The Importance of Perinatal Care Practices in Determining Pregnant Women's Satisfaction with Birth

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Abstract
Aim: Perinatal care services constitute an inseparable structure of the "safe motherhood" approach introduced by the World Health Organization (WHO) in 1987. In the Antenatal Care Guide published by WHO in 2016, they revealed that the woman should perform eight antenatal follow-ups during the pregnancy period. The "Antenatal Care Monitoring Protocol", which was revised by the Ministry of Health in Turkey in 2017, emphasized that at least four antenatal follow-ups should be made for each pregnant woman. The main purpose of perinatal services is; Regular monitoring of the pregnant and fetus by health personnel, having a healthy pregnancy and delivery process, preventing and determining risky situations, and meeting the psychosocial and medical needs of the pregnant. Our study was carried out as a descriptive and relationship seeker in order to determine the satisfaction of mothers with their birth in the perinatal care practices given in a university hospital.

Material and Methods: The sample part of the study was accepted as 60 women who applied to the delivery room of İstanbul University Çapa Medical Faculty to give birth, and 60 women who gave birth by cesarean section. The data obtained are; It was obtained by using the "Descriptive Information Form", "Optimality Index-Turkey (OI-TR) Case Report Form", "Maternal Satisfaction Assessment at Delivery Scale (DAMDÖ) (Normal Birth)" and Maternal Satisfaction Assessment at Birth (Cesarean Section).

Results: When the results obtained in the research are interpreted; Perinatal CV index (PPI) score of 87.61% and optimality index (OI) score of 79.11% of the women in the research group; PPI score of 90.16% and OI score of 76.11% of women who had vaginal delivery; It was revealed that the PPI score of women who gave birth by cesarean section was 85.07% and the OI score was 82.12%.

Conclusion: When the DAMDÖ scores according to the delivery type were examined, it was determined that the women who gave birth in both ways had a high level of satisfaction with the birth.

Keywords: Perinatal care, optimality, birth satisfaction

INTRODUCTION
The World Health Organization (WHO) states that there should be a valid reason to interfere with the physiological process of the woman during the perinatal period (1). In this respect, every woman and fetus/newborn; have the right to receive optimal care during pregnancy, childbirth and postpartum. (2). One of the main ways to provide optimal care during the perinatal period is to use evidence-based practices (3). Use of evidence-based practice (CDU) in the perinatal field; during the perinatal period, it provides to reduce the harm and unnecessary interventions for the mother and fetus/newborn, to standardize the care and to increase the quality of maternal care (4,5). Today, many non-evidence-based medical interventions are applied during the perinatal period, especially in the intrapartum period. In our country, some interventions without evidence base in the intrapartum period (monitoring with continuous electronic fetal monitoring (SEFM), enema and shaving of the perineum, induction of labor, restriction of oral intake; use of lithotomy position, frequent vaginal tapping, not allowing companion during delivery, restriction of mobilization and episiotomy etc.) has been reported to be widely applied (6). However, it has been shown that applications without evidence base and the increase in technology use increase the cost and do not cause any change in perinatal outcomes, especially neonatal mortality (7).
Nurses who care for women during the perinatal period; By performing evidence-based perinatal practices, it has a key role in enabling mothers, newborns and family members to spend this period comfortably and healthily, increasing maternal and infant health, and increasing maternal satisfaction (8). In this respect, nurses have important duties in providing optimal care in the perinatal period. Considering the literature review on the subject, although there are studies that reveal the satisfaction of the mother from birth and the affecting factors according to the birth type of women (9-11), no clear study has been found. For this reason, it was carried out in order to determine the perinatal care practices given in a university hospital and the satisfaction of mothers with birth.

The perinatal period covers the period from the 20th week of pregnancy to the first postpartum week (12). The target group of care services provided in this period are healthy/ at risk pregnant women, fetuses, newborns, puerperant women and family members.

In 1998, WHO recommended the principles necessary for optimal perinatal care. These principles (13):

- Providing non-medical perinatal care,
- Use of appropriate technological interventions while giving care,
- Evidence-based delivery of care,
- Based on a health system that includes an effective referral chain,
- Providing care with a multidisciplinary team,
- Giving holistic care,
- Providing family-centered care,
- Considering cultural differences in care,
- Ensuring women's participation in decisions while giving care,
- Paying attention to the privacy and dignity of the woman while giving care.

The perinatal period is a period in which the risk of preventable maternal/fetal/neonatal harm should be minimized and the quality of care should be increased (5). The purpose of the perinatal care given in this period; It is to protect and improve the health of the mother and newborn, and to minimize maternal/fetal/neonatal mortality and morbidity by providing early diagnosis and treatment of existing health problems that may occur during pregnancy. The content of care needed before and during pregnancy to achieve this goal is as follows (14):

- Preparation to parenting,
- Pregnancy planning,
- Physiological, anatomical and psycho-social adaptation to pregnancy and childbirth,
- Pregnancy maintenance and monitoring,
- Providing prenatal diagnosis methods,
- Early diagnosis and treatment of pregnancy-related health problems,
- Providing support in labor and determining the risks that may occur in labor,
- Caring for the newborn,
- Identification of newborn health problems,
- Providing care to the woman in the postpartum period and determining the problems that may occur,
- Adjustment of family members to pregnancy, birth and newborn.

The narrowing of the line between health and disease in the perinatal period requires careful consideration of the specified care needs (14). All mothers and newborns; have the right to safe and qualified care during pregnancy, childbirth and postpartum period. The task of the team working in the field of perinatology is to facilitate this process, rather than control it, and to meet the needs and expectations of the woman with an effective care (5).

Quality indicators of perinatal service such as maternal/ perinatal death, birth trauma and cesarean section rate; It has gradually lost its importance due to the decrease in mortality/morbidity rates and developments in health technologies. These indicators, which have been re-evaluated in recent years, have revealed that quality assessment should be made in accordance with changing conditions and multidimensional (15). For these reasons, the evaluation of satisfaction with the care received by women regarding the perinatal period has become increasingly important in recent years.

Birth experience, which can lead to physiological and psychological changes in a woman's health, and her satisfaction with birth are very important for the health of women and newborns, and positive family relationships (15). Women; may perceive birth as a difficult and negative experience to cope with. Negative perceptions and thoughts about birth; it disturbs the comfort of the woman and the newborn and may adversely affect the labor (16).

There are many factors that affect maternal satisfaction at birth. Factors affecting maternal satisfaction; socio-demographic-obstetric characteristics, organization of maternity services, expectations and birth plan, mode of delivery, prenatal preparation, communication with health personnel and respect for privacy, medical treatment and interventions, nursing care and emotional support, pain control, people participating in the birth, information, participation in decisions, communication with the baby and baby care, postpartum care, continuity of care and early discharge (15). High rates of medical interventions may adversely affect the woman's birth experience (17). Negative birth experience; It can cause postpartum depression in women, PTSD, cesarean section request in subsequent births, insufficiency in mother-newborn attachment, breastfeeding problems, neglect of the
baby, sexual dysfunction, and abortion after unwanted pregnancy (18).

Yaldrı et al. (19), in which maternal satisfaction was evaluated in the early postpartum period, it was determined that the women's satisfaction with birth score was 93.25, that is, their satisfaction with the birth was low. Koc et al. (20) in Turkey to determine the relationship between maternal satisfaction at birth and the role of motherhood, it was determined that the maternal satisfaction score at birth was 131.96±21.02 for women who had vaginal delivery, and 141.81±21.32 for women who gave birth by cesarean section.

**MATERIAL AND METHOD**

**Purpose of the research**

The research was carried out as a descriptive and relationship seeker in order to determine the perinatal care practices given at İstanbul Çapa Medical Faculty and the satisfaction of mothers with birth. The ethical approval was taken from Diyarbakır Gazi Yaşargil Training and Research Hospital, Health Science University (Date: 16/12/2022 and no:368).

**Research hypotheses**

In this study, the Optimality Index (OI) was used to evaluate perinatal care practices. However, since it is not recommended to compare Optimality Index-TR scores according to delivery type, the following research questions were created and the scores were evaluated separately according to the delivery type.

- What are the OI scores of women who have given vaginal birth?
- What are the OI scores of women who gave birth by cesarean section?
- What is the satisfaction level of mothers who gave birth vaginally?
- What is the satisfaction level of mothers who gave birth by cesarean section?
- Is there a relationship between the total OI score of women who gave birth by cesarean section and the level of satisfaction with the birth?
- Is there a relationship between the total OI score of women who gave birth vaginally and the level of satisfaction with delivery?

**Data collection tools**

“Descriptive Information Form”, “Optimality Index-Türkiye (OI-TR) Case Report Form”, “Maternal Satisfaction Assessment at Delivery Scale (DAMDÖ) (Normal Birth)” and Maternal Satisfaction Assessment at Birth (Cesarean section) scales were applied to the participants.

Women who gave birth by cesarean section and women who did not have any allergic disease were included in the study. Women who gave birth normally or women with chronic diseases were not included in the study.

**Statistical analysis**

Statistical Package for the Social Sciences version 22.0 (SPSS Inc., Chicago, IL, USA) software was used for the statistical analysis of this study. While descriptive data and frequencies were calculated with the help of computer, the normal distribution of the data was tested with the Shapiro-Wilk test. Continuous variables were expressed as mean±standard deviation and nominal variables as numbers (percentage). Normally distributed data were compared between the two groups using Student's t-test, while those that did not fit normal distribution were tested with the Mann-Whitney U test. For categorical variables, Pearson's chi-square or Fisher's exact test was used as appropriate. P value <0.05 was considered statistically significant.

**RESULTS**

**Findings related to descriptive characteristics of pregnant women**

Table 1 shows the distribution of some introductory characteristics of women. It was determined that 84% of the women had a high school or higher education level, 92% had a nuclear family type, and 92% did not have consanguineous marriages. It was determined that the mean age of the women included in the study was 27.15±3.28, and the mean body mass index was 23.21±3.20.

<table>
<thead>
<tr>
<th>Introductory features</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under high school</td>
<td>20</td>
<td>16.6</td>
</tr>
<tr>
<td>High school and above</td>
<td>100</td>
<td>83.4</td>
</tr>
<tr>
<td>Family type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide</td>
<td>10</td>
<td>8.33</td>
</tr>
<tr>
<td>Core</td>
<td>110</td>
<td>91.67</td>
</tr>
<tr>
<td>Consanguineous marriage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is</td>
<td>10</td>
<td>8.33</td>
</tr>
<tr>
<td>No</td>
<td>110</td>
<td>91.67</td>
</tr>
<tr>
<td>Age</td>
<td>27.15±3.28</td>
<td></td>
</tr>
<tr>
<td>Body mass index*</td>
<td>23.21±3.20</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

*Data are given as mean±standard deviation

Table 2 shows the distribution of some obstetric characteristics of women. It was determined that 50% of the women gave birth by vaginal delivery and 50.0% by cesarean section. It was determined that 66.7% of the women were multiparous. It was determined that 97.5% of the participants did not have a history of preterm labor, 83.4% had a history of abortion and 88.4% did not have a history of D&C. It was determined that 96.67% of the women did not experience pregnancy complications in their current pregnancy.
Table 2. Distribution of some obstetric characteristics of women

<table>
<thead>
<tr>
<th>Obstetric features</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of birth</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaginal birth</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>Birth by cesarean section</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td><strong>Parity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primiparous</td>
<td>40</td>
<td>33.3</td>
</tr>
<tr>
<td>Multiparous</td>
<td>80</td>
<td>66.7</td>
</tr>
<tr>
<td><strong>History of preterm action</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>No</td>
<td>117</td>
<td>97.5</td>
</tr>
<tr>
<td><strong>Abortion story</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is</td>
<td>20</td>
<td>16.6</td>
</tr>
<tr>
<td>No</td>
<td>100</td>
<td>83.4</td>
</tr>
<tr>
<td><strong>D&amp;C story</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is</td>
<td>14</td>
<td>11.6</td>
</tr>
<tr>
<td>No</td>
<td>106</td>
<td>88.4</td>
</tr>
<tr>
<td><strong>Current pregnancy complication status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lived</td>
<td>4</td>
<td>3.33</td>
</tr>
<tr>
<td>Didn’t live</td>
<td>116</td>
<td>96.67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3 shows the distribution of OI-TR scores of women. It was determined that the PAI score of the women was 85.81%, the OI score was 76.51%, and the total OI score was 83.42%.

Table 3. Distribution of OI-TR index scores of women

<table>
<thead>
<tr>
<th>OI-TR</th>
<th>OI-TR Score*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PÖİ</td>
<td>85.81±9.11 (55.56%-100.00%)</td>
</tr>
<tr>
<td>Oİ</td>
<td>76.51±5.64 (60.87%-86.96%)</td>
</tr>
<tr>
<td>Total Oİ</td>
<td>83.42±4.12 (66.67%-91.18%)</td>
</tr>
</tbody>
</table>

*Data are given as mean±standard deviation (min-max)

Table 4 shows the distribution of SEMSB scores of women according to the mode of delivery. It was determined that the mean SEMSB score of women who had vaginal delivery was 151.24±13.96, and the mean score of SEMSB of women who gave birth by cesarean section was 152.29±20.07 (p>0.05).

Table 4. Distribution of the scores of the Maternal Satisfaction Evaluation Scale at Childbirth according to the delivery type of women

<table>
<thead>
<tr>
<th>The scale for evaluation of maternal satisfaction at birth</th>
<th>Vaginal birth (n=62)</th>
<th>Birth by cesarean (n=62)</th>
<th>Statistical analysis**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score*</td>
<td>151.24±13.96 (106-203)</td>
<td>152.29±20.07 (100-197)</td>
<td>t=-0.10 p=0.91</td>
</tr>
</tbody>
</table>

*Data are given as mean±standard deviation (min-max), **In data analysis, t test was used

Table 4 shows the distribution of SEMSB scores of women according to the mode of delivery. It was determined that the mean SEMSB score of women who had vaginal delivery was 151.24±13.96, and the mean score of SEMSB of women who gave birth by cesarean section was 152.29±20.07 (p>0.05).

CONCLUSION

In the literature, different results were obtained from our study in which the satisfaction of mothers who gave birth by vaginal and cesarean section were evaluated. In the cross-sectional study of Özkan and Bal (24) to determine maternal satisfaction in vaginal and cesarean delivery, the satisfaction level of women who gave birth both vaginally (151.24±13.96) and cesarean section (152.29±20.07) were similar, but the difference was statistically insignificant (p>0.05).

DISCUSSION

In our study, when the OI-TR scores of women who gave birth by cesarean section were examined, it was determined that the PAI score was 85.07% and the OI score was 82.12%. The Optimality Index does not recommend comparing groups by mode of delivery. However, as expected, when compared to the PPI score of women who had vaginal delivery, women who gave birth by cesarean had a lower PPI score, that is, these women were more risky; When the OI score (76.11%) of the women who gave vaginal delivery was compared with the OI score (82.12%) of the women who gave birth by cesarean section, which is an invasive procedure in itself, it can be said that more interventions were made for women who had vaginal delivery.

Birth, which is seen as a very important experience in women's lives, and the woman's satisfaction in the perinatal period are extremely important for the woman's own health, the health of her baby, and positive family relationships (21). For this reason, it is very important for health personnel working in the perinatal area to evaluate the satisfaction of women with the care given and their views on birth, in order to increase the quality of perinatal care. Many factors affecting the level of maternal satisfaction at birth (socio-demographic-obstetric characteristics, organization of maternity services, expectations and birth plan, delivery method, prenatal preparation, communication with health personnel and respect for privacy, medical treatment and interventions, nursing care and emotional support, pain control, people participating in the birth, being informed, participation in decisions, communication with the baby and baby care, postpartum care, continuity of care and early discharge (22). Mode of delivery is one of the factors affecting maternal satisfaction (23). In our study, it was determined that women who gave birth by vaginal delivery and cesarean section had a high level of satisfaction with delivery. In addition, it was determined that the satisfaction levels of women who gave birth both vaginally (151.24±13.96) and cesarean section (152.29±20.07) were similar, but the difference was statistically insignificant (p>0.05).

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Conflict of Interest: The authors declare that they have no competing interest.

Ethical approval: The ethical approval was taken from Diyarbakır Gazi Yaşargil Training and Research Hospital, Health Science University (Date: 16/12/2022 and no:368).
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