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Iversen, Mette Langeland; Midtgård, Julie; Ekelin, Maria; Hegaard, Hanne Kristine

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Danish women’s experiences of the rebozo technique during labour: A qualitative explorative study

Mette Langeland Iversen a,*, Julie Midtgaard b, Marie Ekelin d, Hanne Kristine Hegaard a, c, e, f

A wide range of nonpharmacological, easily available and non-invasive methods exist as components in the management of pain during labour. One such method is the practical technique called “rebozo”, originating from Latin America. The rebozo technique is a noninvasive, practical technique carried out while the woman either stands, lies down or is on her hands and knees. It involves gently controlled movements of the labouring woman’s hips from side to side by using a special woven scarf, and is carried out either by the midwife or another support person.

Introduction

A range of positive outcomes are found in existing literature for traditional, nonpharmacological pain relief methods, including acupuncture, sterile water injections, water immersion, mobilisation and relaxation techniques (comprising yoga, music, massage, hypnosis and visualisation). Systematic reviews and meta-analyses have indicated greater overall satisfaction with childbirth in users of such methods compared to nonusers [1–3]. Furthermore, nonpharmacological pain relief is found to be associated with fewer adverse effects. One meta-analysis has shown a significant increased risk of epidural (OR 1.13, 95% CI: 1.05–1.23), caesarean delivery (OR 1.60, 95% CI: 1.18–2.18), instrumental delivery (OR 1.21, 95% CI: 1.03–1.44), and the use of oxytocin (OR 1.20, 95% CI: 1.01–1.43) when comparing pain approaches such as education, attention deviation and support with usual care [2]. In addition to benefits during labour itself, there is also evidence for benefits, such as an increased likelihood of continuing breast feeding beyond six weeks [4].

Inconclusive results are, however, found when the efficacy of such methods in reducing labour pain is investigated. A systematic review
analgesia during labour was associated with a less positive birth experience; but regardless of the preferred method, the use of epidural methods in late pregnancy was more common among the nulliparous women compared to primiparous; but regardless of the preferred method, the use of epidural methods during labour is poorly described; however, a systematic review found that the preference for nonpharmacological labour pain management during labour is exclusively based on the midwife’s individual clinical performance is exclusively based on the midwife’s individual clinical experience.

Methods

Research design

This study is an explorative, qualitative study based on individual interviews and analysed by means of qualitative content analysis, as described by Graneheim and Lundman [13]. Inspired by the methodological approach interpretive description [14], this study intended to provide clinical knowledge related to the current and future practice of the rebozo technique.

Sampling

In accordance with qualitative methodology and with the specific intention of recruiting information-rich cases, a purposeful criterion-based sampling strategy was applied [15]. Only women fulfilling two predetermined criteria were invited to participate: (1) they received the rebozo technique during labour and (2) they had fluent oral Danish skills. Moreover, basic principles of theoretical sampling were applied in order to capture maximal variation in the emerging descriptions [14]. The initial sampling occurred among the most predictable variations of the use of rebozo [14], that was, parity and primary reason for rebozo (e.g., pain relief or foetus malposition). The latter was gathered by means of answers from the midwives (please see the recruitment procedure and description of the questionnaire). Parity was chosen because it was anticipated to affect the experience of rebozo and because it influences the risk of intrapartum interventions [16].

In accordance with interpretive description sampling, recruitment, and initial analysis was a concurrent and ongoing process, where each description informed the next step, leading to active sampling of participants with presumed varying experiences [14]. Recruitment continued until no additional descriptions reflecting the themes in the interview guide, or new ones, emerged [17].

Recruitment procedure

Participants were recruited during a 2-month period (from April to June 2014) from two different public hospitals. One hospital was the Copenhagen University Hospital Righospital, which is the most specialised hospital in Denmark, serving around 10% of all births in the country. The hospital serves as a birth facility centre for women living in Copenhagen, but also as a tertiary referral centre for women with pregnancy complications. The second hospital was Roskilde/Koege Hospital, Region Sjaelland, which is a medium-sized birth facility centre, serving 2266 deliveries in 2012, corresponding to nearly 4% of the total births in Denmark.

During the first couple of hours postpartum the midwives handed out a short information sheet outlining the study to potential participants. The women gave written informed consent for the authors to use specific obstetric information for the purpose of the study and furthermore to be contacted by telephone. During the recruitment period, midwives were continually encouraged by e-mails and posters to consider all women receiving rebozo as possible participants and to provide them with the written study information.

A total of 30 women agreed to be contacted during the week after giving birth, of whom 17 were included in the study and contacted by phone by the first author. They all gave oral and written informed consent to participate, resulting in 17 individual interviews (6 women from Copenhagen University Hospital and 11 from Roskilde/Koege Hospital). The remaining 13 women were informed by phone that there was already a sufficient number of participants.

Five short questions were designed in order to collect specific obstetric information about the individual participants, including details about the use of rebozo during labour. Answers were given by the midwife responsible for the specific labour after informed consent was obtained by the woman. The questions included the maternal age (free text), parity (nulliparous or multiparous), the primary reason for performing the rebozo technique (primary spontaneous rupture of membranes without contractions (PROM), foetus malposition, lack of foetus descending, pain relief, strengthening the contractions or dystocia), and the duration of the rebozo technique in minutes (5–15, 15–25, >25). In the latter case the following time intervals were chosen based on clinical experience and for practical reasons in order to make it easy for the midwife to select the corresponding time interval. Lastly, by asking the women during
labour and based on the midwife’s own observations, the midwife answered whether any changes (e.g., pain relief, stronger contractions) were observed after conducting rebozo (yes, to some extent, or no) (information used in the sampling process as described above).

Semistructured, individual telephone interviews

Data were collected using a semi-structured interview guide. All women were asked the same opening question: “Can you please tell me about your labour?”. The first questions were cursorily related to the chronology of the birth and the experience of rebozo, whereas later questions were of a more specific nature. For example, the women were asked about their experience of the midwife’s role in relation to carrying out rebozo.

During the entire interview, the women were encouraged to speak freely, as spontaneous descriptions and new perspectives about the topic were considered highly valuable. Relevant probes encouraged the women to expand and add detail to their descriptions. In accordance with interpretive description, ongoing minor changes and adjustments were made to the initial interview guide [14]. Before ending the interview, the participants informed the interviewer about type of pain relief during labour, whether or not the labour was induced, and whether or not vacuum extraction was used.

The average time from giving birth to conducting the interview was 30 days, with a range of 9–58 days. According to the women’s preferences, all interviews were conducted by phone and had a length of 28–55 minutes. The interviews were recorded digitally and immediately transcribed verbatim by the first author, resulting in a total of 66 normal pages.

Analysis

Data were analysed by means of qualitative content analysis, as described by Graneheim and Lundman [13]. This analytic method involved a six-step process, continually switching back and forth between decontextualisation and recontextualisation. First, the interview was carefully read through several times to obtain a sense of the whole. The second step involved identifying meaning units, such as words, sentences, and small paragraphs of text, that were related to each other and to the aim of the study. Non-relevant text was excluded. Each meaning unit was abstracted and in the third step labelled with a code. The fourth step involved comparison (i.e., decontextualisation) of the difference codes based on differences and similarities and sorting into subcategories. In the fifth step, formulation of categories based on the underlying meaning of the subcategories, including identification of sample quotes in the transcripts (i.e., recontextualisation), was conducted. The last step involved the formulation of an overarching theme reflecting the women’s overall experience. In keeping with interpretive description, experimental, theoretical, and practical knowledge was brought together until a shared and developing understanding of the rebozo technique was reached. The three last steps, in particular, were dominated by continuous discussions and reflections between the authors [14].

Ethical considerations

Before performing the interview, informed oral and written consent from each participant was obtained, and the women were assured anonymity and confidentiality. Furthermore, the participants were aware of the possibility of withdrawing from the study at any given time without further argument and with no impact on their future health counselling or treatment.

According to Danish law, ethical approval is not required for non-invasive studies. The study was approved by the Danish Data Agency (no. 2015/41-3948).

Results

Description of the participants and use of rebozo

The characteristics of the 17 participants are presented in Table 1. The majority of the women were multiparous, and the women’s partners were the ones who attended the birth. The most frequent reason for carrying out the rebozo technique was suspicion of a foetus malposition (as indicated by the midwife). Furthermore, in more than half of the deliveries, the midwife answered that a change in the labour was observed after rebozo.

Bodily sensations

Receiving rebozo was described as a harmless mediator for reducing pain because it alleviated labour pain without medication.

Table 1

<table>
<thead>
<tr>
<th>Maternal characteristics and details of the use of the rebozo technique (n = 17).</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics</td>
<td></td>
</tr>
<tr>
<td>Maternal age&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Mean (min–max) 32.4 (25–41)</td>
</tr>
<tr>
<td>Parity&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Nulliparous 7</td>
</tr>
<tr>
<td></td>
<td>Multiparous 10</td>
</tr>
<tr>
<td>Labour onset</td>
<td>Spontaneously 13</td>
</tr>
<tr>
<td></td>
<td>Medically induced 4</td>
</tr>
<tr>
<td>Augmented labour (infusion of oxytocin)</td>
<td>Yes 5</td>
</tr>
<tr>
<td></td>
<td>No 12</td>
</tr>
<tr>
<td>Epidural analgesia</td>
<td>Yes 5</td>
</tr>
<tr>
<td></td>
<td>No 12</td>
</tr>
<tr>
<td>Primary reason for rebozo&lt;sup&gt;b&lt;/sup&gt;</td>
<td>PROM&lt;sup&gt;c&lt;/sup&gt; 3</td>
</tr>
<tr>
<td></td>
<td>Foetus malposition 7</td>
</tr>
<tr>
<td></td>
<td>Lack of foetal descending 3</td>
</tr>
<tr>
<td></td>
<td>Pain relief 1</td>
</tr>
<tr>
<td></td>
<td>Strengthening the contractions 2</td>
</tr>
<tr>
<td></td>
<td>Dystocia 1</td>
</tr>
<tr>
<td>Cervical dilation when performing rebozo (cm)</td>
<td>&lt;4 4</td>
</tr>
<tr>
<td></td>
<td>4–9 10</td>
</tr>
<tr>
<td></td>
<td>10 3</td>
</tr>
<tr>
<td>Position when performing rebozo</td>
<td>Standing 6</td>
</tr>
<tr>
<td></td>
<td>Hands-and-knees 6</td>
</tr>
<tr>
<td></td>
<td>Standing and lying down 5</td>
</tr>
<tr>
<td>Duration of rebozo (min)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>5–14 6</td>
</tr>
<tr>
<td></td>
<td>15–25 4</td>
</tr>
<tr>
<td></td>
<td>&gt;25 7</td>
</tr>
<tr>
<td>Changes observed after rebozo&lt;sup&gt;d&lt;/sup&gt;</td>
<td>Yes 9</td>
</tr>
<tr>
<td></td>
<td>To some extent 6</td>
</tr>
<tr>
<td></td>
<td>No 2</td>
</tr>
</tbody>
</table>

<sup>a</sup> Answered by the midwife in charge of the labour.

<sup>b</sup> Primary rupture of the membranes without contractions.
The women expressed that rebozo contributed to bodily pleasure and drew parallels to massage:

When she [the midwife] tried gently to rub my bottom with the towel, it was as if she was massaging my back and massaging my belly, that was what I felt... (I, 16)

They attributed the pleasure to the movement in their hips and described that it made their muscles relax. The women positively articulated that they had less need of medical pain relief as a response to using the rebozo, which was in accordance with the majority’s pre-existing wishes of as little medication as possible. The women expressed a sceptical attitude towards “everything must be done on medication”; on the contrary, rebozo was seen as a healthy and natural alternative. In particular, the women articulated pain relief in relation to lower back pain:

... it took away the worst, I had pain in the lower part of my back, so it actually took away the worst of it, so I thought it was very pleasant... (I, 10)

Some women described unpleasant bodily sensations due to the rebozo technique. However, when it was mentioned, it was often related to a specific position and not the technique itself. The standing position was described by some women as uncomfortable for the legs, and some experienced stronger contractions.

...I think it [rebozo in standing position] made the pains even worse than they already were, and I didn’t think that was pleasant... (I, 11)

Some women expressed an unpleasant bodily sensation in relation to the concrete movement from rebozo; for example, it made the belly swing from one side to another. For others it was in relation to a specific stage of labour, for example, reinforcement of the pressure from the descending foetus against the anus. For some the unpleasant sensations led to interrupting the rebozo technique, while others experienced it as a short-term discomfort and did not want to stop.

(... it was like my tummy sort of rocked back and forth – it was as if it was swinging. And I didn’t find it particularly comfortable. Hmm... it didn’t hurt or anything... it just felt weird. The midwife did it [rebozo] again later, but the other way round, so she stood behind me (…) that actually felt really good and it was as if my belly was more fixed... (I, 5)

Interrelating the labour process

None of the women experienced rebozo as affecting their own or their child’s security during labour. Yet the majority of the women experienced rebozo as affecting the labour’s progress, referring to the frequency of contractions or how they felt the baby’s head descended in their pelvis:

...the contractions were different in intensity and duration and did not come regularly. Some of them felt almost like labour contractions, others just painless smaller contractions, and some of them sort of hurt... and the contractions I had after that [rebozo]. ...it was like I could feel how they became regular and they lasted a bit longer, but weren’t so painful, so they changed character from before to after... (I, 15)

Before receiving rebozo, the women often described a conflict between their bodily feeling and the actual stage of labour, for example, an early need to push before being fully cervically dilated. Women described that this discrepancy disappeared as a result of rebozo. By extension, it was perceived as positive if the technique was carried out as early as possible during labour, and some women experienced the rebozo technique as the reason why they did not have an emergency caesarean or perineal laceration. For those women in particular the technique played a crucial part in their labour history:

...I think I have avoided interventions with any kind of forceps, prongs or suction, or whatever else it might be, and I have also avoided being ripped apart. And I have also avoided the worst case scenario: caesarean or a baby with defects of some kind. (I, 6)

By undergoing the rebozo technique, the women believed in labour moving forward. They expected the midwife to perform the rebozo technique regardless of labour pain or medication-related interventions, as they trusted her clinical skills. In particular, multiparae experienced rebozo as impacting labour progression. This was also the case in situations where the rebozo technique was performed because the midwife suspected malposition of the foetus or a lack of the foetus descending.

...it was because it [rebozo] adjusted him into the right position. And it worked and I think that’s what it can do and although the other things [epidural] have made a big difference in terms
of pain relief, rebozo has been really important in allowing me to give birth naturally… (I, 5)

Other women did not experience rebozo as having contributed to the progress of labour or having played any significant role compared with other events taking place later during labour, such as synthetic oxytocin infusion. If medical interventions were necessary in order to strengthen the contractions, some women argued that the rebozo did not influence their labour. Yet they highlighted other positive experiences produced by the technique, for example, pain relief. These women reflected to a greater extent on the progress and duration of the labour, which they thought had been too long. They described that nonpharmacological interventions, including rebozo, had slowed down the labour progress and had made their bodies too tired or stressed. These women described having preferred sufficient pain relief or medical stimulation of the contractions in an earlier stage of labour, over what actually happened.

...when I think back, I should probably just have had the epidural earlier without going through all the rest of it. But my attitude when I came [to the hospital] was that I didn't want the epidural, so that was probably why I just tried everything else or the other things [including Rebozo] (I, 17)

Mutual involvement and psychological support

By performing the rebozo technique, the women considered the midwife as involved in their well-being and wanting the best for them. It was, however, not necessarily the rebozo technique itself that fostered this experience, but rather the midwife's initiative in proposing rebozo. The women described this as a proactive action, and felt positive about doing something concrete physically, which led to a feeling of empowerment. Furthermore, it contributed to a feeling of not going through labour alone and helped them to find mental peace:

...mentally it made me feel calm, I could feel that it gave me, what can I say, presence, sort of the sense that some care was being provided in that situation, and that was enormously comforting. (I, 15)

When the women's partners performed the rebozo technique, the women expressed that it was of great importance because a trusted person was involved in the labour. The women had not expected the partner to have a specific task during labour, but they described it as a positive surprise when the partner carried out the rebozo technique. The involvement of the partner contributed to a feeling of not going through labour alone, and the technique became an instruction or frame for cooperation between the woman and her partner:

I think that, basically, you feel...you are lying there all alone with your own pain. And here it is like there is something you can do together, and you can feel that your partner is also involved, I think...I believe that can be really really good. (I, 13)

Furthermore, the women experienced their partner and the midwife as taking an active part in the labour; they felt that the management of the labour was in everybody's interest, eliciting feelings of teamwork and cooperation. In addition, the women described the rebozo technique as an enjoyable and fun part of labour. Rebozo contributed to an informal and casual atmosphere in the labour room, and they had all smiled or laughed while it was being done. Furthermore, the women explained that rebozo had an element of entertainment, which they appreciated.

Discussion

This study explored women's experiences with the rebozo technique performed during labour and found that the majority of the women felt bodily pleasure, leading to enhancement of pain management. Few of the women felt unpleasant bodily sensations. Varying levels of importance were ascribed to rebozo; however, the experiences indicated that rebozo potentially could be conducive to the progress of labour (mainly in cases of multiparity, foetus malposition and lack of foetus descending). Furthermore, rebozo strengthened interpersonal relations and elicited feelings of not going through labour alone, making the midwife appear caring and proactive when performing the technique. Lastly, rebozo became a tool for cooperation between the woman and the person performing the technique, giving the partner a specific task during labour.

Comparisons with existing literature

A notable finding was that the rebozo technique was experienced as reducing labour pain without medication interventions, and the technique became a mediator to fulfil the women's predominant desire to go through labour with as little medication as possible. In general, qualitative studies on women's experiences and perspectives on nonpharmacological methods of labour are lacking. However, recent studies have shown that there is a tendency for positive attitudes towards the use of alternative methods during labour, such as massage therapy, yoga, and relaxation [18]. Other studies have shown that pre-existing expectations of the use and degree of pharmacological pain relief vary widely among expecting women [19].

One interesting finding was that the majority of the women experienced the rebozo technique as potentially conducive to the birthing progress. Bearing in mind that the rebozo technique can be performed while the woman is in different positions and induces movements of her hips, the technique is indeed in accordance with the recommendations put forward by the World Health Organisation (WHO) [5]. On the basis of systematic reviews the WHO has identified four core clinical practices that promote, protect, and support the normal physiological labour process: the freedom of movement in terms of standing, walking, swaying movements, and hand and knee position [5]. Several advantages of upright positions have been stated for both the woman and the child [20,21]. The present study found that some women experienced the use of rebozo as crucial and fundamental for not having an emergency caesarean, reflecting that rebozo may have the same kind of labour benefits as upright positions. However, in clinical practice it is important to remember that a minority of the women in the present study found it uncomfortable to be in a standing position when the technique was being carried out.

Another notable finding was the women's experience of the rebozo technique as a mediator of reducing labour pain; this raises the question whether this was due to the positive psychological experiences attached to rebozo rather than the technique itself. Based on the gate control theory of pain, the stimulus-response signal pathway is mediated by interacting processes, for example, psychological support [22]. The women in the present study experienced the rebozo technique as contributing to a feeling of teamwork, thus strongly indicating psychological support. Other studies support this finding of interacting processes as mediators in the management of pain. Findings from Whitburn et al. [23] support this explanation, as the contextual and social surroundings had an impact on the women's way of coping with labour pain. Whether the experience of reduced pain through the rebozo technique is due to its psychological benefits can only be hypothesised; nevertheless, the rebozo technique can be utilised as an easy and low-practical noninvasive pain management tool during labour.
Methodological considerations

Individual interviews were chosen because they are suited to capturing experiences, feelings, and views [24]. Additionally the intention was to develop a deeper understanding in a complex and dynamic research field, which contributed to the selection of interviews.

Conducting the interviews by telephone relied on the availability of a more comprehensive recruitment process, because geographical distance, in this case, would not be an obstacle to the women’s participation. A face-to-face interview could introduce the risk of women not wanting to participate because of a greater time and transportation demand. Furthermore, telephone interviews might have made the participants inclined to speak more freely, as the physical distance would give them a more anonymous position [25,26].

Attention was given to the optimal timing for conducting the interview. Although studies have shown that women’s recall of giving birth and birth events are stable for up to several years afterwards [27,28], the rationale of this study required women to be able to recall even small specific details regarding labour and birth. It was believed that conducting the interviews less than two months postpartum would enable the recall of these details. On the other hand, the women had time to recover and adapt to their new life situation before being interviewed about their experience. In this study, the average time from giving birth until conducting the interview was 30 days, and although the experience of receiving rebozo did not seem to differ according to days postpartum, future research is warranted regarding the optimal time for interviewing women regarding their labour and birth experience.

The interviewer (M.I.) was working at one of the delivery wards from which the women were recruited and this contributed to bringing the demand for a deeper understanding of a well-used clinical technique to light. However, it is important to stress that none of the authors took part in the participants’ care during pregnancy, labour, or treatment postpartum. Nor did they have any knowledge of or contact with the participants in advance of the labour, which minimised the risk of a potential negative influence on the integrity of the study.

Only one of the authors had clinical experience with the rebozo technique before conducting the present study; however, all the authors were aware, both prior to and during the working process, of their close engagement in the research process. With the aim of capturing the broadest, most diverse perspectives and views of the rebozo technique as possible, the analytical process was dominated by continuing and ongoing discussions of the findings and repeated decontextualisation and recontextualisation until agreement was reached between the four authors. This, in combination with the authors’ different nationalities (Danish and Swedish) and professional backgrounds (one being a psychologist and three being midwives), contributed to the credibility of the data [14,29].

The women were recruited from a highly specialised and a medium-sized hospital, which serves to reflect how and where the majority of births take place in Denmark [30]. By using a purposeful sampling strategy, the aim was to select information-rich participants for in-depth study with a wide range of experiences with rebozo. There was a great diversity among the participants in terms of medical interventions during labour, maternal age, and parity, which contributes to the transferability of the results. Nevertheless, it is important to stress that the findings should be interpreted in the specific context of the study. The authors have no reason to believe that the study participants differ from the general female population going through labour. However, it could be questioned whether the women who volunteered to participate in this study may be generally more motivated towards alternative and complementary methods, and that women with less positive experiences may not have volunteered to the same degree.

Implications for practice and research

Initially, it must be emphasised that applying the rebozo technique in clinical situations where labour progress is slow, the midwife suspects a malposition of the foetus, or the foetus is not descending in the pelvis, in particular could be conducive to the labour progress. Furthermore, the study highlights the women’s pre-existing desire to go through labour with as little medication as possible and the women’s view of rebozo as a noninvasive, natural, and harmless technique with the potential to reduce the need for pharmacological anaesthesia. In order to fulfil a woman’s pre-existing desire regarding labour, rebozo can be seen as a highly useful technique, which at the same time involves the woman’s partner and creates an opportunity for cooperation. However, it is important that multifactorial perspectives are taken into consideration (e.g., tiredness, duration of labour, and pain) in order not to prolong the labour or increase stress.

Randomised controlled trials are warranted in order to test the clinical, hypothetical benefits of the rebozo technique, and elements such as labour stage, the woman’s position, and the duration of the performance should be taken into account.

Conclusion

This study contributes with a deeper and more nuanced understanding in a hitherto unexplored area. Furthermore, it provides experiences of a noninvasive, nonpharmacological method used during labour. The women’s experiences of the rebozo technique performed during labour were of both a physical and a psychological nature. The women experienced that the rebozo technique enhanced pain management and that it potentially can be conducive to the labour process as a harmless nonpharmacological method. The rebozo technique can be seen as a tool for cooperation between a woman, the midwife and the woman’s partner.

Conflict of interest

The authors declare that they have no competing interest.

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