ARTICLE

HOSPITAL MIDWIVES' BARRIERS WHEN FACILITATING UPRIGHT POSITIONS DURING A NORMAL SECOND STAGE OF LABOUR

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ABSTRACT

Despite evidence that supports the utilisation of upright positions in the second stage of labour, women who choose to give birth in a hospital are more likely to give birth supine on a bed. Little evidence about this aspect of midwifery practice exists currently. The focus of this review is on identifying the barriers midwives face in the promotion of upright positions during the second stage of normal labour. Bhaskar's critical realist ontology was used to answer the question: "What are the barriers that midwives face when facilitating upright positions during normal birth?" Institutionalisation of birth engendered a practice that is dominated by medical policies and procedures, thereby making it difficult for midwives to offer women alternatives to bed birth. The midwifery labour ward culture together with an expectation that practitioners would conform to perceived norms further inhibited midwives' promotion of upright positions in the second stage of labour. The findings of this study support existing research in the difficulties that midwives face in promoting normal birth in institutional settings dominated by obstetrics. Given the paucity of literature in Africa, more research in African midwives' promotion and facilitation of upright positions in the second stage of labour is required. However, given the similarities in the role of the midwife and maternity systems the findings of this review can be applied and understood within an African midwifery context.

Keywords: barriers; labour ward midwives; upright positions; second stage of labour; normal birth

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WHAT IS ALREADY KNOWN?

- Utilisation of upright positions in normal birth can improve birth outcomes.
- Supine positions are used widely in hospital settings despite evidence that they lead to the medicalisation of normal birth.
- Midwives' ability to promote normal birth in hospital birth settings is difficult owing to the competing demands and institutional norms based on obstetrics.

POTENTIAL NEW KNOWLEDGE FROM THIS STUDY

This study identified barriers to the utilisation of upright positions in labour wards. There is a need to

- further conduct similar studies on African midwives to identify challenges faced in supporting upright positions in an African context, and
- distinctly study the two philosophies of birth in an African context and their effects on the use of upright positions during a normal second stage of labour.

INTRODUCTION

The guidelines of the International Confederation for Midwives (ICM) and The National Institute for Health and Care Excellence (NICE) discourage the use of supine positions in the second stage of labour. Instead, they recommend women to birth in positions in which they feel more comfortable (ICM 2014; NICE 2014). However, the majority of women who birth in hospitals tend to birth in supine positions (Hodnett, Downe, and Walsh 2012; Hofmeyr, Say, and Gülmezoglu 2005). The focus of this review is on identifying the barriers that midwives face, which in turn hinder them from the effective promotion of upright positions during the second stage of labour.

BACKGROUND

Normal childbirth for this study will refer to births that occur in low-risk mothers without interventions or restrictions, hence leading to the healthy birth of a normal infant, and a healthy mother (DOH 2006; WHO 1996). Although there appears to be a lack of clarity on when the second stage begins, for this review it refers to the full cervical dilatation with the woman having a spontaneous urge to push the baby (Downe 2008; NICE 2014; Walsh 2012). Upright birthing positions may be defined as postures where the spine is vertical, and are mostly achieved out of bed (Sutton 2000; Walsh 2012). For this study, the term upright position will incorporate kneeling, standing, squatting, and sitting with the back at an upright angle of more than 45 degrees, all

fours, and lateral positions. The term supine position will incorporate all the positions a woman gives birth in, namely the lithotomy position, the semi-recumbent position, and the McRoberts position (exaggerated lithotomy).

Midwifery is deemed to be guided by socially constructed norms that have been passed down through generations (Fahy, Foureur, and Hastie 2008) and that have been enforced by organisations such as the National Health Service (NHS) (Kirkham 1999). Hegemony for example, tends to place a hierarchy in maternity wards with doctors in the upper level, followed by senior midwives, junior midwives, and the women at the bottom. This kind of arrangement encourages labour ward midwives and birthing women to follow socially construct rules. This has the effect of minimising the autonomy of both the midwife and the women they care for (Fahy 2002; Fahy, Foureur, and Hastie 2008). The societal norms in maternity units tend to be inculcated and reinforced through education and training (Kirkham 1999). In an environment where the hospital midwives are not exposed to supporting women in upright positions for labour and birth, anecdotal evidence suggests that practitioners are less likely to support women in upright positions.

Furthermore, midwifery practice is governed by policies, protocols and guidelines that direct towards absolute safety as defined by obstetrics (MacKenzie Bryers and Van Teijlingen 2010). These guidelines and policies are meant to mitigate risks for both the woman and the foetus (Walsh 2012). Consequently, surveillance tools (Fahy, Foureur, and Hastie 2008), such as the continuous monitoring of the fetal heart rate on a cardiotocograph (CTG) which restricts women to stay in bed, minimise the possibility of utilising upright birthing positions (Hastings-Tolsma and Nolte 2014). Moreover, such practices tend to make some midwives fearful of working outside hospital policies and guidelines (Keating and Flemming 2009). Breaking this fear requires a midwife whose practice is embedded in evidence and an ability to challenge medicalisation (Fahy 2002; Fahy, Foureur, and Hastie 2008; Hastings-Tolsma and Nolte 2014), the lack of which renders most midwives conformant to labour ward norms based on biomedicine.

In modern maternity units women tend to give birth in supine positions despite the discouragement by the WHO and the ICM (Hodnett, Downe, and Walsh 2012; Sutton 2001). Although supine positions have been associated with lower blood loss, meta-analyses by De Jonge, Teunissen, and Lagro-Janssen (2004) and Kopas (2014) showed higher rates of instrumental deliveries and episiotomies in women who birthed in supine positions. The dangers of supine positions and the benefits of upright positions in the second stage of labour have been researched widely (De Jonge, Teunissen, and Lagro-Janssen 2004; Gupta, Hofmeyr, and Shehmar 2012; Kopas 2014; Nieuwenhuijze et al. 2013). However, one of the reasons for the continued use of the supine position during vaginal birth is that it makes accessibility and visualisation of the perineum and control of the oncoming fetal head easier for the midwife (Priddis, Dahlen, and Schmied 2011, 2012).

Although there are a number of benefits of upright birthing positions, the key benefits appear to be a reduction in forceps- and ventouse-assisted deliveries, reduced

episiotomies, and fewer abnormal fetal heart rates when compared with normal births conducted in the supine positions (De Jonge et al., 2004; Gupta, Hofmeyr, and Shehmar 2012). Moreover, physiologically, women push more easily when allowed to adopt an upright position in the second stage of labour (Downe 2008). Furthermore, radiological studies confirm enlarged pelvic diameters when women are in upright labouring positions, a factor that enables easy negotiation of presenting part through the pelvis (Michel et al. 2002; Reitter et al. 2014).

It appears that hospital midwives continue to promote supine rather than upright positions in the second stage of labour. However, research in the barriers faced by hospital midwives who wish to promote upright positions for birth currently exists. Therefore this literature review aims to identify the barriers faced by hospital midwives who wish to facilitate upright positions during the second stage of labour.

METHOD

A critical review of the literature (Edgley et al. 2016) was chosen, as it is more suited to the aims of this study than a narrative or systematic review. Both qualitative and quantitative literature was studied to ensure that an extensive range of current literature was included. Although not a systematic review, a systematic method for the recovery of relevant literature was employed to demonstrate consistency and transparency (Booth, Papaionannou, and Sutton 2012). Realism asserts that there is a social reality distinct from human behaviour that can only be understood through the senses (Robson 2013). These hidden aspects of reality contain powerful mechanisms responsible for social inequality or injustice (Walsh and Evans 2014). Critical realism is an approach which aims to identify such hidden structures in order to bring about social change (Matthews and Ross 2010). In critical realist ontology, the potential possibilities (theories) of objects, how people exist in the world can be understood and improved (Walsh and Evans 2014), are the main aim of the inquiry. A layered ontology is employed to identify key aspects of social life necessary for knowledge generation, namely the empirical (what can be observed), the actual (what is already known), and the real (the hidden mechanisms responsible for the social problem) (Bhaskar 1997). Critical realism was chosen as the theoretical perspective for this literature review because it helps to identify underpinning generative mechanisms responsible for the surface problem being addressed (Bhaskar 1997), in this case, midwives' promotion and facilitation of upright positions in the second stage of normal labour.

SEARCH STRATEGY

The lead author conducted a literature search to identify relevant studies over a period of three months (June to September 2015 and again in 2016). Databases related to nursing, midwifery, physiotherapy, and broader fields such as psychology and sociology were searched. CINAHL, Web of Science, Medline, Google Scholar, PubMed, PsycINFO

and ASSIA (Applied Social Science Index and Abstracts) were databases used in the search. Key search terms, Boolean operators and wild cards were used but not limited to Midwi?e* ,Second stage of labour, Midwi*, Birth$, Midwi$, Childbirth, Upright position*, Delivery, Alternative positions. Hand searching was also conducted, for example using the references cited in helpful articles and book chapters and as advised by experts in the field. The search was limited to thirty years (1995 to 2015), as debate on the upright position is apparent from the last four decades. English only papers were included. Literature on midwifery-led care and home births were excluded. However, literature from hospital-based midwifery care and empirical studies were included for review. The initial search obtained 169 papers and after duplicates were removed, 87 papers remained for review (see Figure 1). These papers' abstracts were reviewed against the inclusion/exclusion criteria. This led to the identification of 39 relevant papers. Following this, full copies of the 39 papers were obtained and appraised using Rees's (2012) quantitative and qualitative critiquing framework tool for quality, methodology and sample size. Thirty-one papers were excluded as they were of poor quality; some were secondary studies and others owing to the context of birth.

This led to the selection of eight papers (see Figure 1). The quality of the papers was checked using Rees's (2012) quantitative and qualitative critiquing framework. Selected papers were checked for methodological quality, sample size, ethical considerations, main findings and implications to practice. The literature was then summarised on the table, synthesised and reported in the results section.

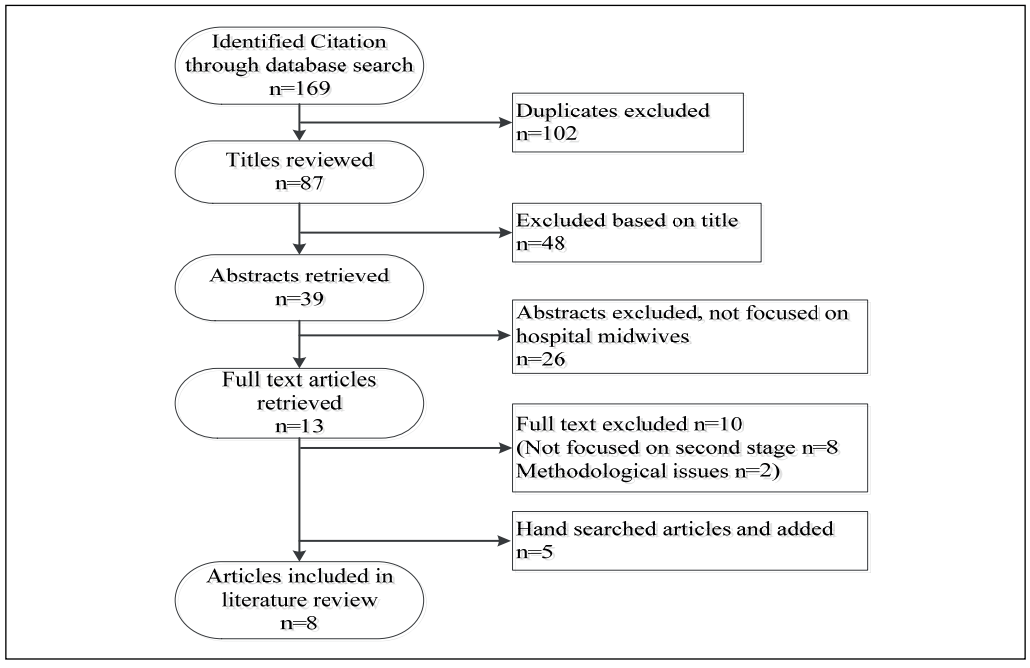

Figure 1: Process of literature search and selection of papers

RESULTS

The reviewed literature presented varying findings on the midwives' promotion and utilisation of upright positions in the second stage of labour (see Table 1).

Table 1: Summary of selected papers (n = 8)

Study	Aim/ Objectives	Methodology/ Data collection	Setting/ Context	Sample size and characteristics	Findings
Declercq et al. (2014)	To understand experiences of women for improvement of maternity services	A survey	USA	2 400 mothers, aged 18 to 45 years who birthed in hospitals	More than two-thirds (68%) of women who gave birth vaginally reported that they lay on their backs while giving birth. One-quarter (23%) indicated that they gave birth in a propped up (semi-sitting) position. Three per cent reported that they gave birth on their side. Four per cent gave birth in the upright position (e.g. squatting or sitting). One per cent gave birth in a hands-and-knees position. The majority of the women would have preferred to be offered a choice to utilise other positions.

Study	Aim/ Objectives	Methodology/ Data collection	Setting/ Context	Sample size and characteristics	Findings
De Jonge et al. (2008)	To explore the views of midwives on women's positions during the second stage of labour	Focus group – six groups Purposive sampling	Netherlands	31 independent midwives who conduct low-risk deliveries both at home and in hospitals	Informed consent is offered to women according to midwives' preferences. While a woman's choice is given when offering informed choices. Other options are, however, suggested by the midwife.
De Jonge and Lagro-Janssen (2004)	To explore women's experiences and influences of birthing positions	Interviews	Nijmegen, Netherlands	Twenty women were interviewed; 8 primipara, 12 multipara	Midwives influenced the choice of birth positions. Most women felt in control when in upright positions. Some women preferred supine positions. Women from ethnic minority groups were unfamiliar with upright positions. Some women felt embarrassed in other positions. Women needed information and to be allowed to make decisions.

Study	Aim/ Objectives	Methodology/ Data collection	Setting/ Context	Sample size and characteristics	Findings
Everly 2012	To explore the factors that affect labour management decisions of midwives in hospitals and free-standing birth centres	Grounded theory Qualitative study – tape-recorded interviews	USA: 9 states	10 interviews of experienced midwives	Four themes identified: 1) Trust in birth as a normal physiological process 2) Control and decision are taken away from women in a hospital setting 3) Women who ask for different care options are usually allowed based on their request 4) Hospital midwives were more focused on medical models
Hammond, Foureur, and Homer (2014)	To explore the impact of the physical and aesthetic design of hospital birth rooms on midwives	Video Ethnographic study (6 videos)	Sydney, Australia: 2 hospitals	Reflexivity of 8 midwives: 7 qualified and 1 student	Space that is congested and full of clutter limits work. Difficult to work under water in a small space. Environment with ambience is more relaxing. Inflexible equipment complicates birthing.

Study	Aim/ Objectives	Methodology/ Data collection	Setting/ Context	Sample size and characteristics	Findings
Hanson (1998)	To study the extent to which 8 operationally defined positions were used by certified nurse-midwife (CNM) attending women during the second stage of labour	Survey, self-administered questionnaires	USA	800 CNM response rate 439 midwives (54.9%)	Results (in percentages) of positions utilised in second stage of labour: Side-lying 88.8 Squatting 82.2 Sitting 73.5 Standing 34.5 Kneeling 27.6 Dorsal (supine) 25.3 All-fours 7.1 Lithotomy (supine) 7.1
Hanson (1998)	To describe factors affecting the use of 8 second-stage maternal positions	Survey, Self-administered instrument	USA	800 CNM response rate 439 midwives (54.9%)	Facilitating factors for upright positions were based on prior experience. Maternal preference. Autonomy of the practitioners. Women-centred care.
Keating and Fleming (2009)	To explore midwives' experiences in facilitating normal birth in an obstetric-led unit	Feminist-approach interviews	Ireland	10 midwives with 6 to 30 years' experience	Themes generated from midwives' narratives related to the following four concepts of patriarchy: 1) hierarchical thinking 2) power and prestige 3) a logic of domination 4) either/ or thinking (dualisms)

Adapted from Bhaskar (1997).

The key findings were categorised into the following themes in order to identify the barriers to labour ward midwives' promotion and facilitation of the second stage of normal labour: midwives' preference, the birthing environment, philosophy of care, clinical experiences of midwives, types of women, the maternity culture, policies and guidelines, and time.

Midwives' Preference

Although there is no clear preferred position by midwives in the second stage of labour, Hanson (1998) conducted a survey on CNMs in the USA to identify the extent to which practitioners utilised upright positions in the second stage of labour. The survey was conducted among 439 midwives. A total of 265 midwives (60.5%) indicated that all women in their practice used non-lithotomy positions for their births, 0.7 per cent of the midwives reported the use of exclusively lithotomy positions and five per cent reported that only three quarters of the women utilised lithotomy positions. In the study, 80.4 per cent of midwives reported that they encouraged non-lithotomy positions, while 38.6 per cent encouraged the dorsal position. Hanson (1998), in her summary of the most utilised position, found that sitting and side-lying were the most utilised and encouraged positions by the midwives.

Declercq et al. (2014), in a recent major survey in the USA on women's childbearing experiences, which included 2 400 women, found that the majority of vaginal births were conducted in supine positions (74%), 23 per cent in squatting and sitting positions, and three per cent in lateral positions. These results could be related to the high percentage of physician-attended births (70%) in the USA (Declercq et al. 2014). The midwives in this study encouraged women to utilise positions which they (the midwives) prefer rather than the positions the women preferred.

Both papers appear to suggest that midwives and CNMs prefer supine rather than upright positions. These findings appear to support the earlier discussion that the conformity of midwives and women to hospital routines and practices is an important determinant of actual behaviour.

Birthing Environment

Hammond, Foureur and Homer (2014), in their study exploring the implication of the physical design of hospital birth rooms on midwifery practice, identified challenges for the midwives in facilitating birth in the current maternity system. In their study, they used a video ethnography methodology. They later conducted video reflexive interviews and collected field notes for data analysis. The participants in the video films that included women, their companions and the attending maternity staff, were invited for reflexive interviews four to six weeks after the video was filmed. The interviews were audio-recorded and transcribed for analysis. The study was conducted in two tertiary hospitals in Sydney, Australia. The interviews focused on only eight midwives: seven

registered midwives and one student. The main focus was how midwives interacted with the physical and aesthetic environment. After consideration of the data collected, the authors identified that midwives found difficulties in finding space due to congestion. The main features of the environment found to inhibit the normal birth process were the beds, equipment that was inflexible, cramped space, and poor design that does not consider the midwives, especially the positions of the birth pools (Hammond, Foureur, and Homer 2014). Although this study had a small sample size (n = 8) that may not be representative of all maternity departments, it offers a reflection of how the equipment and management of space may present barriers to midwives facilitating a normal birth process. Though the study findings may represent the maternity departments and birth rooms in many institutions, the researchers may have had a bias given that this was a study that formed part of a major project aimed at improving birth unit designs in Australia.

The birthing environment may have a physiological and psychological impact on birthing, especially for the pregnant women (Gupta, Hofmeyr, and Shehmar 2012; Priddis, Dahlen, and Schmied 2011; Walsh 2006a). Alternatively, the environment may reinforce the midwife to encourage upright positions or discourage their use (De Jonge et al. 2008). However, it is also apparent that some midwives were able to facilitate birth in upright positions. This suggests that these midwives' philosophy of care was somehow different to other practitioners caring for women during a normal second stage of labour.

Philosophy of Care

The contrast of philosophy of care between midwifery-led care and obstetric care was explored by De Jonge et al. (2008). De Jonge et al. (2008) explored the views of midwives on upright positions in labour using Thachuk's model of care which contrasted between the medical model and midwifery-led care in the form of informed consent and informed choice. The study incorporated the medical model of informed consent where women are given information and tend to be passive recipients, and the midwifery model which offers information and empowers the women to make an informed choice. De Jonge et al. (2008) found that midwives in the study operated within the continuum depending on the environment and the clients in their care. In the study, midwives who worked under the philosophy of midwifery-led care, women were more likely to utilise the birth position of their choice.

It appears that midwives who worked in the obstetric model of care were more likely not to offer the choice of upright positions even when requested by labouring women.

Clinical Experiences of Midwives

The midwives in De Jonge's (2008) study reported that they offered information on mobilisation in labour and positions in birthing, hence supporting the women with the choice even when that seemed uncomfortable for the midwife. They, however, acknowledged that they supported the choice but that they can change the care depending on the needs arising such as obstetric risks. The main possible risk identified was perineal oedema associated with a long stay on a birthing stool (De Jonge et al. 2004; De Jonge et al. 2008). This supports other studies that show that midwives tend to support women in the positions in which they, the midwives, feel more comfortable rather than the women's choice (Hammond, Foureur, and Homer 2014; Hodnett, Downe, and Walsh 2012; Priddis, Dahlen, and Schmied 2011, 2012).

The midwife's experience was one of the factors that recurred in the studies; it was reported to support or inhibit facilitation and promotion of upright birth positions in the second stage of labour. De Jonge et al. (2008) established that midwives who have skills and experience in facilitating upright positions were likely to adopt the practice. It may be argued that these midwives, upon qualifying, may continue to promote the upright positions practice (De Jonge et al. 2008).

Women's Preferences

Women's birth preferences may also be a barrier to attaining upright positions in the second stage of labour. In a qualitative study conducted by De Jonge and Lagro-Janssen (2004) to investigate women's views on alternative positions, the study found that the majority of women followed the advice offered by their midwives. Twenty women participated in this study. Eleven women in this study birthed in supine positions while nine delivered in non-supine positions. The major factors identified to influence their choice were the midwives' antenatal information and information from the media and other women. They demonstrated their knowledge by identifying the supine position as the "traditional", "old-fashioned" and "normal" position (De Jonge and Lagro-Janssen 2004). Women from ethnic minorities thought that the supine position was mainly used in their country of origin. The women who birthed in upright positions felt in control of their pushing in the second stage of labour compared with those who did not. Surprisingly, three women in the study felt unfamiliar with upright positions and hence did not utilise them. It is, however, unclear why ethical approval was not required as some of the women had birthed in the hospital. Nonetheless, the sample was adequate and representative.

It appears that women's lack of knowledge may be a barrier to midwives' facilitation of the upright position. De Jonge and Lagro-Janssen (2004) offered insight on the women's perspective on upright positions; it included different categories of women representative of minority groups as well and informed on the impact of the midwives on the women's choice.

Maternity Culture

Keating and Fleming (2009) conducted a study in Ireland on 10 midwives from three hospitals. The aim of the study was to explore the experiences of midwives in facilitating normal birth in an obstetric unit using a feminist approach. Ten midwives were interviewed who were considered to have experience of more than five years. Keating and Fleming (2009) conducted in-depth interviews with the midwives and highlighted several aspects of patriarchy (male dominance) in obstetric units. The main themes that recurred in the study were hierarchical thinking, surveillance, fragmented care, and time. Midwives tend to work within a hierarchical system with the obstetrician at the top, followed by the senior midwife then the junior midwives and finally the women (Keating and Fleming 2009). The obstetricians at the top of the hierarchy seem to give orders and the senior midwives are compliant, hence ensuring that orders are followed. Junior midwives reported being disempowered and at risk of ridicule by colleagues if they acted contrarily. This supports studies on the context of birth where independent midwives tend to be more autonomous (De Jonge and Lagro-Janssen 2004).

The maternity culture that is dominated by a biomedical philosophy appears to inhibit midwives' ability to offer alternatives to bed-birth, i.e. supine positions to labouring women who give birth in a hospital.

Policies and Guidelines

Policies developed in maternity departments tend to support the medicalisation of birth. In a study by Keating and Fleming (2009), midwives pointed out that the protocols developed hinder their initiatives to promote normal birth. The particular issues pointed out were that most women on admission in labour will have a CTG tracing, a vaginal exam, and possibly artificial rupture of the membrane. Oxytocin was used for speeding up labour and was considered the norm. This was done ostensibly to create space for new admissions.

Midwives in these hospital settings, though they did have knowledge on normal physiological births, tended to comply with the norm as they tried to adhere to policies (Keating and Fleming 2009). It appears that hospital-based midwives' focus on the delivery of routine care, based on a biomedical philosophy, led to many being less confident in the care of women with normal labours and births.

Time

Time as a factor was viewed by the midwives in Keating's study in different dimensions, either as a facilitator for or a barrier to care (Keating and Fleming 2009). Those who viewed it as a barrier reported that it was required of them to intervene in labour in order to accelerate labour. Those who viewed time as a facilitator of normality reported that night shifts offered them the opportunity to support normal physiological birth in

the upright position when surveillance by doctors and senior midwives was limited. The foregoing findings support studies that indicate that the autonomy of the midwives increases when they practice independently or in separate midwife-led facilities (De Jonge et al. 2008; Hodnett, Downe, and Walsh 2012; Hyde and Roche-Reid 2004; Priddis, Dahlen, and Schmied 2011; Walsh 2012).

DISCUSSION

Owing to complexities of the facilitation of upright positions in the second stage of labour, the discussion is based on Bhaskar's critical realist ontology (nature of reality). At a real level generative mechanisms are identified, at an actual level, what is known but not always seen is identified, and at an empirical level that which can be observed is described (Walsh and Evans 2014). The diagram below (Figure 2) is an analogy of a hut which has a foundation (real) level, walls (actual) level and roof (empirical) level. The themes identified from the review of literature were located within Bhaskar's layered ontology (Figure 2).

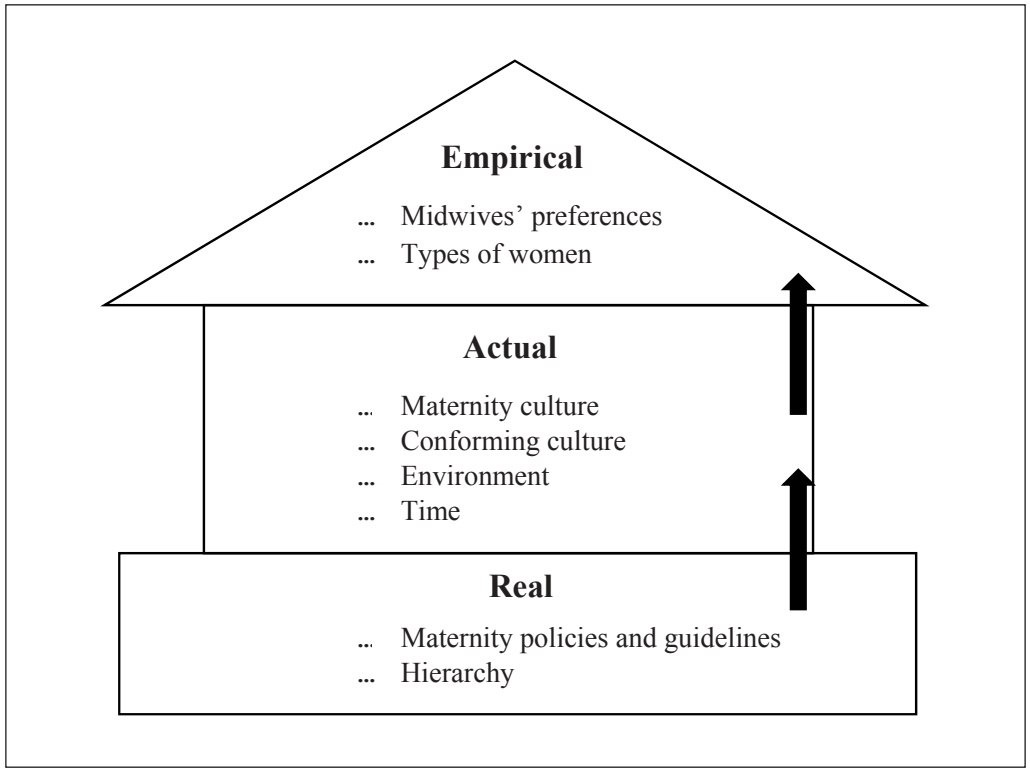

Figure 2: Diagrammatic representation of findings using Bhaskar's critical realist ontology

The mechanisms that are responsible for midwives' inability to promote upright positions during a normal second stage appear to be maternity policies and procedures that supported institutional birth. Policies in hospitals are meant to mitigate risk (MacKenzie Bryers and Van Teijlingen 2010).

Heron (1989) found that some midwives were fearful of being truly autonomous due to perceived risk of litigation claims. Furthermore, on labour wards, the individual midwifery practice is tightly controlled by structures and systems that support teamwork and decision-making (Kirkham 1999). For example, if midwives are required to put all women in beds for birth, they are most likely to support birth in supine positions owing to the ease it gives to them. Women who are under continuous monitoring will be forced to be in bed in order to survey the labour process, and therefore less likely to be offered upright positions for birth (Fahy, Foureur, and Hastie 2008).

The transition of normal birth from home to hospital is considered a barrier to supporting upright positions in birth (Davis-Floyd 2004; DiFranco and Curl 2014; Priddis, Dahlen, and Schmied 2011). Hospital birth is under the influence of medical physicians and healthcare providers such as midwives and nurse-midwives (Davis-Floyd 2004). Consequently, some pregnant women are cared for as though they were patients who have a medical problem rather than women experiencing a normal physiological event (Akrich and Pasveer 2004; Davis-Floyd 2004). It appears that in labour wards normal birth is medicalised, for example, women are put in bed while in labour, continuous monitoring is instituted and oxytocin infusion use is the norm (Fahy, Foureur, and Hastie 2008). Although hospital birth is considered safe for childbirth, it also appears to limit the autonomy of both the midwife and the woman (Pollard 2011). Also the choice of the birth position may be limited by the use of medical equipment and labour beds associated with the institutionalisation of childbirth (Hodnett, Downe, and Walsh 2012). Moreover, due to the institutionalisation of birth, surveillance tools and policies to make birth safer have had the effect of turning midwives into obstetric nurses who monitor and measure labour progress (Fahy, Foureur, and Hastie 2008). Thus, birthing off the hospital bed may be viewed as something unusual and therefore difficult for midwives and women to achieve.

This review also found that the hierarchy in maternity wards is considered to be a barrier for midwives to support women in upright birthing positions. The hierarchy ensures a flow of power from topmost to bottom and vice versa. In complex situation such as obstetric emergencies it is viewed as beneficial in saving the lives of mothers and babies (Hollins Martin and Bull 2005). In maternity units, the hierarchy is perpetuated with the physicians at the top, followed by senior midwives and junior midwives and women at the bottom (Hollins Martin and Bull 2005). Midwives in such settings often feel obliged to follow orders from more senior practitioners and doctors and consequently ignore the women's needs (Pollard 2011). This review found that the labour ward hierarchy reduced midwives' clinical autonomy to such an extent that they felt unable to promote or support alternative birthing positions. In addition, the findings

of this review indicated that to maintain the status quo some hospital-based midwives did not question decisions made by senior midwives and medical physicians. This has the effect of midwives not questioning the use of supine positions and not offering labouring women other choices. Similarly, women who have birthed in hospitals before may not be able to accept different care and so may refuse to adopt upright positions during the second stage even when encouraged to do so. Therefore, the role of the midwife, as a practitioner of normal birth, is diminished and not recognised by the existing hospital hierarchy (Pollard 2011).

At an actual level, the physical environment and philosophy of care appear to be important in midwives' ability to promote upright positions in the second stage of labour (De Jonge et al. 2008; Hammond, Foureur, and Homer 2014). It appears that midwives who work in midwifery-led units are more likely to support women in upright birthing positions. The reasons for this are complex but it is evident that flexible, women-centred environments that recognise the midwife's role and clinical autonomy play an important part in the promotion of normal birth outcomes (Walsh and Devane 2012). In addition, such environments encourage oxytocin release by labouring women and so support physiological labour and birth (Nieuwenhuijze et al. 2013; Sutton 2001; Walsh and Devane 2012). Thus, the environment plays a major role in an optimal labour process and encourages women to attain positions that are most comfortable for them (Hanson 1998; Priddis, Dahlen, and Schmied 2011, 2012).

Western maternity hospitals' adoption of an assembly line model of birth enables them to control the movement of people between designated spaces within specified time limits (Walsh 2006b). Labour wards across the world are designed around private (labour rooms) and public spaces (waiting rooms, central corridor) (Fahy, Foureur, and Hastie 2008). Spaces are designed to deliver care suited to the needs of women with complicated labours and births (Fahy, Foureur, and Hastie 2008; Hammond, Foureur, and Homer 2014). Fahy and Parratt (2006) describe labour rooms as surveillance rooms constructed (by maternity hospitals) to monitor labour progress and to meet the physical and psychological needs of midwives and doctors. Subsequently, labour spaces appear to influence how midwives and women think about childbirth (Davis and Walker 2010). Such environmental influences lead to midwives with the necessary knowledge and skills to facilitate birth in upright positions (Keating and Fleming 2009) to encourage women to give birth on a bed in the supine position. The progress of labour in hospital settings is usually measured against obstetric time limits (Keating and Fleming 2009) to which midwives are expected to conform. Therefore, midwives' ability to promote and facilitate positions during a normal second stage of labour is restricted by the organisational policies and procedures designed to deliver routine obstetric care (Fahy, Foureur, and Hastie 2008).

At an empirical level it appeared that midwives and women's preferences determined the choice of birthing position. The findings of this literature-based study found that some midwives did not question birth in supine positions (technocrats) (De Jonge et al.

2008). Such midwives would give excuses for why they did not offer choices of birthing positions to women in their care. Other labour ward midwives offered women choices of how they wished to birth their babies. Marshall, Fraser and Baker (2011) categorise midwives as policy followers, biased informing, informing and enabling midwives. Keating uses the term "real" midwives (Keating and Fleming 2009). It is interesting to note that midwives who are recognised as acting differently to the prescribed social norms have been described by their colleagues as "bolshie", "mad", or "crafty" (Pollard 2003; Russell 2007). Although such titles may seem negative, within the labour ward culture these terms were associated with expertise in normal birth care. The findings of this study support the view that prior experience in supporting women to give birth in upright positions is important in building individual practitioners' confidence.

Marshall, Fraser and Baker (2011) categorised pregnant women in three typologies: reluctant recipient, ambivalent partner, and inquisitive decision-maker. These categories are based on the reaction of women to the information and care offered by labour ward midwives. Hanson (1998) and later Russell (2007) reported that women are more likely to receive alternative types of care if they so requested. Other women accept the care on the advice of the midwife caring for them (Thachuk 2007). The findings of this review found that women giving birth in hospitals located within developing countries, such as Kenya, were not given information regarding upright birthing positions. But those women who are supported by a traditional birth attendant, outside of the hospital system, are often encouraged to adopt upright positions during the second stage of labour (Davis-Floyd 2004). These findings provide further evidence that medicalised birthing environments have an impact on the midwives' ability to practice normal birth skills and to provide women with alternative types of care that could improve birth outcomes and maternal satisfaction rates.

This review found limited studies that explore barriers to labour ward midwives' promotion and facilitation of upright positions during a normal second stage of labour. It is therefore difficult to make firm conclusions, but the use of critical realism did find the generative mechanism responsible for midwives' inability to promote and facilitate upright positions in the second stage of labour to be the hospital hierarchy and policies and procedures dominated by biomedicine. Consequently, this review adds to the growing body of evidence that midwifery practitioners need separate physical and philosophical spaces in which to practice, if they are to provide care to women who seek a normal birth experience.

CONCLUSION

This literature review explored barriers to labour ward midwives to support upright positions in the second stage of labour. At a real level the generative mechanisms were identified as the biomedical hospital hierarchy and maternity policies that encouraged midwives to adhere to the promotion and facilitation of supine birthing positions. At an

actual level a conforming culture, time and the physical environment were considered to be barriers to and facilitators for the upright position in the second stage of labour. At an empirical level midwives and women's birth preferences limited the promotion and facilitation of upright birthing positions for birth.

The findings of this study support existing research in the difficulties that midwives face in promoting normal birth in institutional settings dominated by biomedicine. Given the paucity of literature in Africa, more research in African midwives' promotion and facilitation of upright positions in the second stage of labour is required. However, given similarities in the role of the midwife and maternity systems the authors are confident that the findings of this review can be applied and understood within the African midwifery context.

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