Women’s experiences of acupuncture during labour

Abstract
This study explores the experiences of women treated with acupuncture during labour, to identify factors relevant to midwifery care. An exploratory qualitative approach was used. Seven healthy women who had been treated with acupuncture during labour in a maternity unit of a tertiary hospital in Switzerland participated in semi-structured interviews in the first postnatal month. Qualitative data was analysed using thematic analysis. Women treated with acupuncture during labour reported enhanced birthing experiences and satisfaction with regard to pain relief and positive progress in labour, suggesting that acupuncture could be considered an additional support for women during childbirth. This suggests that midwives should discuss acupuncture with women during the antenatal period and offer it as an option during labour. The findings provide a better understanding of this topic by midwives and other health professionals, and contribute to the further development of acupuncture practice during labour.

Acupuncture has been used in China for thousands of years to cure disease and promote health (Lee and Ernst, 2004). This method of complementary alternative medicine (CAM) is popular in Switzerland and other European countries, as demonstrated by recent surveys (Widmer et al., 2006; Déglon-Fischer et al., 2009; Münstedt et al., 2009; Hunt et al., 2010). One area where acupuncture is used and increasingly debated is in maternity care (Hope-Allan et al., 2004). It is utilised for analgesia (Borup et al., 2009; Cho et al., 2010; MacKenzie et al., 2011; Smith et al., 2011), induction of labour (Smith and Crowther, 2009; Modlock et al., 2010), relaxation, unfavourable cervical dilation and effacement, irregular contractions and placental retention (Bets, 2006; Rümer, 2006). Although there is a robust body of quantitative research on its benefits in labour (Ramneri et al., 2002; Hantoukhzadeh et al., 2007; Smith and Crowther, 2009), women’s actual experiences of acupuncture during labour have not been well explored (Smith and Dahlen, 2009).

The need for this study originated following a pilot project, which introduced acupuncture practice into a hospital’s labour ward after requests made by pregnant women (Büchi et al., 2009). During this project it was realised that there was very little research about women’s experiences of acupuncture during labour and therefore a gap in midwifery knowledge was identified. Thus, this study explored women’s experiences of acupuncture during normal labour at a maternity unit of a tertiary hospital in Switzerland. The findings of the study would give practitioners a better understanding of women’s experiences in relation to the information they receive and the practice of acupuncture during labour.

Literature review
A critical literature review found ample quantitative research on the benefits of acupuncture in maternity care (Ramneri et al., 2002; Hantoukhzadeh et al., 2007; Borup et al., 2009; Smith and Crowther, 2009; Cho et al., 2010; Modlock et al., 2010; MacKenzie et al., 2011; Smith et al., 2011). Other relevant literature encompassed complementary therapies and acupuncture in Switzerland, its safety and adverse effects, and patients’ experiences with acupuncture (Bernstein, 2000; White et al., 2001; Ernst et al., 2003; Griffiths and Taylor, 2005; Widmer et al., 2006). However, there was a definite lack of knowledge in qualitative research exploring women’s experiences of acupuncture during childbirth.

Acupuncture is widely used in primary care in Switzerland and is one of the most accepted forms of CAM in Switzerland (Widmer et al., 2006; Déglon-Fischer et al., 2009). A 2002 health survey from the Swiss Federal Statistical Office indicated that 4% of the Swiss population used acupuncture for different health reasons; this number slightly increased to 5% in 2007 (Statististik (BFS), 2009; 2010; Déglon-Fischer et al., 2009). Despite its wide use in Switzerland generally, this is below average when compared to other European countries, where 12% to 19% of the population use acupuncture (Déglon-Fischer et al., 2009). More knowledge of its application and benefits for women in labour may further increase its use in Switzerland.

In spite of the demand for acupuncture, there are currently no national statutory regulations or laws governing its practice in Switzerland or the UK. However, a World Health Organization (WHO) survey showed that only a few countries have a national policy, laws or regulations on CAM (World Health Organization (WHO), 2008). Thus, Switzerland and the UK are not
an exception. Swiss midwives are required to take theoretical and practical training courses to administer acupuncture, as recommended by the Swiss Federation of Midwives (SHV) (2005), which is similar to Germany, the UK and Scandinavia (Deutscher Hebammenverband, 2005; Mårtensson et al, 2009; Wiebelitz et al, 2009, National Health Service (NHS), 2012). The acupuncture training involves theory and diagnostics of basic Chinese medicine as well as acupuncture. Hygiene regulations, possible complications and practical training sessions are all included in the training. However, the number of Swiss hospitals and community practices where trained midwives and other health professionals offer acupuncture is currently unknown in Switzerland (Widmer et al, 2006). Although acupuncture practitioners in the UK must register with their local health authority, the total number of midwives offering acupuncture in the UK is unknown as well (NHS, 2012). Similar to Switzerland, there are a number of acupuncture organisations in the UK that practitioners can join voluntarily if they hold certain qualifications and agree to work according to the code of safe and professional practice, which are often approved by professional organisations such as the British Acupuncture Council (BaC) which is vetted and approved by the Professional Standards Authority for Health and Social Care.

Various evaluation studies, reviews and systematic reviews of randomised controlled trials (RCT) on the effect of CAM on pain relief during labour predict an upsurge in the use of acupuncture to meet future demand and concluded that acupuncture is capable of reducing labour pain (Lee and Ernst, 2004; Neshim and Kinge, 2006; Hantouchzadeh et al, 2007; Tournaire and Theau-Yonneau, 2007; Mårtensson et al, 2008; Smith et al, 2011; Cho et al, 2010; Jones et al, 2012). Two randomised, unblinded studies compared acupuncture during labour to standard obstetric care in terms of pain relief, such as pethidine and epidural analgesia (Ramsér et al, 2002; Neshim and Kinge, 2006). Whereas the study by Neshim and Kinge (2006) demonstrated that acupuncture reduced requests for pethidine, it is not clear whether requests for epidural analgesia were significantly decreased (Tournaire and Theau-Yonneau, 2007). However, following a RCT with a small sample size of 128 women at term, Mårtensson et al (2008) stated that sterile water injections, given to unspecified acupuncture points, were more effective in reducing pain compared to acupuncture. These studies differ widely in methods, localisation and number of acupuncture points, and do not represent a clear body of evidence.

Studies which examined acupuncture and its effect on the initiation of labour reported equivocal findings as to whether acupuncture was effective in initiating labour (Gaudernack et al, 2006; Harper et al, 2006). However, Gaudernack et al (2006) found that acupuncture was a good alternative method to facilitate birth for women with premature rupture of membranes. Acupuncture during labour is beneficial for unfavourable cervical dilation, irregular contractions and placental retention, as stated in acupuncture manuals, based on information from written history collected into a practical compilation (Betts, 2006; Römer, 2006). Limited research has examined the reasons for choosing acupuncture especially during labour. Many patients choose CAM, particularly acupuncture, on the basis of a personal recommendation by a friend or particular practitioner, or dissatisfaction with orthodox treatment (Vincent and Furnham, 1996; Thomas and Coleman, 2004; Klein, 2009).

Although no qualitative studies on women’s experiences of acupuncture during labour were found in the literature search, there have been a few qualitative studies on patients’ experiences with acupuncture related to other pregnancy associated symptoms. A study by Hope-Allan et al (2004) showed that acupuncture significantly improved wellbeing during pregnancy in terms of physiological symptoms, such as back pain. Patients sought acupuncture intentionally and persons with substance use disorder reported it mainly as a relaxing experience followed by mood elevation that revitalised their energy (Bernstein, 2000; Griffiths and Taylor, 2005). Two surveys examining safety identified adverse effects, similar to any therapeutic approach, but its risk-benefit profile demonstrates that it is a safe treatment (White et al, 2001; Ernst et al, 2003).

In summary, the findings of published trials often lack detailed information about acupuncture treatment including uniformity in randomisation, blinding, size and validity in the different data sets. It is therefore difficult to provide definite recommendations for the use of acupuncture during labour (Lee and Ernst, 2004). Women’s experiences of acupuncture in labour have not been studied, therefore justifying the need for this research to define its role in the future (Smith and Dahlen, 2009).

Methods

An exploratory qualitative approach was used. This is normally used to explore a new area of practice where
little is known and was therefore appropriate for the research topic. Naturalistic investigations emphasise understanding of the human experience by collecting and interpreting qualitative material, including interviews that generate rich data reflecting the perspective of participants (Polit et al, 2001).

Ethics approval was obtained from the local research ethics committee. The medical and nursing director of the women's health department granted permission to obtain access to participants. The midwives at the hospital were informed about the nature of the study and asked to identify participants who met the inclusion criteria. Prior to participants' transfer to postnatal ward, midwives enabled distribution of the introductory letter and information sheet, and obtained written permission to pass contact details to the researcher. Informed consent was obtained from the participants who were also advised about confidentiality of information and anonymity of identity. A list of the acupuncture interventions and how they were used in labouring women is provided in Table 1.

The midwives approached postpartum participants who fulfilled the inclusion criteria, before they were transferred to the postnatal ward. Inclusion criteria for the study were women older than 18 years, able to speak German, who experienced a normal birth as defined by WHO (1996) at the hospital, with acupuncture administered by their midwife during labour. Purposive sampling yielded a sample of seven women who, after consenting, were prepared to share their experiences of acupuncture during labour.

Semi-structured interviews were conducted according to an interview guide (Burns and Grove, 2008). All the interviews began with the same statement: 'Tell me about your labour and your acupuncture experience during labour.' Participants were also asked about their motivation in seeking acupuncture during labour, their previous knowledge about acupuncture, the information they received regarding acupuncture prior to labour, their experiences while having acupuncture and their retrospective opinion on the use of acupuncture during labour. The time and place of the meetings were chosen by the women and depended on their childcare arrangements. Four of the women were interviewed during their hospital stay when their children were asleep so there were no interruptions. The other three women chose to be interviewed at their homes, having organised childcare. The range of time after birth that the women were interviewed varied from 3 days to 3 weeks.

The interviews lasted between 20 to 57 minutes and were held in Swiss German. All interviews were audiotaped and transcribed verbatim in German and translated to English for ease of interpretation. The data collected from the women's narratives were analysed by thematic analysis suggested by Arvonen (1994) and the analysis was reviewed by the research supervisor. Following in-depth thematic analysis of the seven semi-structured interviews, the content of the themes and subthemes was studied to detect similarities and contradictions which were relevant to the interpretation of the findings.

Findings
The seven women interviewed had a wide variety of ethnicity, parity and age. The face-to-face interviews were conducted with women aged 25 to 35 years. They were from four different nationalities but all spoke German. Two women had their first child, four women their second child, and one woman her fourth child.
Three overall themes were identified: physical, emotional and cognitive dimensions of the acupuncture experience. Each major theme had two to three corresponding subthemes that will be presented.

Physical dimensions of the experience
All women indicated that acupuncture during labour was offered, initiated and administered by their midwives. None of the interviewees, their partners or doctors suggested having acupuncture during labour. The physical dimension of the experience included what the women described as happening to their body. Two subthemes were identified: needling experiences, and increased contractions and pain relief.

Table 1. Rules for acupuncture during labour at the research hospital

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>The intervention is conducted by midwives who have completed a basic training course in acupuncture.</td>
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<tr>
<td>2.</td>
<td>Indications for acupuncture are: induction of labour, dysfunctional contractions, relaxation, pain relief (electro-acupuncture), cervical dystocia, perineal acupuncture or retained placenta.</td>
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<tr>
<td>3.</td>
<td>Contraindications for acupuncture include: less than 37 weeks gestation, pre-eclampsia, bleeding (placenta praevia), increased risk of bleeding, pathological cardiocardiography, bacteriological infection, psychological diseases, communication problems, or women decline.</td>
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<tr>
<td>4.</td>
<td>Points where acupuncture needles are placed: hands, lower arms, head feet, abdomen and perineum.</td>
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<tr>
<td>5.</td>
<td>Duration of needle placement: 20 to 30 minutes.</td>
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Needling experiences
The participants' experiences varied during needle insertion. Some women did not experience any sensation, whereas others described it 'like a prick', 'itching', 'vibration' or 'not painful'. All women interviewed stated that they felt no pain from needle insertion even though some areas were more sensitive than others.

The women who received electro-acupuncture for pain relief during labour mentioned having special sensations after the needle insertion. They experienced electrical needle stimulation as unpleasant but described it vividly:

'It's actually a bit like vibrations or humming. Like if you're connected to an electricity supply, actually like touching a cow [electric fence].' (Mrs G)

Few women had a clear picture of the influence of the insertion of the needles on their pain during labour. They mentioned a higher pain level during labour, which made the needle insertion more tolerable.

Negative reactions included discomfort and the restriction of mobility while receiving acupuncture during labour. Having acupuncture during contractions and lying in bed during treatment were very annoying and uncomfortable for the majority of the women as they preferred to be more active during contractions:

'Annoying. I had to concentrate on it because otherwise I would have waved about my hands somehow and would have probably been more active.' (Mrs F)

In contrast, the other woman who received electro-acupuncture did not mention pain relief but gained relaxation and emotional strength:

'Things had simply changed. Suddenly I was even more awake and relaxed, and it kind of dissolved these negative thoughts. I had more confidence in myself that I can do this and my fear had gone.' (Mrs S)

Increased contractions and pain relief
All women interviewed described an immediate effect after treatment with acupuncture, such as an increase in contractions or pain relief while receiving electro-acupuncture:

'I was lying in bed with these needles and the CTG [cardiotocography] and I really felt it was getting more and more stronger, stronger and stronger.' (Mrs J)

'I have the feeling that it made the contractions a wee bit more bearable.'

(Mrs G)

Emotional dimensions of the experience
The theme of emotional dimension of the experience identified two subthemes: the women’s positive and negative bodily feelings, as identified by their reactions to the birthing process, and their motivation.

Positive and negative bodily feelings
The reactions that women expressed to the acupuncture included curiosity, fear and insecurity. Some of the interviewed women addressed curiosity and fear of the current required for receiving electro-acupuncture, while the others described fear and insecurity after the loss of a needle:

'Well in the first moment when she said she would turn on the current and I would feel pins and needles I thought ... super, I hope it won't be like an electric shock.' (Mrs S)

'I remember, during the process somehow a needle was gone and then I feared that it would destroy the balance.' (Mrs J)

Motivation
Women stated that when acupuncture was offered, they made the choice to try it having heard from various sources about its benefits or having had previous experience. Their decision at that moment was associated with being in labour and coping with pain, which influenced their motivation to some degree:

'Because I just wanted the baby to come as soon as possible. Anything that was going to help ... I would have taken it ... In that moment, you cannot think about anything. I just told her: do it, it doesn't matter what, just do it.' (Mrs I)

When asked about their motivation in accepting the offer for acupuncture during labour, women saw it as an option that was going to help their progress, increase contractions, make the pain more tolerable, and enable them to need less medication, avoid an epidural and have a natural birth. They saw it as a useful, welcome option to try:
'Using acupuncture seemed a very sensible way to avoid the epidural. I thought I couldn't cope without anything and therefore the acupuncture really made sense.' (Mrs S)

Cognitive dimension of the experience
The cognitive dimension of the experience described the women's mental process of knowing. Three subthemes were identified: resources for prior knowledge, information received and belief in acupuncture.

Resources for prior knowledge
All women had some general knowledge about acupuncture as an alternative to conventional treatment, which they had acquired from friends or the media. Further questioning showed that only one interviewee had read about its effectiveness on shortening labour:

'I think in some book or something. And it's everywhere on the internet too ... But studies have shown that it would shorten the first stage of labour by two hours.' (Mrs G)

The majority of the women had heard about acupuncture during labour. Despite this, none of them asked for it on their own, not even women who had experienced acupuncture during their first labour, for labour preparation or as a treatment for back pain, which influenced their positive experiences to some degree.

Information received
No woman remembered details, and all found it difficult to listen to and remember the information given to them. However, all women described having received some information from their midwives on the purpose of acupuncture and acupuncture points.

Only two women mentioned having received extra details from their midwife about the process of electro-acupuncture and how it worked:

'She explained that she would prick me with two needles and then put an electric current through them and that would cause a flood of endorphins and then things would be a little easier.' (Mrs S)

Some women received information before treatment about the need to reduce their movements during acupuncture. This was because women receiving electro-acupuncture had to stay close to the electrical current machine. None of the women had the feeling of being pressured before consenting, or any lack of transparency of information on side effects.

Belief in acupuncture
The women expressed their belief in acupuncture and their opinion on its effect during labour, whether they would use it again, and if they would recommend it to friends. The women stated that acupuncture during labour was a 'good' or even a 'super thing' (a Swiss German idiom) and it made them feel confident in this intervention.

However, a few women interviewed recognised changes, but were not sure whether they were due to the treatment or just an effect of labour:

'I don't know, they got stronger during acupuncture but afterwards I took a bath. Maybe the bath gave me stronger contractions or the acupuncture. I guess it was both.' (Mrs F)

The majority of women expressed their satisfaction with the experience and would use it again in the same situation during their next labour. They also would recommend acupuncture during labour to their friends:

'If I had another child, I would ask for it. I would like to have that again ... I would recommend that each and every person who is pregnant and goes into labour I would say try acupuncture. If it doesn't help, it doesn't do any harm.' (Mrs G)

Discussion
An interesting finding of this study was that none of the women requested acupuncture treatment during labour but accepted it when offered by the midwife. Similar results were found in obstetric departments in Germany, examining clinical indications and the perceived effectiveness of CAM (Münstedt et al, 2009). It confirms that midwives were the prime initiators for CAM during childbirth. Münstedt et al (2009) stated that the second most important reason for providing acupuncture was patient demand, which was not found in this study.

It was obvious in the theme 'physical dimensions of the experiences' that all participants felt no pain from needle insertion, agreeing with the findings of studies of experiences by persons with substance use disorder while receiving acupuncture and the
lived experiences of acupuncture (Bernstein, 2000; Griffiths and Taylor, 2005). Further, the statements regarding increased contractions and pain relief suggested that this happened immediately after treatment. This is contrary to findings of several studies on acupuncture for induction of labour, which did not show such improvements (Gaudernack et al, 2006; Harper, 2006; Smith and Crowther, 2009). The restriction of mobility while receiving acupuncture during labour was considered unpleasant in the theme of physical experiences. This is similar to the findings of Ramnerö et al (2002), indicating that electro-acupuncture limited patient movement. Although other reports on electro-acupuncture in women during labour exist, there was no mention of restriction on movement while receiving acupuncture during labour, as these studies focused on the effectiveness of treatment and not the women’s experiences (Hantoukhzedeh et al, 2007; Mårtensson et al, 2008; Borup et al, 2009).

Women explained in the theme ‘emotional dimensions of the experience’ that their motivation in agreeing to acupuncture during labour was to benefit from it. These findings are similar to the study of Hope-Allan et al (2004), which evaluated the use of acupuncture in an Australian antenatal clinic. Furthermore, Griffiths and Taylor (2005) stated that their participants intentionally sought acupuncture treatment, having heard about its benefits from various sources. However, while the women in this study stated they had heard about the benefits of acupuncture or had previously experienced it, they had not thought about it in the context of labour until it was offered by their midwives. It was difficult to establish how dealing with the pain of labour affected the women’s motivations to try acupuncture. The women indicated they could not think about anything else or wanted to avoid other pain relief such as an epidural. This corroborates an association between women requesting acupuncture in labour and those who have strongly made up their mind to have a ‘natural’ birth and avoid an epidural (Nesheim and Kinge, 2009; Mitchell et al, 2006).

Further findings in the theme ‘cognitive dimension of the experience’ showed that all women interviewed knew something about acupuncture as an alternative to conventional treatment, indicating its popularity (Widmer et al, 2006; Déglos-Fischer et al, 2009). However, this is not congruent with other studies in the UK and USA, where patients gave other reasons for using CAM, such as positive valuation of the treatment and the ineffectiveness of orthodox treatment for their complaints (Vincent and Furnham, 1996; Astin, 1998). Another British study by Thomas and Coleman (2004) found that the use of CAM arose from personal recommendations by friends and was the most common reason for choosing a particular practitioner. Previous positive acupuncture experiences influenced women’s decisions to choose acupuncture during labour, also confirmed in several studies (Ramnerö et al, 2002; Hope-Allan et al, 2004; Griffiths and Taylor, 2005).

Some women were informed about inconveniences during treatment, but none mentioned having received information about side effects. It is unclear if they did not remember some information or if the midwives did not provide it. Although serious adverse events are rare, according to the principle of informed consent, patients who are considering acupuncture must be given accurate information about the possibility of adverse events (Witt et al, 2009).

Statements in ‘belief in acupuncture’ revealed that women found acupuncture during labour a good or a ‘super thing’, and felt confident in the method and its effectiveness during labour. However, the effects might not be completely related to this intervention and could have been the result of labour and time. It also can be argued that people choosing acupuncture are more open to new treatment options and already have an interest in alternative medicine. Siros and Gick (2002) support this argument in their study on health beliefs of CAM clients, where participants were more open to new experiences than conventional medicine users.

This study has a number of limitations and potential biases, some of which are the result of a qualitative approach, wherein reality is not a fixed entity and differs in relation to a person’s view (Polit et al, 2001). Furthermore, this was a small exploratory study and the data were generated from a small and homogenous group of women. However, the findings offer some insight into the experiences of women with acupuncture during labour. The sample in the study included only motivated middle-class women receiving acupuncture during an uncomplicated labour in one hospital; transferability of the findings to other settings may be limited.

Carrying out a thematic analysis implies an inductive process, meaning that only a selection of extracted identified data is taken from the entire data set (Polit et al, 2001). The development of the themes themselves involves
interpretive work and was guided in this study by the assumption as to what might count as relevant or important in answering the research question. The use of different languages and the translation for this study has the potential to result in a bias in the interpretation of findings. All conversations were carried out in Swiss German, transcribed into written standard German, and translated and analysed in English. Although the effect of these limitations must be taken into account, the findings of this research contribute to knowledge about acupuncture during labour.

Conclusions and implications
This exploratory qualitative study was initiated after a pilot project which introduced acupuncture to the labour ward at the request of pregnant women.

The findings of this study indicate the positive views and interest women have in seeking acupuncture as an option during labour. The findings give rise to recommendations for the midwifery profession and acupuncture services. Women hoped for an enhanced birthing experience and were satisfied with the method during labour; it could therefore be viewed as an adjunct treatment option. Midwives can influence the use of this method and could offer it as a legitimate alternative treatment option to medications during labour. Information about the benefit of acupuncture, its side effects and restrictions imposed by the intervention during labour, is necessary for women to arrive at an informed decision. Acupuncture service for women should be addressed during the antenatal period and recorded in the woman's birth plan or documents.

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Key points
• There was a lack of knowledge around women's experiences of acupuncture during labour
• Three overall themes were found: physical, emotional and cognitive dimensions of the acupuncture experience
• Women treated with acupuncture during labour reported positive experiences, suggesting that acupuncture maybe considered as an alternative or adjunct treatment option to pain medication and relaxation
• The positive experiences of women who have had acupuncture during labour suggest that midwives should discuss acupuncture with women during the antenatal period and offer it during labour
• There is a strong indication that midwives influence women in relation to use of acupuncture during labour
• Women should be informed about the risks, along with the benefits to make appropriate informed decisions.


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