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Childbirth Satisfaction in Women With Psychological Traumatic Childbirth

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Abstract

Objectives: This study was conducted to determine factors related to childbirth satisfaction in women who experienced psychological traumatic childbirth.

Materials and Methods: This cross-sectional study was conducted to examine 375 postpartum women who had experienced psychological traumatic childbirth according to criterion A of the fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5 [A]). Data-gathering tools were the demographic and obstetric characteristics questionnaire and Mackey childbirth satisfaction questionnaire. The data were analyzed using SPSS (version 24.0), and independent *t* test, ANOVA, Pearson correlation coefficient, as well as multivariate linear regression test were used to perform data analysis.

Results: The mean (standard deviation) of the delivery satisfaction score was 120.09 (27.11) out of 170. The predictors of satisfaction with delivery in women who had experienced psychological traumatic childbirth included type of delivery ($P < 0.001$), accordance of the delivery with the desired delivery ($P = 0.013$), and analgesia ($P = 0.02$).

Conclusions: It seems that with continuous training and counseling about the type of delivery, the mother's participation in delivery decisions, and also providing a variety of analgesia methods during delivery can increase childbirth satisfaction and reduce psychological traumatic childbirth.

Keywords: Traumatic birth, Post-traumatic stress disorder, Satisfaction with childbirth

Introduction

Mothers are one of the most important recipients of health services. Measuring the quality of maternal care entails close attention to the psychological aspects of maternal services, especially to the assessment of childbirth satisfaction (1). Therefore, childbirth satisfaction is an important quality evaluation index of pregnancy and childbirth services (2). Monitoring and evaluating maternal and child services to eliminate factors that reduce satisfaction are the most effective ways (3). Higher maternal satisfaction is associated with more postnatal self-confidence, and successful breastfeeding (4- 6).

Participation in the decision-making process of delivery, and careless treatment by health care providers are factors involved in childbirth satisfaction (1). Furthermore, the health status of the neonate, costs, availability of services (6), matching the experiences with expectations and desires, and fears of childbirth are other factors involved in childbirth satisfaction (7).

The experience of childbirth is different for each woman (8). In some women, childbirth is perceived as a stressful event. Psychological traumatic childbirth is a situation that a woman suffers from and worries about the harm to herself or her child (9). Psychological traumatic childbirth can be caused by physical or psychological trauma. On average, one out of three deliveries is associated with psychological trauma (10).

Due to the possibility of progression of psychological traumatic childbirth to postpartum post-traumatic stress disorder, special attention should be paid to the mental state of these women, especially in the process of childbirth (11,12). Given the importance of identifying the factors related to childbirth satisfaction for increasing the quality of health services, the present study was designed to determine childbirth satisfaction and related factors in women with psychological traumatic childbirth.

Materials and Methods

Study Design and Sampling

This study is a cross-sectional study conducted in 2018-2019. The study population included women only, those who had referred to health centers in Arak, Iran, 10-15 days after the delivery with the traumatic childbirth according to criterion A of the fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5 [A]). 15 out of 46 health centers of Arak were randomly selected. Then samples were selected using convenience sampling method. The criterion for diagnosing psychological

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Key Messages

- Involving mother in decision-making process concerning the type of delivery, as well as providing her with a variety of analgesia methods during labor would increase childbirth satisfaction.

traumatic childbirth was based on DSM-5 [A]. Following questions were asked: Was your life or your baby in danger during pain or childbirth?; and, were you afraid of the possibility of an injury to yourself or your baby during pain or childbirth? Mothers who answered yes to at least one of the above-mentioned questions were considered women with psychological traumatic childbirth (10). The exclusion criteria were illegitimate pregnancies, stillbirths, fetal malformations, the history of depression, anxiety or other previously known mental illness, the history of systemic or chronic illness or progressive disorders during pregnancy and childbirth, and the history of recent traumas such as first-degree relatives' deaths in the last six months.

After obtaining informed written consent, 375 eligible women completed the demographic and obstetric characteristics questionnaire and the Mackey childbirth satisfaction rating scale.

Questionnaire Description

Demographic and obstetric characteristics questionnaire included questions about age, age of husband, level of education of woman and her husband, employment status of the husband, income, number of deliveries, pregnancy status (wanted or unwanted pregnancy), Obstetric complications and hospitalization during pregnancy, specific disease, delivery method, matching or mismatch between desired delivery and delivery performed, type of analgesia, delivery assistant, sex of the baby, and desired sex of the baby.

The Mackey childbirth satisfaction rating scale consisted of 40 questions; 34 of them measured six areas of self-satisfaction, midwife performance, companion performance, physician performance, infant status, and total satisfaction with delivery. The answer to these questions was in the form of a 5-point Likert scale from extremely dissatisfied (score 1) to extremely satisfied (score 5). The scoring range was from 34 to 170. The last six questions of the questionnaire were open questions measuring the experiences of childbirth. Cronbach's alpha of the Iranian version of the instrument was 0.78 and its stability through intraclass correlation coefficient (ICC) calculation was 0.98 (13).

Statistical Analysis

The questionnaires were completed and, then, the data were analyzed using SPSS 24 software. To analyze the data, the descriptive statistics, including frequency, percentage, mean and standard deviation, as well as the analytical statistics, including independent *t* test, Pearson correlation coefficient and one-way analysis of variance (ANOVA) were used. Then in order for controlling the confounding variables, those independent variables with *P* value less than 0.2 in the bivariate tests were incorporated in the multivariate linear regression model with backward strategy.

Results

The mean score of childbirth satisfaction was 120.09 (27.11) out of 170, and the mean age of the participants was 28.43 (5.12) years. The two-variable test revealed that there was a significant relationship between childbirth satisfaction in women with psychological traumatic childbirth. The test also revealed the following variables (Table 1): age ($P=0.02$), income level ($P=0.006$), number of deliveries ($P<0.001$), type of delivery ($P=0.005$), matching or mismatch between desired delivery and delivery performed ($P<0.001$), the childbirth assistant ($P=0.004$), desired sex of the baby ($P<0.001$), the pregnancy status in the opinion of the woman and

Table 1. Demographic and Obstetric Characteristics in Women With Psychological Traumatic Childbirth and its Relationship With Childbirth Satisfaction

Characteristics	No. (%)	*P* Value
Age[a]	28.43 (5.12)	0.02[b]
Age of husband[a]	33.05 (5.44)	0.22[b]
Job		0.28[c]
Housewife	354 (94.4)	
Employed	3 (5.6)	
Husband job		0.52[d]
Unemployed	5 (1.3)	
Employee	72 (19.2)	
Manual worker	131 (34.9)	
Non-governmental work	165 (44)	
Retired	2 (.6)	
Number of delivery		**<0.001**[d]
First delivery	171 (45.6)	
Second delivery	128 (34.13)	
Third delivery and more	76 (20.26)	
Type of delivery		0.005[d]
Spontaneous vaginal	213 (56.8)	
Instrumental delivery	3 (0.8)	
Scheduled cesarean section	61 (16.27)	
Emergency cesarean section	98 (26.13)	
History of infertility		0.25[c]
Yes	14 (3.7)	
No	361 (96.3)	
Pregnancy status in opinion of woman		0.004[c]
Wanted pregnancy	99 (26.4)	
Unwanted pregnancy	276 (73.6)	
Complications and hospitalization due to pregnancy problems	8 (2.1)	0.64[c]

Table 1. Continued

Characteristics	No. (%)	*P* Value
Delivery assistant		0.004[c]
Midwife or midwifery student	168 (44.5)	
Gynecological surgeon	207 (55.5)	
Matching the type of delivery performed with the desired delivery		**<0.001**[c]
Matching	157 (41.8)	
Mismatching	193 (51.5)	
Education		0.14[d]
High school	132 (35.3)	
Diploma	159 (42.2)	
Academic	84 (22.5)	
Husband education		0.08[d]
Illiterate	12 (3.2)	
Under diploma and diploma	271 (72.2)	
Academic	92 (24.6)	
Income level		**000.6**[c]
Insufficient	82 (21.9)	
Sufficient	293 (78.1)	
Number of pregnancy care		0.06[d]
No care	31 (8.3)	
Less than 6 care visits	43 (11.5)	
6 care and more	301 (80.2)	
Gender of the baby		0.11[c]
Girl	52.8) 198)	
Boy	177 (47.2)	
Desired sex of the baby in the opinion of woman	55 (14.7)	**<0.001**[c]
Desired sex of the baby in the opinion of husband	54 (14.4)	**<0.001**[c]
Specific physical illness		0.71[c]
Yes	7 (1.9)	
No	368 (98.1)	
Pregnancy status in the opinion of husband		0.03[c]
Wanted pregnancy	282 (75.2)	
Unwanted pregnancy	93 (24.8)	
Analgesia		**0.002**[d]
General anesthesia (cesarean section)	32 (8.5)	
Spinal anesthesia (cesarean section)	120 (32)	
Non-drug painless	12 (3.3)	
Medicine painless	30 (8)	
Not use analgesic methods	181 (48.2)	

[a] Mean (SD); [b] Pearson; [c] T test; [d] ANOVA.

her husband ($P=0.004$ and $P=0.03$, respectively), and analgesia ($P=0.002$). After incorporating variables with $P<0.2$ in the multivariate linear regression model, the variables related to childbirth satisfaction in women with psychological traumatic childbirth were the type of delivery ($P<0.001$), matching the delivery to the desired delivery ($P<0.001$) and analgesia ($P=0.02$). They could explain 35% of the variance (Table 2).

Discussion

In the present study, type of delivery, adaptation of the type of delivery with desired delivery, and analgesia were predictive factors of childbirth satisfaction. Childbirth satisfaction in normal vaginal delivery was higher than the emergency and elective cesarean section. In other studies, in line with the present study, the type of delivery had a significant relationship with delivery satisfaction (14-16). In a study conducted by Weeks et al, cesarean delivery was revealed to have been associated with lower satisfaction than vaginal delivery (17). However, in another study by Lukasse et, no significant relationship was found between the type of delivery and childbirth experience in the first pregnancy (18). These differences may be due to differences in women's preferences about delivery type.

The study by Holka-Pokorska et al demonstrated an increase in childbirth satisfaction among women with elective cesarean section, as well as an increase in the probability of experiencing psychological traumatic childbirth among women with fear of childbirth and non-desired delivery (19). Sydsjö et al also showed that women who requested elective cesarean delivery were often satisfied with previous childbirth (20).

The choice of cesarean delivery by women is only due to the health concerns (21). Following the study by Serçekuş et al, the reasons for choosing a normal delivery by women were low-risk and shorter hospital stay, and the reasons for choosing a cesarean section were fear of delivery and fear of endangering the baby (22). Therefore, the type of delivery desired by women depends on their perceptions (19, 23).

Goodman et al, in line with the present study, found that matching the delivery with the type of delivery desired by mother would increase the satisfaction of delivery (24). In the study by Jafari et al, participation in decision-making in the delivery process was shown to be associated with increased women's childbirth satisfaction (8).

Lindholm and Hildingsson reported that women with epidural analgesia had the highest childbirth satisfaction (25). In the study by Weeks et al, women with drug analgesia were less satisfied with delivery (17). Czech et al, proved the delivery in water was associated with greater delivery satisfaction compared to epidural analgesia (26). In a review study by Smith et al, it was documented that non-pharmacological methods of reducing pain play an important role in increasing women's satisfaction with childbirth (27). In the study by Jafari et al, the use of drug analgesia was reported to be associated with delivery satisfaction (8). Yurashevich et al in their study introduced factors such as insufficient analgesia, delayed analgesia, or analgesic complications as effective factors in women's dissatisfaction with childbirth (28). However, in the study by Taheri et al, there was no significant relationship between the use of analgesia methods and childbirth satisfaction (29). These differences may be due to differences in the study population, research tools, and

Table 2. Factors Related to Childbirth Satisfaction in Women With Psychological Traumatic Childbirth

Variable	β (95% CI)	*P* Value[a]
Type of delivery (Reference: vaginal)		<0.001
Emergency cesarean section	0.24 (0.07-0.78)	
Pre-planned cesarean section	0.26 (0.12-0.48)	
Matching the type of delivery performed with the desired delivery (Reference: matching)		0.013
Mismatching	0.14 (0.07-0.68)	
Analgesia (Reference: Use of analgesia methods)		
Not use analgesic methods	0.25 (0.10-0.31)	0.02
	Adjusted R^2: 0.35	

[a] Multivariate linear regression.

differences in environmental conditions.

One of the strengths of this study is the use of standard questionnaires, use of DSM-5, and large sample size. As a cross-sectional study, it does not necessarily indicate a causal relationship between the variables. Therefore, designing prospective methods are recommended for the future studies.

Conclusion and Practice Implications

It seems that using more methods of labor analgesia, following the mother's wishes about the delivery type, and increasing the rate of natural childbirth in a safe environment may improve childbirth satisfaction and can prevent the subsequent psychological trauma after childbirth. In effect, by increasing the childbirth satisfaction, the rate of postpartum post-traumatic stress disorder might be reduced.

Authors' Contribution

FM conducted the study design and collected the data. SM helped in sampling and collecting data. RN analysed the data. SH estimated the sample size and wrote the paper. EM translated and edited the paper.

Conflict of Interests

Authors declare that they have no conflict of interests.

Ethical Issues

The study was approved by the ethics committee of the Tabriz University of Medical Sciences (IR.TBZMED.REC.1395.405).

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