also demonstrates that midwives are able to encourage women to adopt healthier lifestyle choices and result in improved satisfaction with care (Oakley, 1994; Sandall et al., 2013). When considering this evidence the implementation of acupuncture within conventional maternity services places midwives in a unique position, being able to offer treatment within a familiar setting, offer continuity, additional support and advice. Midwives already have the skills and knowledge to be able to promote normality and ensure safe practice within pregnancy and childbirth. The midwife-acupuncturist could enhance the woman's experience of pregnancy by being able to understand the complex problems related to conditions in pregnancy such as PGP/PLBP & NVP. The midwife is also able to address the women's holistic needs and liaise with the multi-disciplinary team to ensure appropriate treatment and care.

The development of the midwife-acupuncturist role would need to be integrated into maternity services yet sit outside of the woman's regular antenatal care, to ensure there is adequate time and resources provided to deliver a high quality acupuncture service. Such a service could reduce the need for GP and hospital appointments and the use of pharmacological treatments. This could in turn reduce the need for medical intervention and admission to hospital.

iii) Empowerment:

The women in this study seemed to appreciate the continuity of care offered by their midwife-acupuncturist which at times replaced or enhanced that offered by their named midwife. Vicky particularly highlighted the value of not having to explain her condition repeatedly to differing health professionals and relished the opportunity to talk to a midwife who understood. Within the last decade there has been a shift in social policy within the UK with a focus on the importance of the woman's physical and psychological health to the short and long outcomes for the baby (Teixieria et al., 1999; Welberg et al., 2001), emphasising the importance of addressing psychosocial risk factors and the development of good parenting skills to maximise

the potential of the child (DH, 2009a; DH, 2013; Wave Trust, 2013). These policies recognise the importance of holistic care addressing the social and psychological needs of the woman and her family. These recommendations include offering choices that promote normality within pregnancy and birth, recognising the benefits of continuity of care in improving birth outcomes and the development of parent's self-efficacy (Hodnett et al., 2010; Klaus & Kennell, 1993; Sandall et al., 2013).

Recent failings within NHS services have highlighted the importance of trust and understanding within the caring professions, with evidence of the poor outcomes related to communication failings and a lack of compassionate care triggering the development of a new focus on individualised care (DH, 2012; Francis, 2013). For nurses and midwives the response has seen the development of a strategy namely the '6 C's' which emphasises communication, compassion, competence, care, commitment and courage, and addresses the need to work in partnership with patients/women's services to ensure we capture and respond to feedback (DH, 2012). It has been highlighted by the participants within this study that at times midwives have not offered them individualised care or recognised their suffering perhaps being too distracted by the pressures of their organisation to challenge convention and seek alternative ways of supporting these women. The integration of CAM within conventional care in response to women's needs and wishes may be one way in which this may be achieved. Acupuncture treatment in pregnancy and birth could offer relief and perhaps help the women to cope with their condition, as such recognising their suffering and providing them with opportunities to gain relief and an opportunity to discuss their concerns. This in turn could empower the women particularly those who are more vulnerable, in line with the studies demonstrating better outcomes for women when offered continuity of care from a midwife (Sandall et al., 2013).

5.5: Theme 4: Regaining self: Control of symptoms and adaption to daily living

i) Self- efficacy:

For the participants of this study accessing the acupuncture offered a positive distraction from the pain. Restricted movement and problems sleeping were common symptoms to all the participants, something that led them to seek an alternative solution. These symptoms seem to have impacted on the women's levels of self- efficacy when the unexpected challenges of pregnancy were becoming intolerable. The women could be said to have 'lost their way' unable to see how they could meet their own expectations.

“Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 1994, p.2).

For some this new situation has impacted on their normally efficacious outlook threatening their wellbeing, and making them vulnerable to anxiety and depression (Beck, 2001; Bandura, 1994; Jomeen & Martin, 2005). This change in circumstances has made the women feel weak and unable to control their situation, something they are not familiar with as otherwise confident accomplished adults. Their vision of pregnancy may be modelled on friends or even be an idealistic one as portrayed in the media, challenging their own level of self-efficacy and ability to surmount their problems no matter how hard they try.

Some of the women interviewed in this study had external pressures such as child caring roles and work commitments, creating additional complexity and increasing their level of desperation. This phenomenon sees the women's locus of control shifting from the external to the more internal, in response to the acupuncture offering them relief (Wallston & Wallston, 1978). Interestingly the women who voiced the most desperation also seemed to display the most significant expressions of relief when discussing finding acupuncture as a solution; this interplay between emotional response and level of suffering warrants further investigation. This positive effect of acupuncture in offering control may be related to its demonstrated analgesic effect (Vickers et al., 2012, Zhao, 2008), and be linked to the impact on the limbic

system mediating the affective component of their condition (White et al., 2008). The women's improved levels of wellbeing may also be attributed to the known release of beta endorphins creating a pleasant feeling, and possibly making the pain 'bother them less', as already discussed (Hans, 2004; Mayer, 1977). Many of the women interviewed seem to have found strength from discussion with the midwife and been empowered to make new plans for birth however, this effect may equally be due to them gaining pain relief and feeling more comfortable. This may have enabled them to regain their usual level of self-efficacy and once more feel able to face the challenges of pregnancy and pending motherhood (Bandura, 1994).

Emotional changes during pregnancy are known to be complex making anxiety and stress part of the normal range of emotions (Raynor & England, 2010). Thus it is difficult to know whether some of the women interviewed in this study had symptoms due to a bio-physical response to raised levels of anxiety or whether increased feelings of anxiety and stress had been triggered by the physical symptoms of their condition (Da Silva, 2007; Dennis & Allen, 2008,). The women describe an improvement in their mood, with some attributing it to gaining increased activity and ability to fulfil their usual caring roles. The women in this study seemed to find acupuncture helpful in regaining control of their condition and no matter the mechanism, they regained self-confidence and self-efficacy and felt more able to tackle the challenges of their pregnancy and make decisions for the future.

ii) Autonomy :

Many of the women in this study talked about gaining confidence regarding their maternity care and their future as parents something they seemed to attribute to gaining pain relief and having the opportunity to discuss their issues and concerns with the midwife. It is interesting to consider findings from other qualitative studies conducted within the non-pregnant population accessing acupuncture treatment for chronic conditions. They reported improved levels of self-confidence, self-esteem, more control and a greater ability to manage symptoms, and to manage work and family life better (Hopton et al., 2013; MacPherson et al., 2003; Paterson, 2004; Rutberg & Ohrling, 2009). One study of 132 patients highlighted that the patients seemed to need a physical condition to feel legitimately able to access treatment yet once attending

their reason for continued attendance shifted away from their physical problem to emotional issues (Gould & MacPherson, 2001).

This finding supports the notion that some of the women in this study may have continued to attend either because they were frightened of losing the control they had found, or because they found value in the additional support it offered. Certainly Vicky as a more vulnerable woman with PTSD focused on preventing this condition from affecting her baby. She found strength from continued attendance for acupuncture treatment. Julie also demonstrated the regaining of her usual autonomy explaining how she had challenged decisions regarding her birth. She explained how fearful she was about not being able to continue with the acupuncture treatment, demonstrating the link with her renewed confidence.

This issue is certainly highlighted by Gisin et al., (2013) in their study using acupuncture as analgesia for labour. They report that once the women started using acupuncture in labour they then feared it may be with-drawn, and worried about how they would cope without it. For some of the women the relief and improved self-efficacy seemed to enable them to regain autonomy, and to face the rest of their pregnancy, birth and parenthood with more confidence.

The acupuncture may also have offered the midwife- acupuncturist an opportunity to engage with the woman, and to develop an environment of care that was able to meet the woman's needs, helping her to consider her transition to motherhood (Edwards 2009; Edwards & Murphy-Lawless, 2006). Acupuncture could offer midwives a tool to support their role in caring for women, providing them with more autonomy and job satisfaction in being able to offer women more treatment options. Advanced or complementary skills already established within the midwife's role, such as suturing and the newborn physical examination, have been demonstrated to be a cost effective way of enhancing care and providing effective rounded care whilst also offering the midwife more job satisfaction (Warwick, 2010). Alternatively it could be argued that these skills detract from the role of the midwife by taking on a more medical model (Kirkham, 2010; Leap, 2010). Acupuncture can provide the midwife with a more holistic treatment option, addressing the woman's physical and psychological needs within a continuum integrated into maternity services.

Overall, the interplay between physical and psychological problems during pregnancy is complex, it being impossible to extract the physical from the psychological effects of acupuncture and making it a holistic treatment no matter what approach is adopted (Deadman et al., 1998; White et al., 2008). Contrary to the suggestions of Gould & MacPherson (2001) that additional psychosocial benefits of acupuncture may only be found within a TCM approach, this study has identified similar if not more profound additional benefits of acupuncture within its participants when adopting a western medical acupuncture approach to treatment. As the women in this study were displaying signs of anxiety and stress relieved in some way by acupuncture, it could be suggested it may offer an alternative therapy for these symptoms or act as an adjunct to conventional care, the midwife being well placed to offer this within her role.

5.6.: Theme 5: Discovering and sharing the secret: Finding a solution and wanting other woman to benefit:

i) Indulgence:

Many of the women interviewed referred to accessing acupuncture treatment as an indulgence, something special and lucky. The language used to discuss this was quite ethereal, for example Amy described how “all the planets aligned” for her, and Susan in terms of a truly enjoyable experience saying “that doesn’t normally happen in my life”. These experiences may be related to the relaxation effect of the treatment but these reactions do not seem to have been reported in other available studies. The small numbers of qualitative studies that have explored the experiences of acupuncture treatment mainly include patients paying for treatment and thus may reflect a different attitude to their treatment experience (Gould & MacPherson, 2001; Richardson, 2004). Some of the women in this study actually referred to payment as a way of demonstrating how much they valued the treatment, saying they would be willing pay a lot of money for it or travel miles. This may alternatively indicate that payment would not change their attitude towards the enjoyment and benefit they felt and that they would likely still view it as an indulgence.

This feeling of indulgence may also be related to the guilt they felt about taking time out of their normal family life or from work, feeling they should be able to cope without treatment. These feelings of guilt are common to studies exploring the social and psychological effects of NVP and PGP/PLBP (Olsson & Nilsson-Wikmar, 2004; Pierce et al., 2012). The women may be unusual in having support from family or their workplace to facilitate them attending for treatment, but this is quite difficult to assess in terms of its impact on the women who regard it as a special indulgence.

The women also recognised that the treatment was not available to all women, saying they felt lucky to be able to access it. A number of the women went on to try acupuncture as preparation for labour and were enthusiastic about this again something they recognised as an additional benefit of attending for treatment. Having this option seemed in itself to create positivity as it offered hope and more choice. One woman described when it didn't work to initiate her labour, feeling it had still contributed in some way to her labour experience. This opportunity to choose an alternative seemed to open a window to freedom for these women, kicking against the standardisation of maternity services where women and midwives are expected to behave in the 'right way,' making the 'right choices', instead of being able to make a choice based on their individual needs (Deery & Kirkham, 2006; Edwards, 2005).

When asked if they would like the option of acupuncture for pain relief in labour every woman in this study was enthusiastic about this possibility saying they would like this option. These positive responses were presumably due to the fact they had already experienced benefits from acupuncture as an analgesic and thus were confident it could help them during labour, again offering an option that might avoid the use of drugs and intervention, and supporting normal birth (Smith & Cochrane, 2009; Smith et al., 2011b).

ii) Equity & Advocacy:

When asked about the acupuncture service and its availability for other women, there was a unanimous response saying they felt that the service should be available to all women, with some being surprised when they discovered it wasn't available to others outside of the local area. The women seemed to have an altruistic attitude, wanting other women to share in the

benefits they had found and citing their participation in this study as part of this benevolence. This may also be a demonstration of female moral values, the women's care ethic extending to concern for others (Gilligan, 1982; Nodding, 1984). They had suggestions of increasing health professionals' awareness of the potential beneficial effects of acupuncture, placing an emphasis on the service remaining within the NHS, and remaining free to all. The women were generally concerned that some women may not be able to afford to pay, thus creating inequity which was something they didn't wish to see. One woman did suggest the acupuncture could be delivered by her own midwife in her regular antenatal clinic, but the other women seemed happy to consider it as a separate appointment dedicated to acupuncture itself. The women were passionate about informing other women about the benefits they had gained from the acupuncture treatment, recommending it, advising women on how to access it, and promoting the benefits with their family, friends and other health professionals. They seemed proud of themselves in having found this solution, which had given them more self-confidence and a feeling that they had a secret they could share to help other women in the same situation as themselves. This aspect of treatment does not seem to have been explored within the acupuncture literature but would warrant further exploration with regard to what motivates people to provide health advice and promote services to others.

5.8: Summary of the discussion related to the findings of this study

i) Aims & Objectives of the study:

The main themes of this study have been discussed in line with the available evidence, highlighting the significant findings and considering their relevance in relation to the aims of this study. This qualitative study sought to provide insight into pregnant women's perceptions of the effects of acupuncture treatment provided by midwives and the perceived influence and value of the midwife on this experience, the acceptability and appropriateness of acupuncture treatment being offered during pregnancy and the possibility of acupuncture being adjunct to the midwife's role.

The participants felt a need to justify their choice of acupuncture as an unconventional treatment feeling guilty at not being able to cope with the pain and debilitating effects of their condition but keen to try it due to their desperation to find relief from their suffering. They often accessed acupuncture after finding other treatments such as analgesia and physiotherapy to have little effect or to pose unacceptable risks for them and their baby. Overwhelmingly the women perceived acupuncture to have provided them with relief from their pain, some finding this relief more marked than others. This relief helped them with daily function reducing disability, improving sleep patterns and helping them care for children or attend work. The women described the experience of acupuncture in very expressive language, explaining the pain relief and additional effects as stimulating and emotional, these intense experiences not being previously identified within the literature. The women found the acupuncture offered them additional benefits of relaxation and improved wellbeing, a feeling that could last for days after and something they looked forward to.

They found some health professionals wanting in their understanding of the levels of pain and suffering their condition caused, including the impact of disability and the psychosocial issues they faced as women with busy demanding lives. Yet these women still placed trust in their health professionals and only accepted referral to the midwifery acupuncture service after recommendation by a health professional. They found the midwife-acupuncturist role to be acceptable and of benefit, facilitating discussion and empowerment regarding their pregnancy and their future roles as parents. However some of the women felt acupuncture did not necessarily need to be delivered by a midwife as long as the practitioner understood their condition and its impact on their lives.

The women found the treatment offered them a holistic therapy improving their levels of self-efficacy, correlating to the suggested neurophysiological mechanisms of acupuncture. They found it an acceptable treatment finding few negative aspects, feeling minor pain or bruising was an expected and acceptable aspect, and not something that would stop them from attending for treatments. The women felt lucky to be able to access this treatment describing it as something they looked forward to. Some described the experience in very expressive

language as very enjoyable, as a relief or very pleasant feeling, offering valuable time out to relax and be them-selves again. Some regarded it as an indulgence to have this treatment, a special secret they had found and wanted other women to know about and benefit from for free via the NHS in the future. This wish to share their knowledge about acupuncture was also cited as a reason by some of the women to participate in this study.

Overall the midwifery acupuncture service was found to be of significant benefit to these women with the midwife-mother relationship playing a significant role within this process. Acupuncture was seen as congruent to the midwife's role, to be used as a tool to offer additional choice and facilitate women-centred care as an adjunct to the role, enabling her to offer the treatment using her knowledge, skills and understanding to address the individual needs of these women. This role could be seen potentially to offer the midwife greater autonomy and job satisfaction in being able to provide further choices and continuity for women to relieve pain and improve function, whilst also developing women's levels of self-efficacy, helping them to regain autonomy over their condition, promoting normality and potentially reducing the use of pharmacological treatments and medical interventions.

v) *New discoveries:*

The findings offered some new insights into the experiences of receiving acupuncture. The intense emotional responses to the treatment described by some of the participants seemed unusual and are not described in any of the available acupuncture literature. The correlation found between the affective component of the condition and the intense relief and emotional response described by the women seems more marked than that described in other studies and within physiological explanations of effect. This area certainly warrants further research to explore if pregnancy has an impact on this type of response and if this creates more potential for the effective use of acupuncture during pregnancy.

Secondly the importance of the attitude of family and friends to the woman being justified to access acupuncture treatment during pregnancy and the altruistic attitudes of the women towards enabling other women to have access to the benefits they have found in accessing acupuncture are very interesting findings demonstrating the powerful nature of the 'lay

network'. This issue highlights the need for further exploration of these influences on accessing maternity services in general but particularly CAM and acupuncture services. This would help us to understand the needs of the women and ensure that services address these needs and remove the negative stigma related to such treatments. Some women already access CAM treatments privately thus it is important to consider the integration of a range of services that could address individual need rather than conventional norms.

iii) Limitations of the study

There are limitations to the conclusions drawn from the findings of this study. The participants were recruited as a purposive sample and were a self-selecting group in terms of being pregnant women choosing to attend a midwifery acupuncture service. These women were from the local area but do not constitute a representative sample of that community, the majority being over 25 years old and in employment or education and intending to or initiating breastfeeding at birth. Salford as a UK city has higher than average deprivation levels with about 28.3% (12,700) of children living in poverty (PHE, 2014). Teenage pregnancy, GCSE attainment, breastfeeding and smoking at time of delivery are worse than the England average (PHE, 2014). In addition Salford is shown to have more people from ethnic minority groups as emergency admissions to hospital than the national average and although one participant in the study was Ukrainian all the women in this study were Caucasian, again confirming the participants are not representative of this diverse community.

These factors make the findings from this study difficult to generalise to Salford and/or the wider pregnant population but they do provide insight into what benefits acupuncture may offer pregnant women and what type of service would be acceptable and practical. It must also be acknowledged that there will be women with similar levels of pain or unpleasant symptoms who have attended for acupuncture treatment, finding it not to be beneficial or acceptable to them and thus have not continued to attend. Exploration of these women's experiences is beyond the scope of this study and is an additional limitation.

As the women were recruited to this study by other midwife-acupuncturists working within the SMAS the women may have felt some obligation to participate. Within the interviews it was

clear some of the women regarded it as a privilege to be able to access this service within the NHS and as such may have felt their participation was expected. The women recruited had to have experienced the treatment at least 3 times in the previous 6 months thus it was unlikely they would agree to participate if they had not been returning for further treatment and as such were likely to have found it beneficial. This issue of bias does limit the study findings however as the aim of the study was to explore the women's experiences of receiving acupuncture treatment this issue is difficult to avoid when trying to explore this phenomenon.

As the researcher and a midwife-acupuncturist I ensured the women recruited had not been treated by me as an acupuncturist or midwife. This was to limit the bias created by the women or patients feeling obliged to offer positive feedback, to please the interviewer (Steen & Roberts, 2007). The aim was to recruit women who did not know my professional or acupuncture background to reduce bias. Some of the women obviously did not know I was a midwife or acupuncturist, but one participant did recognise me as a midwife who delivered a parent education session in her previous pregnancy and one was a midwife herself who did know my own professional background. As the interviews progressed some of the other women may also have guessed my background due to my exploration of the points they raised or my answers to questions they asked me regarding the study. This issue could again have affected the women's responses within the interviews, affecting the credibility of the study. To guard against this possible bias I have used reflexivity continually within the analysis of the interviews and tried to create credible truth within the presentation of the findings. Further explanation of this reflexive activity can be found in Chapter 3, section 3.9 of this thesis.

Within the IPA analysis of this study, although my academic supervisors were able to review the analysis of two of the interview transcripts, the ideal would have been for a second researcher to analysis each step within the IPA analytical process. Due to time restrictions this was not possible and it does create an additional limitation to this study. The IPA process is however clearly outlined within the thesis within the examples of both individual cases' super-ordinal themes and main theme development in Chapter 4 section 4.4 and in Appendices, 8,9,10. This

transparency of the analytical process offers reassurance of the credibility of the findings and demonstrates the validity of this study.

Findings from this study may not be transferable to other communities or clinical settings but they do create a credible and valid reflection of the women's experiences and can be used to inform development of midwifery practice and maternity services.

Chapter 6: Conclusions

The conclusions drawn from this study highlight the most significant findings in order to inform practice and make recommendations for future research and innovation. The conclusions are outlined in terms of their relevance to the idiographic and overall experiences of the women, midwifery practice and acupuncture respectively. Recommendations for maternity services, acupuncture services and future research studies are outlined. This chapter ends with a review of my Professional Doctorate journey and the final conclusions.

6.1: Addressing Aims and Objectives

i) Perceptions of the treatment experience

The women in this study found the pain they suffered during pregnancy to be overpowering, and severely affecting their ability to function in their roles as mothers, partners, workers and carers. The pain seemed to create increased levels of stress and anxiety impacting on their self-efficacy leading to pessimism and disempowerment. They were disappointed and frustrated at the lack of understanding and compassion showed to them by some health professionals, feeling frustrated and marginalised due to lack of care and their limited options regarding treatment for their condition. The women seemed to consider their ability to cope with the pain and immobility synonymous with their ability as a mother, negatively affecting their levels of self-esteem and confidence. The health and wellbeing of their children including their expected child was given priority over their own, with the women wishing to avoid potentially teratogenic treatments and ensure relationships with existing children were not harmed.

The women were desperate to find a solution and eager to try any alternative considering treatment suggested by a health professional as evidence of efficacy. They put their trust in health professionals particularly the midwife-acupuncturists, assuming them to be adequately trained and experienced. The women's responses to the treatment were positive, all finding relief from the pain and improved mobility to some extent, with these effects greater for some than others. Some of the women had intense emotional responses to the treatment which created additional effects of euphoria and pleasant physical feelings such as a 'rush' 'tingling' and 'warmth'. All the women considered the treatment enjoyable and relaxing as something

they 'looked forward to'. Most said the treatment improved their sleep patterns and created a level of relief and relaxation which lasted long after the treatment and often for several days. The women used language that indicated a level of contentment, for example phrases such as "like eating chocolate", encapsulating this improved wellbeing. These reported experiences correlate well with the neurophysiological mechanisms of acupuncture, yet they seemed more intense than previous studies have reported possibly due their pregnant state creating a heightened affective component within increased levels of anxiety and stress.

The women were grateful for the opportunity to access acupuncture and felt having a midwife-acupuncturist was advantageous as a professional who was able to understand their stresses and who had knowledge about pregnancy and birth. 'Understanding' was considered by the women to be the main requirement for an acupuncture practitioner rather than professional background. With reduced pain the women felt more optimistic, reenergised and empowered to make plans for the birth and their transition to parenthood; considering for example water birth or homebirth, as options they had not previously had the capacity to contemplate. The women considered the acupuncture as an indulgence feeling they were prioritising themselves, something they didn't normally have the opportunity to do. Some were concerned about how they would cope if the acupuncture were to be withdrawn.

The women wished to share their experiences with other women and promote its availability for all pregnant women. They reported few negative aspects to the treatment, with minor side effects being considered as to be expected. These findings indicate acupuncture was an acceptable treatment option for these women, which when delivered by an understanding practitioner could offer pain relief, improve function and wellbeing reducing the need for pharmaceutical treatments and helping to promote normality through the birth continuum.

ii) An adjunct to midwifery practice:

The women in this study trusted the health professionals when considering CAM therapies, in this instance acupuncture as a treatment for their condition during pregnancy. The women did not request information regarding the level of knowledge of the health professional regarding acupuncture and consequently seemed confident of its efficacy. This level of trust is especially

relevant for the midwife as she is generally the most consistent health professional involved in the care of a pregnant woman. The evidence would suggest that the knowledge of health professionals including midwives and obstetricians regarding CAM is often limited and this issue needs consideration in terms of professional accountability and practice. The knowledge of the midwives caring for the women in this instance may be higher due to local awareness training and experience regarding the SMAS. The women accepted treatment from a midwife-acupuncturist without questioning their qualifications or experience in delivering acupuncture treatment, which was somewhat at odds with their concern regarding the teratogenic potential of pharmacological treatments. Again this confirms their level of trust in the midwife and NHS-led services.

The women felt the midwife was well placed to offer acupuncture due to her knowledge and understanding in relation to their condition and its psychosocial impact. Some acknowledged their use of the midwife as a sounding board, a therapist and /or as a professional friend, others made it clear that whilst this was beneficial they did not necessarily seek or require this additional support to conventional care being happy with the care of their named midwife and to have more of a social discussion during sessions. For some women the sessions helped them to avoid hospital appointments and admissions and make plans for the birth, creating the potential for the midwife-acupuncturist to promote normality and to offer support and continuity, all factors known to improve outcomes. Some of the women in this study concluded acupuncture did not necessarily need to be delivered by a midwife as long as the acupuncturist demonstrated 'understanding'. However midwives are uniquely placed with appropriate training and support to offer acupuncture as an adjunct to their role, facilitating individualised reflexive practice in line with the present compassionate care agenda.

iii) Acceptability of acupuncture treatment

The women in this study gained relief and improved mobility from the acupuncture treatment with additional intense emotional responses expressing a range of feelings from euphoria and love to warmth and contentedness. These emotions, whilst congruent with the known neurophysiological mechanisms of acupuncture and particularly the impact on the limbic

system, seemed unusually strong and intense indicating a possible enhanced response due to the physiological changes of pregnancy. All the women in this study displayed varying but increased levels of anxiety and stress related to not only the psychosocial issues of pregnancy in general but the additional pressures created by the presence of physical pain. Although complex, the level of affective components of their pain seemed to correlate with the intense responses to the acupuncture treatment and the additional effects.

The equivocal recommendations made within both professional and lay guidance regarding the use of acupuncture during pregnancy and birth did not seem to concern the women in this study. They wanted alternative treatment options and relied on their midwife/health professional to consider the risk for them and their baby, readily accepting the integration of acupuncture within their usual antenatal care. They all felt that future integration of acupuncture would be of benefit, providing more choice and addressing the unmet need. This acceptability of integration is at odds with professional guidance (NICE, 2008/14), the need for high quality evidence inhibiting the recommendation of all alternative treatments. This same guidance promoting some conventional biomedical treatments despite an equivalent lack of quality evidence (Wright et al., 2011; Jones, 2012). This inequity demonstrates the dominance of the medical model and explains the challenges of developing integrated care. These issues create dilemmas for health professionals and the public alike in terms of accessing good quality information regarding safe alternative treatments. This bias could be considered within ethical theory as due to the adoption of a more masculine moral code focused on rules and principles rather than the inclusive female morality of caring and problem solving (Andre, 1986; Gilligan, 1982). The women in this study certainly demonstrate this care ethic in their desire to care for themselves and others, happy to accept acupuncture treatment as a way of solving their problem and promoting its use for others. This was recognised by Andre when stating “principles should not take precedence over persons” (Andre, 1986, p.89). The integration of medicine could provide the opportunity to improve the quality of care in line with models adopted by other western countries to facilitate a more holistic approach. This could also support the UK government’s strategy to provide individualised care and potentially provide cost effective treatments (DH, 2012).

This study indicates that acupuncture is acceptable to women as a treatment that could not only impact on pain but also have a positive impact on levels of anxiety and stress, enabling them to cope with their condition. The women in this study were able to function more effectively within their expected roles and gain confidence. This type of impact on the affective component of pain could possibly be improved by other CAM therapies but the capacity of acupuncture as a treatment with a more established evidence base and its ability to offer a safe effective treatment makes it acceptable to offer during pregnancy.

6. 2: Recommendations:

6.2.1: Professional issues:

Improve understanding and management of the conditions that cause pain and suffering during pregnancy and the potential impact of these conditions on the woman and her family by:

- i) Facilitation of postgraduate training and development focused on the impact of conditions of pregnancy causing pain and discomfort, particularly PGP/PLBP, including management of the psychological and social aspects of these conditions.
- ii) Student Midwife Pre-registration Programmes to develop further knowledge and skills regarding conditions of pregnancy causing pain and discomfort, particularly PGP/PLBP, including the management of the psychological and social aspects of these conditions.
- iii) Development of specific professional guidance for health professionals, particularly midwives and obstetricians, regarding CAM including acupuncture, providing pragmatic guidance to facilitate reflexive practice and the development of CAM services within NHS maternity services.

- iv) Development of acupuncture services and tailored information for pregnancy and birth within maternity services across the UK.
- v) Involvement of women and families in the development of guidance for CAM and CAM services both locally and nationally.
- vi) Professional development for midwives, doctors and other health professionals including student midwives, to develop acupuncture skills for labour and birth in line with UCLH Charity Courses for midwives www.obstetricacupuncture.com in partnership with the BMAS.
- vii) Development of a professional group for midwives practicing acupuncture, providing guidance and support and working in partnership with existing professional bodies for example: NMC, RCM, RCOG & BMA.

6.2.2: Research

Improve understanding and management of the conditions that cause pain and suffering during pregnancy and the potential impact of these conditions on the woman and her family by conducting:

- i) Further qualitative studies exploring pregnant women's experiences of acupuncture treatment during pregnancy and birth in differing contexts, including treatment delivered by midwives, other health professionals and by non-medical acupuncturists.
- ii) Studies on the economics related to the development and delivery of maternity acupuncture services, particularly those offered by midwives or other health professionals both in the UK and abroad.

- iii) Studies comparing UK and other European acupuncture services delivered by midwives or other health professionals to identify appropriate training and effective methods of delivering acupuncture services.
- iv) Further qualitative studies exploring the impact of PGP/PLBP and other painful conditions on pregnant women and their families.
- v) Further qualitative studies on the levels and impact of anxiety and stress in pregnancy, to enable the development of effective strategies and treatment to address the needs of women, the infant and their families.
- vi) Further quantitative studies on the efficacy of acupuncture treatment for PGP/PLBP.
- vii) Development of studies exploring the influence of the 'lay network' on decision making, regarding women choosing to access acupuncture and/or other CAM services in pregnancy.

6.2.3: Personal future plans:

Improve understanding and positively impact on midwifery practice via the dissemination of the findings of this study. This dissemination will include:

- i) Publication of this study's findings in a peer reviewed journal to enable this information to be disseminated to midwives and other health professionals, both in the UK and worldwide. It is hoped this will inspire and stimulate further development of maternity acupuncture services and other CAM services.

- ii) Continue to develop and deliver training courses for midwives, student midwives and other health professionals on the use of acupuncture during pregnancy and birth, in partnership with the BMAS and UCLH Hospital Charity Courses.

- iii) Publish in peer reviewed journals on topics such as: the impact of pain in pregnancy, particularly PGP/PLBP, including the physical and psychosocial effects and the management of these conditions.

- iv) Continue to develop, deliver and promote maternity acupuncture services locally.

- v) Publish guidance for midwives on the current evidence base and the use of acupuncture as a treatment within the childbirth continuum.

- vi) Publish in peer reviewed journals reviews of the literature on acupuncture as a treatment during the childbirth continuum, particularly for; PGP/PLBP, NVP and Moxibustion for the turning of a breech presenting fetus.

- vii) Publish a guide for women and families on the use of acupuncture as a treatment during the childbirth continuum.

6.3: Professional Doctorate Journey

As a Professional Doctorate student and novice researcher, conducting this study has created many personal challenges. However this journey has enabled me to substantially develop my skills as a researcher, teacher, practitioner and leader. These skills developed both within the

taught and research components of this programme have shaped my epistemological stance as a constructivist. It has provided me with the opportunity to develop a depth of knowledge regarding research methodologies, particularly developing an in-depth understanding of phenomenology and the application of these principles to the IPA analytical process. Throughout the doctorate programme I have been able to attend a variety of seminars, lectures and conferences appropriate to my chosen research methodology and method; this developmental activity helping to inform this thesis. Excellent support and guidance from my academic supervisors has enabled me to apply this research knowledge to the project and to complete this thesis. Throughout this process I have gained in confidence and courage in both presenting and writing for publication.

As part of my research development activities I attended an international acupuncture conference in Stockholm last year providing the opportunity to network with many of the researchers whose work I have included within this thesis. This experience offered real insight into the complexities of these studies, being able to discuss them in detail with the authors in person. Within the process of constructing this thesis I have also been able to publish both in partnership with acupuncture colleagues and in my own right, both in midwifery and acupuncture journals. Through collaboration with the BMAS I have also had the opportunity to work with an obstetrician colleague developing a study day specifically for acupuncturists, mainly doctors and other health professionals, who wish to gain acupuncture knowledge and skills for the treatment of pregnant women. This study day involves me presenting a review of the evidence base related to the use of acupuncture during pregnancy, also enabling me to promote my profile as an expert in this practice area. This study day has received excellent evaluations and we are now delivering this day bi-annually as part of the BMAS professional development programme. In partnership with this obstetrician colleague I have also instigated training for midwives specifically to enable them to offer acupuncture as a method of analgesia for labouring women. This training for midwives is now offered as part of the UCHL Charity Courses and delivered in various venues across the UK. It is building in popularity, resulting in the day being requested by maternity services both inside and outside the NHS. These academic activities have served to develop my position as an expert on medical acupuncture

for pregnancy and birth within the UK. All these developmental activities are examples of how completing this Professional Doctorate has enabled me to implement innovation within the clinical environment and my own research practice.

My professional doctorate has culminated in the completion of this study, making an original contribution to the evidence base. The dissemination of its findings will help to inform practice and enable me to have a leadership role in the promotion and development of acupuncture within maternity services. It will also enable me to inform professional development for all health professions regarding the appropriate care for women with common conditions of pregnancy, to reduce suffering and improve outcomes for women and their families.

6.4: Final Conclusions:

This original study provides a unique insight into pregnant women's perceptions of the effects of acupuncture treatment provided by midwives, including the influence and value of the midwife on this experience. The paucity of qualitative literature regarding the experiences of pregnant woman having acupuncture treatment has been addressed, making a significant contribution to the evidence base. The study provides understanding of the women's experiences of having a painful condition during pregnancy, particularly highlighting the unique and overwhelming physical and psychosocial impact of the related suffering caused, including the impact on the whole family. The language used by the women to explain these experiences of pain demonstrates the unmet need for women to find understanding and alternative options for treatment that do not involve additional risk.

The study findings are supported by the limited existing literature base, but they also highlight new discoveries in the unusually intense emotional responses of the women to the acupuncture treatment and the significant impact of the 'lay network' on the women's decisions to access acupuncture treatment. These findings require further exploration to improve understanding of the physiological responses to pain and acupuncture treatment during pregnancy and the power of the 'lay network in relation to choices made during pregnancy particularly.

Such new information could inform practice improving the health professional's ability to inform and support women during pregnancy and facilitate informed choice. It could also inform the future development of maternity service provision to ensure it meets the needs of women and families.

This study has provided evidence of the appropriateness of acupuncture treatment during pregnancy as a treatment women are keen to promote, feeling it should be available to all pregnant women for free. In this study the midwife was found to be an appropriate health professional to offer acupuncture as an adjunct to her role, being able to use it as a tool to offer individualised compassionate care with opportunities to promote normality within birth. This study is able to inform midwifery practice development in terms of the training for midwife-acupuncturists and the development of maternity acupuncture services.

This study makes recommendations for developments in practice to enable staff to have improved understanding of the impact of the debilitating conditions of pregnancy including the psycho-social impact on the woman and her family.

This study also recommends improved access to information for women and families regarding the safe use of CAM including the development of different methods to improve women's knowledge and understanding. This would enable them to make informed decisions and feel confident to discuss their choices with health professionals.



Participation Information Sheet

'Experiences of pregnant women receiving acupuncture from midwives'

As a woman attending the **Salford Midwifery Acupuncture Service**, you are invited to participate in a research study exploring pregnant women's experiences of receiving acupuncture treatment from a midwife.

Before you decide we would like you to understand why the research is being done and what it would involve for you.

The midwife acupuncturist will go through the information sheet with you and answer any questions you have.

We'd suggest this should take about 15 minutes.

Talk to others about the study if you wish.

Part 1: tells you the purpose of this study and what the study will involve should you decide to take part.

Part 2: gives you more detailed information about the conduct of the study.

Ask us if there is anything that is not clear.

Part 1:

Acupuncture is a treatment used for conditions common in pregnancy, there is little evidence about women's experiences of this.

This research aims to explore women's experiences of a midwifery acupuncture service. Information will be gathered by interviewing women who have received acupuncture during pregnancy from a midwifery acupuncture service.

Part 2: This research is being conducted as part of a Professional Doctorate qualification, supervised by the University of Salford.

What would I need to do?

You would need to be over 18 years old and have received acupuncture three times or more in your pregnancy from a midwife within the last 6 months and had the opportunity to read and understand this information sheet dated 16/9/13 (version 5). Please consider the information, ask questions and ensure you have had these answered satisfactorily.

If you would like time to consider taking part, then please take the information home and just let the midwife acupuncturist caring for you know if you decide to take part. She will give you one reminder phone call within the next month, after that time we will assume you do not wish to participate.

If you decide you would like to be involved please inform the midwife acupuncturist, she can answer any further questions you may have and will then ask you to complete a consent form.

If you agree to participate the researcher will contact you in the following three weeks, you would need to complete a consent form if you have not already done so and the researcher will then arrange the interview at a time convenient for you.

What would it involve?

It will involve being interviewed by a researcher either locally or in your own home. The interview will last approximately one hour.

Would my interview be recorded?

Yes, it will be taped and then the researcher will send you a written copy of the interview summary within 6 weeks of the interview to ensure you feel it reflects what you said.

The researcher will also share the recording with her supervisor to enable the interpretation of your interview to be considered by another researcher.

Would participating in the research change my access to acupuncture treatment and to my general maternity care?

No, you will be able to access exactly the same care whether you decide to participate or not.

Would my information be used for anything else?

No, your information will be kept confidential and secure by the researcher for the purposes of this study. You will also be provided with a summary of the study findings when the study has been completed.

Would I be able to back out if I change my mind?

Yes you will be able to back out of the study at any time and your information will then be destroyed.

If you have any further questions or concerns please contact: Jeanne Lythgoe, University of Salford tel : 0161 295 2591 j.lythgoe@salford.ac.uk or the Academic Supervisor: Dr. Alison Brettle tel: 0161 295 0447 a.brettle@salford.ac.uk

Thank you for your interest.

Consent Form for Study:

'Experiences of pregnant women receiving acupuncture from midwives'

Please tick the appropriate boxes

Yes No

Taking part:

I have had the opportunity to read and understand the project information sheet dated 16/9/13 (version 5). Yes No

I have been given the opportunity to consider the information, ask questions and have any questions answered satisfactorily. Yes No

I agree to take part in the project knowing that taking part in the project will include being interviewed and recorded (audio or video). Yes No

I understand that my taking part is voluntary; I can withdraw from the study at any time, I do not have to give any reasons for why I no longer want to take part, this will not affect my midwifery care. Yes No

Use of the information I provide for this project only

I understand my personal details such as phone number and address will not be revealed to people outside the project. Yes No

I give consent for my words to be quoted in publications, reports, web pages, and other research outputs. Yes No

I understand my real name will not be used within publications, reports, web pages and other research outputs Yes No

If you are giving the researcher permission to use your quotes anonymously, please initial below:

 Name of participant [printed] Signature Date

 Researcher [printed] Signature Date

Project contact details for further information:

Jeanne Lythgoe tel : 0161 295 2591 email: J.Lythgoe@salford.ac.uk
or the Academic Supervisor: Dr. Alison Brettle tel: 0161 295 0447 email:
A.Brettle@salford.ac.uk
 16th September 2013 -version 3

07 October 2013

Mrs Jeanne Lythgoe
Lecturer in Midwifery
University of Salford
Mary Seacole Building
Fredrick Road
Salford
M6 6PU

Dear Mrs Lythgoe

Study title: An exploration of pregnant women's experiences of
acupuncture treatment from a midwife
REC reference: 13/NW/0559
Protocol number: HSCR13/16
IRAS project ID: 114680

Thank you for your email of 29 September 2013, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator Anna Bannister, nrescommittee.northwest-liverpoolcentral@nhs.net.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett (catherineblewett@nhs.net), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Evidence of insurance or indemnity		09 July 2012
Evidence of insurance or indemnity		11 July 2013
Evidence of insurance or indemnity		15 July 2013
Investigator CV	Mrs Jeanne Lythgoe	
Investigator CV	Dr Alison Brettle	
Investigator CV	Professor	20 July 2013

Appendix 3

	Martin Johnson	
Other: PR No Opinion letter		09 August 2013
Participant Consent Form	1	02 July 2013
Participant Consent Form	3	16 September 2013
Participant Information Sheet	3	20 July 2013
Participant Information Sheet	5	16 September 2013
Protocol	1	02 July 2013
REC application	114680/4775 31/1/519	18 July 2013
Response to Request for Further Information		

Statement of compliance

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

After ethical review

Reporting requirements

The attached document "*After ethical review – guidance for researchers*" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

13/NW/0559	Please quote this number on all correspondence
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We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

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

Yours sincerely

A handwritten signature in black ink, appearing to read 'L. Lighton', with a stylized flourish at the end.

Dr Lorraine Lighton (Chair)
Chair

Email: nrescommittee.northwest-gmwest@nhs.net

Enclosures: "After ethical review – guidance for researchers"

Copy to: Tony Warne, University of Salford
Mr Andrew Hutchesson, Bolton Foundation Trust

Literature Review - synthesis tables:**Qualitative/Mixed studies related to acupuncture**

Author	Participants characteristics	Study type	Aims	Key Findings	Summary / Evaluation
Gisin et al (2013)	7 wms had acup in labour in Switzerland	Exploratory Qualitative study Semi structured interviews Acupuncture from mw with training who where caring for them in labour	Explore wms experiences of acup in labour Address lack of qual knowledge	Wm felt it enhanced birthing experiences & satisfaction especially re pain relief and positive progress More relaxed felt more positive Made more bearable Made it stronger Some found it irritating \7 restrictive as couldnt move around as easily Some curious of feeling Some fear of electro acup Others fear when needles gone not be able to cope Acup made sense All Only had it when suggested by mw Unsure if acup or combination of effect	Influence of mw to choice and use of acup Contrary to other studies on wms request for acup Translated from German so may be some issues lost or effect on analysis Couldnt remember details of info received -difficult to listen when in labour Indicate need for antenatal info re informed consent Wanted to avoid other pain relief

Appendix 4

				eg water?	
Soliday & Hapke 2013	<p>137 wm 95% white Americans Average age 30 yrs</p> <p>Patients that attended over last 10 years 91.2% had tx for labour facilitation 8.8% breech Some also had tx for back pain, N&V neck pain</p>	<p>Grounded theory - used questionnaire- open ended and forced choice quest.</p> <p>Postal (email) questionnaire (51% response rate)</p> <p>TCM practitioner only 2- 1 (14 yrs experience) other the apprentice All patients tx by the 2 acup</p>	<p>Patent reported benefits Focus on holistic benefit, treating condition,</p> <p>2 questions where bias as asking re benefits of acup</p>	<p>37% effectively (n-23) treated condition 60% said holistic benefit 5.73% assisted in birth 20.6% no benefit 13.74% -achived aim ie: no drugs in labour 22.9% benefited overall in birth process-empowered, felt cared for, more confident</p>	<p>10 years long period to remember Bias of questions Only 1-2 practitioners/? referral process Not clear how often treated & how so many for induction yet discuss antenatal tx and labour</p>

Betts et al (2012)	370 respondents – with details from 164	Mixed method study self completed questionnaire and semi-structured interviews	Current practice among acupuncturists treating threatened miscarriage in Australia & NZ	58% had treated women for threatened misc. Worried re inexperienced	Skype interviews Difficult to know if used in general services or as private additional service?
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Appendix 4

				practitioners, avoided forbidden points (TCM)	Diverse treatment strategies
Barlow et al (2011)	20 patients in RCT 25 attending acup clinics for pain (usual) NHS & private	Qualitative –secondary analysis	Identify differences in psychosocial context between an RCT and usual care setting. Examine implications for trial methodology	Usual patients reported few uncertainties, search for pain relief. RCT more opportunistic, concerned whether receiving fake or real acup. RCT continued treatment to end usual patients negotiated	Interesting perspective re limitations of RCT due to distractions of randomisation treatment Study does not explain recruitment to usual arm well, also questionnaire to the 2 groups essentially had different emphasis
Bishop J.L. et al (2011)	14,541 pregnant women in ALPAC cohort	Longitudinal UK study ALSPAC based in Avon Questionnaires 8 12 18 and 32 weeks gestation	Use of CAM in pregnancy at 8weeks 12 weeks 18weeks and 32 weeks of pregnancy	Over 26% used Cam at least once in pregnancy – most common herbal teas, arnica 3.15% others eg: acupuncture hypnosis/massage etc only 1%	Emphasis on medications or substances taken orally in questionnaire so bias towards these therapies acknowledged

Appendix 4

<p>Griffiths & Taylor 2005</p>	<p>12 participants Australia 25-55 yrs -7 male 5 female Attending university acup clinic</p>	<p>Phenomenological study using Van Manens method using unstructured interviews- 1 hr TCM acup Recruited through advert in press and attendance at uni acup clinic Purposive sampling to ensure rich data</p>	<p>Inform nurses of lived experience of acup - give nurses the language to explain to patients the exp of acup & able to offer as informed choice Unstructured interview with prompts</p>	<p>Experiences explained under Themes providing language 1) seeking acup intentionally 2) describing the assessment 3) experiences during tx 4)sensation of needling 5) After acup</p>	<p>Interesting words- Needles- pain for split second, like dull ache, numbness, some areas more sensitive, bitten by tiny wasp, nothing just there, energy running, tingling, Sensation when turn the needle- electrical connection ,dull electric sensation, different, bearable, if kept turning sure it would be unbearable After tx- spaced out/relaxed/vague/overwhelming Differences in acupuncturists all approach differently Doesnt work for everyone</p>
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<p>Richardson (2004)</p>	<p>327 attending for CAM over 9 months in NHS</p>	<p>Qualitative study- questionnaires based on SF-36 with one open ended question at end</p>	<p>Assessing expectations of patients accessing CAM in NHS – referrals mainly from GPs for complaints such as Back pain, neck pain</p>	<p>Expected holistic approach, symptom relief, self help advice and availability on NHS</p>	<p>Highlights interesting issues eg: wanted to be told the truth re condition,, explanation of condition , to work together with practitioner to tackle problem. Someone they feel at ease with ways to cope with condition. Seemed strange to get such a lot of data from one question on questionnaire. SF36 results not discussed. Not really a qualitative study, no discussion of possible bias, seemed to be emphasis on importance of</p>
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Appendix 4

					patient making a realistic choices?
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Hope-Allan et al. 2004	37 wm Australia 2001-3 Onsite acupuncture clinic referred by MW or Obstetrician Range of conditions- constipation, haemorrhoids, insomnia, N&V IBS	Evaluation using questionnaire- 17 questions after tx completed Questionnaire sent to 52 wm- 37 returned Likert scale at 1st & last tx Eg; had CAM previously? reasons for having acup, how affected lives & condition	Exploratory pilot study, evaluation of acup service in Australian antenatal clinic 1 midwife with acupuncture training ? type ?TCM Referred mainly by MW=22 , some by Dr=4, AN class or friend x 1 Service Advertised by brochure/ signs x 7 Average 4.1 tx each 1-10 max 10 txs	27 wm said would have liked more acup txs All said would use it again Most common reason 24= backpain/pgp, 19= anxiety 15= obstetric complaints 100% improved their wellbeing Likert scale at 1st & last tx = sign. improvement in wellbeing p<0.001 18 (49%) previously had CAM	1 midwife with acupuncture training ? type ?TCM More unusual conditions treated Yet mainly for usual ones eg: backpain Nearly half had CA before No ethical approval ? as audit ? p value - no power calc.of study given Reduced work absenteeism - only in discussion section
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Macpherson et al (2003)	192 patients	Retrospective observational study using questionnaires using scales CREM, PEI & GHHOS	Explore patients perceptions of practitioner empathy, patient enablement and health outcome and to investigate the association between them	Empathy & enablement scores not affected by patient age or reason for attending, men had significantly lower scores than women Enablement	Tools not designed to be used in conjunction and so long after treatment episode. Enablement scores had to be adjusted to match study Interesting issues highlighted
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Appendix 4

				<p>correlated with practitioner empathy enablement correlated well with outcome re complaint and wellbeing</p>	<p>Useful criteria for empathy, enablement and wellbeing useful for interview schedule</p> <p>Significant difference between men and women,</p> <p>Health promotion a factor practitioner communication</p>
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<p>Gould & MacPherson (2001)</p>	<p>132 questionnaires completed by patients attending acup -11 interviewed</p>	<p>Mixed method questionnaires & interviews</p>	<p>Determine patients experience of outcomes of acupuncture treatment</p>	<p>Broad range of outcomes, physical emotional and wider benefits involving lifestyle outlook and attitude towards health – holism in action</p>	<p>Respondents 85% female- may reflect client demographics?</p> <p>Most change shown by long term patients.</p> <p>Only 48 answered open ended quest on questionnaire in comparison to 86% in Richardson study?</p> <p>83% positive change to emotions</p> <p>Cultural tendency for Patients needing a real physican reason for seeking out treatment</p>
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Appendix 4

					<p>Focus on patient education</p> <p>All resp from 4 acup in York area all BAaC members</p>
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<u>Nausea & vomiting in pregnancy:</u>					
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Quantitative studies- acupuncture & acupressure					
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Puangrichare	98 wm	RCT Thailand	Evaluate effectiveness of	91 wm completed	No tx for control so difficult to know
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Appendix 4

<p>rn Mahasukhon (2008)</p>	<p>auricular acupressur e</p>	<p><14 wks preg 6 days trial</p>	<p>auricular acup in tx of NVP Tx group taught to start acupressure using magnetic pellets in ears from 3rd to 6th day Used Rhodes index score Complete plus say how much medication using from day 4 to 6</p>	<p>study index scores lower in Tx grp but not significant diff in scores or medication used</p>	<p>if they wre the ones who dropped out of study? Not sure if did use acup and for how long or if pellects stayed in ears?</p>
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<p>Smith C. Crowther C. Beilby J (2002a)</p>	<p>593 preg women</p>	<p>RCT based in Australia 4 goups: TCM, PC6 only, sham acup, no tx Study 4 wks tx x2 first wk then weekly Acup tx by study investigator Wm had to be <14wks preg</p>	<p>Does acup. Reduce nausea , dry retching , vomiting and improve health status of preg women? Used Rhoes index quest. And SF36 for wellbeing Measured by women day 7 14 21 & 26</p>	<p>Reduction in nausea from 1st wk for TCM and from 2nd wk for C6 and sham group. No diff in vomiting</p>	<p>? Bias to TCM as investigator did this in such a large study. Wm in no treatment group given diet advice, 10min phone call and vit B. All wm able to contu taking antiemetic's but no account of this in results. Very difficult to interpret esp TCM element Less women in trial than power required for findings Didn't include anyone with hyper</p>
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Appendix 4

					gravidarum so missed opportunity to see response of these women in hospital
Smith C. Crowther C. Beilby J (2002b)	593 preg women Acupunc.	RCT based in Australia 4 groups: TCM, PC6 only, sham acup, no tx Study 4 wks tx x2 first wk then weekly Acup tx by study investigator Wm had to be <14wks preg	Assess the risk of adverse effects of acup administration in preg Specifically recording perinatal outcomes, congenital abnormality, pre complications and newborn comp	No serious adverse effects for any of factors than in general pop- spont abortion, cong abnormality, BW SB preterm birth or PET or APH	Seemed quite robust followed up 583 women
Knight et al (2001)	55 women Acupuncture & sham acupunc.	RCT- subject and observer masked RCT using TCM acupuncture UK 6-10 wks gestation not admitted to hospital	Compare TCM acupuncture with sham acupuncture for tx of NVP 2 groups 3 to 4 tx with either acup or cocktail stick in 3 week period Recruited by comm. Midwife Also given advice sheet on diet lifestyle	No sign difference in groups re NV or anxiety But both groups had notable decrease in NV Intervention popular – not sure how this was measured ?	11 women dropped out, small study only 44 Had to attend for apt for tx at hospital Sham may have had some effect ? Women self reporting subjective <u>Stated women enjoyed interaction with</u>

Appendix 4

			<p>Measured by daily VAS scale also assessed anxiety & depression HAS quest</p> <p>Acupuncturist and invest in sep rooms acup. Made decision re group and followed standard procedures tx used TCM diagnosis left needles /stcks covered by tape in 15 mins x2 a wk first wk then weekly</p>		<p><u>mws and have opportunity to discuss symptoms etc. – this effect not measured as no qualitative element</u></p> <p>Difficult to blind patients to sham acup ?</p>
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<p>Carlsson P.O.et al (2000)</p>	<p>33 women</p> <p>Acupuncture</p>	<p>Placebo-controlled randomised crossover study</p> <p>Swedish</p> <p>Wm with hyperemesis 2 groups PC6 acup (deep) and placebo superficial acup.</p>	<p>See if acupuncture in addition to standard tx could hasten improvements of hyperemesis grav. Based on study for acup with chemo, same crossover design over 8 days two grps tx days 1 7 2 then 5 & 6 days 3 & 4 washout period</p> <p>No medication allowed</p> <p>Two grps had either acup them sham acup or reversetx 3 times a day for 8 hr effect (Dundee 1988)</p>	<p>Sign reduction in nausea but did need to measure speed of VAS reductions as nausea of women at baseline were not same.</p> <p>Sign difference in vomiting but not in food intake or lv fluids</p>	<p>Small study, MW doing tx were not blinded not suppose to discus with patient tx but still potential bias also not counted interaction with mw or other advice</p> <p>Short period of tx not sure why crossover nec esp as in ward setting</p> <p>No qualitative element seems unlikely no problems with acup needles for some women?</p> <p>More women in sham acup grp dropped out seemed to know not best tx. 6 of 7 dropouts tried first form of tx first 5 were in gp starting</p>
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Appendix 4

			<p>Women also received iv glucose& recorded vomiting and intake of food</p> <p>MW did acu tx not members of ward staff</p> <p>VAS scale to assess after 2 days daily</p>		with sham acup
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Acupressure studies					
Jamigorn M & Phupong V (2007)	66 women Acupressure	RCT Thailand 7 day trial 6-12 wks preg Acupressure device & placebo drug or non-stimulating device and vitamin B6	<p>Compare effectiveness of acupressure and Vit B6 in outpatient tx of nausea and vomiting in early preg</p> <p>2 grps wear wristbands contu as possible for 5 days grp 1 to P6 point other group to dummy point on forearm</p> <p>15 copies of Rhodes index quest to complete eval sumptoms every 12 hrs could use rescue drug if needed</p>	No statistical diff between grps, all gained weight	<p>Small study, women self -reporting.</p> <p>Use of rescue drug may have caused improvement? Doesn't say how much used drug?</p> <p>Says women wore bands for 18hrs a day difficult to confirm , also difficult to know when actual completed forms</p> <p>Short term only over 7 days</p> <p>Not as many completed study as</p>

Appendix 4

			<p>(dimenhydrinate 50mg) to record this.</p> <p>All given dietary advice</p> <p>Also measured weight gain</p>		<p>required by power cal. As 6 didn't complete</p> <p>Feel women would have known correct lace for seabands P6 ?</p>
Shin et al (2007)	66 women acupressure	<p>RCT South Korea Hyper. gravidarum 6-30 wks preg</p> <p>Double blind study 3 hospitals recruited women on 3 different wards</p> <p>3 grps: PC6 acupressure, placebo acupressure and no tx</p> <p>Trained MW to administer tx</p>	<p>Study 7 days long whilst in hospital</p> <p>used Rhodes index (modified) and measured ketonuria levels daily</p> <p>no tx group had conventional tx</p>	<p>NV lower in tx grp in comparison with control and placebo grp also etones level also more reduction in treatment PC6 grp</p>	<p>Issues re blinding- MW tarined but supposedly not know which correct point and which placebo? seems unlikely in South Korea they wouldn't or woman and family wouldn't know that point.</p>
Heazell et al (2006)	80 wms acupressure	<p>RCT UK < 14 wks preg, having NVP plus ketonuria</p>	<p>Evaluate efficacy of acup at P6 for inpatient tx of severe NVP</p> <p>2 groups tx or placebo with bands gp 1 on P6 grp 2 on at dorsal end of forearm as placebo to wear bands 8 hrs a day</p> <p>Measured no. days in</p>	<p>No diff ingrps for medication or IV fluids but sign diff in tx grp for stay in hospital</p>	<p>Didn't ask women of symptoms as didn't want respondent bias- felt women may increase symptoms to justify hosp. tx and take on sick role to avoid work or role at home (very suspicious of womens motives??)</p> <p>Wasn't 40 in each grp in results chart as only 72% had data</p>

Appendix 4

			hospital, no. of antiemetics used and IV fluids in 24hr period		
Neri (2005)	88 wm with hyper. gravidarum	RCT Compare acup with acupressure or metoclopramide and Vit B 12 tx Conducted in Italy Diagnosed with Hyper Grav.	2 gps Acup tx 2 a wk at hospital & wear bands for P6 8 hrs a day Or twice a wk IV met. At hospital and oral vit B12 Measured symptoms and functioning	Both tx improved NV medication more immediate effect acup/acupress. More progressive Acup sign better at improving function	Psychosocial improvements may offer further advantage of acup?
Rosen T et al 2003	187 women Acupressure Using nerve stimulation device at PC6	RCT USA – recruited from 4 clinical centres – by Drs at hospital & private clinics –diverse grp. Between 6-12 wks preg	Evaluate effectiveness of nerve stimulation at PC6 point to treat nausea and vomiting in early preg. 21 day trial 2 grps nerve device and same but placebo device- 5 intensity levels Staff couldn't be blinded Rhodes index quest for 12 days of 21 exit interview; 1-	230 enrolled 18.6 % didn't complete forms Time average change in Rhodes index of total exp was sig better than control Study wm gained more weight. Do diff in medication or urinary ketones	Staff not blinded so may be bias? No mention of intensity levels in results. Wm scoring selves at home so difficult to assess different levels as subjective. Lot of forms to complete, may not have been done when should have , no mention of this in results? Some women obviously knew they were in placebo group may explain drop outs?

Appendix 4

			7,9,11,13,17&21		
			Measured weight and urine & medication used – self recorded		

Norheim AJ et al (2001)	97 women Acupressure	RCT double blind placebo controlled in Norway Using wrist bands with protruding button on PC 6 or identical wristband with felt patch <12 wks preg Advertised by flyers 12days trial	Whether acupressure wristband can alleviate nausea and vomiting in early preg 2 grps, research staff blinded as study assistant instructed women 4 day run in then 4 days of wrist bands then 4 days at end free Self recorded on VAS scale daily Then evaluation interview on day 12	Intensity and duration of sickness in treated group also small non sig difference in symptoms Some in both groups had problems with wrist bands but more in placebo group	Forms quite time consuming and self reported so difficult to know as some women obviously guessed they didn't have treatment band. Also staff may have known even if researchers didn't know which woman was in which group? Not able to reach 5% significance level achieved by previous studies by Dundee (1986) & De Aloysio et al (1992) Women answered an advert to participate so may have had more belief in alternative therapy? No mention of antiemetic treatment women may have taken or other alternative therapies eg ginger?
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Nausea &					
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Appendix 4

<p>vomiting in pregnancy and psycho-social factors</p>					
<p>Power Z Thomson A Waterman H (2010)</p>	<p>18 wm Plus 7 focus grps with health care prof.</p>	<p>Action research study Semi-structured interviews and focus grps with staff</p>	<p>Describe experience of hyperemesis grav from perspective of women and explore with health care prof barriers to caring for these women Purposive sample- inpatients Posters to advertise for staff to participate Wm to be interviewed in 1st 2nd 3rd trimester and 12 wks pn</p>	<p>18 women interviewed – 8 had 2 or more interviews plus 7 focus grps with staff Themes of interviews: Effect & burden of symptoms Managing the burden Feeling unpopular Themes from focus grps: Invalidity of hospital for affected women, psychological & social dimensions, disbelief in authenticity of</p>	<p>Highlights distress for wm and how debilitating Hyper grav. can be how staff attitudes and lack of support from them can affect wms experience of condition Hops or comm don't seem to want to care for these wm carried stigma of time wasters Lot of drop outs re followup interviews Needs to be better care and holistic approach On gynae wards mainly MW not really involved so no understanding of preg needs other sick patients taking priority</p>

Appendix 4

				severity of symptoms, inappropriate referral to hosp	
Locock et al 2008	35wm UK	In depth interviews Part of study for DIPex website on AN screening and exp of pregnancy Recruited from many sources,	Explore exp of nausea & vomiting in preg from as wide a variety of wm as poss	Themes: to be expected, something to survive, something to be resisted, be resented,, acknowledged by others	Part of wider study, not specific to NVP, self selecting participants Good comments about MW role, & HPs in general, issues of biological disruption and effect on self identity empathy
Chou et al (2008)	243 wm Taiwan	Evaluate relationship between N&V stress , social support and psychol adaption to preg 6-16wks gest Read & write Chinese Demographic data	Questionnaire survey- 4 self reporting quest. Index of N&V & retching PSS ISEL Prenatal self eval quest . Took 40 mins to complete Recruited from 4 diff private clinics Conv. Sample Offered free nursing consultation on preg symptom management and	Found PRN&V positively associated with stress supporting previous studies OBrian (2002) Strong relationship between social support and enhancement of adaption to preg. Wm with social support can mediate against	Convenience sample in private clinics Given gift for participating May be cultural differences so may be difficult to apply findings to other cultures? All wm in study marries, large percentage employed differing levels of education- expectations? Some good discussion on link with psychsocial impact on fetus and

Appendix 4

			free gift for participating	NVP If unplanned preg. More likely to perceive more stress and exp more severe NVP Further studies needed	maternal adaption to parenthood Suggest benefits of multifactorial approach
Munch S Schmitz MF (2006)	96 wm USA	Qual & quant approaches – a path model of patient perception factors associated with patient satisfaction was tested Wm who had experienced at least one hospitalisation for NVP/Hyper grav.	Examine relationship between perceptions of patient physician relationship and satisfaction with medical care in treatment of HG 96 resp to interview questions over phone	Perceived Shared beliefs about etiology of HG more important direct contributing factors of satisfaction than specific causal explanations. Length of relationship indirect positive effect	Tel interviews really difficult to get indepth info to questions within model. Questions seem to bias findings to physician with out consideration of impact of other staff, medication alternative treatment diet etc? Not really qualitative study
OBrien B Naber S (1992)	27 wm with NVP	Semi structured interviews focusing on changes in family, social and occup functioning	Demographic data and both qual & quant data collected within a wider study Assigned to 3 diff grps dept on severity of symptoms . Tel	Symptoms affected family lives of most wm in study, cooking difficult due to taste shopping etc.	Confusing study as part of wider quant study only interviewing small no. of 117 wm in wider study. Recruited initially from A&E so severe mainly followed up before interviews

Appendix 4

			interviews of 50mins	<p>Husbands didn't understand role change now needing support difficulty caring for other children or work.</p> <p>Positives –feel preg going well see husband as caring.reduced social commitments</p>	Results all put in together so difficult to see what data gathered additionally from interviews?
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<u>Physical & psycho-social issues</u>					
Pierce et al (2012)	96 wm	<p>cross sectional descriptive study- wm from 28wks gest attending anc data collection demographics, exercise habits & lifestyle</p> <p>if reported symptoms of LBP or PGP completed 2nd survey- of VAS Oswestry Disability index plus</p>	Objective : investigate prevalence and nature of lumbo pelvic pain (LPP) experienced by women during preg	<p>71% self reported LP (point prev 33)</p> <p>17% LBP 33% PGP</p> <p>50% both risk factors: multiparas, past history, used stairs reg</p> <p>disability 23% mod 65% mild</p>	<p>Study had no power calc sample size small for statistical calc.</p> <p>Qualitative approach said to be reported in another doc but cannot find this report</p> <p>Oswestry index not validated for use in preg.</p> <p>Interesting 70% wm thought LPP to be expected , 71 % reported problem only 25% offered tx</p>

Appendix 4

		closed and open ended questions			
Elden et al (2008)	386 wm Sweden	same study as above but looking at adverse effects of tx in 3 grps on mother delivery and fetus/neonate 3grps	outcomes on: FHR Bp and mat hr recorded before and after acup used CTG in 43 of these women once only outcomes; at follow up wm asked if exp harm if so to say advant & disad also asked to indicate overall exp of tx just one question- options no help, some,good,very good the from birth register: BW, Cord blood, apgar score, prem birth, analgesia in labour, type of del, outcome for neonate	acup grp wm significantly more satisfied despite more minor adverse events eg pain at needle site headache drowsy no neg. outcomes in preg or outcomes looked at stab exer grp- no serious events but didnt monitor FH etc.	CTG recordings of 43 tx-very small percentage of tx as each of 106 wm had 12 tx sessions discuss re strong needling with larger number needles and use of forbidden points good ref to studies on blood flow to uterus in IVF tx etc good asked for wms feedback on tx bias didnt report that in stand. tx 3rd said was difficult to exercise at home yet acup and stable grp said 0 and 4 consecutively - saying realised didnt get attention? Interesting to see about 5th had acup in labour obviously available demo of differing culture in Sweden re acup Good contribution to evidence re safety but acknow. cannot make definite conclusions due to size limitation would be good if longer term outcomes also available eg PGP after birth?
Lund et al (2006)	70 wm Sweden	RCT single blind 2 grps superficial and deep acup recruited from ANC set criteria- assessed for type of pelvic pain ? what diff	evaluation of effects of 2 different stim modes on pelvic pain intensity and some symptoms due to pain condition	showed lower levels of pain intensity at rest, activity, rted emotion and loss of energy no difference n grps	conclusion acup stimulation individually designed may be variable to ameliorate suffering pelvic pain only small study discusses issues re relationship of

Appendix 4

		made to tx 1 week assessment			perceived pain and emotional state and possible effect of interaction between patient and therapist
Elden et al (2005)	386 wm Sweden	single blind RCT 3 grps standard tx, standard tx + acupuncture & standard Tx + stabilizing exercises	compare efficacy of tx for the 3 grps Outcomes: 1st week assessment and quest+ diagnosis of PGP 6 wks tx final week assessment of PGP symptoms by physio diaries completed x 2 a day VAS medical acup - specific classical points plus segmental points method needles etc. given	stabling exercise grp had less pain than standard in am but acup grp had less pain am and pm than both other grps attenuation of PGP greatest in acup grp	27 anc recruited from by dr /mw possible bias re open to acup tx or perhaps more acceptable in Sweden pat asked not to have other tx? No comment on additional tx and support for acup group, effect of support advice encouragement no discussion on whether standard tx grp or others actually did exercise or wore belt or when complited diaries No qualitatve feedback from wm re acceptability what got from tx results correclate with amount of attention got? Reference to studies and recom re tx of PGP by authors from this paper No detail n how far wm travelled for tx, or how often stable. exercised done No discussion on possible bias just criticism of other methodologies No discussion on use of forbidden points no discussion on bias of those recruited or disappointment re grp put in Discussion re diagnosis of PGP but not said could have had both PGP & LBP and unsure how then compares

Appendix 4

					results with LBP study?
Wang et al (2005)	USA	950 preg wm at clinics hospt. and private 104 providers: drs nurse/mw parent educators		53% used CAM massage 32.5% yoga 18.1% chiropractic 11.7% relax tech. 9.5% acup 8.6% herbs 6.2% aromatherapy 6.5% and others less common 7.3% more than 1 CAM used by 67% those with least high school edu more likely to use CAM 31% continued to use in preg 67% said would have CAM tx for backpain if recommended providers- 90.2% said would recommend a form of CAM for LBP 93% nurse MW compared to 64% drs	only very few women would consider using pharmacological tx for LBP Discuss issue of wm being able to discuss use openly

Appendix 4

<p>Guerreiro da Silva et al (2004)</p>	<p>61 wm Brazil TCM</p>	<p>Prospective quasi-randomised controlled study acp grp also had conv tx of paracetamol and hyoscine and control grp had same but no acup Acup tx 1 a wk recruited from an programme state funded</p>	<p>Investigate effects of acup in LBP & PGP under real life conditions compared with conv tx. baseline quest and final interview + severity of pain measured on scale 1-10 3 time frames npw, average and max in last 14 days measured every 2 weeks for eight to 12 tx</p>	<p>all 61 completed only minor effects small bruises/ecchymosis neonatal outcome same average pain intensity decreased by 78% compared to 15% in control Function capacity improved sign.more in acup grp</p>	<p>Recruitment not clear, randomisation not robust, potential for bias not blinded therefore open to influence of staff also more tx in acup group so bias in terms of reg contact with acupuncturist no discussion of power calc? Discussion on use of sham acup in studies and ethics baseline and final interview by med.student tried to minimise contact between acupuncturist and interviewer Do give details of acup points used, needles, tech, qnd experinece & training of acup No consideration of impact of interaction with acup or womens feelings of receiving acup tx</p>
<p>Kvorning et al. (2004)</p>	<p>72 wm Sweden mixed acup TCM points plus trigger points</p>	<p>prospective randomised open study acup grp and control with no tx recruited from anc of 3 mat units</p>	<p>evaluate analgesic effect and possible adverse effects of acup for various kinds of nociceptive pain data - VAS scale of pain and 3 point assessment of pain during activities mw complted form also re acup tx and adverse evenets also collected outcomes of birth: gest at birth, BW Apgar</p>	<p>pain intensity decreased in 60% of acup group 14% in control pain on activity decreased 43% of acup grp in 9% control no serious side effects but some reported local pain,</p>	<p>Met power calc.- 2 blinded invest looked at VAS scores No attention paid to control grp had to stop one hospital as patients heard acup worked well so requested it even if in control- fewer visits to hospital MW- only 3 therefore may have been effect of meeting with these mws?- felt MW may have over reported adverse events also stim to</p>

Appendix 4

			<p>scores</p>	<p>sweating, hematoma, tiredness, nausea & weakness no diff in neonatal outcomes</p>	<p>periosteum may have been more painful ? used up to 8 needles -no details of mw acupuncturist training or exp.</p> <p>say importance of team approach obstet. & MW in acup studies as knowledge of diagnosis and tx of adverse events during preg & birth crucial did give details of acup points and tech/needles used No consideration of impact of interaction with acup or womens feelings of receiving acup tx</p>
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TOPIC GUIDE FOR SEMI-STRUCTURED INTERVIEWS

The interviews will begin with an open question introducing the phenomena to be explored :

“ Could you tell me about your experiences of having acupuncture in pregnancy”

Prompts:

Choices

Previous experience and knowledge

Expectations- treatment, practitioner, pregnancy, other effects

Experiences;

Treatment

Practitioner

Pregnancy

Family & friends

Future plans;

Treatment

Practitioner

Pregnancy

Family & friends



'Experiences of pregnant women receiving acupuncture from midwives'

Participation details sheet

Please ensure you have read the participation information sheet and are happy to participate before completing this form

Name.....

Address.....

Postcode.....

Contact telephone number = mobile.....

Email address.....

Expected date of birth..... Or date of baby's birth.....

Best time of day and best days of the week for you to be contacted

The researcher will contact you with three weeks of you completing this form.

If you require further information or change your mind about participating please contact:

Jeanne Lythgoe, University of Salford tel : 0161 295 2591 j.lythgoe@salford.ac.uk or the Academic Supervisor: Dr. Alison Brettle tel: 0161 295 0447 a.brettle@salford.ac.uk

Audit & Evaluations of Salford Midwifery Acupuncture Service (SMAS)

Audit and Evaluation SMAS: 2006-2007

In May 2006 two midwives had completed the British Medical Acupuncture Society (BMAS) foundation course and after gaining approval for the midwifery acupuncture service from the Trust clinical governance committee, the Salford Maternity Acupuncture clinic was launched.

The weekly clinic, based in a Children's Centre, received referrals from midwives, doctors and women themselves. The service was not widely advertised due to fears of not being able to meet demand. Treatment was offered for a range of conditions of pregnancy such as:

Nausea & vomiting (including hyperemesis & ptyalism)

Idiopathic headache

Backache (after physio. assessment)

Carpel tunnel syndrome

Symphysis pubis dysfunction

Induction

Appendix 7

Moxibustion - turning breech presenting fetus

Anxiety & stress

All women attending the clinic completed a risk assessment form and receive an information leaflet. The acupuncturist midwives recorded treatments and outcomes within a database to enable audit of results, along with documentation of treatment in the woman's hand held records to ensure communication with colleagues

Data Collection

Statistics were recorded for numbers of women attending and reason for attending. Also the number of treatment sessions attended, A questionnaire was also posted to women at the end of treatment, to collect information on outcome of the treatment and also the women's views of the service.

Results

In the 12 months September 06 to September 07 - **219** clients were seen within the Salford Midwifery Acupuncture service :

69 within the acupuncture clinic

150 within the auricular acupuncture stop smoking group (approx 100 pregnant women, others may have been attending in the postnatal period or beyond)

Conditions Treated in the clinic setting:

- 20 with nausea & vomiting
- 7 with headaches
- 6 with back pain
- 8 with anxiety/stress
- 6 post mature
- 3 carpel tunnel syndrome
- 1 knee pain
- 1 not sleeping
- 9 symphysis pubis pain
-

2 women were seen at home due to being unable to attend the clinic

8 women were given information & equipment for moxibustion to be self-administered

Many more enquiries were made regarding moxibustion treatment and advice regarding the treatment of other conditions.

- **The number of treatments ranged from 1 to 6.**
- **The average number being 2-3**
- Nausea & vomiting saw some marked reduction of symptoms in 60% of cases
- 3 induction were reported by women as successful
- 2 carpel tunnel syndrome cases saw good improvement

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- 5 SPD- reported varying degrees of improvement
- 6 women with headaches all reported good responses to acupuncture treatment

Results of Stop Smoking Acupuncture Group

- Success measured by stopping smoking for over 1 month
- 30% success- very favourable to general stop smoking services
- Now being considered by other stop smoking services

Evaluation

50 postal questionnaires were sent out to women who had attended the service at least two weeks after treatment ended, mostly after the birth of their baby.

24 returned (48%)

15 telephone interviews attempted with clients who received treatment over seven months previously.

7 participated (46%)

Responses

Overall very positive responses:

- Venue satisfactory
- All clients reported having a limited knowledge of acupuncture
- Expectations met in all but two cases

- Unanimously, would recommend to a friend

Quotes from Questionnaires

- *“I knew it would help but was surprised how quick and effective”*
- *“Very professional friendly staff”*
- *“I was disappointed the treatment wouldn’t help but would certainly recommend to a friend!”*
- *“Hoped it would stop sickness, it did!”*

The evaluation saw a very good response to both questionnaires and telephone interviews, demonstrating that the women valued the service. As can be seen above, responses to questions were also very positive, women reporting the benefits of the treatment and expressing gratitude in many instances. What the evaluation unfortunately fails to demonstrate is the number of women who were able to return to work, or saw improvement in daily living / wellbeing as a result of the acupuncture. In order to capture this evidence practitioners intend to use an assessment tool measuring discomfort and wellbeing before and after treatment for future evaluations.

Conclusion

One year on, the acupuncturist midwives feel very positive about the benefits of the service and its potential for expansion. They report an increase in job satisfaction, being able to offer treatment for minor disorders that can be very distressing and debilitating. Anecdotally, the midwives report the treatment reducing antenatal admissions to hospital, especially when treating nausea. An underlying factor for many clients seems to be stress and anxiety, this may reflect the debilitating nature of conditions of pregnancy, especially sickness. This seems to be an issue worth pursuing in terms of research and the possible use of acupuncture treatment for peri-natal depression. The future funding of the service is in question, due to Sure Start funding ending in March 2008. It is hoped that demonstration of the cost effectiveness of this valued service will enable it to gain long term funding. The training of a third midwife has created the potential to widen access to the service. The professional development of the acupuncturist midwives continues and one midwife is now undertaking an MSc in acupuncture. The possibility of research is being explored in partnership with the University of Salford Child and Family Research Unit.

Jeanne Lythgoe

Salford Sure Start Midwifery Lead SRFT MSc BA Hons PGCE ADM RM RGN

Andrea Metcalfe

Salford Stop smoking Midwife SRFT BSc Hons RM RGN

Audit and Evaluation of the SMAS: 2010-2011

In 2010 the Salford Midwifery Acupuncture Service had been running successfully for 4 years. It had now expanded to 2 clinics a week and the group session for Smoking Cessation continued. There was also 2 more midwives who had completed the BMAS foundation course and able to

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offer the second clinic. This made the staffing levels now, 4 midwife acupuncturists and one midwifery Assistant who was able to offer auricular acupuncture at the Stop Smoking group. The clinic continued to be held in Children's Centre's, in the community areas of Swinton, Walkden and Winton. Thus, the service was easily accessible to Salford women.

As concluded from the previous evaluation it was decided to undertake an evaluation of treatment effect, not only assessing improved levels of pain but also assessing impact on day to day activity, on relationships, on ability to relax and on eating & drinking. A Visual Analogue Scale (VAS) was developed (Appendix 17), to be completed by women at their first appointment and then again after 4 sessions of treatment (generally weekly treatments). The VAS scale asked the women to score their answers between 0 = no effect to 5 = greatly affected. The VAS scale was based on scales validated to measure similar outcomes, adapted to ensure the questions were appropriate for pregnant and post natal women (Brazier et al. 1992; Paterson 2006). For example, questions regarding sleep are not useful in this context, as it is normally expected that pregnant and new mothers will have disturbed sleep.

The statistics on numbers of women attending and the reason for attending were also recorded for all women attending the acupuncture clinics over the years April 2009 to March 2010 and April 2010- March 2011 (Appendix 18). Unfortunately, reduction in administrative support has prevented figures for 2011-2012 being available, clinic attendance records would indicate they remain at a similar level.

The Stop Smoking group attendance figures cannot be used as they also include members of the general public who access the Stop Smoking service. However, this group continues to flourish and although attendance fluctuates, sees pregnant women attending for Stop Smoking support using auricular acupuncture, also enabling women wishing to have acupuncture treatment more than once a week to access an acupuncturist midwife twice a week if necessary, once at the clinic and then again in the same week at the group.

Results

Numbers of women accessing the two clinics in total were:

223 (2009-2010) & **267** (2010-2011) (Appendix 18)

Of the women attending in 2009 -10:

58% attended for treatment for back pain (PLBP) or symphysis pubis dysfunction (Pelvic girdle Pain- PGP)

14% attended for nausea and vomiting of pregnancy (NVP)

7% attended for induction of labour (IOL)

Of the women attending in 2010-11:

60% attended for treatment for back pain (PLBP) or symphysis pubis dysfunction (Pelvic girdle Pain- PGP)

7% attended for nausea and vomiting of pregnancy (NVP)

14% attended for induction of labour (IOL)

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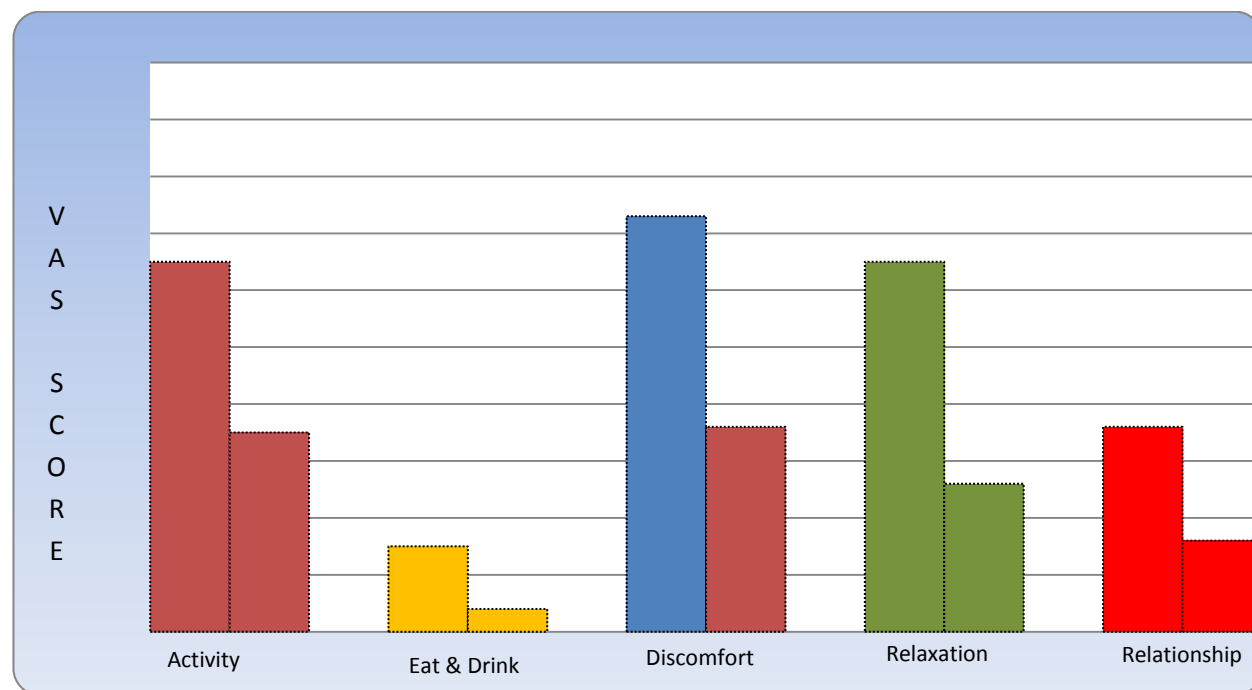
VAS scales were completed by 20 women (at the beginning of treatment and after 4 treatments). Results are summarized within the table and bar chart below:

Candidate	Question 1 Activity	Start score	End score	Diff	Question 2 Eat & drink	Start score	End score	Diff	Question 3 Discomfort	Start score	End score	Diff	Question 4 Relaxation	Start score	End score	Diff	Question 5 Relationships	Start score	End score	Diff
1		3	4	-1		0	0	0		3	4	-1		3	3	0		1	1	0
2		2	0	2		0	0	0		3	0	3		3	0	3		1	0	1
3		5	4	1		0	0	0		5	5	0		4	4	0		3	3	0
4		1	1	0		0	0	0		3	1	2		2	1	1		0	0	0
5		2	0	2		4	0	4		5	1	4		5	0	5		5	0	5
6		2	5	-3		0	1	-1		2	2	0		0	1	-1		0	0	0
7		3	2	1		3	0	3		3	1	2		3	1	2		2	0	2
8		4	0	4		0	0	0		5	1	4		4	1	3		3	0	3
9		4	2	2		0	0	0		3	2	1		5	2	3		5	3	2
10		4	0	4		3	0	3		4	0	4		4	0	4		3	0	3

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11		4	4	0		1	1	0		4	3	1		3	2	1		3	3	0
12		4	1	3		1	1	0		4	2	2		4	1	3		1	1	0
13		0	0	0		0	0	0		4	1	3		2	1	1		0	0	0
14		5	2	3		0	0	0		4	2	2		5	2	3		3	1	2
15		4	1	3		0	0	0		4	1	3		4	1	3		2	0	2
16		3	2	1		0	0	0		2	2	0		0	1	-1		0	0	0
17		4	3	1		3	1	2		5	5	0		5	3	2		4	4	0
18		4	1	3		0	0	0		4	1	3		4	0	4		0	0	0
19		4	1	3		0	0	0		4	1	3		5	2	3		0	0	0
20		3	2	1		0	0	0		2	1	1		0	0	0		0	0	0
	AVG E	3.25	1.75	1.5		0.75	0.2	0.55		3.65	1.8	1.85		3.25	1.3	1.95		1.8	0.8	1

Bar chart showing before and after scores for each of the 5 questions of the VAS questionnaire



The results for differences in scores after 4 treatments ;

Question 1: *'My day to day activity is reduced more than I would expect'*

Ranged from -3 to 4 with an mean difference of 1.5

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Question 2: *'I am not able to eat or drink as I would like'*

Ranged from -1 to 4 with an average difference of 0.55

Question 3: *'I am in discomfort most of the time'*

Ranged from -1 to 4 with an average difference of 1.85

Question 4 : *'I am unable to relax as I think I should be able to'*

Ranged from -1 to 5 with an average difference of 1.95

Question 5 : *'My condition is affecting my relationships with family and friends'*

Ranged from 0 to 5 with an average difference of 1

Evaluation

These scores demonstrate that for a small proportion of the women only slight improvement in one or two areas was reported. Two women reported having actual deterioration in their condition during treatment. However, for most of the women (15) there was either some improvement in most areas or a marked improvement (8). Overall, the most improvement was seen in the ability to relax, this is an interesting result, reflecting the known effects of acupuncture stimulation on the midbrain. Although still not fully understood, neurophysiology research has demonstrated that stimulation of nerve fibres (A δ) by acupuncture needles causes nerve transmission to the spinal cord (at the dorsal horn) and then the brainstem, stimulating deeper structures including the hypothalamus and the limbic system. (Hui 2005; Hui et al. 2000; Pariente et al. 2005). This stimulation of the limbic system can have a calming effect, improving wellbeing and therefore ability to relax.

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Most of the scores from question 4 of improved relaxation do correlate with improvement in discomfort or pain, but for 5 women their pain did not reduce in relation to their ability to relax. This phenomena may be explained by the varying responses to acupuncture seen within patients (White et al. 2008). Acupuncture treatment is also known to increase the production of neurotransmitters such as serotonin and oxytocin in response to needling, this again may create a feeling of relaxation, or that the pain bothers them less (Thomas et al 1991).

The second most improved area was levels of discomfort or pain. This again reflects the known segmental analgesic effect of acupuncture , stimulating A δ nerves in muscle and skin causing the inhibition of the nociceptive pathway (Smith et al. 2011; Elden et al. 2008; Furlan et al. 2005;Sandkuhler, 2000). The pain levels are possibly affected by changes in opioid peptide metabolism, again stimulated by the activation of the A δ fibres (Clement- Jones 1980). Opioid peptides are produced such as endorphins and enkephalin in response to needling creating an analgesic effect, which in turn can have a cumulative effect. Thus the more treatments you have over a period of time, the better potential for effect (White et al. 2008). The number of treatments these women received ranged from 5 to 18, with an average of 11 treatments. Thus a number of the women had attended regularly and may have completed the second VAS scale after more than 4 treatments. This may explain the improvement in discomfort levels and may indicate more regular treatments are required to maintain pain relief. This does support the advice generally given by the midwife-acupuncturists, that women should have 3 to 4 treatments before deciding if it is having any effect.

The least difference was seen in response to question 2, regarding eating and drinking. This was probably due to the fact that only 2 of the 20 women who completed the VAS scales had been receiving acupuncture treatment for nausea and vomiting. These two women did demonstrate good improvement but the question did not seem to be relevant for women attending with other condition of pregnancy.

The improvement in ability to perform day to day tasks did also see some improvement and again this may be related to the acupuncture effect on pain and relaxation, enabling women to function more easily. The questionnaire did not include questions regarding work activity or attendance specifically, but it could be assumed if the women were more able, they would be more likely to attend work. In some studies regarding the psychological effects of nausea and vomiting in pregnancy, being able to attend work and not have to have time off sick, was shown

Appendix 7

to be one of the most important issues for pregnant women (Power et al 2010). Another important issue to women was the ability to care for their children and family, hopefully improvement in activity would also have an impact on relationships. This seems to be born out in the results of this evaluation, as there is a distinct correlation between improvements in pain and improved relaxation, activity and relationships. Together these would surely indicate improved levels of wellbeing.

As with the previous 2006-7 evaluation, the women attending the clinic made many positive comments

One woman felt the need the need to write a letter explaining her feelings, the quote below is taken from that letter:

"Before starting the treatment I was unable to walk properly, was in constant pain, had numbness/pins and needles, going down on one leg and could not get in and out of bed without assistance.

Following a few sessions of acupuncture my mobility steadily improved and I started to experience longer periods of relief. I can walk without grimacing and do all the activities I wish to do. My physio suggested that the next step was crutches and due to my commute to work I really believe that without acupuncture I would have been signed off early and been relatively immobile.

Acupuncture has helped me avoid this and I am thrilled" (Acupuncture clinic -20/9/10)

Conclusion

This evaluation demonstrates the impact Salford Acupuncture Service has had on the lives of women attending with conditions of pregnancy. As midwife acupuncturists, the weekly reports of improvement we receive from some of the women attending leave us in no doubt that acupuncture can make a difference. This difference is born out within this sample of women, demonstrating reduced levels of pain, improved feelings of wellbeing and ability to function. This in turn will hopefully help the women cope with family life, reduce sickness levels and use of other health

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services such as; General Practice, physiotherapy, antenatal day care and even hospital admissions. The cost effectiveness of the service needs further exploration in terms of sustainability and continued development of the service.

The midwife acupuncturists continue to develop their knowledge and skills one midwife has achieved her PGCE in Western Medical Acupuncture and a second midwife is now studying for the same qualification. Development of the service to include acupuncture training for other midwives would enable expansion of the service to include further clinics and perhaps a service for acupuncture to be offered during labour.

Although this evaluation represents only a sample sample of 20 women attending the service, it does demonstrate some or marked improvement in the condition for the majority of the women. It does also offer a similar variety of conditions as is seen within those women attending the clinic overall. Obviously, women who only attended the clinic once or twice may not have found the acupuncture helpful or even found the treatment unpleasant are not represented within this evaluation. However, as a service there have been no reported complaints. It is acknowledged by the midwife- acupuncturists that there are occasional reports of minor bruising from the needles and occasional small amount of bleeding when the needles are removed. There have been no reported of any adverse events to the knowledge of the midwives delivering the service.

This evaluation supports the use of acupuncture as an additional role for midwives, as the midwife acupuncturists report improved job satisfaction in being able to offer women alternatives as treatment of conditions of pregnancy and preparation for birth.



Transcript : 1

Developing Emergent themes

Emergent themes	Transcript	Exploratory comments
<p>Use acup and other CAM in times of desperation</p> <p>Luxury costly</p> <p>Being fooled</p> <p>Safety</p> <p>Recommendations from qualified people</p> <p>See Pam - person regularly</p> <p>Solve root problem- justify</p>	<p>Tell me about your experiences of having acupuncture in pregnancy (eg. What thought about it before and how you ended up there)</p> <p>I had had acupuncture privately before which I paid for to help with fertility because obviously I have struggled to get pregnant and it is an expensive hobby to keep up. I used to go to clarendon clinic in swinton and it was £35 per session and he wanted to see me once a week so over a month it was quite an expense so he would put all the pins in me walk out of the room, leave me for 40 mins and come back. I did feel sleepy afterwards but I couldn't but a finer on what the benefits were. This baby is an IVF baby and I know you can have acupuncture and complementary therapy but I didn't want to in order to be on the safe side. So I had acupuncture prior to pregnancy to try and help fertility. When I was pregnant I had horrendous back pain they thought the baby was lying on my sciatic nerve so st marys recommended physiotherapy and acupuncture and it has helped just going seeing Pippa each week.</p> <p>Did the midwives know about the service?</p> <p>Yes they knew about it because I rang st marys who recommended physiotherapy and when I went to see my midwife she recommended acupuncture and it's great because everything is at the gateway centre so it's a one stop shop for me.</p> <p>Does differ to when you had it before you were pregnant?</p> <p>Yes it does, the sessions are much shorter now only about 15-20 minutes long and your sat up on a bed but I suppose they are doing the trigger points to try and deal with the root cause rather than taking a more holistic approach. So I knew what to expect, most people just think needles and it scares the life out of them and when you first go in it can be a bit scary.</p>	<p>Acupuncture when really desperate to get pregnant</p> <p>Previous experience of acup.- emphasis on private & paid- expensive hobby</p> <p><u>Seen as a luxury (hobby)- perhaps felt pressure or guilty for having the treatment</u></p> <p>Says price, repeats expense, how regular had to go, how just left for 40 mins with pins in</p> <p><u>Implication of acupuncturist not doing much for his money, didnt talk to her, noted effect of sleepy but suspecting being fooled not doing anything. feeling being conned not sure if helped her get pregnant</u></p> <p>Wanted to be safe when pregnant but when suggested acup at hospital then was happy to go.</p> <p><u>St Marys - hospital name important seen as place of safety, help her have baby safely so if they recommend it then must be safe</u></p> <p><u>Midwife recommeded acup official recommendation</u></p> <p>Midwife - helped just going to see Pam each wk</p> <p>Shorter sessions but trigger points getting to route cause rather than holistic</p> <p>Local clinic, mention infertility this time as last</p>

attending	<p>What difference does it make going to somewhere local?</p>	said struggled
Quantify effect	<p>I went to a local clinic both times. The reason I was having acupuncture last time was for infertility which is not an ache whereas now I am going for treatment of a root problem so that's probably easier to quantify if the results are working because if it isn't hurting anymore then you can tell it's done it's job.</p>	<p><u>Noting different approach of acup from mw- not as holistic</u> Now going for treatment for ache -root problem can tell if done job - quantify is it hurting <u>Need to demonstrate working, to justify attending solve root problem stop pain quantify</u></p>
Problems with relationships gaining support she needs- justify actions	<p>How did your family feel about you going for acupuncture?</p> <p>They were fine. Pam said she has had some partners who go in and she just puts needles in their hands just for well being so they can experience it and how it feels because I think it is still a bit of a taboo subject for some people. But I would rather do that because I did get some codeine from the doctors but I didn't really want to take it. I went for physio and I told her that I was having acupuncture and that was on the floor above so it was really handy.</p>	<p>_ For some Bit of a taboo subject <u>Family fine- brief answer, deflected comments to others partners had needles in no mention of own partner</u> <u>(partner in next room during interview working but listening - made no comment)</u></p>
Not wanting to take analgesia		<p>Not wanting to take codeine- may have been to emphasis why going for acup? Also again reference to being local-one floor up - really handy</p>
Wanting control		<p><u>Again may be justifying attending as easy to get there, cheap - for partner in nx room</u></p>
Precious baby -safety	<p>Does it matter if the acupuncture is carried out by a midwife or not?</p> <p>The first time I went it was in swinton and it was a certified acupuncturist. I suppose I prefer this acupuncture to be midwife lead because of me being pregnant. I would have felt slightly more apprehensive now because of this being precious to me so I just want to make sure I am doing everything above board and I don't think I would feel comfortable just going and having normal acupuncture. I feel safer in the hands of a midwife. I rang the physio who helped me</p>	<p>Certified acup. showing did make sure qualified Prefer midwife because baby precious. <u>Feel safe, above board,</u></p>

Appendix 9

Therapies safe	with my back in the past and he said he wouldn't be able to see me due to me being pregnant so I thought would apply to other therapies as well.	Problems with back before, physio not able to help as pregnant- confirmed important to check safe but other therapies seems to think would be safe? <u>? assumption other therapies would be safe</u>
Advice support	<p>How do you feel about the interaction with the midwife who was doing the acupuncture?</p> <p>Fine because she is obviously more knowledgeable than me in terms of pregnancy and can help to probably give advice better knowing what the problems could be e.g. the baby turning. They know what you should be feeling at that stage whereas if you just went to a normal acupuncturist they may not be that knowledgeable in terms of pregnancy really and what the stages are. The conversations are different as well because like when I go and see Pam I can ask other things about pregnancy and about other women similar to me. I broke my pelvis going back a few years and so they said I might struggle with natural labour and it's nice to just be able to bat ideas off Pam towards what her suggestions would be based on her knowledge whereas if it was just a standard practitioner you would not be able to.</p>	Knowledgeable- advice, example of what discussed (baby turning), stages of pregnancy
Compare self to others		Conversations different ask about others
Confidence- ideas		Bat ideas of Pam- suggestions as worried about ability to give birth due to injury
Empower		<u>Able to discuss real concerns, compare self with other women. Worried about labour and her ability . Developing confidence, suggestions offering ideas, helping her explore possibilities-empowering her</u>
Safety	<p>When you had the IVF did they mention acupuncture?</p> <p>No. They did say something about complementary therapy but I did have reflexology as well so I just said I was having that and they said it was great, anything else that is going to help and make you feel better then go ahead. Because I wasn't having acupuncture I didn't really mention it so I can't really say.</p>	As having reflexology and they just said great, implies CAM fine, no risks or concerns so got impression safe as said by health professionals
Health professiona		
Worked for pain	<p>Is acupuncture something you would consider for induction and preparation for labour?</p> <p>Yeah I definitely want to keep up with it and carry on with it. I would definitely consider acupuncture during labour as well. I started on</p>	Started for pain but now wants to continue for wellbeing- would have it for induction & labour if

Appendix 9

<p>Now confidence in it associated with things going well so fear of stopping</p>	<p>acupuncture for the back pain but it is also just for well being. I think I would be fearful now if Pam just said we are going to discharge you because I would still want to go. I want to be able to carry on going for as long as I can.</p>	<p>poss. Go as long as can fearful of stopping</p> <p><u>Acupuncture become a support a crutch, associated with preg going well as feels better in self more confident</u></p>
<p>No opinion of others</p>	<p>What about family and friends have their attitudes changed towards acupuncture?</p>	<p>Dad had acup so open to it - partner and his mum know having it but no opinion</p>
<p>Compared to friend who sailing through</p>	<p>No cause I think my dad had acupuncture so they were already open to it and I think Paul's mother knows that I'm having it and to be honest they don't have an opinion one way or the other. One of my best friends is due on the same day as me but she seems to be sailing through so she's not really considered it. And when I tell people at work some a bit like oh so you're having pins stuck in you but others are like go with it if it works then why not. They were quite surprised it was done by a midwife though actually because they didn't think a midwife would be trained in that area. They just thought a midwife is trained to deliver babies and that is it and jus see you on regular intervals until the birth. I would recommend it though to people in the same position as me.</p>	<p><u>Avoiding discussing partners view- no opinion may indicate not keen, feels waste of money?</u></p> <p><u>Friend sailing through pregnancy-comparison with other who have better pregnancy</u></p>
<p>Midwife surprise would be able to do acup</p>	<p>Others interested at work in her having acup</p>	<p><u>Surprised a midwife didnt think would be trained</u></p> <p><u>Recommend it</u></p>
<p>Avoiding discussion</p>	<p>In future pregnancies would you still have acupuncture? Would you be less hesitant in having it with IVF?</p>	<p>Sees reflexologist when trying to get preg - knows a lot about preg as ex nurse</p>
<p>Relationship issues</p>	<p>Probably yeah but I think that is due to my reflexology because the women who does that is a ex-nurse so fortunately she knows quite a lot as well about pregnancy. And seeing her is sort of like a mini counselling session as well so I wouldn't want to overload and stop having reflexology because I have built up a really nice bond with her and she sort of pushes me to do things and I would have probably sat back and not have done in relation to IVF. I was told that I was going to start the menopause and I was only 39 so I was a complete mess</p>	<p>Would have reflexology as also counselling a bond, helped her when in distress when said going to start menopause. helped her out of that situation. Pushes her</p>
<p>Midwife has knowledge others surprised</p>	<p>Trust, feels safe as knowledgeable</p>	<p>Relationship helped it work</p>

Appendix 9

<p>last time Optimism</p> <p>Feelings of failure miscarriages not able to conceive</p> <p>Tensions re partner, age ,</p>	<p>and it was her who said well get on to the people for IVF. She was empowering and encouraging in a way. The relationship with the practitioner is an important factor in the success of treatment. If it's backed up by statistics and stuff then I am all for acupuncture. I've had recurrent miscarriages that's why we have had to go down the IVF route and even though we were both thoroughly tested they couldn't identify a route cause which in one way is a good thing but then there isn't anything to rectify so it's more frustrating.</p>	<p><u>Recognised relationship with practitioner was important factor in success of treatment</u></p> <p>Needed support to feel empowered encouraged, would want to ensure had that again as helped</p> <p><u>Perhaps using acup in preg as same crutch support?</u></p> <p>Frustration and upset of not being able to get preg and having miscarriages</p> <p>Possibly feelings of failure, no other support available, partner no support feels to blame as both tested and nothing found Why did partner stay in adjoining room to do work- implies some tensions -</p>

Subsumption leading to the development of super-ordinate themes

Box 1.a

<p><u>Themes developed from</u></p>	<p><u>Super-ordinate theme</u></p>
<p>Costly</p>	<p>Justification</p>

<p> Luxury Justify Foiled Relatives have no opinion on acupuncture Avoiding discussion on partners thoughts on acupuncture CAM already helped Local- one stop shop Free Guilt Failure </p>	
<p> Precious baby Infertility Recommended by doctor physio midwife Dont want to take analgesia Qualified person Midwife- not just anyone Knowledgeable about pregnancy Able to ask about pregnancy </p>	<p>Safety</p>
<p> Compare to others Regular sessions Helped 10 fold Get ideas about pregnancy from midwife Support Lack of support Control Empower Get advice Use again for labour or for other problems Have a stress free birth Confidence as older mother </p>	<p>Confidence</p>
<p> Struggled with back pain Solve root of problem </p>	<p>Remove pain</p>

Appendix 9

Trigger points Fear of stopping acupuncture Pain gone done its job Alleviate pain	

Emergent themes	Transcript Interview 8	Exploratory comments
<p>Waist and back pain</p> <p>Affect of job</p> <p>No pain when at work now</p>	<p><u>Can you tell your experiences of having acupuncture during pregnancy?</u></p> <p>Well I had acupuncture because I had lower waist pain and back pain and I work as well in a standing job which is only part-time twice a week but really standing that gave me a strain on the back and lower waist mainly. It's really affected me mainly in the 3rd trimester when the baby is bigger so when I heard acupuncture could be beneficial I thought I would give it a go and even after the first time I don't whether it was because it was the first session but I felt it beneficial. After going back to work there was no pain, it was still hard being on my feet but I didn't feel the same kind of pain in my back afterwards. So going every week I really think it helped so I would recommend it to anybody.</p>	<p><u>because I had lower waist pain and back pain</u></p> <p><u>work as well in a standing job gave me a strain on the back and lower waist</u></p> <p><u>affected me mainly in the 3rd trimester and even after the first time</u></p> <p><u>I don't whether it was because it was the first session but I felt it beneficial</u></p> <p><u>After going back to work there was no pain</u></p>
<p>Network of mums local & on web Recommended it</p> <p>Try acupuncture when pregnant</p> <p>Hard time 3rd trimester</p>	<p><u>How did you find out about the acupuncture?</u></p> <p>Well actually I knew that during my first pregnancy but I didn't have the same problems during my first pregnancy and then I started breastfeeding my daughter and that was giving me some back ache again so I found out from the girls that I could have acupuncture as long as you were pregnant so I thought ok maybe next time but I didn't think I would get back ache again but then I fell pregnant again and it was fine but it was just the 3rd trimester giving me a hard time. So I thought I would definitely try acupuncture this time. I knew other pregnant women who were having it so the other women told me about it.</p>	<p><u>actually I knew that during my first pregnancy but I didn't have the same problems</u></p> <p><u>I found out from the girls that I could have acupuncture as long as you were pregnant</u></p> <p><u>So I thought I would definitely try acupuncture this time. I knew other pregnant women who were having it so the other women told me about it.</u></p>
<p>Previous experience of acupuncture working</p>	<p><u>Before you went had you had acupuncture before?</u></p> <p>Yes only when, quite a few years maybe five years ago in the angel centre because I went to the GP with really bad circulation and the GP said you have very bad circulation but we don't prescribe medication so acupuncture could help so they advised me the angel centre and I was</p>	<p><u>quite a few years in the angel centre because I went to the GP with really bad circulation</u></p> <p><u>GP said you have very bad circulation but</u></p>

<p>Nice to have alternative</p> <p>Not painful</p> <p>Worked</p> <p>Warming feeling</p> <p>Loved going</p>	<p>quite surprised I thought that's nice to have an alternative treatment so through them it was discounted for me because I was referred by the GP. So I had quite a few sessions around the soles and fingers and the whole experience was really nice and there was a lovely girl doing it and I felt it was working. And it wasn't painful because lots of people told me it was going to be painful needles inside me and it was weird and this and that but I thought no because I am quite curious and up for trying new things. There wasn't any pain, just a tingling sensation then afterwards I felt a warming feeling in my body and I used to love going.</p>	<p><u>we don't prescribe medication so acupuncture could help</u></p> <p><u>I thought that's nice to have an alternative treatment</u></p> <p><u>quite a few sessions around the soles and fingers</u> <u>was a lovely girl doing it</u> <u>wasn't painful</u> <u>lots of people told me it was going to be painful needles</u></p> <p><u>I am quite curious and up for trying new things</u> <u>There wasn't any pain, just a tingling sensation</u> <u>afterwards I felt a warming feeling in my body</u> <u>I used to love going</u></p>
<p>Interest in alternative treatments</p>	<p><u>Did you have to pay for it?</u> Yes it was about £10 a session. Normally it was more expensive but because it was GP referral it was cheaper. I am quite interested in homeopathic things and alternative treatments so if I ever get ill I like to look at that side first before medicines because I don't really like taking tablets or things messing with your body. I f there is something I can try as an alternative I would.</p>	<p><u>Yes it was about £10 a session.</u></p> <p><u>Normally it was more expensive but because it was GP referral it was cheaper</u></p>
<p>Avoid medication</p> <p>Bad for your body</p>		<p><u>I am quite interested in homeopathic things and alternative treatments</u></p> <p><u>if I ever get ill I like to look at that side first before medicines because I don't really like taking tablets or things messing with your body.</u></p>

<p>Matched philosophy with partner</p> <p>Recommended by other mums wanted to try it</p> <p>Felt denied as not pregnant</p> <p>Midwife's knowledge & experience</p> <p>Bonus of acupuncturist midwife</p>	<p>remember the last time he went to the GP at all though so I think he thinks positively about acupuncture.</p> <p><u>What about people at work, Friends?</u></p> <p>No one said a negative word. I used to say at work I'm going having acupuncture and it really helps they used to say great but there wasn't much discussion about it but nobody was negative. But not from work no one really had experience only really from the other pregnant women and the friends I met during my first pregnancy at feeding group and other places. When we met up and some of the others were pregnant again I just wanted to go and try but I couldn't because I wasn't pregnant.</p> <p><u>Do you think it matters whether it is a midwife doing the acupuncture?</u></p> <p>Yes I think it does. Let's just say if you are pregnant for me I prefer a midwife because of the background and the experience but if it's not pregnancy related like I had then just a qualified acupuncturist obviously is good enough. I really liked this time that is was actually a midwife doing the acupuncture because it's so nice they know how the acupuncture is going to affect the baby and they have all the knowledge and experience. I do like it and I think it's a bonus if midwives can do that as well.</p>	<p><u>he is open minded</u></p> <p><u>I don't remember the last time he went to the GP</u></p> <p><u>he thinks positively about acupuncture.</u></p> <p><u>No one said a negative word</u></p> <p><u>from work no one really had experience</u></p> <p><u>friends I met during my first pregnancy at feeding group</u></p> <p><u>I just wanted to go and try but I couldn't because I wasn't pregnant.</u></p> <p><u>I prefer a midwife because of the background and the experience</u></p> <p><u>if it's not pregnancy related then just a qualified acupuncturist obviously is good enough</u></p> <p><u>I really liked that is was actually a midwife</u></p> <p><u>so nice they know how the acupuncture is going to affect the baby</u></p> <p><u>have all the knowledge and experience</u></p> <p><u>I think it's a bonus if midwives can do that</u></p>
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Time to talk to mw	<p><u>What sort of things did you talk about when you had the acupuncture?</u> We talked about anything, I used to use the time to talk to the midwife about the whole pregnancy and anything baby related, and it's nice.</p>	<p><u>as well</u></p>
Opportunity to focus on self & effect of acupuncture	<p><u>Do you think it helps you to think about other things in pregnancy or is it just an opportunity for a chat?</u> No it's not just an opportunity for a chat it makes me think about the acupuncture and about how the whole session is going to effect the baby in a positive way and yes physically how I'm going to feel afterwards. It is nice to chat in the session but it's not the sole reason because if I need a chat I would talk to my girlfriends or ring up my midwife for advice. I used</p>	<p><u>We talked about anything</u></p> <p><u>I used to use the time to talk to the midwife about the whole pregnancy</u></p> <p><u>No it's not just an opportunity for a chat</u></p> <p><u>makes me think about the acupuncture and about how the whole session is going to effect the baby in a positive way</u></p>
Follow fathers beliefs	<p>to think about the chi moving around your body after the needle is put in, my dad is a great believer of yin and yang and everything. He is really into far Asian thinking and he could talk about these things for ours. So when I said I was having acupuncture he said that's brilliant and asking how I feel inside and the energy flowing inside. He knows lots about herbs and what kind of herbal tea you should drink for different ailments and everything, he is not into medicines so perhaps I may have got some of this interest from him, have a different sort of treatment away from the conventional. <u>What about in the future, for pregnancy or other problems/conditions?</u> Oh yes I would yes.</p>	<p><u>nice to chat in the session but it's not the sole reason</u> <u>if I need a chat I would talk to my girlfriends or ring up my midwife for advice</u></p> <p><u>I used to think about the chi moving around your body after the needle is put in,</u> <u>my dad is a great believer of yin and yang</u></p> <p><u>He is really into far Asian thinking and he could talk about these things for ours</u> <u>when I said I was having acupuncture he said that's brilliant and asking how I feel</u></p>

<p>Recommendations from other women</p> <p>Wanting to labour naturally</p> <p>Not wanting medical induction</p>	<p><u>Did you have any acupuncture for induction of labour?</u></p> <p>No I was offered it because I thought after 37 weeks I really thought I would be early again like my first pregnancy but I wasn't so I thought oh well it's not worth it. So i talked to the midwife and she said if you are still here by 38 weeks then maybe you can think about it and acupuncture might be able to help. And one of the women in my aqua natal group actually went for it because that was 39 weeks and 4 days, she had the acupuncture and 2 days later she went into labour and she believed that the labour was brought on by the acupuncture. So I was offered it but I didn't take it because I just thought it would be nice to do it naturally, she knows when she wants to come. But I spoke to a lot of mums on net mums and the women I knew and a lot of them talked about acupuncture being good to bring on labour at the end better than other suggested methods so it must be useful. So if I had another baby and I was overdue I would definitely go for that rather than being induced medically, that would be my last resort. I wouldn't want to because I have been told it bring on a very intensive labour and it is really painful.</p>	<p><u>inside and the energy flowing inside.</u></p> <p><u>he is not into medicines so perhaps I may have got some of this interest from him,</u></p> <p><u>i talked to the midwife and she said if you are still here by 38 weeks then maybe you can think about it and acupuncture might help.</u></p> <p><u>one of the women in my aqua natal group actually went for it because that was 39 weeks and 4 days</u> <u>she had the acupuncture and 2 days later she went into labour and she believed that the labour was brought on by the acupuncture</u></p> <p><u>I was offered it but I didn't take it because I just thought it would be nice to do it naturally, she knows when she wants to come</u> <u>I spoke to a lot of mums on net mums and the women I knew and a lot of them talked about acupuncture being good to bring on labour at the end better than other suggested methods so it must be useful</u> <u>I was overdue I would definitely go for that rather than being induced medically, that would be my last resort</u></p>
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For labour would be good too	<p><u>What if you could have had acupuncture for labour?</u> Ooh interesting question, I might have yes if it was an option. If it was thought that acupuncture could alter your pain or threshold, anything to keep you in a certain state like hypno birth or if it could just help for labour in anyway then yes. I'd love it and I think it would be good if midwives could be trained to do it. I think this country is not as forward yet in alternative therapies and methods but yes I think it would be good. If acupuncture was another option I would have it.</p>	<p><u>I might have yes if it was an option</u> <u>I'd love it and I think it would be good if midwives could be trained to do it</u> <u>I think this country is not as forward yet in alternative therapies and methods</u></p>
Something happening	<p><u>How do you feel when you have the acupuncture? Did it feel like it had any other effects?</u> I can feel something happening inside. The acupuncture made me thirsty and even when I had the sessions in the angel centre the women said make sure you keep hydrated. Also after having the acupuncture laid on my back when I got up I felt a bit dizzy for a few minutes, felt a really lightheaded feeling and I carried a bottle of water with me afterwards. I could feel like a warming feeling inside of me afterwards as well.</p>	<p><u>The acupuncture made me thirsty</u> <u>I can feel something happening inside</u></p>
Feel thirsty		
Hydrated		
Dizzy	<p><u>Do you think it helps you sleep better?</u> I was more sleepy afterwards, as soon as I got home I felt I'm a bit tired and I was told don't overdo it afterwards. One time afterwards I went shopping and I had to stop and sit down because I was in agony with the pelvic pain. And I spoke to another girl who had acupuncture and she said the pain gets slightly worse before it gets better, so straight afterwards it was very painful and I didn't think I would go back but after I persevered it helped a lot.</p>	<p><u>acupuncture laid on my back when I got up I felt a bit dizzy for a few minutes, felt a really lightheaded</u></p>
Warm feeling		<p><u>I carried a bottle of water with me afterwards.</u></p>
Wellbeing		<p><u>I could feel like a warming feeling inside of me afterwards as well.</u></p>
Sleepy		<p><u>I was more sleepy afterwards</u></p>
Advice from another woman		<p><u>One time afterwards I went shopping and I had to stop and sit down because I was in agony with the pelvic pain</u></p>
Gets worse before better		
Perseverance		<p><u>I spoke to another girl who had acupuncture and she said the pain gets slightly worse before it gets better, so straight afterwards it was very painful</u></p>

<p>Promotion of acupuncture</p> <p>Available to everyone</p> <p>On NHS</p> <p>Want it for back pain for BF</p>	<p><u>Any further comments</u></p> <p>It would be nice to promote acupuncture more for pregnant women, the more places pregnant can go and see and hear about it will help. Some women are still not fully aware of it or don't know what it involves. So I think promotion and educating pregnant women is important but I definitely think it should be available to everyone and it is great that it is free of charge and on the NHS otherwise women might not go due to financial reasons and see it more as a luxury not as a necessity to help ease pain. I just thought it is a very positive experience I got and I would definitely have it again for pregnancy and for other reasons. I wish I could have it for my back pain due to breastfeeding as well.</p>	<p><u>I didn't think I would go back but after I persevered it helped a lot.</u></p> <p><u>nice to promote acupuncture more for pregnant women</u></p> <p><u>women are still not fully aware of it or don't know what it involves</u></p> <p><u>it is great that it is free of charge and on the NHS</u></p> <p><u>otherwise women might not go due to financial reasons</u></p> <p><u>see it more as a luxury not as a necessity to help ease pain</u></p> <p><u>thought it is a very positive experience I got and I would definitely have it again for pregnancy and for other reasons.</u></p> <p><u>I wish I could have it for my back pain due to breastfeeding as well.</u></p>
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Checklist for items in STRICTA 2010

<u>Item</u>	<u>Detail</u>	<u>Page number</u>
1. Acupuncture rationale (Explanations and examples)	1a) Style of acupuncture (e.g. Traditional Chinese Medicine, Japanese, Korean, Western medical, Five Element, ear acupuncture, etc)	
	1b) Reasoning for treatment provided, based on historical context, literature sources, and/or consensus methods, with references where appropriate	
	1c) Extent to which treatment was varied	
2. Details of needling (Explanations and examples)	2a) Number of needle insertions per subject per session (mean and range where relevant)	
	2b) Names (or location if no standard name) of points used (uni/bilateral)	
	2c) Depth of insertion, based on a specified unit of measurement, or on a particular tissue level	
	2d) Response sought (e.g. <i>de qi</i> or muscle twitch response)	
	2e) Needle stimulation (e.g. manual, electrical)	
	2f) Needle retention time	
	2g) Needle type (diameter, length, and manufacturer or material)	
3. Treatment regimen (Explanations and examples)	3a) Number of treatment sessions	
	3b) Frequency and duration of treatment sessions	
4. Other components of treatment (Explanations and examples)	4a) Details of other interventions administered to the acupuncture group (e.g. moxibustion, cupping, herbs, exercises, lifestyle advice)	
	4b) Setting and context of treatment, including instructions to practitioners, and information and explanations to patients	
5. Practitioner background (Explanations and examples)	5) Description of participating acupuncturists (qualification or professional affiliation, years in acupuncture practice, other relevant experience)	
6. Control or comparator interventions (Explanations and examples)	6a) Rationale for the control or comparator in the context of the research question, with sources that justify this choice	
	6b) Precise description of the control or comparator. If sham acupuncture or any other type of acupuncture-like control is used, provide details as for Items 1 to 3 above.	

Note: This checklist, which should be read in conjunction with the explanations of the STRICTA items, is designed to replace [CONSORT 2010's item 5](#) when reporting an acupuncture trial.



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Tel: 0161 295 2517, email: J.Lythgoe@salford.ac.uk

Date:

Re: Study on the 'Experiences of pregnant women receiving acupuncture from midwives'

Dear

I am writing to you as a participant of the 2014 research study entitled 'Experiences of pregnant women receiving acupuncture from midwives'

This study has now been completed and has been submitted as part of a Professional Doctorate award at the University of Salford.

I would like to thank you once again for participating in this study your contribution was very valuable. Overleaf is a summary of the study and its findings. These findings will be disseminated to midwives and other health professional caring for pregnant women and their families. Hopefully the findings from this study will be used to improve maternity services in the future.

If you would like any further information please do not hesitate to contact me or my academic supervisor Dr. Alison Brettle (a.brettle@salford.ac.uk).

Thank you for your interest and contribution

Jeanne Lythgoe: MSc, BA Hons, SRN, RM, ADM, PGCE (Medical Acupuncture), SoM

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Title: "Experiences of pregnant women receiving acupuncture treatment from midwives"

Acupuncture is potentially an effective treatment for common conditions of pregnancy and labour pain, midwives being well placed to offer it. The aims of this study were to explore the experiences of pregnant women receiving acupuncture treatment from midwives: to provide insight into their perceptions of effect including the influence and value of the midwife on this experience. The lack of qualitative evidence has provided the rationale for this study. Within a phenomenological methodology an 'Interpretative Phenomenological Analysis' (IPA) approach was adopted with 10 women attending the Salford Midwifery Acupuncture Service (SMAS) being recruited to this study. Data was collected via semi-structured interviews the IPA analysis identifying five main themes; justification of choice, relief & relaxation, trust & understanding, regaining self and discovery and sharing a secret. The women were happy to access acupuncture if recommended by a health professional, they gained pain relief and improved function with more ability to care for their children and continue working. They were grateful for the opportunity to access acupuncture, finding it enjoyable and reporting intense emotional and physical sensations. It offered prolonged effect, improving sleep and wellbeing this correlating well with purported neurophysiological mechanisms. Responses seemed more intense than previous reports, possibly due to their pregnant state or heightened affective component. A midwife-acupuncturist was advantageous having knowledge and understanding of pregnancy, 'understanding' being more important than professional background. The women felt optimistic and empowered to make plans for birth and parenthood wishing to share their experiences. The 'lay network' was an important factor within the women's choice to access acupuncture. These findings indicate acupuncture is an acceptable treatment which can provide relief, improved wellbeing and support normality. Midwives could offer acupuncture as an adjunct to their role to facilitate individualised reflexive practice.

Acupuncture Meridians and Points commonly used within treatment during pregnancy and childbirth

The twelve regular meridians:

The LUNG MERIDIAN -LU

The LARGE INTESTINE MERIDIAN- LI

The STOMACH MERIDIAN -ST

The SPLEEN MERIDIAN -SP

The HEART MERIDIAN- HT

The SMALL INTESTINE MERIDIAN -SI

The BLADDER MERIDIAN -BL

The KIDNEY MERIDIAN- KI

The PERICARDIUM MERIDIAN -PC

The TRIPLE ENERGIZER MERIDIAN -TE

The GALLBLADDER MERIDIAN -GB

The LIVER MERIDIAN- LR

Extra meridians

CONCEPTION VESSEL (REN) CV connects all the yin meridians

GOVERNOR VESSEL (DU) GV connects all the yang meridians

(White et al. 2008)

More than 400 acupuncture points have been described (Deadman et al. 1998) with the majority located on one of the main meridians. The most commonly used points in pregnancy and birth are as follows:

Spleen 6	SP6
Large Intestine 4	LI4
Liver 3	LR3
Stomach 36	ST36

Appendix 13

Bladder 60	BL60
Gallbladder 34	GB34
Pericardium 6	PC6
Bladder 67	BL67
Bladder 32	BL 32
Bladder 23	BL 23
Bladder 25	BL 25
Governor Vessel 3 & 4	GV 3 & 4
Governor Vessel 20	GV 20

Glossary of terms

Acupuncture - A system of medicine in which fine needles are inserted in the skin at specific points along meridians

Acupressure- Acupressure is a form of touch therapy that utilizes the principles of acupuncture. In acupressure, the same points on the body are used as in acupuncture, but are stimulated with finger pressure instead of with the insertion of needles.

Action potential- is a short-lasting event in which the electrical membrane potential of a cell rapidly rises and falls, following a consistent trajectory.

Afferent nerves fibres- Nerves that conduct impulses from the periphery of the body to the brain or spinal cord.

Autonomic nervous system- the part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, the heartbeat, and digestive processes.

Axon Reflex- A response brought on by peripheral nerve stimulation

Breech presentation- In which the fetus presents with its buttocks lowest in the mother's pelvis as opposed to the normal head-first presentation

CAM- Complementary and/or alternative medicine

Carpel Tunnel Syndrome- is a medical condition in which the median nerve is compressed as it travels through the wrist at the carpal tunnel and causes pain, numbness and tingling, in the part of the hand that receives sensation from the median nerve

CNS- Central Nervous system- The part of the nervous system consisting of the brain and spinal cord. The central nervous system is so named because it integrates information it receives from, and coordinates and influences the activity of, all parts of the bodies

Cephalic- Referring to the fetal head

De qui- The sensation experienced by a person undergoing acupuncture treatment when the needle is inserted into an acupuncture point and stimulation is achieved

Dermatome- A dermatome is an area of skin that is mainly supplied by a single spinal nerve. There are 8 cervical nerves (C1 being an exception with no dermatome), 12 thoracic nerves, 5 lumbar nerves and 5 sacral nerves. Each of these nerves relays sensation (including pain) from a particular region of skin to the brain.

Efferent nerve fibres- Nerves that conduct impulses away from a central organ or section such as the brain carrying impulses from the central nervous system to an effector.

Epistemology- The theory of knowledge, especially with regard to its methods, validity, and scope. The investigation of what distinguishes justified belief from opinion.

Gestation- The period of development in the uterus from conception until birth measured in weeks

Health professional- An individual who provides preventive, curative, promotional or rehabilitative health care services in a systematic way to people, families or communities.

HG- Hyperemesis gravidarum (HG) is a complication of pregnancy characterized by intractable nausea, vomiting, and dehydration

Moxibustion- A traditional Chinese medicine technique that involves the burning of mugwort, a small, spongy herb, to facilitate healing or to turn a breech presenting fetus

Myotome- A **myotome** is the group of muscles that a single spinal nerve root innervates to.

IPA- Interpretative Phenomenological Analysis

Induction- Induction of labour involves using means to assist the mother in delivering her baby

IVF - In vitro fertilization (IVF) is a reproductive technology in which an egg is removed from a woman, joined with a sperm cell from a man in a test tube (in vitro). The cells fuse to form a single cell called a zygote, which then starts dividing, becoming an embryo. When the zygote/embryo is only a few cells large, it is implanted in the woman's uterus, and, if successful, will develop as a normal embryo

MRI imaging- A powerful magnetic field, radio frequency pulses and a computer to produce detailed pictures of organs, soft tissues, bone and virtually all other internal body structures.

Neurotransmitter- Endogenous chemicals that transmit signals across a synapse from one neuron (nerve cell) to another "target" neuron

NVP- Nausea and vomiting in pregnancy (NVP), condition of pregnancy

Ontology- The philosophical study of the nature of being, becoming, existence, or reality, as well as the basic categories of being and their relations

PGP- Pelvic Girdle Pain (PGP), causing pain, instability and limitation of mobility and functioning in any of the three pelvic joints, common in pregnancy

PLBP- Pregnancy related lower back pain (PLBP)

Phenomenology- A philosophy or method of inquiry based on the premise that reality consists of objects and events as they are perceived or understood in human consciousness and not of anything independent of human consciousness

Qualitative research- It is designed to reveal a target audience's range of behavior and the perceptions that drive it with reference to specific topics or issues. It uses in-depth studies of small groups of people to guide and support the construction of hypotheses. The results of qualitative research are descriptive rather than predictive.

Quantitative research- The systematic empirical investigation of observable phenomena via statistical, mathematical or computational techniques

Reflexivity- The process of examining both oneself as researcher, and the research relationship

Segmental analgesia in acupuncture- Nerve stimulation activating action potentials which travel up the nerve directly to its particular segment in the spinal cord depressing activity in the dorsal horn reducing its response to stimuli.

SMAS- Salford Midwifery Acupuncture Service

Appendix 14

SoM- Supervisor of Midwives (SoM)- Supervisors of midwives support and guide midwives, but can also provide help and advice for parents and women

Professional issues for midwives practicing acupuncture

For UK midwives considering undertaking acupuncture training and offering acupuncture within their midwifery practice they need to ensure they are able to adhere to their professional rules (NMC, 2013) and code (NMC, 2015) as stipulated by the Nursing and Midwifery Council (NMC). The professional guidance related to UK midwives offering acupuncture within their practice are detailed below. The midwife must adhere to the NMC Code (2015) and NMC Standards for Medicines Management (2010):

“Registrants must have successfully undertaken training and be competent to practise the administration of complementary and alternative therapies” (NMC, 2010)

Registrants are accountable for their practice and must be competent in this area. You must have considered the appropriateness of the therapy to both the condition of the patient and any co-existing treatments. It is essential that the patient is aware of the therapy and gives informed consent (NMC, 2010)

You must have in force an indemnity arrangement which provides appropriate Insurance cover for any practice you undertake as a nurse or midwife in the United Kingdom (NMC, 2015)

The Royal College of Midwives (RCM) also provide recommendations for practice regarding the use of CAM:

The RCM believes that it is entirely appropriate for midwives to gain competence in new skills, in accordance with NMC requirements, so that they can offer women a wider range of choices during maternity care including non-invasive therapies (RCM, 2007).

Midwives who undertake to administer alternative therapies undergo an approved education and training programme and be competent to offer alternative and complementary therapies in line with NMC guidelines. Midwives

who are trained complementary and alternative therapists but are not the lead professional or named midwife for care of the woman ensure that they keep professional colleagues informed of the nature and extent of the therapies being given (RCM, 2007)

This guidance from the professional regulatory body clearly states that midwives are accountable of their own practice and whilst the administration of CAM is an accepted skill to be used within midwifery practice the midwife must ensure she is trained and competent in that skills and that the treatment is appropriate for that patient. The additional requirement that the midwife holds indemnity arrangements mean the midwife will generally be offered insurance via her employer such as an NHS Trust and will also be subject to the governance arrangements of that organisation (www.cqc.org.uk; www.nhs.uk). This requirement will invariably mean acupuncture practice requires the ratification of local Trust guidelines and the subsequent quality assurance including audit and evaluation of any acupuncture service developed.

When establishing an acupuncture clinic arrangements would be made to ensure:

- a) Appropriate safe clinical environment including hand washing facilities, privacy, examination couch, disposal of sharps
- b) Written information provide to patients prior to the appointment explaining any risks or potential side effects and potential benefits of the acupuncture treatment, including the qualifications and experience of the acupuncturists.
- c) Appropriate discussion and gaining of informed consent prior to administration of treatment
- d) Appropriate system of audit and evaluation
- e) Facilitation of user feedback

The midwife would also need to ensure she has access to adequate statutory and clinical supervision and ongoing professional development (NMC 2011). These professional issues provide a framework to ensure safe practice, to safeguard women and families

recommending midwives have access to appropriate advice and support from professional organisations related to acupuncture practice.

Membership of a professional body such as the BMAS (www.medical-acupuncture.co.uk) or the British Acupuncture Council (BACC) (www.acupuncture.org.uk) is not compulsory but membership offers access to resources and forums to provide support and guidance for acupuncturists. There is no system of regulation of acupuncturists within the UK at present. A DH Consultation regarding the Statutory Regulation of Practitioners of Acupuncture, Herbal Medicine, Traditional Chinese Medicine concluded acupuncture to be “robustly self-regulated” (DH, 2009) recommending voluntary registration with the Health Professions Council (HPC) (www.hpc-uk.org) and for professional organisations to adhere to the Professional Standards Authority guidance (www.professionalstandards.org.uk). Registration with the HPC enables acupuncturists to be registered as qualified clinicians enabling the public to access the names of registrants as a method of confirming the credentials and experience of practitioners.

When practicing acupuncture within her role the midwife has a professional responsibility to ensure she is able to adhere to professional guidance to protection women and families within her care.

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