

Original Article

Maternal Satisfaction in Normal and Caesarean Birth: A Cross-Sectional Study

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Abstract

Objective: This study aims to investigate early postpartum period satisfaction before hospital discharge in women who had normal and caesarean birth.

Methodology: This study, which is cross-sectional in nature, was conducted with 418 women who had normal and caesarean birth. Data were collected using the Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth.

Results: According to the Scales of the maternal satisfaction in normal and caesarean birth cut-off points, satisfaction of women who had normal birth (70.4%) was statistically lower than that of the women who had caesarean (81.3%) ($p=0.009$). Factors such as the high education level of spouses, women's working, and not using enemas during birth were found to increase maternal satisfaction of women who had caesarean birth ($p<0.05$). As for the women who had normal birth, the factors that increased satisfaction were found having planned the pregnancy, having 5 or more antenatal controls, not receiving enemas during birth, and managing pain control with pharmacological methods ($p=0.05$).

Conclusion: In the early postpartum period, higher satisfaction was found in women who had caesarean birth. Low level of satisfaction in women who had normal birth is considered to be associated with the interventions during birth. Therefore, identification of the factors affecting satisfaction is of importance.

Key Word: Birth; Maternal Satisfaction; Early Postpartum Period

Introduction

Satisfaction is a multi-dimensional concept which is defined as the individual's fulfilment of desires and expectations or receiving services more than these desires and expectations. Satisfaction is affected by several factors such as personal features, values and expectations (Waldenstrom et al., 2006). Patient satisfaction is one of the main outcomes frequently used for measuring the quality of care in health institutions (Goodman et al., 2004). Increase in patient satisfaction could be defined as reaching the desired goals in the health care (Sawyer et al. 2013).

Birth is one of the very important life experiences for the woman and her relatives. Therefore, birth experience is parallel to satisfaction about health care. While identifying woman's satisfaction in

intrapartum care, assessment of birth experience (pain, emotional and physical state, etc.) is very important (Leap et al., 2010). Studies show that maternal satisfaction/dissatisfaction is associated with unplanned interventions during birth such as emergency caesarean birth, interventional vaginal birth, intrapartum complications, and neonatal intensive care need (Waldenstrom et al., 2004; Nystedt et al., 2005; Olde et al., 2006; Essex, Pickett, 2008; Wiklund et al., 2008;).

The woman's dissatisfaction associated with her birth experience could cause cases such as postpartum depression, negative emotions against the baby, breastfeeding problems, unwanted pregnancies in the future, and desire for having caesarean birth in the following births (Harvey et al., 2002; Goodman et al., 2004).

The purpose of the present study was two-fold:

(1) to examine early postpartum period satisfaction before hospital discharge in women who had normal birth and to explore some features influencing their satisfaction.

(2) to examine early postpartum period satisfaction before hospital discharge in women who had caesarean birth and to explore some features influencing their satisfaction.

Results of the present study are important for evaluating the normal and caesarean birth satisfaction level and the reasons for dissatisfaction so that it could be possible to take precautions against the cases that could be caused by the dissatisfaction.

Method

Study design: This study was cross-sectional type.

Sample Selection: This study was conducted with 418 women -199 women who had normal birth and 219 women who had caesarean birth- in the maternity ward of a hospital between June 2012 and December 2012.

Data Collection Instruments

The first part of the scales used in the study included questions about women's socio-demographic features and obstetric features. The second part of the form involved Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth developed by Güngör and Beji who performed the reliability and validity of the scale (Güngör and Beji, 2012). The Scale for Measuring Maternal Satisfaction in Normal Birth (SMMS- Normal Birth) is composed of 43 questions. The scale is scored between 43 and 215 points, and the cut-off point is 150.5. The Scale for Measuring Maternal Satisfaction in Caesarean Birth (SMMS- Caesarean Birth) is composed of 42 questions, and the scale is scored between 42 and 210 points; the cut-off point is 146.5. Higher scores indicate higher satisfaction. Cronbach's Alpha internal co-efficiency is 0.91 in both scales.

Ethical Considerations: Ethics committee approval was obtained (no.2012/2-2) prior to the study.

Data Analysis: Data were analyzed in SPSS using mean scores, chi-square test, Fisher exact test and independent samples t-test.

Results

Average age of the participants who had normal birth was 27.6 ± 5.6 (18-42) and that of their husband was 31.0 ± 5.5 (20-47). Average age of the women who had caesarean birth was 26.7 ± 5.1 (17-43) and that of their husband was 30.4 ± 5.6 (20-48). Average age of the participants and their husbands indicated no statistically significant differences in terms of the satisfaction levels ($p > 0.05$). While the women's education level did not indicate differences in terms of satisfaction, higher education level of the husbands of women who had caesarean birth was found to be a factor that increased women's satisfaction about birth ($p = 0.016$) (Table 3). Among the women who had caesarean birth, working was found to be a factor that increased satisfaction about birth ($p = 0.050$) (Table 3). As for the women who had normal birth, satisfaction level was found to increase due to such factors as women's having planned the pregnancy ($p = 0.013$) and having 5 and more antenatal controls ($p = 0.023$) (Table 3).

According to the Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth cut-off points, satisfaction was statistically lower in those who had normal birth (70.4%) in comparison to those who had caesarean birth (81.3%) ($p = 0.009$) (Table 1). While SMMS-Normal Birth total mean score was 161.8 ± 16 , SMMS-Caesarean Birth total mean score was found 158.1 ± 15.2 (Table 2). An analysis of the sub-scale scores of the women who had normal and caesarean birth (Table 2) indicated that the health team's understanding was statistically significant in women who had caesarean birth ($p < 0.001$). For those who had normal birth, the sub-scales with significantly higher mean scores were found as comfort (11.2 ± 4.3); meeting baby (9.7 ± 4.1); comfort of the hospital room (16.1 ± 2.1); respect for privacy (16.6 ± 3.4); and meeting expectations (19.1 ± 3.1) ($p < 0.05$). Nursing care during birth in women who had normal and caesarean birth, preparation for cesarean, participation in decisions and informing, postpartum care, and hospital facilities sub-scales were found have similar mean scores ($p > 0.05$). As for the women who had normal birth, while not using enema ($p = 0.001$) and pain management with pharmacological methods ($p = 0.040$) increased satisfaction levels, not using enema increased satisfaction level in women who had caesarean birth ($p = 0.004$) (Table 4).

Table 1. Comparison of the Satisfaction status according to the Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth Cut-off points

Satisfaction status	Low Satisfaction	High Satisfaction	Total	Statistics
	n(%)	n(%)	n(%)	
SMMS-normal birth	59(29,6)	140(70,4)	199(47,6)	X²=6,840 p=0,009
SMMS-caesarean birth	41(18,7)	178(81,3)	219(52,4)	
Total	100(23,9)	318(76,1)	418(100)	

SMMS-normal birth total score $\geq 150,5$ = High Satisfaction SMMS-caesarean birth total score $\geq 146,5$ = High Satisfaction

Table 2. Comparison of the Sub-scales and Total mean scores of the Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth

Sub-scale	SMMS-Normal birth		SMMS-Caesarean birth		Statistics
	Mean \pm SD	Min-Max	Mean \pm SD	Min-Max	
Perception of health professionals	16,54 \pm 1,78	8-20	22,11 \pm 2,75	8-25	t=24,33 p=0,001
Nursing care in labor /Preparation for caesarean	8,43 \pm 1,04	4-10	8,55 \pm 1,35	2-10	t=1,02 p=0,309
Comforting	11,22 \pm 4,32	4-20	7,97 \pm 3,04	3-15	t=8,95 p=0,001
Information and involvement in decision making	32,55 \pm 3,75	14-40	32,51 \pm 4,30	15-40	t=0,10 p=0,917
Meeting baby	9,67 \pm 4,05	3-15	6,91 \pm 3,45	3-15	t=7,51 p=0,001
Postpartum care	24,63 \pm 2,62	15-30	24,64 \pm 3,01	15-30	t=0,59 p=0,556
Hospital room	16,12 \pm 2,10	8-20	12,02 \pm 3,78	3-15	t=18,58 p=0,001
Hospital facilities	10,99 \pm 2,22	4-15	11,34 \pm 2,39	4-16	t=1,58 p=0,114
Respect for privacy	16,59 \pm 3,42	8-20	13,90 \pm 4,28	7-20	t=7,06 p=0,001
Meeting expectations	19,05 \pm 3,11	9-25	18,24 \pm 3,18	5-25	t=2,62 p=0,009
Total scale	161,89 \pm 15,99	97-210	158,18 \pm 15,24	97-205	t=4,86 p=0,001

Discussion

Childbirth is one of the important events that women experience in their life. While women's satisfaction about birth has significant effects on woman's health, baby's health and family relationships, it is one of the important outcomes in terms of the health indicators that are used in order to assess quality of care (Harley et al., 2002; Goodman et al., 2004; Waldenstrom et al.,

2004; Britton, 2006). This study found that birth satisfaction of women who had caesarean birth was higher (82%- 70%). Maternal satisfaction was found to be higher in a study which utilized the same measurement tool with 1004 newly delivered women in India (Jha et al. 2017). Similarly, in their study conducted with 204 women, Bloomquest et al. (2011) found that maternal satisfaction was higher in women who

had caesarean birth in comparison to those who had vaginal birth. Another study conducted by Britton (2006) found mothers' satisfaction rate about perinatal care as 69.5% and revealed that the satisfaction which was reassessed one month after birth decreased even more; hence, perinatal satisfaction was reported to depend on time and be associated with medical and psychological variables. Yanikkerem et al. (2013) conducted a study with 140 women before they were discharged from hospital and found that satisfaction level of 48.6% of women was high, that patient-centered approach was important in maternal care, and that service quality could be increased by identifying maternal satisfaction. Although these studies were conducted in different times of the postpartum period, satisfaction level was found to be higher in women who had caesarean birth. This finding could be associated with various factors, but the most important one is considered to be the birth pain.

Patient satisfaction is primarily affected by good communication and sufficient information provided to the patient. The patients who understand the process and who are provided with adequate information regarding the procedures have confidence not only in the treatment and the care they receive but also in the health team who provide this service, which increases their satisfaction level (Yılmaz, 2001). In line with this finding, this study also revealed that perception about the health team sub-scale mean score was statistically higher in those who had caesarean birth. Adeyinka et al. (2017) reported that satisfaction about clinical services, clinical accessibility, and doctor interactions provided important contributions to maternal care in birth. Higher scores obtained in the perception scores of the health team in caesarean birth could be associated with factors such as cooperation of healthcare professionals with the women, and enabling the mother's participation by making necessary explanations for the mother's and the baby's safety. These results indicate that it is necessary to increase health care personnel's perceptions about women who have vaginal birth as well and to involve the women in the process.

Childbirth is a multi-dimensional experience. Contributions could be made on the birth experience through feeling of security, privacy, perceived level of birth pain, personal support, meeting expectations in the midwifery care, and

participation in the informing and decision making process (Dencker et al., 2010). This study found that in comparison to the mothers who had caesarean birth, the mothers who had vaginal birth were significantly more satisfied in the comforting, meeting baby, hospital room, respect for privacy, and meeting the expectation sub-scales ($p < 0.05$). Normal birth is perceived as a pain process which is more intensive than expected, even if it is experienced for a short time (Beatriz Velho et al., 2012). However, satisfaction in vaginal birth is believed to increase with the decrease in the perceived pain which is followed by the mother's relief, the opportunity it gives to meet the baby in the shortest time possible, support and information about the course of the birth and every phase of the process, involvement of the women in the decision making process, and the support of the midwife in the whole process. This finding indicates that women who had caesarean birth should be helped to manage postpartum pain effectively and meet their baby as soon as possible.

There seems to be no consensus about the effects of socio-demographic factors on birth satisfaction; however, many socio-demographic features are reported to be positively or negatively associated with satisfaction about birth (Goodman et al., 2004; Christiaens and Bracke, 2007; Belle-Brown et al., 2009; Yanikkerem et al., 2013; Jafari et al., 2017). This study found that satisfaction level was significantly higher in women who had planned pregnancy and who had 5 or more antenatal controls throughout the pregnancy ($p < 0.05$). It was found that variables such as age, education level, economic and working status, and number of pregnancies did not affect maternal satisfaction ($p > 0.05$). Among the women who had caesarean birth, satisfaction level was found to be significantly higher in those who graduated from primary school, whose husband graduated from university, and who did not work ($p < 0.05$). Goodman et al. (2004) reported that general satisfaction level was higher in women who worked and who had high education level. Waldenström et al. (2004) investigated satisfaction level in 2541 women 2 months after the birth experience they had and found in that cohort study that satisfaction level was also affected by some social factors such as not having planned the pregnancy, having no spousal support during the birth, and finding the

time allocated to antenatal care insufficient. As the main demographic factors are unchangeable, in the antenatal period couples could be given training and consultancy services about pregnancy, birth and postpartum period in order to have reasonable expectations.

It is important to acknowledge the factors affecting maternal satisfaction in order to improve the care provided during birth and in the postpartum period (Dencker et al., 2010). This study found that satisfaction increased significantly in women who did not receive enema and who were given analgesics in severe pain during normal birth ($p < 0.05$). It was found that episiotomy and birth compression did not affect maternal satisfaction level ($p > 0.05$). Satisfaction level was found to be significantly higher in women who were not given enema in caesarean birth ($p < 0.05$). It was also found that having emergency or elective caesarean birth, the type of analgesics used, or receiving enema did not have effects on satisfaction level ($p > 0.05$). In their quasi-experimental study conducted in Taiwan in 2015, Li et al. found that newly delivered mothers who gave birth in a mother-friendly hospital were more satisfied about the care they received due to the factors associated with receiving less epidural anesthesia, applying less induction, fetal monitoring at intervals, not receiving enema, supporting parenteral liquid intake, perineal shaving, and having no routine episiotomy. Waldenström et al. (2004) conducted a cohort study and found that 7% of the women reported to have experienced a negative birth experience one year after their birth. The risk factors that affected satisfaction level negatively included feelings of women in the birth such as emergency operative birth, induction, augmentation, pain and loss of control, and insufficient pain management. Similar studies also show that the unplanned medical interventions during the birth such as oxytocin induction, emergency cesarean, operative vaginal births, intrapartum complications and newborn intensive care need are associated with maternal dissatisfaction (Nystedt et al., 2005; Wiklund et al. 2008; Tayelgn et al., 2011; Yanikkerem et al. 2013). Negative birth experiences could increase maternal postpartum depression risk, cause negative attitudes in the following pregnancies and births, or increase the desire for having caesarean birth (Dencker et al., 2010; Özcan and Aslan, 2015).

Conclusion

According to the Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth cut-off points, satisfaction level of women who had normal birth (70.4%) was significantly lower than the ones who had caesarean birth (81.3%) ($p = 0.009$). Among the women who had caesarean birth, higher education level of husbands, women's working, and not receiving enema in birth were the factors that increased maternal satisfaction ($p < 0.05$). As to those who had normal birth, factor such as having planned pregnancy, having 5 or more antenatal controls, not receiving enema during birth, and pain management with pharmacological methods were found to increase maternal satisfaction ($p = 0.05$). Therefore, regardless the type of birth, involving women in the decision-making; health personnel's establishing trust relationships with the woman; enabling mother and baby interaction as soon as possible unless there is a medical obligation; not having enema unless it is necessary; and having effective management of pain increase maternal satisfaction.

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Table 3: Comparison of the Socio-demographic Features of the Participants and Satisfaction Level According to the Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth

Demographic and obstetric characteristics of the women	SMMS-Normal birth				SMMS-Caesarean birth			
	Total	Low Satisfaction	High Satisfaction	Statistics	Total	Low Satisfaction	High Satisfaction	Statistics
	n(%)	n(%)	n(%)		n(%)	n(%)	n(%)	
Age	27,6±5,6	28,5±5,7	27,2±5,6	t=1,400 p=0,163	26,7±5,1	27,1±5,3	26,6±5,1	t=0,592 p=0,555
Education Level								
Primary school	120(60,6)	30(51,7)	90(64,3)	X ² =2,710 p=0,112	129(58,9)	31(75,6)	98(55,1)	X ² =4,997 p=0,025
High school	78(39,4)	28(48,3)	50(35,7)		90(41,1)	10(24,4)	80(49,9)	
Husband's education Level								
Primary school	81(40,9)	21(36,2)	60(42,9)	X ² =0,750 p=0,429	89(40,6)	24(58,5)	65(36,5)	X ² =5,816 p=0,016
High school	117(59,1)	37(63,8)	80(57,1)		130(59,4)	17(41,5)	113(63,5)	
Occupation								
Worker	44(22,2)	12(20,7)	32(22,9)	X ² =0,021 p=0,884	68(31,1)	7(17,1)	61(34,3)	X ² =3,835 p=0,050
Not Worker	154(77,8)	46(79,3)	108(77,1)		151(68,9)	34(82,9)	117(65,7)	
No	190(95,5)	57(96,6)	133(95,0)		206(94,1)	38(92,7)	(94,4)	
Is pregnancy planned for the mother?								
Yes	165(83,3)	53(91,4)	112(80,0)	Fisher's Exact Test p=0,060	195(89,0)	38(92,7)	157(88,2)	Fisher's Exact Test p=0,581
No	33(16,7)	5(8,6)	28(20,0)		24(11,0)	3(7,3)	21(11,8)	
Is pregnancy planned for the father?								
Yes	164(82,8)	54(93,1)	110(78,6)	Fisher's Exact Test p=0,013	196(89,5)	39(95,1)	157(88,2)	Fisher's Exact Test p=0,263
No	34(17,2)	4(6,9)	30(21,4)		23(10,5)	2(4,9)	21(11,8)	
Antenatal control								
1-4 controls	67(33,8)	27(46,6)	40(28,6)	X ² =5,1460 p=0,023	80(36,7)	20(48,8)	60(33,9)	X ² =2,565 p=0,109
5 and over controls	131(66,2)	31(53,4)	100(71,4)		138(63,3)	21(51,2)	117(66,1)	

Table 4. Comparison of the Satisfaction about the Practices according to the Scales for Measuring Maternal Satisfaction in Normal and Caesarean Birth

Practices	SMMS-Normal birth				Practices	SMMS-Caesarean birth			
	Total	Low Satisfaction	High Satisfaction	Statistics		Total	Low Satisfaction	High Satisfaction	Statistics
	n(%)	n(%)	n(%)		n(%)	n(%)	n(%)		
Use of enema during birth					Use of enema during birth				
Yes	85(42,9)	37(63,8)	48(34,3)	$X^2=14,574$ $p=0,001$	Yes	64(29,2)	20(48,8)	44(24,7)	$X^2=8,201$ $p=0,004$
No	113(57,1)	21(36,2)	92(65,7)		No	155	21(51,2)	134(75,3)	
Use of analgesics in birth					Planned cesarean or not				
Yes	143(72,2)	36(62,1)	107(76,4)	$X^2=4,215$ $p=0,040$	Yes	174(79,5)	31(75,6)	143(80,3)	$X^2=0,213$ $p=0,645$
No	55(27,8)	22(37,9)	33(23,6)		No	45(20,5)	10(24,4)	35(19,7)	
Having episiotomy					Use of urinary catheter				
Yes	152(76,8)	44(75,9)	108(77,1)	$X^2=0,038$ $p=0,993$	Yes	204(93,6)	41(100,0)	163(92,1)	Fisher's Exact Test $p=0,077$
No	46(23,2)	14(24,1)	32(22,9)		No	14(6,4)	0(0)	14(7,9)	
Birth Compression					Type of anesthesia used				
Yes	71(35,9)	22(37,9)	49(35,0)	$X^2=0,153$ $p=0,696$	General anesthesia	84(38,5)	12(29,3)	72(40,7)	$X^2=0,413$ $p=0,445$
No	127(64,1)	36(62,1)	91(65,0)		Epidural/spinal anesthesia	134(61,5)	29(70,7)	105(61,5)	