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Women's experiences of coping with pain during childbirth: a critical review

Abstract

Objective: to identify and analyse qualitative literature exploring women's experiences of coping with pain during childbirth.

Design: critical review of qualitative research

Findings: Ten studies were included, conducted in Australia, England, Finland, Iceland, Indonesia, Iran and Sweden. Eight of the studies employed a phenomenological perspective with the remaining two without a specific qualitative methodological perspective. Thematic analysis was used as the approach for synthesising the data in this review. Two main themes emerged as the most significant influences upon a woman's ability to cope with pain: (i) the importance of individualised, continuous support and (ii) an acceptance of pain during childbirth. This review found women felt vulnerable during childbirth and valued the relationships they had with health professionals. Many of the women perceived childbirth pain as challenging however they described the inherent paradox for the need for pain to birth their child. This allowed them to embrace the pain subsequently enhancing their coping ability.

Key conclusions: women's experience of coping with pain during childbirth is complex and multi-faceted. Many women felt the need for effective support throughout childbirth and described the potential implications where this support failed to be provided. Feeling safe through the concept of continuous support was a key element of care to enhance coping ability and avoid feelings of loneliness and fear. A positive outlook and acceptance of pain was acknowledged by many of the women, demonstrating the beneficial implications for coping ability. These findings were consistent despite the socio-economic, cultural and contextual differences

observed within the studies suggesting experiences of coping with pain during childbirth are universal.

Implications for practice: The findings suggest there is a dissonance between what women want to enhance their ability to cope with pain and the reality of clinical practice. This review found women would like health professionals to maintain a continuous presence throughout childbirth and supports a social model of care that promotes continuity of care and an increasing acceptance of pain as part of normal childbirth. It is suggested future research regarding the role of antenatal provision for instilling such a viewpoint in preparation of birth be undertaken to inform policy makers. The need for a shift in societal norms is also suggested to disseminate expectations and positive or negative views of what the role of pain during childbirth should be to empower women to cope with childbirth and embrace this transition to motherhood as part of a normal process.

KEYWORDS:

Childbirth Pain, Labour, Coping, Qualitative

Introduction

There is a growing recognition of the contribution of qualitative research to gaining greater understanding of health care experiences (Centre for Research and Dissemination (CRD), 2009). The synthesis of such methodologies within the evidence base aids in facilitating effective and appropriate health care (Thomas and Harden, 2008), enhancing the link between theory and practice and shaping policies and procedures with the end user in mind. There are no current qualitative syntheses of women's experiences of pain during childbirth. This review, therefore, aims to identify and draw together the findings from qualitative studies that have explored pain during childbirth.

Pain during childbirth presents a unique phenomenon due to its association with a normal physiological process (Walsh, 2012). The multi-dimensional nature of childbirth encompasses intense physical, emotional, psychological and spiritual elements that may be critical to a woman's experience of this major life event (Lowe, 1996). The bio-medical model of care has resulted in the medicalisation of childbirth with increasing rates of epidural anaesthesia, particularly during normal labour (Walsh, 2012), embodying the pre-conceived assumption of pain implying suffering and requiring elimination (Simkin and Bolding, 2004). The administration of opioids during childbirth may offer some efficiency in pain relief, however, undesirable effects such as maternal nausea, drowsiness (Ullman et al, 2010) and potential compromise to the baby, causes concern about advocating their routine use (Heelbeck, 1999). Women choosing epidural anaesthesia may have increased efficiency of pain relief but as a consequence of this intervention are more likely to experience adverse outcomes including instrumental delivery, caesarean section for fetal distress, hypotension, motor blocks, fever and urine retention (Jones et al, 2012). Furthermore

it appears women's satisfaction with the childbirth experience is not related to efficiency of pharmacological pain relief (Green et al, 2003; Hodnett, 2002) but to interpersonal elements of care such as continuity of carer (Hodnett et al, 2011). In addition a majority of pregnant women express the desire to birth without the use of pharmacological pain relief (Care Quality Commission, 2013). This has led to the promotion of 'natural childbirth' by women, health professionals and maternity service providers with the desire to diminish the association of pain experienced during childbirth as pathological and therefore requiring 'treatment' (Mander, 2010). As maternity service providers and national agencies recognise the long term physical and psychological benefits of 'natural childbirth' for mother and baby (Royal College of Midwives, 2011, 2000; National Health Service (NHS) Institute for Innovation and Improvement, 2007; National Institute of Clinical Excellence (NICE), 2007) the need for insight and understanding as to how this can be achieved to support women in their choice becomes apparent.

Systematic reviews incorporate explicit and rigorous methods to explore primary research providing reliable and valid findings to facilitate evidence based practice (Evidence for Policy and Practice and Co-ordinating Centre (EPPI), 2006; Petticrew and Roberts, 2006). However, the introduction of qualitative enquiry within a previously structured, robust methodological quantitative domain has created challenges for researchers and readers. Some researchers argue that the combining of quantitative and qualitative findings during a review synthesis is strongly related to an increasingly positivist approach, aiming to arrive at a single truth and therefore contradicting the essence and value of the qualitative perspective (Mays and Pope, 2007). However in contrast, the combining of qualitative studies may allow the findings to become increasingly significant as they draw on a broader range of participants and descriptions (Sherwood, 1999). The synthesis of qualitative research

is now actively encouraged (CRD, 2009) with the intention to illuminate, interpret and complement quantitative research as oppose to contribute to the measures of effect of interventions (Noyes et al, 2008).

Previous reviews of women's experiences of childbirth have attempted to combine qualitative and quantitative research. A systematic review by Hodnett (2002) with a particular focus upon women's satisfaction of the birthing experience included outcomes related to both pharmacological and non-pharmacological pain relief and included a review of 137 reports detailing both quantitative and qualitative methodologies. The findings indicated the role of pain and subsequent pain relief fail to impact substantially upon women's satisfaction of their childbearing experience (Hodnett, 2002). A similar systematic review incorporating quantitative and qualitative elements by Lally et al (2008) adds further evidence relating to women's expectations and experience of labour pain and its relief including control and the decision making process. The authors concluded an existing gap between women's expectations and their actual lived experience and suggest a need for adequate preparation for childbirth to increase satisfaction (Lally et al, 2008).

Despite the addition of a qualitative perspective within these reviews, the literature appears sparse exploring the actual lived experience of women's ability to cope with pain during childbirth. The emphasis on research undertaken within a medical model of care is abundant, particularly when related to efficiency of pharmacological and non-pharmacological methods and related advantages and disadvantages. As discussed, qualitative elements appear lacking within existing reviews not focusing solely on the lived experience but acknowledging alternative concepts such as satisfaction and decision making (Hodnett, 2002; Lally et al., 2008). As a result, there is a gap in the current evidence base, this review therefore aims to identify and analyse qualitative literature exploring women's lived experience of coping with pain during childbirth.

Methods

Study Design

The methodological processes of the review were informed by guidance described by Noyes et al. (2008) which included: (i) the systematic development and execution of a comprehensive search strategy (ii) the undertaking of quality assessment and (iii) the facilitating of data to identify themes common to all the selected articles.

Identification of articles

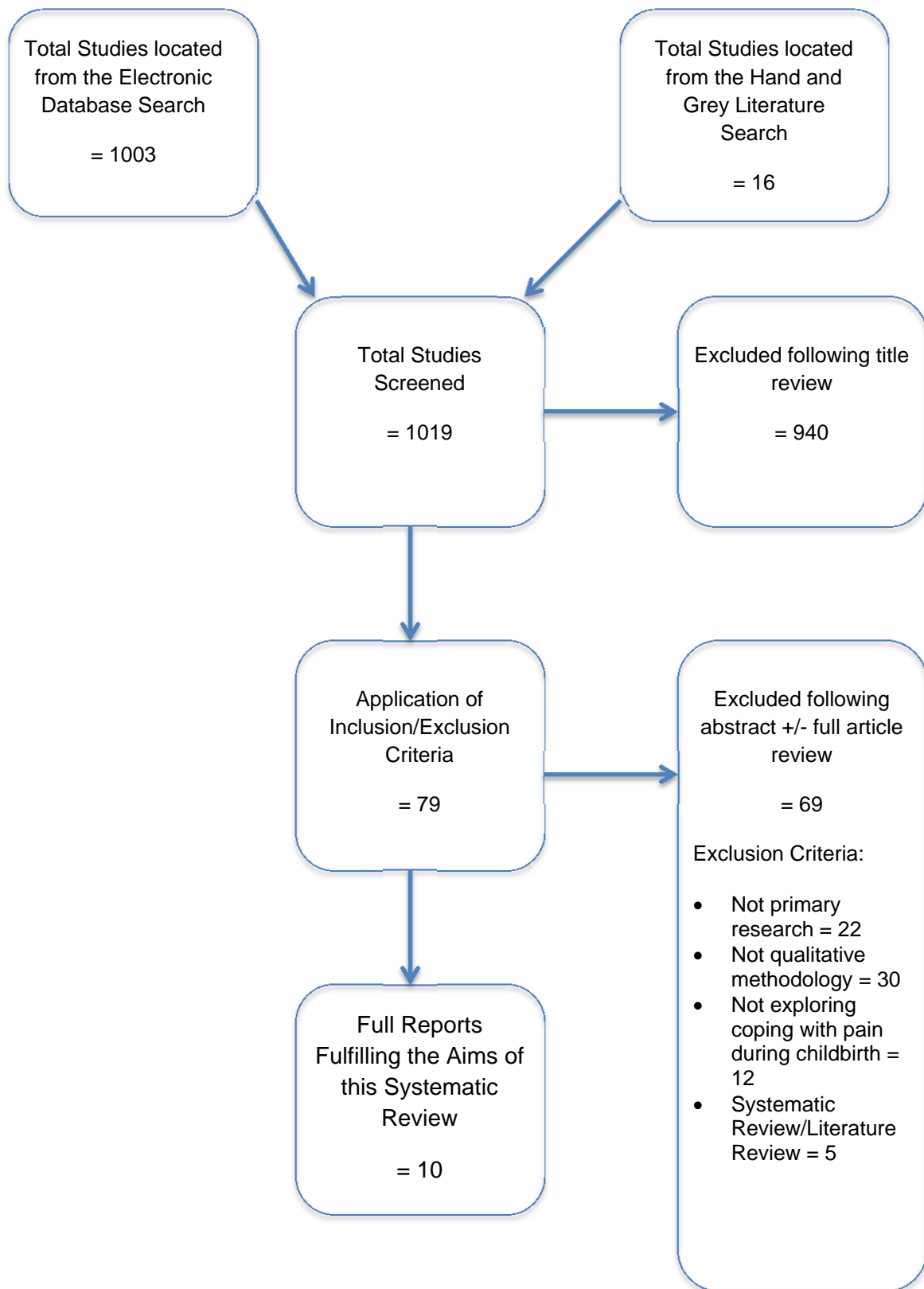
The strategy was devised acknowledging the standards defined by the EPPI Centre (2006) and the CRD (2009). Consideration was given to the diverse range of sources available for relevant literature within this topic area including peer-reviewed journals, books, practitioner journals, websites, online forums and grey literature. The SPIDER mnemonic (Cooke et al, 2012) was employed to focus the research question and included the keywords put in (Table 1). Searches were undertaken within the following electronic databases: AMED, BIOSIS Citation Index, CINAHL, Cochrane Database of Systematic Reviews, Dissertation Abstracts International, EPPI-Centre, ESRC, EThOS, MEDLINE, PsycInfo and Web of Science. The search strategy was increasingly iterative and often dependent on the database where combinations of search terms needed to be modified to gain maximum results. Hand searches of key journals were also undertaken, including a search of key grey literature sources and through the process of 'pearl-growing' by corresponding with key experts within the field to identify further programs of work and relevant papers (Pearson et al, 2011). Parameters additionally included articles written in English and published in peer reviewed journals in 1996 or later with the last database search undertaken on 29th June 2014.

Table 1: Keywords utilised in search strategy based upon SPIDER mnemonic
(Cooke et al., 2012)

Categories	Keywords
Sample Terms	women* OR woman* OR parturient* OR post parturient* OR postnatal OR mother* OR parent* OR childbearing OR primigravida* OR multigravida* OR postpartum OR maternity OR postnatal
Phenomena of Interest	(pain OR agony OR distress) AND (coping OR cop* OR managing OR manage* OR handl*) AND (childbearing OR childbirth OR intrapartum OR labour* OR labor* OR confinement OR deliver* OR birth OR giving birth
Design	grounded theory OR narrative OR thematic analysis OR phenomenolog* OR ethnograph* OR case stud* OR participant observation* OR focus group* OR interview OR lived experience* OR life experience* OR story OR stories OR perception* OR belief* OR discourse analysis
Evaluation	experienc* OR encounter* OR understand* OR feel* OR belief* OR believes OR perception* OR perceive* OR account* OR attitude*
Research type	Qualitative

An inclusion/exclusion criteria was devised to guide the review with articles being included if they described a qualitative, empirical study exploring women's lived experience of coping with pain during childbirth. Studies were excluded if they were not written in English, not primary research or if they reported on findings using quantitative methodologies for data collection and analyses. Potential articles were then chosen for application of the inclusion/exclusion criteria based upon a review of their title and abstract, however due to the often creative and descriptive nature of qualitative study titles, the complete article was often required to establish whether it was relevant or not to the reviews aim. Once identified, the articles were then subject to quality assessment employing a combination of the frameworks detailed by the Critical Appraisal Skills Programme (CASP) (2013) and Walsh and Downe (2006). The process of selecting studies for review is illustrated in Figure 1.

Figure 1 – Flow of Literature through the research process



Data synthesis

The choice of method for data synthesis was made considering the research question that the synthesis aims to address and the type of data available as suggested within the guidance by Noyes and Lewin (2011). This resulted in the selection of thematic analysis as an appropriate method fulfilling the aims of the review, based on the method described by Noyes and Popay (2007). This technique is advocated by the Cochrane Collaboration and provides clarity to enhance the rigor within the synthesis process (Thomas and Harden, 2007). The process incorporated:

- (i) the comprehensive review of the findings in chronological order
- (ii) the identification of an initial set of themes derived from the published findings and interpretations of the data analysis by the researchers. Within the papers encompassing additional outcomes other than coping with pain during labour, only those findings relevant to the reviews defined aims and objective were included within the synthesis
- (iii) the identification of new themes or refinement of existing themes until no further themes were identified
- (iv) a narrative summary approach to explore how women coped within pain during childbirth. Once these initial themes had been identified, further examination revealed the close relationship between them; therefore these were refined until the main themes became evident. However, it became apparent that some of the themes from the initial theme identification process were significant key influences upon the main themes. Therefore these were considered subthemes as they had the same organising concept but focused upon a specific element. This provided the analysis with a rich description of each main theme in the understanding of coping ability during childbirth.

Ethical Considerations

Prior to commencing this review, ethical approval was provided by the School Research and Ethics Panel. Throughout this review, the use of pseudonyms was upheld as reported within the original articles to maintain confidentiality.

Results

The studies suggested research exploring women's experience of childbirth was far reaching, with the studies being undertaken within a range of different countries, cultures and maternity care systems. Eight of the studies employed a phenomenological perspective with the remaining two without a specific qualitative methodological perspective. Despite all studies providing information describing the characteristics of their sample, only one study explicitly reported the use of induction or augmentation during labour (Gibbons and Thomson, 2000).

Table 2: Details of the studies for inclusion within the review

No	Author	Country and Context for Research	Aim of the Study	Methodological Perspective	Sample Size and Demographics	Data Collection Technique	Results
1.	Hallsdorsdottir and Karlsdottir (1996)	Iceland	To explore the essential structure of the lived experience of childbearing, as seen from the perspective of women who had given birth	Phenomenology	14 postnatal women: - age 23-42 years - 1 to 4 children - all hospital births - all participants were married - no problems were identified during the childbearing period however it is not explicit whether all participants had a vaginal birth	Interactive interviews	Four categories were identified with associated themes: 1. Before the journeys commencement: - the influence of circumstances - the influence of expectations 2. Sense of self during the journey: - sense of being in a private world - perceived needs during the journey including the need for a sense of control, the need for caring and understanding and the need for a sense of security 3. The journey itself: - traveling through labour - traveling through delivery 4. At the journey's end: - the first sensitive hours of

							motherhood -the uniqueness of birth as a life experience
2.	Lundgren and Dahlberg (1998)	Sweden: Birth Care Centre	To describe women's experience of pain during childbirth	Phenomenology	9 postnatal women: all had experienced vaginal birth - 4 participants were primiparous - 3 participants had their second baby 2 participants had their third baby - age 23 to 31 years - 4 participants had upper secondary school or university education - all participants used either no analgesia or non-pharmacological methods during labour	Interviews performed from 2 to 4 days post delivery lasting between 45-75 minutes	Four main themes were identified: 1. Pain is hard to describe and is contradictory 2. Trust in oneself and one's body 3. Trust in the midwife and the husband 4. Transition to motherhood
3.	Gibbons and Thomson (2001)	England: hospital setting	To explore, describe and understand the expectations during pregnancy and subsequent experiences of childbirth in primiparae	Phenomenology	- 8 women identified at the hospital antenatal clinic from 36 weeks gestation: - all participants were primiparae - low risk pregnancy - age 19 to 37 - 4 participants experienced a vaginal birth - 3 participants experienced a ventouse delivery - 1 participant	Unstructured interviews were employed at 36 weeks gestation and within the first 2 weeks following birth	Three main categories were identified: 1. Women's childbirth expectations and experiences 2. Women's feelings about labour 3. How women felt after labour

					<p>experienced caesarean section</p> <ul style="list-style-type: none"> - 5 women went into spontaneous labour with 2 women requiring augmentation in the first stage of labour. 3 women required induction - participants were from a range of occupational backgrounds and marital statuses. 		
4.	Callister et al. (2001)	Finland: two tertiary care centres	To describe the lived experience of childbirth within women living in Finland	Phenomenology	<p>20 postnatal women: 16 had vaginal births with midwife caregivers, 4 had caesarean births performed by physicians</p> <ul style="list-style-type: none"> - mean age of 29 years - mean number of children 1.6 - educational level ranged from completion of secondary school to doctorate level - all participants lived with a significant other 	Semi-structured interviews lasting approximately 60 minutes were undertaken within 2 days of giving birth	<p>- Three themes were identified:</p> <ol style="list-style-type: none"> 1. The bittersweet paradox of participating in the creation of life 2. Maternal confidence or self efficacy which influenced a women's perception of and management of childbirth pain 3. The conceptualisation of childbirth as a transcendent experience beyond the physical
5.	Escott et al. (2004)	England: hospital setting	To identify whether nulliparous women can identify their own coping strategies for labour pain and anxiety	No evidence of methodology or perspective employed	<p>Antenatal sample (23):</p> <ul style="list-style-type: none"> - age range from 17 to 38 (mean 27) - the participants represented a range of ethnicities and marital statuses. <p>Postnatal sample (20):</p> <ul style="list-style-type: none"> - age range from 17 to 33 	Unstructured interviews lasting between 40 and 50 minutes	<p>Two main categories of coping strategies were identified:</p> <ol style="list-style-type: none"> 1. Thoughts 2. Behaviours <p>The coping strategies were listed under these broad headings by frequency of occurrence within the interview. They are divided</p>

					(mean 24) - the participants represented a range of ethnicities and marital statuses.		under headings relating to: coping with previous experiences of pain and anxiety and coping with pain and anxiety during labour
6.	Beigi et al. (2010)	Iran: City hospitals	To explain women's experience of pain during childbirth	Phenomenology	14 postnatal women: - all participants had experienced a vaginal birth - 9 participants were primiparous - 4 participants had their second baby - 1 participant had her fifth baby - aged 18 to 35 years - reported participants selected from wide range of social and age backgrounds although no discussion how this was achieved or criteria used	Interviews within the hospital or home setting six weeks following delivery	Four main concepts identified: 1. Nature of labour pain 2. Related factors of labour pain 3. Results of labour pain 4. Perceptions of help-seekers
7.	Leap et al (2010)	London: women who received maternity care from the Albany Midwifery Practice	To explore the experiences of how women approached and experienced pain in labour	A qualitative descriptive methodological approach was employed although no explicit perspective is evident	10 postnatal women: - all participants had experienced a vaginal birth - age ranged from 17 to 38 - 5 participants were primiparous - 5 participants had their second baby - 3 participants had given birth within the hospital environment	Individual semi structured interviews	Main themes identified: 1. Building confidence during pregnancy 2. Continuity of carer: "Knowing who would be there" 3. Building confidence to give birth at home 4. Learning from other women's stories in the antenatal group 5. Support for coping with pain during labour 6. "She believed in me when I

					<ul style="list-style-type: none"> - 7 participants had given birth at home - the participants represented a range of ethnicities. 		<p>didn't believe in myself"</p> <p>7. Pride and elation after birth</p>
8.	Rachmawati (2012)	Indonesia : public hospital	To describe women's experience of labour pain management and influencing factors on their perception of pain and care received	Interpretative Phenomenology	<p>7 postnatal women who had a spontaneous vaginal delivery:</p> <ul style="list-style-type: none"> - 3 participants experienced induction of labour - 3 participants were primiparous - 4 participants had their second baby - age range from 28 to 32 - the participants represented a range of ethnicities, educational levels and occupational backgrounds. 	In depth interviews Field notes Participant observations	<p>Six themes were identified:</p> <ol style="list-style-type: none"> 1. Negative experience of labour pain 2. Prior knowledge to alleviate pain 3. Anxious but labour pain must be faced 4. Desire to handle pain 5. Desire to be accompanied 6. Awareness of mothers needs
9.	Karlsdottir et al. (2014)	Iceland: Regional unit	To explore women's experiences in preparation for and the management of labour pain in normal childbirth	Phenomenology as per The Vancouver School method	<p>14 postnatal women who had experienced a normal birth:</p> <ul style="list-style-type: none"> - 7 primiparous women - 7 multiparous women - age range form 20-40 - relationship status varied: married (3), cohabiting (9), single (2) 	In depth open interviews by primary researcher/ author	<p>Women described a difficult journey through childbirth.</p> <ol style="list-style-type: none"> 1. Preparing for the Journey: the use of preparatory strategies 2. At the journeys commencement: the context of the pain experience 3. On the journey of no return through pain: experiencing and managing labour pain, the demanding and difficult nature of labour pain, the importance of having faith in the body,

							using different strategies in the early stages of labour, using different strategies during late labour and delivery, the essential help of a 'good midwife' in managing pain 4. At the journeys end: changed attitudes towards the pain after birth, the empowering nature of labour pain, the importance of being at peace with the pain afterwards
10	Whitburn et al. (2014)	Australia: large maternity hospital and midwife led unit	Women's experiences of labour pain and the role of the mind	Phenomenology	19 postnatal women: - 10 primiparous women - 9 multiparous women - Birthed at the hospital labour ward (9) and midwife led unit (10) - 14 women had a normal birth, 1 required an assisted birth and 4 progressed to an emergency Caesarean section - Range of level of education: school less than year 12 (2), year 12 or vocational equivalent (2), tertiary (15)	Pre and post birth interviews	1. The experience of labour pain and women's state of mind: state 1 – mindful acceptance, state 2 – Distracted and distraught 2. The meaning of labour pain and the women's state of mind

Following the synthesis of 135 women's views extracted from 10 studies, a range of key social and environmental factors which influenced women's experiences of coping with pain during childbirth were identified. This process is described in appendix 1. These individual factors were then examined and refined, resulting in the identification of the strongest influences which fell within two broad themes: *'The importance of continuous, individualised support during childbirth'* and *'an acceptance of pain during childbirth'*

'The importance of continuous, individualised support during childbirth'

The strongest theme evident throughout the studies was the need for continuous, individualised support throughout the childbirth experience and the impact this had upon coping ability (Hallsdorsdottir and Karlsdottir, 1996; Gibbons and Thomson, 2001; Escott et al., 2004; Leap et al., 2010; Beigi et al., 2010; Rachmawati, 2012; Karlsdottir et al., 2014). The women described this either explicitly, through a desire for continued reassurance by care providers and family relations (Hallsdorsdottir and Karlsdottir, 1996; Gibbons and Thomson, 2001; Escott et al., 2004; Leap et al., 2010; Beigi et al., 2010; Rachmawati, 2012) or implicitly by a desire for health professionals simply remaining present within the birth environment (Hallsdorsdottir and Karlsdottir, 1996; Escott et al., 2004; Beigi et al., 2010; Karlsdottir et al., 2014). The women expressed an increased perception of *vulnerability* and *loneliness* during childbirth, relieved by the continued presence of the care provider (Hallsdorsdottir and Karlsdottir, 1996; Gibbons and Thomson, 2001; Escott et al., 2004; Leap et al., 2010; Beigi et al., 2010). This created a sense of security and safety during childbirth as they felt reassured to cope with the pain they were experiencing. *'My perception was that she never deserted me... I never lost this great sense of security I experienced as soon as she arrived* (Hallsdorsdottir and Karlsdottir, 1996 p. 54).

The women also described the impact of the healthcare professional providing this support throughout the birth experience as a considerable influence on coping ability. The beneficial impact of knowing the professional prior to commencing labour and continuity of carer was also highlighted (Gibbons and Thomson, 2001; Leap et al., 2010) *'It is important that you get with somebody, it gives you more confidence then, knowing that they may be there during labour'* (Gibbons and Thomson, 2001 p. 307). In contrast, when continuity of carer was unachievable, there was a detrimental influence upon the ability to cope during childbirth (Rachmawati, 2012). Continuity not only extended to the provision of explicit support, but also through the routine actions and behaviours of the health professionals facilitating care (Hallsdorsdottir and Karlsdottir, 1996; Leap et al., 2010; Rachmawati, 2012; Karlsdottir et al., 2014). One mother described the dramatic difference between a "task-orientated" and a "woman-orientated" approach to care provision. *'It was truly amazing to see the difference in having a midwife who was task orientated, who was mainly concerned with the pains and then to have a midwife who was woman-orientated. Her attention was first and foremost on me...'* (Hallsdorsdottir and Karlsdottir, 1996 p. 53). This highlights the need for an individualised, woman-centred approach to supporting women within pain management during childbirth and suggests the routine "tasks" required of health professionals interferes with the ability to support women to cope with the pain.

The concept of continued, individualised support during childbirth was evidently the strongest and most prevalent theme identified during the synthesis and encompassed many different concepts. The majority of women described positive aspects of their support throughout labour, particularly when continuity and continued reassurance was provided, whether this is in an explicit or implicit form. Interestingly this appeared consistent across the studies regardless of culture, religion, parity or context (Hallsdorsdottir and Karlsdottir, 1996;

Gibbons and Thomson, 2001; Escott et al., 2004; Leap et al., 2010; Beigi et al., 2010; Rachmawati, 2012; Karlsdottir et al., 2014). Consequently it appears, despite the heterogeneity of participants across the studies, all women value *continuous* support to enhance coping ability.

An acceptance of pain during childbirth

Many of the women commented on an acceptance of pain as an inevitable part of childbirth and as a result induced an increased ability to cope with labour pain (Hallsdorsdottir and Karlsdottir, 1996; Lundgren and Dahlberg, 1998; Callister et al., 2001; Beigi et al., 2010; Rachmawati, 2012; Whitburn et al., 2014). Although the women perceived labour pain as challenging, many viewed it as playing an essential and often beneficial role in the process of childbearing (Beigi et al., 2010; Rachmawati, 2012; Karlsdottir et al., 2014; Whitburn et al., 2014) and express a positive perception of the pain which they experienced (Hallsdordottir and Karlsdottir, 1998; Lundgren and Dahlberg, 1998; Callister et al., 2001; Beigi et al., 2010; Rachmawati, 2012; Whitburn et al., 2014). *'Its ok: this is the uterus contracting so I can meet my baby'* (Whitburn et al, 2014 p. 3). The women described the experience of pain as *'natural'*, *'normal'* (Lundgren and Dahlberg, 1998; Whitburn et al., 2014) and *'manageable'* (Leap et al., 2004; Karlsdottir et al., 2014) often commenting on the inherent paradox which childbirth presents (Lundgren and Dahlberg, 1998; Callister et al., 2004; Beigi et al, 2010; Rachmawati, 2012; Whitburn et al., 2014). *'I remember thinking 'this hurts but it also feels awesome''* (Whitburn et al., 2014, p. 3). For some women, the role of religion provided a rationale for the pain they were experiencing, resulting in an increased acceptance and ability to cope (Callister et al., 2001; Beigi et al., 2010, Rachmawati, 2012): *'It is God's will for women to feel pain when giving birth'* (Callister et al., 2001, p. 30). Others commented upon the beneficial effect of maintaining the view of *"it will be worth it"* (Escott et al., 2004; Rachmawati, 2012), welcoming pain as it meant labour was progressing (Lundgren and Dahlberg, 1998; Leap et al., 2010; Whitburn et al., 2014) and *'helped'* women to give birth (Hallsdorsdottir and Karlsdorsdottir, 1996; Karlsdorsdottir et al., 2014; Whitburn et al, 2014).

In contrast, the absence of this positive view of pain associated with the normal physiology of childbirth was also described by some women (Gibbons and Thomson, 2001; Rachmawati, 2012; Whitburn et al., 2014) and subsequently influenced their actions and behaviours to cope with the pain (Gibbons and Thomson, 2001; Escott et al., 2004; Beigi et al., 2010; Karlisdottir et al., 2014). This articulated itself with the desire for pharmacological pain relief: *'I think it may get so bad I won't be able to cope and I will ask for pain relief, probably everything'* (Gibbons and Thomson, 2001 p. 306). The expression of such contrasting views demonstrates the impact of influencing thought processes appears to directly influence a woman's acceptance and expectation of pain within the childbearing process and subsequent coping ability. Although it is not evident where these women's views relating to the role of pain during childbirth originate, the role of culture, societal and religious ideals and expectations, are suggested within this review as influencing factors upon this perceived acceptance of pain during labour. The synthesis suggests women do expect to experience a degree of pain however some do not view this as a negative aspect. Many women viewed the pain as part of a normal process and as a result were able to embrace and cope with the pain (Hallsdorsdottir and Karlisdottir, 1996; Lundgren and Dahlberg, 1998; Callister et al., 2001; Beigi et al., 2010; Rachmawati, 2012; Whitburn et al., 2014). Despite its challenging nature, its association with this major life event was also perceived as a means to facilitate happiness and joy and demonstrating the paradoxical nature of this unique experience: *'Labor pain is the sweetest pain in the world, I love it so much, of course it is hard to endure but it is sweet'* (Beigi et al., 2010, p.79). Although inevitable, pain could be embraced to facilitate birth and provide the women with the joy of meeting their child.

Discussion

The review demonstrates the diverse body of international evidence undertaken to explore women's experience of coping with pain during childbirth whilst additionally highlighting the methodological challenges observed within previous reviews of qualitative literature (Pearson et al., 2011; Newton et al., 2011; Dixon-Woods et al., 2005; Evans, 2002). This current review echoed the benefits of continuity of care in relation to coping ability and as a result offers a qualitative perspective to previous literature advocating the importance of this essential component to a women's experience (Hodnett et al., 2011; Hodnett, 2002; Munro et al., 2008), regardless of ethnicity, culture, socio-economic status. The women within this current review highlighted overwhelmingly that the support and care they received including their relationships with healthcare professionals were the most important influence upon coping ability with childbirth pain. This is in contrast to the bio-medical model of care which has resulted in the medicalisation of childbirth. Furthermore, the acceptance of pain during childbirth and the ability to embrace this within normal labour and birth suggests it is psychosocial rather than pharmacological support that is needed to enhance coping ability (Hallsdorsdottir and Karlsdottir, 1996; Lundgren and Dahlberg, 1998; Callister et al., 2001; Beigi et al., 2010; Rachmawati, 2012; Whitburn et al., 2014). This supports Lally et al's (2008) systematic review detailing the effect women's antenatal expectations have upon their birth experience. The acceptance of pain also aims to reduce the negative psychological influences that may coexist with an increased physical sensation and lead to 'suffering' (Simkin and Bolding, 2004). This may be counteracted by the influence of positive attributes to the experience of pain and draws on psychological research by Taylor (1983) who proposes a theory of cognitive adaptation in attributing painful sensations with beneficial characteristics thus interpreting them as less unpleasant. This suggests a need for informing the provision of antenatal education from a cognitive perspective in preparing women for childbirth by enhancing the positive connotations of pain and increasing its acceptance within a normal physiological process. It could also be argued the acceptance of pain extends not only to maternity service providers and healthcare professionals but also to encouraging a shift in societal norms. Within an increasingly technology fuelled society, the

impact of aspects such as the media, the internet and social media have a vital role to play in disseminating expectations and positive or negative views of what the role of pain during childbirth should be. It is essential to ensure that despite the ever increasing advancements in technology and pharmacological pain relieving methods, women are empowered to cope with childbirth and embrace this transition to motherhood as part of a normal process.

Within this current review, the importance of interpreting the results within the varying contexts that the studies were undertaken has demonstrated a significant finding. Theories of pain, such as the Neuromatrix Theory of Pain, offer an explanation of the influence of culture, past experience, cognitive input and emotional state upon the perception and experience of pain (Trout, 2004) therefore suggesting these factors may effect coping ability. Weber (1996) also indicates a strong association between culture and women's beliefs and behaviours during childbirth, suggesting pain is a culturally defined physiological and psychological experience. This perspective is supported within a secondary analysis exploring the experiences of culturally diverse women by Callister et al (2003) and details the significant role of culture upon coping ability during childbirth. However in contrast, the studies included within this current review demonstrated no such association. In fact, the findings appeared to suggest women's experiences of coping with pain were influenced by the same recurring factors and what was important to women during childbirth appeared to transcend any differences in culture, religion or maternity care system. Although it could be argued women within alternative contexts interpret the meaning of pain, including pain perception and exhibit pain behaviour in contrasting ways, this finding suggests women's experience of coping ability as similar. This finding is therefore significant in the understanding of how women cope with pain during childbirth, potentially suggesting women interpret their ability to cope and value the same aspects of care despite any individual or contextual differences. This presented a significant strength of the review, enhancing the applicability of the findings reported within the review (CRD, 2009).

Throughout the research process the same challenges observed within previous reviews of qualitative literature, particularly in relation to the search strategy and quality appraisal were evident (Pearson et al, 2011; Newton et al, 2011; Dixon-Woods et al, 2005; Evans, 2002). The limited number of studies is clearly evident however this may not necessarily be acknowledged as a weakness of the review but highlight the need for increased empirical study to maximise the existing literature base. This does however provide an example of the difficulty experienced in locating qualitative research as a result of unclear indexing and the ambiguous nature of titles and abstracts. Furthermore, the lack of description within the studies specifying the sampling, data collection and synthesis processes made the assessment of quality problematic within this current review. The need for increased information within the studies describing events during childbirth, including the need for induction of labour and augmentation, would enhance the interpretation of the findings given the potential for these interventions to influence a woman's experience of coping with childbirth pain. As all articles were located within published peer-reviewed journals, the limited amount of detail and documented evidence of the methodological and analytical components of the study were evident. This created difficulties when considering quality assessment and suggests a need for an increasingly comprehensive search of grey literature to be undertaken. However, despite varying degrees of quality across the studies, the findings were echoed consistently by the women. This may increase an element of confidence in the results as it could be interpreted as a degree of validation. Further high quality research is however advocated to add increased confidence of these claims.

Future Research and Implications for Practice

The observed emphasis of quantitative literature exploring pain during childbirth perhaps mirrors the current biomedical model of childbirth often evident within a 21st Century maternity care system. Although there is currently no reviews of qualitative research exploring the experience of pain during childbirth, the shift towards research exploring non-pharmacological pain relieving methods is encouraging and becoming increasingly apparent within the developing evidence base. Following this review, the deficiency of qualitative studies exploring the coping of pain during childbirth is clearly evident therefore future empirical research of sound methodological quality is advocated. Further exploration of the multi-dimensional aspects which influence coping ability is also suggested to add increased understanding of how women interpret their coping ability regardless of any individual or contextual differences as highlighted within the findings. The methodological processes associated with the undertaking of this review also encountered many of the challenges associated with facilitating qualitative systematic reviews therefore further research is advocated within the methodological processes, particularly relating to the search strategy with clearer indexing of qualitative search terms.

Conclusions

The findings of this review serve to compound the importance of continuity of care throughout labour and demonstrate the beneficial impact this can achieve. They also promote the acceptance of pain during childbirth as an essential concept in maximising coping ability. As a result, they present a qualitative dimension to complement previous findings instilled within a quantitative paradigm, offering increased understanding explaining why these previous reviews identified their outcomes. The contribution of this review within the field of evidence exploring coping with pain during labour therefore adds to the body of knowledge, providing insight from women's own perspectives and the influences upon their

experiences. Mander (2010) suggests organisational changes within the provision of maternity care are required to advocate this continuity and meaningful interactions between healthcare professionals and women, a recommendation advocated following this review.

References

- Beigi, N., Broumandfar, K., Bahadoran, P., Abedi, H., 2010. Women's experience of pain during childbirth. *Iranian Journal of Nursing and Midwifery Research* 15(2) 77-82.
- Callister, L., Khalaf, I., Semenic, S., Kartcher, R., Vehvilainen-Julkunen, K., 2003. The pain of childbirth: perceptions of culturally diverse women. *Pain Management Nursing* 4(4) 145-154
- Callister, L., Vehvilainen-Julkunen, K., Lauri, S., 2001. Giving birth: perceptions of Finnish childbearing women. *American Journal of Maternal Child Nursing* 26(1) 28-32.
- Care Quality Commission. 2013. National Findings from the 2013 Survey of Women's Experience of Maternity Care. London: Healthcare Commission
- Centre for Research and Dissemination 2009. Systematic Reviews: CRD's guidance for undertaking reviews in healthcare. York: University of York
- Cooke, A., Smith, D., Booth, A., 2012. Beyond PICO: the SPIDER tool for qualitative evidence synthesis. *Qualitative Health Research*. 22(10) 1435-1443.
- Critical Appraisal Skills Programme 2013. 10 Questions to Help You Make Sense of Qualitative Research. CASP.
- Dixon Woods, M., Agarwal, S., Jones, D., Young, B., Sutton, A., 2005. Synthesising quantitative and qualitative evidence: a review of possible methods. *Journal of Health Service Research Policy* 10, 45-53.
- Dixon-Woods, M., Fitzpatrick, R., Roberts, K., 2001. Including qualitative research in systematic reviews: opportunities and problems. *Journal of Evaluation in Clinical Practice* 7(2) 125-133.
- EPPI-Centre 2006. EPPI-Centre methods for conducting systematic reviews. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London
- Escott, D., Spiby, H., Slade, P., Fraser, R., 2004. The range of coping strategies women use to manage pain and anxiety prior to and during first experience of labour. *Midwifery* 20 144-156.
- Evans, D., 2002. Database searches for qualitative research. *Journal of the Medical Library Association*. 90, 290-293.
- Gibbons, J., Thomson, A., 2001. Women's expectations and experiences of childbirth. *Midwifery* 17 302-313
- Green, J., Baston, H., Easton, S., 2003. Great Expectations? Inter-relationships between women's experiences and expectations of decision making, continuity, choice and control in labour and psychological outcomes. Summary Report. University of Leeds.
- Hallsdorsdottir, S., Karlsdottir, S., 1996. Journeying through labour and delivery: perceptions of women who have given birth. *Midwifery* 12 48-61.

Heelbeck, L., 1999. Administration of pethidine in labour. *British Journal of Midwifery* 7(6) 372-377.

Hodnett, E., Gates, S., Hofmeyr, G., Sakala, C., 2011. Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews*.

Hodnett, E., 2002. Pain and women's satisfaction with the experience of childbirth: A systematic review. *American Journal of Obstetrics and Gynaecology* 186(5) 160-172.

Jones, L., Othman, M., Dowswell, T., Alfirevic, Z., Gates, S., Newburn, M., Jordan, S., Lavender, T., Neilson, J., 2012. Pain management for women in labour: an overview of systematic reviews. *Cochrane Database of Systematic Reviews* 10.

Karlsdottir, S., Hallsdorsdottir, S., Lundgren, I., 2014. The third paradigm in labour pain preparation and management: the childbearing woman's paradigm. *Scandinavian Journal of Caring Sciences* 28, 315-327.

Lally, J., Murtagh, M., Macphail, S., Thomson, R., 2008. More in hope than expectation: a systematic review of women's expectations and experience of pain relief in labour. *BMC Medicine* 6(7)

Leap, N., Sandall, J., Buckland, S., Huber, U., 2010. Journey to Confidence: Women's Experiences of Pain in Labour and Relational Continuity of Care. *Journal of Midwifery and Women's Health* 55 234-242.

Lowe, N., 1996. The pain and discomfort of labour and birth. *Journal of Gynaecology and Neonatal Nursing* 25(1) 82- 92.

Lundgren, I., Darlberg, K., 1998. Women's experiences of pain during childbirth. *Midwifery* 14 105-110.

Mander, R., 2010. The meanings of labour pain or the layers of an onion? A woman-orientated view. *Journal of Reproductive and Infant Psychology* 18(2), 133-141

Mays, N., Pope, J., 2007. *Synthesising Qualitative and Quantitative Health Research*. Open University Press: Buckinghamshire.

Munro, J., Jokinen, M., Gerrard, J., Shewes, J., 2012. *The Royal College of Midwives (RCM) Manual for producing midwifery practice guidelines*. RCM. London

National Institute for Clinical Excellence 2007. *Intrapartum Care: care of healthy women and their babies during childbirth*. London: RCOG Press

Newton, B., Rothlingova, Z., Gutteridge, R., LeMarchand, K., Raphael, J., 2011. No room for reflexivity? Critical reflections following a systematic review of qualitative research. *Journal of Health Psychology* 17(6) 866-885

NHS Institute for Innovation and Improvement (2007) *Pathways to Success: A self improvement toolkit. Focus on normal birth and reducing Caesarean section rates*. Coventry: NHS Institute for Innovation and Improvement.

Noyes, J., Lewin, S., 2011. Chapter 6: Supplemental guidance on selecting a method of

qualitative evidence synthesis, and integrating qualitative evidence with Cochrane intervention reviews. In: Noyes, J., Booth, A., Hannes, K., Harden, A., Harris, J., Lewin, S. and Lockwood, C. (Eds). *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions. Version 1.* Cochrane Collaboration Qualitative Methods Group.

Noyes, J., Popay, J., Pearson, A., Hannes, K., Booth, A., 2008. Chapter 20: Qualitative research and Cochrane reviews. *In: Higgins, J. and Green, S (Eds). Cochrane Handbook for Systematic Reviews of Interventions. Version 5.* The Cochrane Collaboration

Noyes, J., Popay, J., 2007. Directly observed therapy and tuberculosis: how can a systematic review of qualitative research contribute to improving services? A qualitative meta-synthesis. *Journal of Advanced Nursing* 57(3) 227-243

Pearson, M., Moxham, T., Ashton, K., 2011. Effectiveness of Search Strategies for Qualitative Research about Barriers and Facilitators of Program Delivery. *Evaluation and the Health Professions* 34(3) 297-308

Petticrew, M., Roberts, H., 2006. *Systematic Reviews in the Social Sciences.* Blackwell Publishing: Oxford.

Rachmawati, I., 2012. Maternal reflection on labour pain management and influencing factors. *British Journal of Midwifery* 20(4) 263-270

Royal College of Midwives (2011) *Woman Centered Care: Position Statement.* London: RCM

Royal College of Midwives (2000) *Vision 2000.* London: RCM.

Sherwood, G., 1999. Meta-synthesis: merging qualitative studies to develop nursing knowledge. *International Journal of Human Caring* 3(1) 37-42.

Simkin, P., Bolding, A., 2004. Update on non-pharmacological approaches to relieve labour pain and prevent suffering. *Journal of Midwifery and Women's Health* 49(6) 489-504

Taylor, S., 1983. Adjustment to threatening events: a theory of cognitive adaptation. *American Psychologist* 38(11) 1162- 1173

Thomas, J., Harden, A., 2008. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology* 8(45)

Thomas, J., Harden, A., 2007. *Method for Thematic Synthesis of Qualitative Research in Systematic Reviews.* Methods for Research Synthesis Node, EPPI-Centre and Social Science Research Unit: London.

Trout, K., 2004. The neuromatrix theory of pain: implications for selected nonpharmacological methods of pain relief for labour. *Journal of Midwifery and Women's Health* 49(6) 482-488.

Ullman, R., Smith, L., Burns, E., Mori, R., Dowswell, T., 2010. Parenteral opioids for maternal pain relief in labour. *Cochrane Database of Systematic Reviews.* 8(9)

Walsh, D., 2012. Evidence and Skills for Normal Labour and Birth. 2nd Ed. Routledge, London.

Walsh, D., Downe, S., 2006. Appraising the quality of qualitative research. *Midwifery*. 22(2) 108 -119.

Weber, S., 1996. Cultural aspects of pain in childbearing women. *Journal of Obstetric, Gynaecological and Neonatal Nursing* 25(1) 67-72.

Whitburn, L., Jones., L., Davey., M., Small, R., 2014. Women's experiences of labour pain and the role of the mind: an exploratory study. *Midwifery*. In press.