



Evaluating Women's Childbirth Experiences: A Cross-sectional Study From Iran



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Abstract

Objectives: The experience of childbirth is a special event in women's life, and it is an essential indicator for assessing the quality of care. This study aimed to evaluate women's experiences of their own capacity, professional support, participation and perceived safety during labour and childbirth in a public hospital in Mazandaran (North of Iran).

Materials and Methods: A cross-sectional study was conducted with 300 low-risk postpartum women who gave birth to single, full-term (37-42 weeks) and healthy babies with no complications. Women were interviewed 4-12 weeks after birth using the Iranian version of the childbirth experience questionnaire (CEQ).

Results: The mean CEQ score was 45.08 ± 4.52 . The highest and lowest scores were associated with the "own capacity" (17.32 ± 2.63) and "participation" (5.87 ± 1.74) domains, respectively, among the childbirth experience dimensions. Women felt capable and had confidence in their bodies for giving birth; however, they had little control over labour and childbirth.

Conclusions: To provide high-quality childbirth care and improve labouring women's experiences in maternity services, it is recommended that the midwifery model of care be used for low-risk women. Preserving natural process of childbirth by promoting evidence-based and respectful childbirth care should be considered in any intervention for change.

Keywords: Childbirth, Experience, Women, Iran

Introduction

Women's experiences of childbirth, both positive and negative, have a long-term impact on their health and can affect women's mental health, as well as the mental health of their families and society (1-3). According to a systematic review, giving birth in a clinically and psychologically safe setting where labouring women receive emotional support from kind and skillful caregivers and birth companions contributes to women's positive experiences (4).

WHO emphasized providing evidence-based and respectful care to promote childbearing women's positive experiences and improve quality of childbirth care (5,6). Respectful maternity care (RMC) charter supports informed choice and participation of labouring women in their care (5). It also includes providing continuous support and maintaining women's dignity, privacy and confidentiality during labour and childbirth (7).

Iran is a middle-income country that successfully reduced maternal mortality and has a very well-developed public health system (7). However, low-risk women who receive prenatally and childbirth care, mainly from obstetricians and midwives, are marginalized in these settings (8-10). The early admission in labour and use of unnecessary interventions, namely, routine amniotomy,

augmentation/induction using intravenous oxytocin infusion, has led to over-diagnosis of failure in labour progression and over-use of cesarean section (11,12).

There is an agreement that the quality of childbirth care is an important aspect of reproductive health (5,6). Women's care experiences and care provision are considered quality indicators by WHO (2016) for evaluating and enhancing the quality of maternal health care (1,6,13). Further research is needed to assess women's childbearing experiences and create appropriate strategies to improve the quality of care provided during labour and childbirth. This study is a part of the quality improvement study that evaluated women's experiences with normal vaginal birth in a medicalised context of the study settings in the Mazandaran province (North of Iran).

Materials and Methods

Study Design and Setting

This was a cross-sectional study that evaluated women's experiences using the WHO framework (standards) to improve maternal health care quality (Figure 1). This conducted in a public hospital from December 2019 to February 2020 in the Mazandaran province (North of Iran).

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Key Messages

- Measuring and improving woman's childbirth experience is important for improving the quality of care.

Sample Size, Study Participants, and Sampling Procedure
We estimated the sample size required to assess women's experiences according to the study of Ratcliffe et al (14) with 95% confidence interval, marginal error (d) 5%, taking 75% pleasant birth experience and adding 10% for non-response rate. A total of 300 women were selected for childbirth experiences. This formula was used for calculating sample size.

$$n = \frac{Z_{(1-\alpha/2)}^2 P(1-P)}{(d)^2} = \frac{(1.96)^2 (0.7202)}{(0.05)^2} = 288.03$$

We recruited 300 low-risk women with normal vaginal births to complete the study questionnaire. Participants were postpartum women in the 18-35 ages, with a single and full-term pregnancy (37-42 weeks) with vaginal birth and a healthy baby without any complications.

Measure

We used the Iranian version of childbirth experience questionnaire (CEQ) to explore women's childbirth experiences. It was developed by Dencker et al in Sweden (15). It consists of 4 dimensions and 22 items, including Own capacity (8 items), Professional support (5 items), Perceived safety (6 items), and Participation (3 items). This scale includes 19 items with a 4-point Likert scale and three items with a visual analog score (VAS). Each item's

options are scored from 1 to 4. In each domain, the highest score indicates the best childbirth experience. In Iran, the CEQ is a valid and reliable scale (16). For the sub-domains of own capacity, professional support, perceived safety, and participation, the reliability (Cronbach's alpha coefficient) was 0.84, 0.69, 0.92, 0.78, and 0.88, respectively. (16).

Data Collection

The questionnaire was distributed to a convenience sample of women when they were discharged from the hospital after childbearing. Then, we contacted postpartum and asked them to participate in the study. Then we programmed the questionnaire completion for 1-3 months after the baby was born. Participants completed a self-administered questionnaire when they visited the health centres for maternity and neonatal care. Each questionnaire took about 15-20 minutes to complete. We also used medical records to gather information about the women's obstetric characteristics.

Statistical Analysis

All statistical analysis was performed in SPSS 22 software. All variable distributions, such as frequencies, percentages, means, and standard deviations, were determined using descriptive statistics. Calculating the birth experience score was based on the scale on Dencker et al (15).

Results**Characteristics of Participants**

The majority of the women in the study (64.3 %) were between the ages of 25 and 29, with a mean age of 27 ± 4.58 years.

Over half of the women (51%) were first-time mothers,

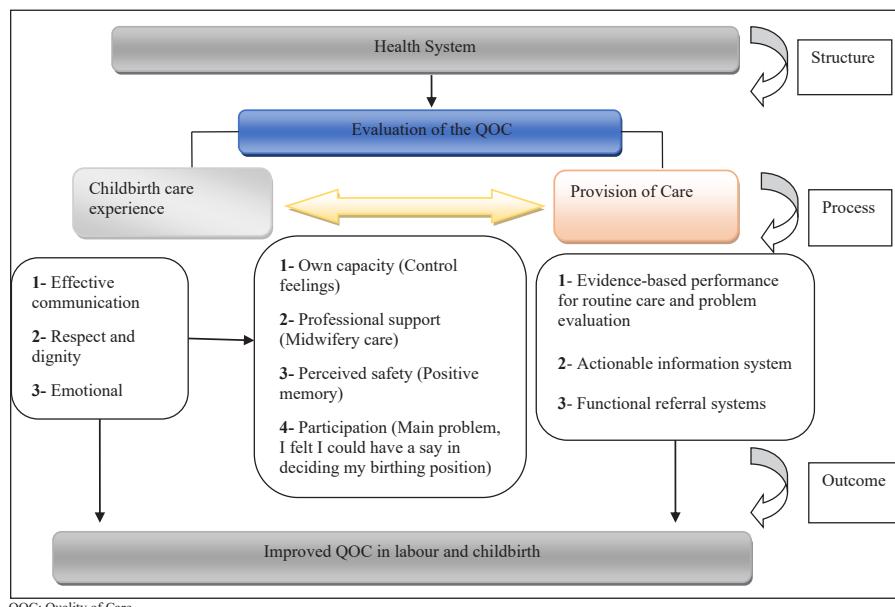


Figure 1. WHO Quality of Care Framework for Evaluation Childbirth Experiences. Adapted using WHO Quality of Care Framework for Maternal and Newborn Health (WHO, 2018) and Childbirth Experience Questionnaire (CEQ) (15).

and 41% were second-time mothers. More than one-third of the women (36.7%) hold bachelor's degree, 86.3 % are housewives, and 37.3 % live in rented housing. More than half of women (69.5%) were admitted after their labour pains began, and 54.6 % of women had an obstetrician schedule an elective induction (Table 1).

Women's Childbirth Experiences

The mean score of childbirth experience was 45.08 ± 4.52 . Mean score (1–4) childbirth experience domain in "own capacity", "professional support", "perceived safety", and "participation" dimensions were 17.32 ± 2.63 , 12.21 ± 1.97 , 9.67 ± 2.24 and 5.87 ± 1.74 respectively. The mean balanced score of childbirth experience was 2.04 ± 0.29 . In the domains of "own capacity," "professional support," "perceived safety," and "participation," the mean balanced scores of childbirth experience (1–4) were 2.16 ± 0.21 , 2.03 ± 0.47 , 1.99 ± 0.15 and 1.81 ± 0.29 , respectively. Among items CEQ (1–22) items, the highest (mean \pm SD)

Table 1. Demographic and Obstetric Characteristics of the Interviewed Women

Demographic and Obstetric Characteristics	Childbirth Experiences No. (%)
Age	
Age (year)	20–35
Age group (Mode)	25–29 (64%)
Mean age (SD)	27 (4.58)
Parity	
Primipara	153 (51%)
Multipara	147 (49%)
Education	
Primary	60 (20%)
Secondary school	81 (27%)
University degree	159 (53%)
Occupation	
Employee	23 (7.7%)
Self-employed	18 (6%)
Housewife	259 (86.3%)
Home ownership	
Own home	170 (56.7%)
Rented home	112 (37.3%)
Relative' home	11 (3.7%)
Tied accommodation	7 (2.3%)
The reason of admission in Labour	
Cervical dilatation less than 5 cm and mild pain	209 (69.5%)
Cervical dilatation more than 5 cm and sever pain	91 (30.5%)
Use of oxytocin	
Augmentation	136 (45.4%)
Induction	164 (54.6%)

scores were in items "Sense of capable" (2.45 ± 1.07), "My midwife kept me informed about what was happening during labour and birth" (2.12 ± 1.09), "I felt scared during labour and birth" (2.95 ± 0.96) and "I could choose the pain relief method" (1.95 ± 0.43). The lowest (mean \pm SD) scores were in items "I felt control" (2.12 ± 1.09), "My midwife devoted enough time to me" (1.69 ± 0.81), "I have many positive memories" (1.56 ± 0.75) and "I felt I could have a say in deciding my birthing position" (1.52 ± 0.36) (Table 2).

Discussion

This study evaluated the experiences of women in a public hospital (North of Iran). Overall, women's childbirth experience was not optimal. Previous studies from Iran also reported that some women had negative experiences during childbirth (8,17). In our study, women had the highest scores on the "own capacity" domain. Among items of the "own capacity" domain, the highest score was in the "I felt capable"; however, many women had experienced painful birth and felt less control during childbirth. Participant women in our study felt capable and had confidence in their bodies for handling normal birth. However, most women were admitted without labour pain or in early labour, and more than half of women's labour was induced using oxytocin. Consequently, they experienced severe labour pain and did not feel enough control during their childbirth.

Previous studies in similar contexts also reported that low-risk women whose labour were induced or augmented using oxytocin had experienced labour pain that was more severe than natural labour (8,18). According to Henriksen et al, women felt that severe labour pain, not offering pain relief and loss of control were reasons for negative birth experience (19). According to a previous qualitative study, Iranian women described the level of labour pain with terms like "terrible," "unbearable," "severe," and "difficult." "One woman said: *It [Labour pain caused by induction] is so severe, and when it starts, it feels as if you are on fire*, the natural pain which starts spontaneously is not that severe" these women lost their control and requested CS (8). In a qualitative study that explored Arab women's childbirth experiences in the UK, one woman stated that '*normal labour pain is less painful than induction's pain. Now I had no problem with delivery. I knew how my body would act; I knew about labour and could visualize it*' (20).

The feelings of being capable (21) and perceived control during Labour (20,22) are essential factors that contribute to the satisfaction and positive childbirth experience. However, medicalized childbirth care influences care quality and prevent women from experiencing childbirth in their own way (21,23,24). WHO recommends providing evidence-based care during admission and the first stage of labour for promoting women's positive experience (6). Promoting normalization of childbirth and implementing

Table 2. The Mean Scores of Childbirth Experience and its Dimensions

Domains / Estimates	Balanced scores	Mean± SD
Own capacity	2.16±0.21	17.32±2.63
Labour and birth went as I had expected.	2.15±0.96	
I felt strong during Labour and birth.	2.38±0.99	
I felt capable during Labour and birth.	2.45±1.07	
I was tired during Labour and birth. (R)*	2.33±1.06	
I felt happy during Labour and birth.	1.97±0.68	
I felt that I handled the situation well.	2.04±0.97	
As a whole, how painful did you feel childbirth was? (R)* VAS	2.17±0.87	
As a whole, how much control did you feel you had during childbirth? VAS	1.87±0.88	
Professional support	2.03±0.47	12.21±1.97
My midwife devoted enough time to me.	1.69±0.81	
My midwife devoted enough time to my partner (my wife or my relatives).	1.92±0.92	
My midwife kept me informed about what was happening during Labour and birth.	2.12±1.09	
My midwife understood my needs.	1.94±1.00	
I felt very well cared for by my midwife.	1.99±0.83	
Participation	1.81±0.21	5.87±1.74
I felt I could have a say whether I could be up or lie down.	1.41±0.18	
I felt I could have a say in deciding my birthing position.	1.52±0.36	
I felt I could have a say in the choice of pain relief.	1.95±0.43	
Perceived safety	1.99±0.15	9.67±1.97
I felt scared during Labour and birth .(R)*	2.95±0.96	
I have many positive memories from childbirth.	1.56±0.75	
I have many negative memories from childbirth. (R)*	1.86±0.74	
Some of my memories from childbirth make me feel depressed. (R)*	1.85±0.82	
My impression of the team's medical skills made me feel secure.	1.58±0.64	
As a whole, how secure did you feel during childbirth? VAS	1.68±0.82	
Total childbirth experience score	2.04±0.29	45.08±4.52

* Item reversed in scoring.

Vas, Visual analogue scale.

evidence-based care should be considered in any intervention for change.

This study showed that the “participation” domain had the lowest score among the women’s childbirth experiences domains. Women had the lowest scores on “I felt I could have a say in deciding my birthing position”. A study conducted in Egypt, Lebanon, and Syria also showed a lack of preference and awareness of alternate choices during childbirth (20). Previous qualitative studies in Iran (8,25) and around the world (26,27) show that not being treated with respect and not allowing labouring women to participate in their childbirth care decision-making were an essential factor in creating negative experiences. Iranian women who received oxytocin without participating in their care were less positive about their birth experience in the participation domain (27). Norwegian women who had not received enough information about unexpected complications and were unprepared had negative birth experiences (19). In contrast, Canadian women, who had freedom to choose their preferred position in labour, felt more involved in decisions made throughout their labour and childbirth (28).

RMC’s concepts include respect for women’s feelings,

dignity, choices, and preferences, and one of them is involving women in childbirth care (29). It also includes labouring women’s freedom to drink and eat and walk during labour and feeling control during labour which is also included in the evidence-based recommendations for promoting positive birth experiences (6,29). The medical model of childbirth care excludes the probability of natural birth and preserving women’s autonomy in their bodily processes. It prevents labouring women from participating in decisions about their childbirth care, in contrast; natural birth, increases women’s participation in their childbirth care (24,30,31).

Implementing RMC during birth demands the interpersonal skills of providers. Additionally, antenatal preparation for normal birth will reduce women’s fears and increases their willingness to have a natural birth. Informing women about childbirth care and rights will contribute to their empowerment to resist medicalization by raising their confidence and having a sense of control during childbirth. Identifying potential barriers for implementing RMC, including women’s freedom and their involvement in decision making about their childbirth care, would help to improve quality improvement and

women's satisfaction.

In our study, women's experience in the 'professional support' and 'perceived safety' domains were also not favorable. The lowest scores in the 'professional support' domain were 'the midwife spent enough time with her' and 'my midwife understood my needs'. In the 'perceived safety' domain, the highest score and lowest scores were 'I felt scared during labour and birth' and fewer women reported 'I have many positive memories from childbirth'. Norwegian women, who had negative experiences also felt that they had not been seen, heard and supported during birth (19). However, Nigerian and Ugandan women's birth experiences indicate that women's interactions with health providers including supportive care and using positive and clear communication were also important to women, equally with clinical measures of quality medical care. The WHO recommendations to promote intrapartum care emphasize safe care and stresses, providing emotional support to promote the desirable experience that women value (6). Positive attitudes were presented when women experienced support and encouragement from midwives who were present, attentive, explained what was happening, and treated them with respect.

Creating rapport with labouring women in the first encounter and providing a continuous presence during labour are characteristics of a 'good midwife' and considered a holistic health care promotion. Iranian midwives also considered 'keeping women safe' and "creating a pleasant friendship" and "being with women" the components of the women-centered care and RMC (32). According to a Cochrane review, women who received midwife-led care were less likely to have instrumental births and interventions during labour and were more pleased with their childbirth care than women who received other models of care (33). Thus, women experience safer childbirth care and receive more support during childbirth. However, in the study hospital, midwives provide childbirth care for low-risk women under the supervision of obstetricians and cannot work independently and (10). This provides obstetricians more authority and limits the role of midwives in childbirth. As a result; medicalization expands, providing a barrier to the achievement of natural childbirth (9,10).

Indeed, not evidence-based childbirth care is poor in quality and may contribute to disrespectful care (9). The shortage of midwives in maternity services is another factor that may contribute to not providing respectful care and adequate emotional support for women. Previous studies showed that lack of enough midwives in labour units in comparing the amounts of births led to not providing appropriate, supportive and respectful care as midwives were unable to devote enough time to the mother and her (34,35). According to global standards, there should be 30-35 midwives for every 1000 births, but in Iran, there are only 12 midwives for every 1000 births (36). In recent years, the employment of midwives was

not compatible to the maternity services' needs compared to the employment rate of other clinical professions. While there are around 15 000 unemployed midwives in Iran and the unemployment rate reaches 25% (37). The implementation midwifery model of care for low-risk women will provide high-quality childbirth care and improve labouring women's experiences in maternity services.

This study measured childbirth experience 1-3 months after birth that significantly decreased the likelihood of forgetting and not recalling experiences during labour. The sample size was relatively large, allowing us to conduct a more accurate evaluation of the childbirth experience, which was the study's strength. This study was carried out in a secondary level public hospital in Mazandaran (North of Iran). Despite the fact that birthing care in other centers in Mazandaran and other Iranian province is nearly same, women's childbirth experiences may differ..

Conclusions

This study highlights promoting normalization and maintaining the natural process of childbirth by implementing evidence-based and respectful childbirth care. Policymakers and managers should consider a need for an organizational change of maternity services. Implementing the midwifery model of care for low-risk women may contribute to providing high-quality childbirth care and improving Labouring women's experiences in maternity services. Prenatal preparation for normal birth will increase women's empowerment during childbirth and their willingness to have a natural birth.

Authors' Contribution

Conceptualization, S.K., F.P. and S.S.; methodology, F.P., S.S. and S.H.; software, S.K., and M.M.; validation, S.K., F.P. and S.S.; formal analysis, M.M.; investigation, S.K.; resources, S.K.; data duration, S.K.; writing—original draft preparation, S.K. and F.P.; writing—review and editing, F.P., S.S., S.H., and A.M.; supervision, F.P., and S.S.; project administration, S.K. The published version of the manuscript has been read and approved by all authors.

Conflict of Interests

Authors declare that they have no conflict of interests.

Ethical Issues

This study was approved by the Research Ethics Committee of Shahid Beheshti University of Medical Sciences, Tehran, Iran (Code: IR.SBMU.PHARMACY.REC.1397.028). First, the study setting's permission was sought. We explained the study's objective to the participants and assured them that were free to leave at any moment during the study. They were also informed that their decision would not impact their need for routine care. Participants in the study were those who agreed and signed the consent form.

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