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Principles of physiological breech birth practice: A Delphi study

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ABSTRACT

Objective: to establish a multi-professional consensus on shared principles underlying the practice of physiological breech birth.
Design: three-round Delphi e-survey.
Setting: multi-national.
Participants: a panel of thirteen obstetricians and thirteen midwives, experienced in facilitating physiological breech births in varied settings, and involving varied maternal birthing positions, and two service user representatives.
Methods: an initial survey contained open-ended questions. Answers were coded and amalgamated into 60 statements in Round 1 and a further 6 statements in Round 2. Participants considered statements in the following categories: first principles (14), maternal positioning (12), birth environment (18), fetal positions (14), safe progress (8). The panel indicated the extent of their agreement using a 5-point Likert scale. The pre-determined level of consensus was 70% of respondents indicating 4 or 5 on the Likert scale (agreement or strong agreement).
Findings: the panel indicated consensus on 37 of 66 proposed statements concerning 'Principles of Practice.' Negative data (29/66 statements) are also reported, highlighting areas of divergent opinions. The findings suggest a paradigm shift away from risk management strategies based on prediction and control, and towards facilitation strategies based on relationship and response. Upright positions are a tool and not a rule of physiological breech birth.
Conclusion: the parameters of 'normal for breech' require further exploration to support professionals working within a paradigm of complex normality. The principles articulated in this research can be used to design further research exploring the influence of physiological breech practices on neonatal and maternal outcomes, including women's experiences of maternity care.

Introduction

This paper outlines a set of guiding principles for the practice of physiological breech birth, as determined by a Delphi consensus technique survey involving experienced midwives, obstetricians and service user representatives. It addresses an apparent disparity between practices which have been thoroughly researched, and thus used to provide evidence-based guidelines, and differing practices as described by a group of professionals and women experienced in physiological breech birth, which have been much less thoroughly researched. In order to create meaningful studies to determine the safety of these new practices, it is useful to consider how physiological breech practices differ from mainstream practices at the most fundamental and even philosophical levels, which often remain tacit when more practical guidelines and training manuals are written.

Breech presentation at term, where the fetus presents bottom- or feet-first at the time of birth, affects approximately 1:25 women (Ferreira et al., 2015). Mode of birth is controversial (Caughey, 2007), with many breech presenting infants being born by caesarean section, but there is renewed interest in vaginal breech birth (Marko et al., 2015). Prior to this research, professional literature indicated some midwives and obstetricians were facilitating vaginal breech births (VBBs) in ways differing significantly from the assisted breech delivery protocols used in randomised controlled trials informing practice recommendations internationally (RCOG, 2006; Advanced Life Support in Obstetrics (ALSO), 2010; PROMPT, 2012). Practitioners advocating fundamental changes in practice have argued that upright maternal positioning, in particular, promotes spontaneous physiologi-

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cal birth (Cronk, 1998; Krause, 2006; Banks, 2007; Evans, 2012; Reitter et al., 2014). Additionally, anecdotal and women's advocacy literature indicates that at least some women preferred a more active, physiological approach to VBB (Berkley, 2006; Sanders and Lamb, 2015). However, the most recent Cochrane Review comparing the safety of VBB with caesarean section delivery (CS) made clear the results cannot be generalised to 'methods of breech delivery which differ materially from the clinical delivery protocols used in the trials reviewed' (Hofmeyr et al., 2015, p. 3), in which supine maternal positioning and routine assistance were standard practices. This point has also been made previously by midwifery critics (Fahy, 2011). Therefore, a meaningful gap in the evidence exists concerning whether or not use of upright maternal positioning constitutes a 'materially different' VBB method, and whether or not such differences result in materially different outcomes.

Although the Cochrane review suggests that 'materially different' methods may affect the outcomes of planned VBB, to date only a small study by Bogner et al. (2015) has provided outcome data concerning the use of upright positioning. In Bogner et al.'s study, use of hands/knees maternal positioning appeared to be similarly safe for the infant as supine positioning, however they reported a significant variation between rates of perineal damage for upright VBB (14.6%) and lithotomy VBB (61%). This suggests a material difference between either the necessity or the inclination to perform an episiotomy when upright positioning is used, which affects maternal morbidity outcomes. In order to affirm or discount this variation, future research would need to acknowledge and measure this difference in practice. Because other differences may produce similar important changes in outcomes, establishing a set of agreed principles underpinning the practice of physiological breech birth using a multi-professional consensus technique is an essential step towards improving practice, evaluation and research design in this area of care.

The primary purpose of this Delphi study was to establish such a consensus on standards of competence for the practice of upright breech birth, defined as *a VBB in which the woman is encouraged to be upright and active throughout labour and able to assume the position of her choice for the birth*, and the results of this aspect of the study have been reported separately (Walker et al., 2016). However, due to the potential material differences as described above, it was necessary to explore the underlying principles of practice as they emerged in the research, and not assume that upright VBB will share such principles with mainstream assisted breech delivery methods. In the process, it became immediately apparent that participants perceived upright positioning itself to be a product of the underlying principle of optimising labour and birth physiology, rather than an essential feature of practice – upright positioning is a *tool* and not a *rule* of physiological VBB practice. Therefore, adopting this participant-led focus, a secondary aim in the research was to establish a set of guiding principles for the practice of physiological VBB. These principles of practice are reported in this paper.

Methods

This research consisted of a three round Delphi e-survey, conducted from June 2014 – June 2015, involving an initial round of open-ended questions, followed by two rounds in which participants rated their level of agreement with an aggregate set of statements in order to establish a consensus (Walker, et al., 2016). Participants were recruited by purposive, network and social media sampling, and worked in a wide variety of settings internationally. The 28-member panel which participated in the Delphi study included 13 midwives and 13 obstetricians working in the following countries: Australia, Austria, Brazil, Canada, Germany, Mozambique, New Zealand, United Kingdom, and the United States of America. At least half worked primarily in hospitals, but the panel's experience included home and birth centre settings. The professionals' mean years of experience was 27 (range of 5-50) and mean number of total breech births attended was 135 (range of 20-400). The research also involved two service user representatives identified as leaders of national advocacy organisations. These women were also considered 'experienced' due to their personal encounters with breech pregnancy and their extensive involvement supporting other women planning VBBs, albeit the nature of their experience was different from the professionals'. Ethical approval for this study was obtained from the Research Ethics Committee of School of Health Sciences, City, University of London (Ref: PhD/14-15/13).

A more detailed account of the methods and recruitment process of this study have been reported in a complementary paper, along with results pertaining to the theme, Standards of Competence (Walker, et al., 2016). This paper reports results from the same study under the theme, Principles of Practice. Results have been reported separately to enable a fuller discussion of the philosophical implications of these principles. This paper includes one variation from the previously reported methods. In the second round (R2), a multiple-choice question (MCQ) was added to ascertain the variety of participants' experience with maternal birthing positions described in the first round, in answers to open-ended questions. The MCQ enabled all relevant options to be checked and included an 'other' box. The principles of Practice theme included 66 statements grouped into the following categories: first principles (14 statements), maternal positioning (12 statements and 1 MCQ), birth environment (18 statement), fetal positions (14 statements), and safe progress (8 statements). This theme contained 60 statements and 1 MCQ in R2 and 6 statements in R3.

The findings reported below also differ from classical Delphi methods in an important way. Items failing to reach a 70% rate of agreement (*negative results*) were removed from further consideration, rather than re-evaluated in R3. Instead, 6 modified statements formed from the panel's feedback were included in R3. Negative results are also reported in this paper. Delphi studies have been criticised for tending to force a consensus and masking evidence of dissent, such as bimodal results indicating a meaningful split in opinion (Thangaratinam and Redman, 2005). To avoid a potential bias toward consensus, this study has reported the significant number of positive results where a strong (> 70%) consensus was achieved, as well as the statements which were not supported at this level.

The experienced panellists participating in this Delphi survey research returned a consensus-level agreement on 37 statements under the Principles of Practice theme. These statements are reported under the categories they were grouped into during the research in Table 1, along with the percentage of respondents who agreed with that statement, the mean of the responses on a 5-point Likert scale (1=strongly disagree; 5=strongly agree) and the standard deviation (SD). Negative results, those which did not achieve a minimum 70% rate of agreement among respondents, are reported in Table 2. Language taken directly from the consensus statements is in italics in the text descriptions below.

Participant responses in the first round, including comments about the research question, indicated that most viewed upright maternal positioning to be a product of a facilitative approach aiming to optimise physiology. Responsiveness to feedback and member checks is a central aspect of trustworthiness in Delphi research (Hasson and Keeney, 2011). Therefore, most statements proposed reflected the panellists' orientation and used the phrase, *physiological breech birth*, rather than imposing the researcher's original language, *upright breech birth*.

Findings

First principles

Participants in the research referred to *first principles* and the *teaching of principles* in their responses. Therefore, statements con-