

Original Article

Restricting Oral Fluid and Food Intake during Labour: A Qualitative Analysis of Women's Views

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Abstract

Aim: This study aims to identify the effects of restricting fluid and food during labour on women.

Methods: The data obtained from the qualitative study were analysed using descriptive phenomenological analysis that focused on nutrition. Analysis of the open-ended questions was performed using content analysis method.

Results: Nutrition-related "experience" theme emerged from the findings in relation to the latent phase of dilatation stage. "Hunger, thirst, exhaustion and xerostomia" were the themes that emerged regarding nutrition in the active phase of dilatation stage. The theme "hot meals" was also brought up regarding diet in the early postpartum period (1 to 4 hours).

Conclusion: In conclusion, it was found that the participants indicated feelings of hunger, thirst and fatigue due to oral fluid and food intake restriction during labour, which affected the natural course of labour.

Key words: labour, food, fluid, restriction

Introduction

Like in all health care services, evidence-based scientific practices today help to create important standards for doctors, midwives, and nurses working in maternity services. Medical practices based on individual views have begun to give way to practices recommended according to qualified clinical experiments (Rathfisch 2012).

Studies in relation to labour have begun to support the idea that labour should be performed with minimum interference and managed in the healthiest way possible. As a result of this

approach, the place and importance of many enterprises used routinely in every labour are being questioned again based on the scientific evidence (Berghella et al. 2008).

Labour is a natural process; medical interventions can ruin this natural process and cause problems (Rathfisch 2012). Women should be provided with a holistic care which considers their thoughts, feelings, concerns, and priorities. They should be provided with supportive care recommendations rather than interventional care;

and their active participation in labour should be respected (Mongan 2005).

Which routine medical practices are appropriate in labour is still a topic of much debate (Buckley 2009). Evidence-based practices are commonly thought that they should be supported; however, the practices conducted are not usually based on scientific evidence (Berghella et al. 2008). Restricting or limiting fluid and food intake is one of the much debated issues in relation to labour (Rathfisch 2012).

Written policies and clinical practice guidelines regarding labour recommend that women with low complication risks should be allowed to have ice chips or sips of water during labour (American Society of Anesthesiologists Task Force on Obstetric Anesthesia 2007; National Collaborating Centre for Women's and Children's Health 2007; Society of Obstetricians and Gynecologists of Canada 1998). However, many maternity centres do not have written policies or clinical practice guidelines about labouring women, or they do not provide care appropriate to these guidelines. Practices in relation to fluid and food intake during labour depend on whether it is a high-risk/low risk pregnancy or whether the dilation phase is in latent or active phase. Different institutions and centres seem to have various practices and approaches in relation to oral food and fluid intake during labour (Society of Obstetricians and Gynecologists of Canada 1998).

Review of the related literature indicates that obstetricians, midwives (American Congress of Obstetricians and Gynecologists 2013; Scheepers et al. 1998), anaesthetists (American Society of Anesthesiologists Task Force on Obstetric Anesthesia 2007), and nurses (American College of Nurse-Midwives 1999) are often consulted for their views on restricting fluid and food intake during labour. However, women's ideas about restricting fluid and food have not been identified quantitatively and comprehensively so far. It is important to consider women's feelings and thoughts about restricting fluid and food intake with a view to increasing women's satisfaction about labour and supporting maternal and fetal outcomes in a positive way.

The guideline prepared by Republic of Turkey, Ministry of Health provides no information about restricting fluid and food intake during labour

(T.R. The Ministry of Health General Directorate of Mother and Child Health and Family Planning 2010).

However, almost all institutions and labour centres in Turkey restrict oral fluid and food intake during labour. Women are allowed to take fluid and food only when their labour has finished. However, the related literature includes no studies regarding this issue. Therefore, identification of the thoughts and evaluations of the women who were not allowed to have fluid and food is of great importance with a view to supporting the natural course of labour. In this regard, the present study aims to identify how restricting fluid and food intake during labour affected women and made them feel.

Materials and Methods

Phenomenology is derived from philosophy and is an interpretive approach (Mackey 2004). Phenomenology contributes to a deeper understanding of lived experiences by exposing taken-for-granted assumptions about ways of knowing (Sokolowski 2000). This study adopted a descriptive phenomenological method, putting the concept of fluid and food intake in centre. State of fluid and food intake was examined in prenatal, natal, and postnatal periods (1 to 4 hours).

The study was conducted in the delivery room of a Maternity and Children Education and Research hospital located in Istanbul. According to the policies of the hospital about labour, women accepted to the delivery room are not allowed to have oral fluid and food intake until the first half an hour following the delivery in case they need to be given an emergent caesarean section during labour. Women are given only fruit juice in the early postpartum period (1 to 4 hours).

The data were collected between September and December 2012. Target population of the study was all women who were aged between 15 and 49 and who had vaginal delivery in a Maternity and Children Education and Research Hospital located in Istanbul.

Qualitative studies indicate no certain sample size (Leininger 1998). Thus, the interviews were conducted with 30 women.

The inclusion criteria were having no risky pregnancy period, receiving no parental hydration

other than the induction during labour, having no analgesia that would make the labour more comfortable, having no communication problems, and volunteering to participate in the study.

The data collection tool consisted of two parts: “Information Form” about the women (Mother’s age, education level, number of pregnancy, gestational week, duration of thirst, duration of hunger, being warned by the health professional about restriction of fluid and food intake) and semi-structured “Interview Form”.

The semi-structured interview form was evaluated by experts on the issue. The interview form included 3 questions regarding the cases experienced by the women during labour or in the postpartum period

How did restriction of fluid or food intake make you feel while you were waiting for labour?

Did hunger and thirst affect you during labour?

How did being hungry in the prenatal period affect you in the postnatal period?

In-depth interview technique was utilized with the help of the questions such as “Why?” and “Could you please explain more?” etc.

The interviews were conducted face-to-face in a quiet setting, sitting at the same level with the participants. The questions were guided with the help of the semi-structured question form. The participants were asked whether they would like to add or change something with a view to taking their final confirmation and revising their answers. Their replies were presented in the findings section, with the participants’ original utterances. The semi-structured interviews were transcribed, read again and again, and saved in the computer in the Word file format. The interviews took about 15-20 minutes, depending on the answers the participants gave.

Analyses were performed using Giorgi’s phenomenological method analysis in 4 phases (Giorgi 1997; 2000). First of all, all the interview reports were read again and again with a view to obtaining general text content. Secondly, the reports were reread using phenomenological reduction method and divided into smaller units. The meanings were created through reformations and transformations. In the third phase, units of meanings were further analysed until the meaning units revealed the meanings of the

phenomenon and new meaningful units were obtained. In the last step, the meaningful units were turned into the core and components of the phenomenon. The meaning of the phenomenon successfully developed during the analysis (Giorgi 1997; 2000). The numbers written at the end of the statements indicate participation numbers.

Research ethics: ethics committee approval was obtained from the hospital where the study was conducted; and verbal consent of all participants was obtained, indicating their volunteer participation in the study. The participants’ names were kept confidential and they were identified by the participation numbers in the statements they used.

Limitations of the study: phenomenology studies, due to their nature, may not yield precise and generalizable results. However, they may produce examples, explanations and experiences that might be helpful in knowing and understanding the phenomenon better. The most important limitation of the present study is that the results cannot be generalized.

Results

Average age of the 30 participants was found 27.3 ± 5.2 . Of all the women participating in the study, 80% graduated from primary school (8 year compulsory primary education), 47.5% of was primipara, and 52.5% was multipara. Average number of pregnancy was found 2.1 ± 1.5 while average gestational week was 39.0 ± 1.9 . Duration of hunger in women who had delivery was 14.9 ± 6.4 hours on the average and duration of thirst was 13.5 ± 6.8 hours on the average.

Findings in relation to the latent phase of dilatation stage;

In the latent phase of dilatation stage the “experience” theme emerged about fluid and food intake. The women who had delivery before stated that they came to hospital after they had eaten something and drunk water, and thus tolerated labour performance better.

“The best experience I’ve gained from my previous delivery is that I should never come thirsty and hungry. Therefore, I filled up my stomach before the delivery and nothing bad happened” (P6)

“I drank water on my way to the hospital, fearing they would not give any” (P23)

“This is my seventh delivery and most of my deliveries were at home. When I had homebirth, I was given honey from time to time, which allowed me to regain my strength. Here in the hospital, they gave me nothing” (P19)

Some of the participants attributed their ability to cope with the uterine contractions and to have easy delivery to being full.

“I could bear pain better because I was full. I am glad that I had eaten something” (P7)

“Fortunately, I ate before coming here; otherwise, I don’t know how I would have given birth” (P2).

Findings in relation to the active phase of dilatation stage;

“Hunger, thirst, asthenia, and dryness of mouth” were the themes that emerged in relation to fluid and food intake.

Some of the women participating in the study stated that what they needed most was to drink water, they felt like they were in a desert, and if their mouth had been wetted they could have felt a little bit relieved.

“I almost died of thirst” (P3, P29)

“It was like my lungs dried out. I even could not make a sound because of thirst....” (P1)

“I wanted to eat something, I was hungry, but I was not allowed to eat anything. My mouth dried out and I felt like I was in a desert” (P16)

“I was very thirsty and my lips were so dry. How I wished I could at least wet my lips” (P25)

“I wanted just a little water; but they told that it was not allowed. I could not understand it, why? I almost died of thirst” (P4)

Some of the women stated that thirst was the main reason for exhaustion, nausea and hard delivery.

“I was very thirsty. I did not think about eating. The delivery would have been much easier if I had not been so thirsty” (P5)

“If I had been given water, I wouldn’t have had nausea or thrown up; there would have been no feeling of exhaustion or dizziness. A glass of water would cause no trouble.” (P14)

Some of the women stated that they thought of eating or drinking secretly; one participant admitted drinking water secretly.

“I even thought of going to the bathroom and drinking water there. However, I did not have enough energy to do so because I was hungry” (P11)

“...I drank water secretly; and I do not regret it” (P9)

“I wanted to gnaw on the bed frame because of hunger. Do not even ask about thirst because it cannot be defined” (P13)

Some of the women stated that the health professionals warned them that drinking water would make delivery harder. Some other women wished fluid and food intake could be partly free with doctors’ permission.

“I wanted to drink water; but I was told that doing so would make delivery hard” (P17)

“We should be given a little fluid and food with doctors’ permission” (P9, P28)

Some of the women stated that only water could have been enough for them.

“I’d have given anything for a glass of water. I wanted to drink water more than I wanted to eat something” (P21),

“I asked for water, I felt so hungry, but I wasn’t given anything” (P22, P 30),

“Only water would be enough” (P24, P27),

“Then I thought, even wetting my lips a little might have helped. Why didn’t they do it?” (P 1)

“I lost my nerves when doctors drank water in front of me” (P15)

The participants stated that they became very weak due to hunger and thirst, lost control, and even fainted during labour.

“I fainted on the delivery table because of hunger and thirst. What else can I say?” (P8)

“I was exhausted because of hunger; my hands and feet were trembling” (P10)

“I sensed the smell of hot bread on the way to the delivery room. I don’t remember the rest” (P12)

“I wanted to drink water, but I wasn’t given any. I could not even lift my arms, let alone pushing the baby through” (P18)

“I lost control during delivery” (P20)

Findings in Relation to Early Postnatal Period (1 to 4 hours);

Early postnatal period revealed “hot meal” theme regarding fluid and food intake. The participants stated that cold fruit juice given after delivery caused more pain, hot meal could be more relieving.

“The fruit juice they serve causes more pain. It would be better if they gave hot meals after delivery” (P15)

“I did not eat anything after dinner, and I was hungry until the delivery. I was given cold fruit juice after delivery, which increased my pain” (P26)

Discussion

In today's hospitals and delivery centres where traditional practices are dominant, pregnant women are not allowed to eat or drink during labour (Rathfisch 2012; Mongan 2005). The general opinion behind restricting fluid and food intake is that the delivery contains many unknown situations and intervention may be needed anytime (Rathfisch 2012). Maintaining strength in labour can increase women's tolerance throughout labour and enable them to enjoy the delivery.

The mean duration of labour, beginning from the onset of real uterine contractions until the delivery ranges between 12 to 18 hours in primiparous and 8 to 12 hours in multiparous pregnancies (Ricci 2009). Labour policy of the hospital where the study was conducted restricts women from eating or drinking something during labour; the restriction starts with the admission to the hospital and continues until the first hour following the delivery. This rule means that the pregnant women who apply to the hospital with the onset of uterine contractions remain both hungry and thirsty between 8 to 18 hours. Duration for hunger (14.9 ± 6.4 hours on average) and thirst (13.5 ± 6.8 hours on average) detected in this study was parallel with the related

literature. These findings indicate that the hospital practices leave pregnant women thirsty and hungry during labour.

Interviews revealed the “experience” theme regarding fluid and food intake in the latent phase of dilatation stage. The women who had delivery before or who listened to other women's delivery experiences reported that they went to hospital after they had eaten meal and drunk water (P6, P19, P24, P27). The women were found to provide themselves with the energy they would need during labour with fat and carbohydrate support. In their study which investigated traditional labour practices with women who had homebirth and with midwives who do home births, Yildirim & Agapinar (2011) found that women giving birth were allowed to eat a mixture of butter and molasses or drink milk or mulberry juice. Some of the participants attributed their ability to cope with the uterine contractions and easy delivery to being full (P2, P7). In the study conducted in Karaman with women who had at least one delivery, Yalcin (2012) found that some of the practices known by the women to help easier delivery include making the pregnant woman have oily bread, sweetened fruit juice, butter, or molasses. This practice is an important finding which displays parallelism with the present study. Hodnett (1996) claims that when there is a need to maintain women's strength, approaches for meeting food and fluid needs of pregnant women are as effective as oxytocin hormone. Therefore, fluid and food intake is believed to be effective in coping with uterine contractions and tolerating labour better.

The active phase of dilatation stage brought “hunger, thirst, asthenia, and dryness of mouth” themes regarding fluid and food intake. It was found that the women had to deal with uterine contractions on one hand and bear asthenia, dryness of mouth, exhaustion, sense of fainting caused by hunger and thirst on the other hand. In severe cases such as hunger and excessive exercise, peripheral metabolic process cannot handle the situation, which causes elevated ketones in blood. This situation which is called as “ketosis” may cause prolonged labour, labour with dehydration, interventional labour, or bleeding at end of labour (Broach & Newton 1988; Foulkes & Dumoulin 1985; Toohill et al. 2008). Increase in women's stress level caused by hunger intensifies ketosis (Toohill et al.

2008). Hunger also affects perception of pain; women experience such problems as headache, nausea, limitations in movements, and local pain in the catheter area (Foulkes & Dumoulin 1985).

All of these negative factors make adaptation to the labour action difficult for women, which affects the progress of labour. The participants indicated dehydration findings caused by ketosis with their complaints such as dryness of mouth, nausea, and dizziness (P5, P14, P8, P10). The participants who saw drinking water as the only solution to avoid this negative picture told that they even thought of drinking water secretly (P11, P13).

At least, those who reported to have told their desire for drinking water to the health personnel were not given any water in order not to make the labour process harder (P17). Review of the literature indicates that sense of hunger also increases adrenaline hormone release. When the adrenaline hormone is activated in labour, oxytocin hormone release is suppressed, which may cause problems in the progress of labour (Buckley 2009). A study found that oral fluid intake shortened labour action up to two hours ($p < 0.05$) (Ergol et al. 2012).

In the active phase of labour, one of the participants mentioned the symptoms caused by thirst as nausea and vomiting and told she had difficulty in coping with them (P14). Parsons (2004) stated that they restricted women from eating or drinking something during labour in case they vomited. Then, in the experimental study conducted in 2006, Parsons et al (2006; 2007) found that there were no differences in terms of vomiting proportion between the women who were allowed to eat the things they desired in the latent phase and who were not.

This finding indicates that vomiting proportion reduces by staying hungry and thirsty is a wrong assumption. Singata et al. (2013) collected the results of the evidence-based studies regarding fluid and food intake during labour and found no evidence whether restricting or limiting fluid and food intake during labour is useful or harmful in women with low-risk. No studies were found to investigate specifically women with high-risk. Hence, there is no evidence to support restricting fluid and food intake in this group of women. Conflicting evidence on carbohydrate solutions calls for further studies on women's views regarding the issue.

In the practical care guideline developed for vaginal delivery, World Health Organization recommends that women should not be restricted from eating or drinking during labour as long as the health team proves that there is no risk (World Health Organization 1997). American Society of Anaesthesiologists recommends that women with low-risk could be given particle-free fluid during labour, but solid food should be avoided. (American Society of Anesthesiologists Task Force on Obstetric Anesthesia 2007). The Society of Obstetricians and Gynaecologists of Canada (SOGC) suggests that women in active labour could be recommended light or liquid diet, depending on their preferences (Society of Obstetricians and Gynecologists of Canada 1998). Considering all these guides, it seems that fluid and food intake during labour in low-risk pregnancies should be replanned in the labouring guide in our country (T.R. The Ministry of Health General Directorate of Mother and Child Health and Family Planning 2010).

The present study has revealed the “hot meal” theme in relation to fluid and food intake in the early postnatal period. The participants stated that fruit juice given right after labour caused more pain and that they thought hot meal would be more relieving (P15, P26). Ricci (2009) states that women who have been restricted from having oral fluid and food intake during labour need to start oral intake as soon as labour finishes with a view to replacing the energy they spent during labour (Giorgi 2000). Klossner & Hatfield (2010) mention some of the non-pharmacological methods to relieve postnatal pain as using hot compress on the abdomen, eating warm food, relaxing, and ambulating. Giving women warm or hot food as the first food intake after delivery could be helpful in increasing postnatal maternal comfort and thus decreasing postnatal pain.

Miltner (2000) state that one of the most important roles of intraparturient nurses in labouring action is to provide supportive care and maintain “fluid and food intake during labour”. Although the intraparturient nurses in our country have enough knowledge and skills regarding supportive care, they mainly provide a work-based health service. By demonstrating prospective mothers' experiences and feelings due to fluid and food intake restriction during labour, the present study is believed to be of prime importance in directing the supportive care practices of intraparturient nurses. In conclusion, it was found that the

participants indicated feelings of hunger, thirst and fatigue due to oral fluid and food intake restriction during labour, which affected the natural course of labour.

Based on the women's experiences, randomized controlled studies, and the recommendations given in clinical guidelines, the present study recommends that women with low complication risks should be allowed to have fluid and food during labour.

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