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The effect of maternal satisfaction on postpartum quality of life according to delivery method.

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Abstract

This study aimed to determine the effect of maternal satisfaction at birth on postpartum quality of life according to the delivery method. It was conducted between April 15 and July 15, 2019 at the obstetrics and gynecology clinic of a training and research hospital. The sample of the study comprised 224 postpartum women, 161 of whom gave vaginal birth and 63 of whom had cesarean section. The data were collected using a descriptive information form, which was developed by the researcher and included socio-demographic and obstetric characteristics of women, the maternal satisfaction scale for vaginal and cesarean delivery and postpartum quality of life scale. After obtaining the informed consent of the participants, the descriptive information form and the maternal satisfaction in birth scale were administered before discharge, and the postpartum quality of life scale was administered in the postpartum 4-6 weeks. The data were analyzed using SPSS for Windows 22.0, t-test, one way Anova test, post hoc analysis, Scheffe test, and Pearson correlation and regression analysis.

In the study, the mean age of mothers giving vaginal birth was 30.780 ± 7.537, and the mean age of those having cesarean section was 31.13 ± 8.089. Considering the employment status, 74.5% of mothers giving vaginal birth and 61.9% of those having cesarean section were employed. It was found that 64.6% of those giving vaginal birth and 52.4% of those having cesarean section were planned pregnancies, 90.1% of vaginal births and 79.4% of cesarean sections wanted pregnancy. In vaginal birth, the maternal satisfaction scale at birth was 134.70 which are below the cut-off score of 150.5, whereas that of the cesarean section was 142.00 points which is below the cut-off point of 146.5. İn both vaginal birth and cesarean section, maternal satisfaction at birth increased the postpartum quality of life.

As a result, the maternal satisfaction scale score at birth did not affect the postpartum quality of life scoring scale according to the delivery method.

Keywords: Delivery method, Maternal satisfaction at birth, Postpartum quality of life, Nursing.

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Description and Importance of the Problem

Women, the focal point of societies from past to present, constitute half of the population and make human being survive through their fertility feature. Birth, which a woman can experience multiple times in her life and is a physiological process, is one of the miraculous phenomena in her life. This physiological process and afterwards may affect mother both physically and mentally [1,2].

Postpartum period is the first 4 to 6 week period that begins when the delivery process ends and the baby, placenta and membranes are born and the reproductive organs return to their pre pregnancy condition. The period after birth is also called postpartum period and puerperium. This can be a process in which physical, social and emotional balances change in the family, a time frame generally positive for the family, or a period of crisis [3]. İt is also a period in which the family should create a safe environment for the newborn, take in new roles and cope with the problems related to the baby. Any positive or negative situation experienced during pregnancy, birth, or postpartum period can affect the quality of life [4,5].

There is no common definition for the quality of life in terms of all sciences, yet definitions of all sciences converge on human factor and subjective evaluation of human. The World Health Organization (WHO) defined the concept of quality of life as individuals' perception of their own life in a life cycle based on their goals, wishes, principles and interests [6].

One of the studies on quality of life, conducted a study investigating the postpartum quality of life of 100 women (50 vaginal birth and 50 cesarean section) who had just given birth, aiming to correlate it with the delivery types and found that

those who had vaginal birth had higher quality of life. Other studies found that postpartum distress levels of mothers who had cesarean section were relatively higher than those who gave vaginal birth. The study of Sis Celik et al. aimed to determine the factors that cause changes in the postpartum quality of life in women who give vaginal birth and found that the delivery method affects the quality of life and those who give cesarean section have lower postpartum quality of life [7,8].

Considering the effect of pain, one of the factors negatively affecting maternal satisfaction at birth, it depends on the delivery method, and while it is felt severely in vaginal birth, it is felt in the puerperium period in cesarean section [9]. Gozum et al. conducted a study with 112 mothers who gave vaginal birth in Erzurum province of Turkey, examining the problems experienced by the mothers when they were discharged from the hospital within the first 24 hours and found that 86% of the mothers had malaise in their physical resistance, 84.4% had sleep disorders, 71.4% had breast problems, 61.6% slowed bowel movements and 30.4% had episiotomy pain. Golbasi found that many factors such as turning over responsibilities at home, care of and responsibilities for the baby, emotional state changes and hormonal changes affect women's daily life and so their quality of life [10].

Lower or higher quality of life is very important since it will affect future attitudes and behaviors of the family. Health problems caused by the mode of delivery and the delivery itself, which negatively affect the quality of life, can be prevented with a standardized and high-quality nursing care and a smooth and healthy postpartum period can be ensured by giving information to the mother about her own care and baby care and by providing them with positive health behaviors as well as communication and role competence in family relations [11].

Three main issues are targeted at a standard birth, these are; 1) Providing the best results for the mother and the baby, 2) Doing the least intervention during birth, 3) Yielding the highest satisfaction with the service provided. Patient satisfaction depends on the expectations of patients from the service provided, the advantages they make, the performance they expect from the service and the suitability of the service delivery with their own socio-cultural values. Unless patient satisfaction is ensured, it is not possible to expect quality health services. As a result, it is remarkable to investigate maternal satisfaction of new mothers at birth in the obstetrics clinics [12,13].

Labor is an important issue in terms of maternal satisfaction, mother-infant health and family society health. This is because studies have determined that the negativities during birth cause attachment problems between the mother and the baby, problems with breastfeeding, postpartum period problems, mother's demand for a cesarean section for the next birth, an increase in the number of unintended pregnancies, an increase in the rate of abortion, and infant neglect [14].

Maternal satisfaction at birth is an important indicator of assessing labor experience. Evaluation of maternal satisfaction at birth is important both as it shows the quality of care given to the mother and the health of the newborn and mother is. It comprises satisfaction of women with the services provided in pregnancy, during birth and postpartum period [15].

The studies show that mother satisfaction is affected by many factors such as preparing the pregnant woman well for birth, coping with the pain during birth and receiving training on preparation for birth, providing care throughout the whole process and meeting the needs, showing respect and providing support, giving information to the pregnant woman during birth and encouraging her for self-control, application of appropriate pain relief methods and birth interventions, unexpected interventions for mother or baby, including the pregnant in the decision-making processes and getting support from someone she trusts during the birth and making skin-to-skin contact with the baby [16].

Having social security, having an employed spouse, having perception of a good income, and having support positively affect the maternal satisfaction at birth, so positively affects the quality of life of mothers [17]. A study found that occurrence of unexpected conditions at birth negatively affects maternal satisfaction. Another study found that undesirable baby or mother-related conditions occurring during delivery negatively affect maternal satisfaction [18]. Nurses have significant roles in minimizing women's birth-related fears and concerns, informing them about delivery methods, preparing them for birth and providing them with a positive birth experience. Nurses also have responsibilities of providing necessary support to women during the delivery and providing them information. Trust of the informed women in health-care professionals and their maternal satisfaction levels at birth was found to increase [19].

The nurses play an important role in increasing maternal satisfaction at birth and postpartum quality of life. İn the postpartum period, mothers generally have pain due to incision site, swelling in the breasts, constipation, and insomnia [20]. Nursing care primarily addresses these problems and provides support to mothers and adapts them to the process. Therefore, the postpartum care management guideline became a pathfinder for nurses. The role of a mentor is to follow-up every postpartum mother at certain intervals for the first 42 days postpartum, to protect them against possible risks, to provide early diagnosis and treatment, to direct to the relevant places when needed, and to inform them about relevant issues (Turkish ministry of health general directorate of mother and child health and family planning 'postpartum care management guideline').

There are studies discussing the relationship of maternal satisfaction at birth and postpartum quality of life with some characteristics (age, education level, nursing care, economic status, social support). However, there was no study examining all subscales of postpartum quality of life and maternal satisfaction at birth according to the delivery method. In the light of this information, the present study was conducted to examine the effect of maternal satisfaction at birth on postpartum quality of life according to the delivery method and

the effect of maternal satisfaction at birth on their postpartum quality of life according to the delivery method [21].

Maternal satisfaction at birth and postpartum quality of life and nursing care

Postpartum care is very important for nurses to determine the possible risks that the mother and baby may be exposed to, to know the care needs of the puerperant, and to provide an effective postpartum care service by making necessary interventions when needed. Care expectations of mothers change over time based on their needs. Thus, nursing care provided postpartum should be uniform and personal care should be provided to patients [22]. Puerperants overcoming their anxiety thanks to nursing services play an active role in self-care and baby care. Thus, their postpartum quality of life is positively affected. Although birth is a normal physiological process, it affects all family members, particularly mother. This is because they have a new role in the family and all should adapt to these roles. That is many physical, emotional and social changes that can change the quality of life for the mother who is most affected in the postpartum period take place.

The WHO defined health not only as the absence of disease but also as a state of complete physical, mental and social well-being. Human life span has been extended with the developments in health, and so, the aim of health care is not to prolong the life of individuals, but to ensure a quality life by increasing their independence, knowledge and skills. Following this, health professionals should direct individuals to facilitative ways for coping with the problems in the best way, practice their educator role to provide trainings that can positively affect their quality of life, and evaluate the patients in their living environment by making home visits after the patients are discharged from hospital. They should support them to identify lacks in the assessment period and make up the deficiencies in an appropriate way and contribute to improving their quality of life [23,24].

İn the postpartum period, negativities such as sepsis, difficulty in providing care to baby, hemorrhage, incontinence, anemia, difficulty in mother-infant attachment and, depression may occur. The presence of such negativities, which are likely to occur, may prolong mothers' return to their normal lives and reduce their quality of life. Although postpartum period is defined as a temporary period of 4-6 weeks, in some cases it may cause problems in the life of the puerperant and her family in the future [25].

The aim of the support provided by the nurses in the postpartum period is to accelerate the adaptation of the puerperant and her family to this process, and reduce the mother-infant deaths mostly experienced during this process. Birth-related health problems can only be prevented by identifying and following the puerperant with a quality system. In addition, conscious self-care of mothers can be provided and self-confidence can be increased by providing them with training and counseling services in line with their needs, mothers and fathers can be supported for healthy communication within the family, and necessary explanations can be made about feeding and care of the baby as well as common problems with the baby. Thus, it becomes possible to increase the quality of postpartum life by providing information and control by ensuring a positive postpartum period, and increasing the mother's ability to cope with problems.

Materials and Methods

Research type

This study was conducted in a comparative and descriptive design, aiming to investigate the effect of maternal satisfaction at birth on their postpartum quality of life.

Setting and time period of the study

The study was conducted in a gynecology clinic of a training and research hospital in Istanbul, Turkey. The number of beds of the clinic is 22. In the delivery room of the hospital, there are four beds for mother to give birth and three obstetric tables. İn the clinic, three nurses work at night and two nurses work in the daytime. The average number of deliveries at this hospital is 2,200 of which approximately 60% are vaginal births [26].

Population and sample of the study

Purposeful sampling was used in this study. This hospital was selected because of its potential of welcoming patients from every culture and the easiness of reaching patients. The study sample consisted of 161 women giving vaginal birth and 63 women having cesarean section, meeting the following criteria between April 15, 2019 and July 15, 2019.

Inclusion Criteria

- Born mature (38-42 weeks),
- Healthy labor,
- Having no risky pregnancy,
- Literate of Turkish.

Data collection tools

The study data were collected using a descriptive information form created by the researcher, the maternal satisfaction at birth scale, and the postpartum quality of life scale.

Implementation of data collection tools

The data were collected in two stages. İn the first stage the descriptive information form and the maternal satisfaction at birth scale were filled out taking approximately 15 minutes by doing face-to-face interviews with mothers who gave vaginal birth within 24 hours, and mothers who had cesarean section within 48 hours who were going to be discharged from the hospital. İn the second stage, the postpartum quality of life scale was filled out within approximately 15 minutes by face-to-face interviews when the mothers came to the hospital for their babies' hearing test or hip ultrasound between the 4th and 6th postpartum weeks [27].

Data analysis

The data obtained were analyzed using SPSS 22.0 software. To evaluate the data, the number, percentage, mean and standard deviation were used as descriptive statistics. To compare the continuous quantitative data between two independent groups, t-test was used and for more than two independent groups, the one-way Anova test was used. The Scheffe test was used as a complementary post-hoc analysis to identify the differences following the Anova test. The Pearson correlation and regression analysis were used between the continuous variables [28].

Ethical Consideration

Approval was taken from the meeting No.02 of the ethics committee of a foundation University held on 27/02/2019 (No: 61351342-/2019-99). Later, approval from the institution and participants' written consent were obtained.

Findings

The findings obtained were divided into four groups.

Distribution of mothers according to their socio-demographic and obstetric characteristics

Table 1 shows findings regarding the distribution of mothers according to their sociodemographic and obstetric characteristics.

Descriptive characteristics		Vaginal birth		Cesarean section	X^2 P		
		Number n=161	Percent	Number		Percent	
			%	n=63		%	
Age	18-25	40	24.8%	16		25.4%	X^2=1.278; p=0.865
	26-30	50	31.1%	16		25.4%	
	31-35	33	20.5%	13		20.6%	
	36-40	16	9.9%	9		14.3%	
	41-48	22	13.7%	9		14.3%	
Mean age (Mean ± SD)		30.780 ± 7.537		31.13 ± 8.089	p=0.759		
Marriage age	Lower than 18	18	11.2%	9	14.3%		X^2=0.694 p=0.707
	18-22	76	47.2%	31	49.2%		
	23 and more	67	41.6%	23	36.5%		
Mean marriage age (Mean ± SD)		22.190 ± 4.022		21.540 ± 3.851	p=0.275		
Educational status	Literate	3	1.9%	3	4.8%		X^2=4.614 p=0.202
	Primary school graduate	35	23.6%	23	36.5%		
	High school graduate	68	42.2%	20	31.7%		
	Undergraduate degree or higher	55	34.2%	20	31.7%		
Spouse's educational status	Primary school graduate	17	10.6%	13	20.6%		X^2=3.990; p=0.136
	High school graduate	74	46%	25	39.7%		
	Undergraduate degree or higher	70	43.5%	25	39.7%		
Employment status	No	41	25.5%	24	38.1%		X^2=3.506; p=0.045
	Yes	120	74.5%	39	61.9%		
Spouse's employment status	No	1	0.6%	2	3.2%		X^2=2.234; p=0.192
	Yes	160	99.4%	61	96.8%		

Economic status	Less income than expense	38	23.6%	20	31.7%	X^2=1.687; p=0.430
	Equal income and expense	91	56.5%	33	52.4%	
	More income than expense	32	19.9%	10	15.9%	
Health insurance	No	13	8.1%	3	4.8%	X^2=0.749; p=0.292
	Yes	148	91.9%	60	95.2%	

Table 1. Distribution of mothers according to their sociodemographic characteristics (n=224).

Table 2 shows findings regarding the distribution of mothers according to their obstetric characteristics.

Descriptive characters		**Vaginal birth**		**Cesarean section**		**X^2 P**
		n=161	**%**	**n=63**	**%**	
Number of stillbirth	No	118	73.3	44	69.8	X^2=0.735 p=0.693
	Yes	43	26.7	19	30.2	
Number of living children	0	66	41	24	38.1	X^2=0.216 p=0.897
	1	49	30.4	21	33.3	
	2 and more	46	28.6	18	28.6	
Planned pregnancy	Yes	104	64.6	33	52.4	X^2=2.844 p=0.063
	No	57	35.4	30	47.6	
İntended pregnancy	Yes	145	90.1	50	79.4	X^2=4.597 p=0.030
	No	16	9.9	13	20.6	
Number of follow up during	01-May	14	8.7	15	23.8	X^2=9.178 p=0.003
	06-Oct	147	91.3	48	76.2	
Place of prepartum follow up pregnancy	Public hospital	92	57.1	36	57.1	X^2=12.485 p=0.002
	Family health center	26	16.1	21	33.3	
	Private hospital/ Private practice	43	26.7	6	9.5	
Previous pregnancy training	Yes	158	98.1	61	96.8	X^2=0.357 p=0.433
	No	3	1.9	2	3.2	
Place of pregnancy training	Hospital	79	50	33	54.1	X^2=17.672 p=0.000
	Family health center	28	17.7	23	37.7	
	Private course or other	51	32.3	5	8.2	
İnformation source on pregnancy	İnternet	82	50.9	28	44.4	X2=0.762 p=0.234
	Book, journal or other	79	49.1	35	55.6	
Presence of supporter postpartum	Yes	100	62.1	29	46	X2=4.794 p=0.021

	No	61	37.9	34	54	
Spouse's support for baby care						
	Yes	114	70.8	36	57.1	X2=3.822 p=0.037
	No	47	29.2	27	42.9	
First skin to skin contact	Right after birth	73	45.3	27	42.9	X2=0.113 p=0.427
	After discharge from intensive care	88	54.7	36	57.1	
First breastfeeding postpartum	First 30 minutes	21	13	6	9.5	X2=1.101 p=0.577
	The first hour	63	39.1	29	46	
	First two hours and later	77	47.8	28	44.4	

Table 2. Distribution of mothers according to their obstetric characteristics (n=224).

Groups	**Vaginal birth**	**Cesarean section**	**t**	**p**
	(n=161)	**(n=63)**		
	$\bar{x}$ ±SD	**$\bar{x}$ ±SD**		
Health-care team perception	15.11 ± 2.831	19.21 ± 3.677	-8.915	0
Nursing care at birth-preparation for cesarean section	7.53 ± 1.696	7.92 ± 1.484	-1.586	0.114
Comforting	9.52 ± 2.750	6.09 ± 1.672	9.219	0
Participation in decisions and providing information	26.47 ± 6.392	31.38 ± 5.706	-5.321	0
Meeting the baby	4.65 ± 2.399	4.84 ± 2.026	-0.553	0.581
Postpartum care	20.38 ± 4.373	21.59 ± 3.888	-1.916	0.057
Hospital room	13.75 ± 4.114	11.52 ± 2.501	4.014	0
Hospital facilities	10.14 ± 3.154	11.32 ± 2.545	-2.638	0.004
Respect for privacy	11.40 ± 3.815	12.25 ± 3.307	-1.566	0.119
Meeting expectations	15.74 ± 4.397	15.87 ± 2.814	-0.224	0.787
Total maternal satisfaction	134.70 ± 28.730	142.00 ± 19.975	-1.849	0.032

Table 3. Comparison of subscale scores of the maternal satisfaction at birth scale of mothers.

Table 3 shows the findings regarding the distribution of the subscales of the maternal satisfaction at birth scale according to the delivery method.The total maternal satisfaction at birth scores show a statistically significant difference according to the delivery method (p=0.032, p<0.05). Total maternal satisfaction at birth scores ($\bar{x}$=142.00) of mothers who had a cesarean section were found to be higher than those of mothers who had vaginal birth ($\bar{x}$=134.70).

	N	**$\bar{x}$ ± SD**	**t**	**P**
Vaginal birth	161	22.13 ± 3.724	0.907	0.366
Cesarean section	63	21.63 ± 3.88		

Table 4. Comparison of postpartum quality of life scale scores of mothers according to delivery method.

Table 4 shows all mothers' mean postpartum quality of life scores. There is no significant difference between the delivery method in the total maternal satisfaction at birth scores (p=0.366, p>0.05).

The scales		Maternal satisfaction at birth	Postpartum quality of life
Maternal satisfaction at birth	r	0.313*	1
Postpartum quality of life	p	0	0

Table 5. The relationship between maternal satisfaction at birth scores and postpartum quality of life of mothers giving vaginal birth. *: <0.01

Table 5 shows correlation analysis between maternal satisfaction of mothers giving vaginal birth and their postpartum quality of life. There was a weak and positive correlation (r=0.313) between postpartum quality of life and total maternal satisfaction at birth (p=0.000, p<0.05).

Dependent variable	İndependent variable	ß	t	p	F	Model (p)	R2
Postpartum quality of life	Fixed	16.663	12.396	0	17.311	0	0.093
	Total maternal satisfaction	0.041	4.161	0			

Table 6. The effect of maternal satisfaction at birth scores on postpartum quality of life of mothers giving vaginal birth.

Table 6 shows findings regarding the effect of maternal satisfaction at birth on postpartum quality of life of mothers giving vaginal birth.The regression analysis made to identify the cause and effect relationship between the total maternal satisfaction at birth and postpartum quality of life (F=17.311; p=0.000, p<0.05). The maternal satisfaction at birth score explains 9.3% of the total variation in postpartum quality of life (R2=0.093).

Dependent variable	İndependent variable	ß	t	p	F	Model (p)	R2
Postpartum quality of life	Fixed	13.825	7.986	0.000	3.773	0.000	0.148
	Health-care team perception	-0.547	-2.739	0.007			
	Nursing care at birth	2.044	3.476	0.001			
	Comforting	0.147	1.126	0.262			
	Participation in decisions and providing information	0.117	1.395	0.165			
	Meeting the baby	0.097	0.736	0.463			
	Postpartum care	-0.051	-0.359	0.720			
	Hospital room	-0.180	-1.071	0.286			
	Hospital facilities	0.249	1.129	0.261			
	Respect for privacy	-0.119	-0.991	0.323			
	Meeting expectations	0.047	0.425	0.672			

Table 7. The effect of maternal satisfaction at birth subscale scores on postpartum quality of life of mothers giving vaginal birth.

Table 7 shows findings regarding the effect of maternal satisfaction at birth subscales on postpartum quality of life of mothers giving vaginal birth. The regression analysis

conducted to determine the cause and effect relationship between nursing care, perception of the health-care team, comforting, participation in decisions and providing information, hospital room, postpartum care, meeting the baby, hospital facilities, meeting expectations, respect for privacy, and the quality of life were found to be significant in delivery ($F=3.773$; $p<0.05$).

Perception of the health-care team decreases postpartum quality of life (ß=-0.547). During delivery, nursing care increases postpartum quality of life (ß=2.044).

The scales		Maternal satisfaction at birth	Postpartum quality of life
Maternal satisfaction at birth	r	0.422*	1.000
Postpartum quality of life	p	0.001	0.000

Table 8. The relationship between maternal satisfaction at birth scores and postpartum quality of life of mothers having cesarean section. *: <0.01.

As seen in Table 8, the correlation analysis between maternal satisfaction of mothers having cesarean section and postpartum quality of life was analyzed, finding that there was a weak and positive correlation ($p=0.001$, $p<0.05$) with the total maternal satisfaction at birth $r=0.422$.

Dependent Variable	İndependent Variable	ß	t	p	F	Model (p)	R2
Postpartum quality of life	Fixed	10.003	3.097	0.003	13.201	0.001	0.164
	Total maternal satisfaction at birth	0.082	3.633	0.001			

Table 9. The effect of maternal satisfaction at birth on postpartum quality of life of mothers having cesarean section.

Dependent Variable	İndependent Variable	ß	t	p	F	Model (p)	R2
Postpartum quality of life	Fixed	9.279	2.631	0.011	2.376	0.021	0.182
	Health-care team perception	-0.218	-0.987	0.328			
	Preparation for cesarean	-0.416	-0.605	0.548			
	Comforting	0.091	0.276	0.783			
	Participation in decisions and providing information	0.237	3.726	0.000			
	Meeting the baby	-0.003	-0.012	0.991			
	Postpartum care	0.405	1.658	0.103			
	Hospital room	-0.716	-1.685	0.098			
	Hospital facilities	0.661	1.704	0.094			
	Respect for privacy	-0.199	-1.239	0.221			
	Meeting expectations	0.398	1.874	0.067			

Table 10. The effect of maternal satisfaction subscale scores on postpartum quality of life of mothers having cesarean section.

Table 10 shows findings regarding the effect of maternal satisfaction subscales on postpartum quality of life of mothers having cesarean section.

The regression analysis conducted to determine the cause and effect relationship between preparation for cesarean, perception of the health-care team, comforting, participation in decisions and providing information, hospital room, postpartum care, meeting the baby, hospital facilities, meeting expectations, respect for privacy, and postpartum quality of life were found to be significant in delivery ($F=2.376$; $p<0.05$). A total change of 18.2% on the postpartum quality of life explains preparation for cesarean, perception of the health-care team, comforting, participation in decisions and providing information, hospital room, postpartum care, meeting the baby, hospital facilities, meeting expectations, and respect for privacy ($R2=0.182$).

Discussion

A weak and positive correlation ($r=0.313$) was found between maternal satisfaction at birth and postpartum quality of life of mothers giving vaginal birth ($p=0.000$; $p<0.05$) (Table 5). A weak and positive correlation ($r=0.422$) was found in mothers having cesarean section ($p=0.001$; $p<0.05$) [29].

The maternal satisfaction at birth score explained 9.3% of the total variation in postpartum quality of life of mothers giving vaginal birth and the total maternal satisfaction at birth increased their postpartum quality of life (ß=0.041) (Table 6). Considering the effect of maternal satisfaction at birth subscale scores on postpartum quality of life of mothers giving vaginal birth, the total variation in postpartum quality of life was 14.8% and explained by the maternal satisfaction at birth score (Table 7). The health-care team perception of mothers giving vaginal birth reduced postpartum quality of life, whereas nursing care at birth increased postpartum quality of life (Table 9). Attitudes and behaviors towards pregnant women are assuring factors because they find the number of nurses and doctors sufficient in labor and some of the procedures performed during labor are for supporting them [30]. Kizilkaya conducted a study in 1997 and stated that nurses' self-confidence during birth, not being anxious, making the mother feel adequately cared, and giving her confidence were factors that mothers were satisfied with, found beneficial and supportive most.

A study reports that due to reasons such as inadequate number of nurses, lack of time, high cost of one-to-one nursing care for each patient, and the intensity of the protocols undertaken by the institutions, inadequate attention is paid to pregnant women. The study by Karacam reported that if enough time is not allocated to the woman during birth and her pain is not decreased, the woman perceives this as not being cared and negatively this affects the postpartum quality of life. On the contrary, Tumblin in their study examining perceptions of pregnant women regarding the roles of nurses during birth stated that nurses spared more time than the mothers expected, and they treated them well, politely, and sympathetically, and informed them about the procedures. This positively affected both maternal satisfaction at birth and postpartum mother-baby interaction. Standard nursing care given within the first 24 hours before discharge at a gynecology hospital in İzmir showed that active nursing care increased maternal satisfaction at birth in the experimental study conducted by Ertem et al. aiming to examine its effect on the care quality and satisfaction, including 70 women (35 in the experimental group and 35 in the control group) who had a vaginal birth [31]. There are similarities with the present study and as per the expectations of the institutions; it is possible that nurses allocate more time to patients since their priority is to provide patient satisfaction. Because institutions want nurses and other health professionals to document the services they provide to give the impression of being quality in the field of health in line with their own interests, nurses may be nervous because they can be exhausted due to the demands increasing their workload such as extra paper works that the medical secretaries have to do [32].

The maternal satisfaction at birth score explained 16.4% of the total variation in postpartum quality of life of mothers having cesarean section and the total maternal satisfaction at birth increased their postpartum quality of life (ß=0.82) (Table 9). Considering the effect of maternal satisfaction at birth subscale scores on postpartum quality of life of mothers having cesarean section, the total variation in postpartum quality of life was 18.2% and explained by the maternal satisfaction at birth score (Table 10). Participation in decisions and providing information, one of the subscales of the maternal satisfaction at birth subscale scores, increased postpartum quality of life (Table 10).

For puerperants having cesarean section, there are such issues as wanting to know which doctors and nurses will provide care before the cesarean section, informing them and their families about the medical interventions to be applied to them, getting approval for the interventions, and being listened carefully about their prepartum demands by the doctors and nurses regarding participation in decisions and providing information. The American College of Obstetricians and Gynecologists (ACOG) reported that doctors should mention all risks of cesarean section to their patients, if they still approve it, then it is ethical to do cesarean section.

Studies have shown that women feel more secure and comfortable when the doctors and nurses inform women and their families about the medical interventions to be applied to them and they inform the health-care professionals about their demands, and that cesarean section is preferred as birth control is believed to be more possible in it, and this affects the postpartum in a positive way. The studies have reported that since the pregnant women have a say regarding delivery, can participate in the decisions to be taken, be informed about all kinds of interventions prior to birth and provide their consent make them feel in a peaceful and safe environment, their maternal satisfaction and postpartum quality of life increase. Being informed about the delivery makes a woman giving birth feel safe. When pregnant women have information about delivery, which is an important process of their lives, and their dialog with health-care professionals is intelligible, and thus the necessary information for their postpartum needs is provided by health professionals, also have positive postpartum effects on them [33,34].

Results and Suggestions

This study, which investigated the effect of maternal satisfaction at birth on postpartum quality of life according to delivery method, obtained the following findings.

Results

- Maternal satisfaction at birth scores was found to be low according to delivery methods.
- There was no difference between the mean postpartum quality of life scores of mothers giving vaginal birth and those having cesarean section.
- The health-care team perception satisfaction scores of mothers having cesarean section were higher than those giving vaginal birth.
- The comforting satisfaction scores of mothers giving vaginal birth were higher than those having cesarean section.
- The participation in decisions and providing information satisfaction scores of mothers having cesarean section were higher than those giving vaginal birth.
- The hospital room satisfaction scores of mothers giving vaginal birth were higher than those having cesarean section.
- The hospital facilities satisfaction scores of mothers having cesarean section were higher than those giving vaginal birth.
- A weak positive correlation was found between maternal satisfaction at birth and postpartum quality of life in both mothers giving vaginal birth and those having cesarean section.
- The health-care team perception of mothers giving vaginal birth decreases postpartum quality of life (ß=-0.547) (ß=-0.547; p=0.007; p<0.05). Nursing care during birth increases postpartum quality of life (ß=-0.547; p=0.007; p<0.05).
- The participation in decisions and providing information increases postpartum quality of life of mothers having cesarean section (ß=0.237; p=0.000; p<0.05).

Suggestions

- Studies to increase the birth satisfaction of women in both vaginal birth and cesarean section should be considered and supported.
- Considering that there is no difference between the postpartum quality of life according to the delivery method, the factors that negatively affect the quality of life scores of mothers giving vaginal birth should be reformed.
- Regarding increasing patients' perception of the health-care team satisfaction scores, the number of nurses and doctors should be at an adequate number in hospitals and the number of health-care professionals per patient should be increased and the health-care professionals should provide the necessary support to the patients.
- Regarding the participation in decisions and providing information satisfaction scores, the information of pregnant women about delivery methods should be evaluated and correct information should be provided for incomplete or incorrect information; also, pregnant women should be encouraged to give vaginal birth, their prepartum expectations about birth should be listened and whether their expectations can or cannot be met should be explained to them with reasons.
- In order that mothers can cope with their pain and for increasing their comforting satisfaction scores during vaginal labor, the health-care professionals should first use some alternative methods (massage techniques, aromatherapy, breathing exercises, etc.) to reduce pain.
- The health-care professionals should include mothers in the decisions to be taken about their delivery and allow them to have an active role.
- Skin-to-skin contact with the baby should be made and breastfeeding should be initiated just after the delivery.
- In the postpartum period, mothers should be informed, encouraged and provided with skills on self-care and baby care by health-care professionals.
- To evaluate potential postpartum negativities, postpartum follow-up of puerperant and infant should be strictly carried out by health-care professionals in accordance with the standards.

Conflict of Interest

The authors declare no conflict of interest for this study.

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Authors' contributions

Conception: DC, NP, PU; Design: DC, NP, PU; Data Collection: DC, NP, PU Conducting research: NP, PU; Statistical Analysis: NP, PU; Literature review: NP, PU; Writing; DC, NP, PU; Critical Review: DC, NP, PU.

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