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The relationship between women's perception of support and control during childbirth on fear of birth and mother's satisfaction

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ABSTRACT

The study was conducted in order to determine the relationship between women's perception of support and control during childbirth on fear of birth and mother's satisfaction. This descriptive study was carried out at the postpartum clinics of a state hospital. Seven hundred and twenty-five puerperal women were included in the sample. *T* test in independent groups and Pearson's correlation test were used in the evaluation of the data. Seventy-six percent of the puerperal women had vaginal birth, 24% had caesarean section. The mother's perception of control and support at birth was moderate (99.04 ± 17.30), the fear of birth was at clinical level in most of them (92.8%), and the satisfaction at vaginal and caesarean births was low. Puerperal women who had a planned pregnancy, non-invasive birth, birth without perineal tear had higher support and control perception at birth and lower fear of birth than who had unplanned pregnancy, invasive birth, or birth with a perineal tear ($p < .05$). Puerperal women who did not have any health problems during pregnancy and postpartum period had higher satisfaction levels compared to those who did ($p < .05$). The high level of perception of support and control at birth decreases the fear of childbirth and increases the satisfaction levels of puerperal women in vaginal and caesarean births. All health professionals, especially perinatal nurses and midwives, should strive to implement care initiatives that are appropriate to the needs of women.

IMPACT STATEMENT

- **What is already known on this subject?** The mode of delivery, insufficient supportive care during delivery, or perception of supportive care received are among the causes of trauma among women. Birth trauma may cause women to experience stress, anxiety, fear and loss of control, and maternal and foetal/neonatal health is adversely influenced during the delivery and postpartum period. A literature review revealed no study examining the effect of maternal perception of support and control during delivery on fear of childbirth and maternal satisfaction.
- **What the results of this study add?** Stronger perception of support and control during delivery reduces fear of childbirth, and also increases puerperal women's levels of satisfaction from care during vaginal and caesarean deliveries.
- **What the implications are of these findings for clinical practice and/or further research?** Facilitating women's achievement of personal control and expectations during childbirth should be the focus of care interventions. In line with these results, it may be recommended that all health-care professionals, especially perinatal nurses and midwives, strive to implement care initiatives that comply with the needs of women.

KEYWORDS

Birth; perception; support; control; fear of birth; mother's satisfaction

Introduction

It is important to take a supportive approach in care for physiological, psychological and social changes the mother may go through during delivery (Uludag and Mete 2014). The mode of delivery, insufficient supportive care during delivery, or perception of supportive care received is among the causes of trauma among women. Birth trauma causes women to experience stress, anxiety, fear and loss of control, and maternal and foetal/neonatal health is adversely influenced during the delivery and postpartum period (Isbir and Inci 2014). However, the fear of childbirth experienced by

mothers who receive quality care before and during delivery and whose physiological, psychological and social needs are met has been reported to be reduced (Cosar and Demirci 2012; Byrne et al. 2014; Masoumi et al. 2016). Women experiencing fear during delivery are known to have longer duration of labour (Adams et al. 2012).

Low fear of childbirth helps mothers have a positive birth experience and improves their maternal satisfaction (Ucum et al. 2010; Rouhe et al. 2013; Yanikkerem et al. 2013). High maternal satisfaction is also very important in the onset and continuation of postpartum mother–baby interaction, as well

as for the mother to be able to healthily meet care needs of the baby and herself (Yanikkerem et al. 2013). However, some studies have reported that maternal satisfaction levels are low during delivery (Donmez et al. 2014; Ozcan and Aslan 2015). A literature review revealed no study discovering the effect of maternal perception of support and control during delivery on fear of childbirth and maternal satisfaction and the affecting factors. We believe that this study will contribute to health professionals and the literature in order to draw attention to the affecting factors and their correction to increase the women's perception of support and mother's satisfaction, control during childbirth on fear of birth. For this reason, this study was planned to discover the relationship between perceived support during delivery on fear of childbirth and maternal satisfaction.

Materials and methods

The study was conducted in order to determine the relationship between women's perception of support and control during childbirth on fear of birth and mother's satisfaction. This study is a descriptive research study. It was carried out at the postpartum service and the obstetrics surgery service of state hospital located in a city in Turkey's Central Anatolia Region. The population of the study consisted of a total of 5216 puerperal women, consisting of 3981 women who were hospitalised at the postpartum service of this state hospital in 2017 after vaginal delivery and 1235 women who were hospitalised at the Obstetrics Surgery Service after undergoing a caesarean section. Power analysis was used for single rate tests to determine the sample size. No rate could be found in the literature with regard to women's perception of support and control during delivery. For this reason, the p ratio was taken as 0.50 to keep the sample size at the highest level possible. The sample size to be the total number of people to represent the population was determined as 725 people at $\alpha = 0.05$ level of significance, $1 - \alpha = 0.95$ confidence interval, $\beta = 0.20$ error risk and $1 - \beta = 0.80$ power. Power analysis was applied according to the following formula.

$$\frac{N \times p \times q \times (Z_{\alpha} + Z_{\beta})^2}{N - 1 \times d^2}$$

Simple random sampling method was used in the study. By weighing according to the proportions representing the population, a total of 725 women were included in the study, including 551 women from the postpartum service and 174 from the obstetrics surgery service. Inclusion criteria for the study: women were conscious, having had a vaginal or caesarean delivery, being in the first days of the postpartum period, had no hearing problems, had verbal communication, had no psychiatric and physical diseases, and who agreed to participate in the study were included in the research. Women who did not meet these criteria were excluded from the study. In this context, the study was completed with 725 women who met the inclusion criteria.

The data of the study were collected by the researchers in line with the literature by using a 'Puerperal Women

Information Form' (PIF), the 'Perceived Support and Control in Birth Scale' (SCIB), the 'Wijma Delivery Expectancy/Experience Questionnaire – Version B' (W-DEQ B), the 'Scale for Measuring Maternal Satisfaction in Vaginal Birth' (SSMMS-NB) and the 'Scale for Measuring Maternal Satisfaction in Caesarean Birth' (SSMMS-CB).

Puerperal Women's Information Form: The questionnaire form included 17 questions in order to determine the puerperal women's ages, educational and marital statuses, and past and present obstetric information.

The Perceived Support and Control in Birth Scale: SCIB Scale was developed by Ford and Ayers (2009). Its validity and reliability in Turkish for our country was studied by Inci et al. (2015). The scale consists of 33 items and three sub-scales. Its support sub-scale consists of the first 17 items, the external control sub-scale consists of the next six items, and the internal control sub-scale consists of the last 10 items. The scale has five-point Likert-type options, and the items are rated from 1 to 5 (1 = 'completely disagree', 2='disagree', 3='undecided', 4='agree' and 5='completely agree'). The lowest one can score on the scale is 33, and the highest score is 165. The scale has 10 items that are negatively worded. A high score on the scale indicates that the perception of support and control during delivery is strong. The overall Cronbach's alpha coefficient of the Turkish scale is 0.84. In this study, the Cronbach alpha coefficient of the SCIB was 0.90.

The Wijma Delivery Expectancy/Experience Questionnaire Version B: The scale was developed by Wijma et al. (1998). The scale assesses women's fear of childbirth during their delivery experiences in the postpartum period. Its validity and reliability in Turkish for our country was studied by Ucar and Beji (2013). The scale consists of 33 items. Each item has six-point Likert-type options ranging from 1 to 6 where 1='completely' and 6='not at all'. The minimum score on the scale is 33, while the maximum score is 198. High scores show that women have strong fear of childbirth. The negatively worded questions (2, 3, 6–8, 11, 12, 15, 19, 20, 24, 25, 27, 31) are calculated by reversing their scores in order to achieve concordance in the measurement. W-DEQ B scores are assessed in four subgroups. These represent women who experience fear of childbirth at a low level (W-DEQ B score ≤ 37), at a moderate level (W-DEQ B score between 38 and 65), at a severe level (W-DEQ B score between 66 and 84) and at a clinical level (W-DEQ B score ≥ 85). In the study of Ucar and Beji (2013), the Cronbach alpha value of the W-DEQ B was 0.88. In the present study, the Cronbach alpha coefficient of the W-DEQ B was 0.89.

Scales for Measuring Maternal Satisfaction in Normal Birth (SMMS-NB): The scale was developed and tested for validity and reliability by Gungor and Beji (2009). Chart 1 shows the items of the sub-scales of the scale consisting of a total of 43 items and 10 sub-scales. It also shows the lowest and highest scores one can score on the sub-scales. The scale has five-point Likert-type options (1='disagree', 2='slightly agree', 3='undecided', 4='agree' and 5='strongly agree'). Thirteen items (7–10, 19–22, 35, 36, 38, 41, 42) are negatively worded. The negatively worded items are first reverse-scored to calculate the scale score. After the negatively worded

Chart 1. Sub-scales of the Scales for Measuring Maternal Satisfaction in Vaginal Birth.

Subscale	Items	Min- Max Score
1. Perception of health professionals	1, 2, 3, 4	4-20
2. Nursing care in labor	5, 6	2-10
3. Comforting	7, 8, 9, 10	4-20
4. Information and involvement in decision making	11, 12, 13, 14, 15, 16, 17, 18	8-40
5. Meeting baby	19, 20, 21	3-15
6. Postpartum care	22, 23, 24, 25, 26, 27	6-30
7. Hospital room	28, 29, 30, 31	4-20
8. Hospital facilities	32, 33, 34	3-15
9. Respect for privacy	35, 36, 37, 38	4-20
10. Meeting expectations	39, 40, 41, 42, 43	5-25

Chart 2. Sub-scales of the Scales for Measuring Maternal Satisfaction in Caesarean Birth.

Subscale	Items	Min- Max Score
1. Perception of health professionals	1, 2, 3, 4, 5	5-25
2. Preparation for caesarean	6, 7	2-10
3. Comforting	8, 9, 10	3-15
4. Information and involvement in decision making	11, 12, 13, 14, 15, 16, 17, 18	8-40
5. Meeting baby	19, 20, 21	3-15
6. Postpartum care	22, 23, 24, 25, 26, 27	6-30
7. Hospital room	28, 29, 30	3-15
8. Hospital facilities	31, 32, 33	3-15
9. Respect for privacy	34, 35, 36, 37	4-20
10. Meeting expectations	38, 39, 40, 41, 42	5-25

items are reverse-scored, the sum of the scores of all items on the scale returns the 'overall scale score'. The sum of the items that make up each sub-scale can be used as the 'overall sub-scale score' of that sub-scale. The overall raw score varies between 43 and 215. As the overall score one scores on the scale increases, the levels of satisfaction from the care that mothers receive in the hospital during vaginal delivery increase. The cut-off score of the scale was set at 150.5 (≥ 150.5 = high satisfaction, < 150.5 = low satisfaction). The Cronbach alpha coefficient of the scale is 0.91. In the present study, the Cronbach alpha coefficient of the SSMMS-NB was 0.89.

Scales for Measuring Maternal Satisfaction in Caesarean Birth (SMMS-CB): The scale was developed and tested for validity and reliability by Gungor and Beji (2009). Chart 2 shows the items of the sub-scales of the scale consisting of a total of 42 items and 10 sub-scales. It also shows the lowest and highest scores one can score on the sub-scales. The scale has five-point Likert-type options (1='disagree', 2='slightly agree', 3='undecided', 4='agree' and 5='strongly agree'). Twelve items (8–10, 19–22, 34, 35, 37, 40, 41) are negatively worded. After the negatively worded items are reverse-scored, the sum of the scores of all items on the scale returns the 'overall scale score', and the sum of the items constituting each sub-scale returns the 'overall sub-scale score' of that sub-scale. The overall raw score varies between 42 and 210. As the overall score one scores on the scale increases, the levels of satisfaction from the care that mothers receive in the hospital during caesarean delivery increase. The cut-off score of the scale is 146.5 (≥ 146.5 = high satisfaction, < 146.5 = low satisfaction). The Cronbach alpha coefficient of the scale is 0.91. In the present study, the Cronbach alpha coefficient of the SMMS-CB was 0.87.

Statistical analysis

The data obtained from the study were analysed using the SPSS 23 program (SPSS Inc., Chicago, IL). Data were analysed by carrying out independent-samples *t*-tests for pairs of independent groups and Pearson's correlation analyses for evaluating relationships, as well as descriptive statistical analyses (percentages, means and so forth). The level of spread was accepted to be 0.05.

Research application and ethical approval

Prior to the study, written permission was obtained from authors' university ethics review board (decision no.: 2018-03/24). People who met the criteria of the study were informed about the purpose and scope of the study, and written consent forms were obtained for their participation. They were informed that in order for the data to be collected properly, it was not mandatory to specify a name in the data collection forms except for the consent form, and any information they would provide would remain confidential. They were told that the data would only be used as part of the study, and would be kept confidential. The forms were administered at the hospital by the researcher using the face-to-face interview technique to the women who gave written consent indicating that they participated in the study voluntarily (mothers completed these questionnaires approximately within 24 hours for vaginal delivery, and approximately within 48 hours for caesarean delivery). The measurement instruments in the study were preliminarily administered to 43 women, and modifications were made on the questionnaire after this administration.

Table 1. Distribution of puerperal women according to their reproductive characteristics.

Characteristics	n (%)
Maternal age (n = 725)	
18–35 age	587 (81.0)
≥36 age	138 (19.0)
Gravida (n = 725)	
1 pregnancy	305 (42.5)
2 pregnancies	220 (30.3)
3 pregnancies	95 (13.1)
≥4 pregnancies	105 (14.5)
Parity (n = 725)	
1 parity	397 (54.8)
2 parities	156 (21.5)
3 parities	82 (11.3)
≥4 parities	90 (12.4)
Abortion (n = 172)	
1 abortion	118 (68.6)
2 abortion	45 (26.2)
≥3 abortion	9 (5.2)
Curettage (n = 725)	
1 curettage	22 (3.0)
Stillbirth (n = 32)	
1 stillbirth	19 (59.4)
2 stillbirth	13 (40.6)
Living child (n = 725)	
1 living child	420 (57.9)
2 living children	143 (19.7)
3 living children	91 (12.6)
≥4 living children	71 (9.8)
Planned pregnancy (n = 725)	
Planned	558 (77.0)
Unplanned	167 (23.0)
Health problem in pregnancy (n = 725)	
Yes	51 (7.0)
No	674 (93.0)
The health problem experienced (n = 51)	
Abortion risk	34 (66.7)
Hypertension	17 (33.3)

Table 2. Distribution of puerperal women according to their obstetric characteristics.

Characteristics	n (%)
Childbirth type (n = 725)	
Vaginal delivery starting spontaneously	372 (51.3)
Vaginal delivery starting with induction	179 (24.7)
Planned caesarean	119 (16.4)
Emergency caesarean	55 (7.6)
The professional who gives normal birth (n = 551)	
Midwifery	528 (95.8)
Doctor	23 (4.2)
Normal birth position (n = 551)	
Lithotomy	551 (100.0)
Intervention in normal birth (n = 551)	
Yes	405 (79.9)
No	146 (20.1)
Intervention type (n = 405)	
Episiotomy/stitched birth	346 (85.4)
Fundal pressure	34 (8.39)
Vacuum application	23 (6.21)
Perineal laceration (n = 551)	
Yes	249 (45.2)
No	302 (54.8)
Perineal laceration degree (n = 249)	
First degree	215 (86.3)
Second degree	34 (13.7)
Cervical laceration (n = 551)	
Yes	35 (6.4)
No	516 (93.6)
Postpartum complication (n = 725)	
Yes	142 (19.6)
No	583 (80.4)
Postpartum complication type (n = 142)	
Bleeding	127 (89.4)
Hematoma	15 (10.6)
Postpartum mother-baby meeting (n = 725)	
Within the first 5 minutes	104 (14.6)
Within 5–10 minutes	198 (27.3)
Within 10–20 minutes	173 (23.9)
After 20 minutes	248 (34.2)
Postpartum breastfeeding time (n = 725)	
In the first half hour	548 (75.6)
Within 30–60 minutes	110 (15.2)
Within 2–4 hours	67 (9.2)

Results

Of the puerperal women participating in our study, 81% were between 18 and 35 years old, and they were 30.29 ± 6.59 years old on average; 49.8% were secondary school graduates or had a lower educational level. They were married for 6.80 ± 1.13 years on average; 24.1% had a large family, but 7.7% were single (who was divorced, whose husband passed away, or who lived separately).

Of the puerperal women 42.5% had a pregnancy history, 54.8% had a childbearing history and 3% had a history of abortion. It was found that 5.2% of the puerperal women with a history of abortion experienced three or more abortions. Of those with a history of stillbirth, 40.6% were found to have 'two stillbirths'. Of the puerperal women 57.9% had a living child; 77% had a planned pregnancy; and 7% said they had a health problem during their pregnancy. Of those with health problems during pregnancy, 66.7% were diagnosed with abortion risk and 33.3% were diagnosed with hypertension (Table 1).

Of the puerperal women 76% gave birth through vaginal delivery and 24% gave birth through a caesarean section. The delivery of 95.8% of the puerperal women undergoing vaginal delivery was supported by a midwife, and 79.9% were subject to some interventions (episiotomy/delivery with

stitches, fundal pressure, vacuum application) during delivery. Perineal tears (first and second degree) occurred in 45.2% of the women who gave birth normally, and cervical tears occurred in 6.4% of them. In 19.6% of the puerperal women postpartum complications (bleeding and hematoma) developed. Of the puerperal women 34.2% had their first interaction with their baby after the first 20 minutes of the end of delivery, and 75.6% breastfed their baby within the first half hour (Table 2).

The puerperal women's mean overall scores on SCIB, W-DEQ B, SMMS-NB and SMMS-CB were found to be 99.04 ± 17.30 , 117.65 ± 23.20 , 130.13 ± 21.29 and 125.58 ± 21.09 , respectively (Table 3). There was moderate fear of childbirth in 2.1% of the puerperal women severe fear of childbirth in 5.1%, and fear of childbirth at a clinical level in 92.8%.

Statistically significant differences were found in mean W-DEQ B scores of the puerperal women participating in our study, depending on their educational and marital statuses ($p < .05$). The puerperal women with educational status at the secondary education level or below had stronger fear of childbirth than those with educational status at the high school level or above. Those who were divorced had stronger

Table 3. SCIB Scale, W-DEQ B, SMMS-VB and SMMS-CB total and sub-scales score means.

Scales ^a	Subscales	Scale	
		Min–Max score	Mean
SCIB	Support	17–85	52.93 ± 9.66
	External control	6–30	17.23 ± 4.46
	Internal control	10–50	28.87 ± 6.44
	Total	33–165	99.04 ± 17.30
W-DEQ B	Total	0–165	117.65 ± 23.20
SSMS-NB	1. Perception of health professionals	4–20	12.73 ± 3.85
	2. Nursing care in labour	2–10	6.68 ± 1.81
	3. Comforting	4–20	10.46 ± 4.12
	4. Information and involvement in decision making	8–40	26.56 ± 6.76
	5. Meeting baby	3–15	6.41 ± 3.51
	6. Postpartum care	6–30	19.39 ± 4.07
	7. Hospital room	4–20	12.20 ± 3.36
	8. Hospital facilities	3–15	7.48 ± 2.79
	9. Respect for privacy	4–20	14.05 ± 3.23
	10. Meeting expectations	5–25	14.13 ± 4.37
	Total	43–215	130.13 ± 21.29
SMS-CB	1. Perception of health professionals	5–25	16.27 ± 4.79
	2. Preparation for caesarean	2–10	6.50 ± 1.39
	3. Comforting	3–15	7.44 ± 3.57
	4. Information and involvement in decision making	8–40	26.81 ± 6.93
	5. Meeting baby	3–15	5.95 ± 3.59
	6. Postpartum care	6–30	19.20 ± 4.29
	7. Hospital room	3–15	10.39 ± 2.84
	8. Hospital facilities	3–15	7.05 ± 2.92
	9. Respect for privacy	4–20	12.54 ± 1.99
	10. Meeting expectations	5–25	13.39 ± 2.70
	Total	42–210	125.58 ± 21.09

^aSCIB Scale: the Perceived Support and Control in Birth Scale.

W-DEQ B: Wijma Delivery Expectancy/Experience Questionnaire Version B; SSMS-NB: Scales for Measuring Maternal Satisfaction in Normal Birth; SSMS-CB: Scales for Measuring Maternal Satisfaction in Caesarean Birth.

fear of childbirth than those who were married. The puerperal women with planned pregnancy had stronger perception of support and control during delivery and weaker fear of childbirth than those who experienced unplanned pregnancy; and those who gave vaginal birth in a non-interventional way and without perineal tears had stronger perception of support and control during delivery and weaker fear of childbirth than those who were subject to interventions and had perineal tears ($p < .05$). The puerperal women who did not have health problems during pregnancy and in the postpartum period were more satisfied with the care than those who did ($p < .05$). The mean score on perception of support and control during delivery was higher among the puerperal women who had the mother–baby interaction in the first 20 minutes after delivery, compared to the puerperal women who had the mother–baby interaction after the first 20 minutes ($p < .05$) (Table 4). Moreover, there was no statistically significant difference in the mean overall scores on SCIB, W-DEQ B, SMMS-VB and SMMS-CB depending on the puerperal women's ages and modes of delivery, the healthcare providers who assisted the vaginal delivery, and the time of onset of postpartum breastfeeding ($p > .05$).

A statistically significant and negative correlation was found between the mean scores of the puerperal women on SCIB and W-DEQ B ($p < .05$). Statistically significant and positive correlations were found between the mean scores of the puerperal women on SCIB, SSMS-NB and SSMS-CB ($p < .05$). Stronger perception of support and control during delivery was found to reduce fear of childbirth, but also increase the levels of satisfaction from care during vaginal delivery and caesarean delivery (Table 5).

Discussion

Caesarean delivery is one of the most common obstetric surgeries performed today, and caesarean delivery rates have increased steadily in the last century. Therefore, one of the issues discussed currently by the World Health Organization (WHO) is to reduce the rates of caesarean delivery and increase the rates of vaginal delivery. WHO has pointed out that caesarean section rates in a country should not exceed 15% (WHO 2015). Regardless of the modes of delivery, women's childbearing experience has an important place in their lives (Reisz et al. 2015). Therefore, women would like to make a choice for the mode of delivery to perceive their delivery as a positive experience and to be satisfied with it (Guittier et al. 2014). Research shows that women prefer vaginal delivery as it is healthy (Karabulutlu 2012; Aktas and Gokgoz 2015), and safe and natural (Aktas and Gokgoz 2015; Mazzoni et al. 2016), whereas some prefer caesarean sections based on the doctor's recommendation (Karabulutlu 2012; Aktas and Gokgoz 2015), fear of pain, and health problems (Aktas and Gokgoz 2015; Mazzoni et al. 2016). According to the results of the present study, however, the mode of delivery does not influence the delivery experience (Guittier et al. 2014) and postnatal satisfaction levels that women perceive (Donmez et al. 2014; Ozcan and Aslan 2015). Women's experience of delivery is often closely related to the sense of control they perceive during delivery (Guittier et al. 2014). The mean overall SCIB score in our study was found to be moderate with 99.04 ± 17.30 (33–165). In addition to that, the mean overall SCIB score was found to be significantly higher among the women who had planned pregnancy, who did

Table 4. Distribution of scale total score means according to some features of puerperant.

Characteristics	Scales ^a			
	SCIB <i>m</i> (SD)	W-DEQ B <i>m</i> (SD)	SSMS-NB <i>m</i> (SD)	SSMS-CB <i>m</i> (SD)
Education level				
Secondary education and below (<i>n</i> = 361)	98.83±19.42	119.78±27.94	131.28±23.34	125.50±21.86
High school and above (<i>n</i> = 364)	99.25±14.93	115.55±17.04	129.03±19.07	125.68±20.36
<i>t/p</i>	0.332/.740	2.460/.014	1.244/.214	0.056/.956
Marital status				
Married (<i>n</i> = 669)	98.94±17.84	110.50±7.68	129.72±22.13	125.00±21.71
Single (<i>n</i> = 56)	100.23±8.66	118.25±23.96	134.91±3.33	133.50±4.77
<i>t/p</i>	0.534/.594	2.409/.016	1.551/.121	1.350/.179
Planned pregnancy				
Planned (<i>n</i> = 558)	103.31±17.74	108.50±22.16	129.85±21.21	124.37±21.75
Unplanned (<i>n</i> = 167)	97.76±16.98	120.39±22.82	131.08±21.61	130.08±18.00
<i>t/p</i>	3.662/.000	5.944/.000	0.575/.566	1.466/.145
Health problem during pregnancy				
Yes (<i>n</i> = 51)	98.79±17.90	118.01±23.98	117.27±11.55	107.33±10.44
No (<i>n</i> = 674)	102.37±3.31	->112.92±5.49	->131.28±21.5	126.24±21.09
<i>t/p</i>	1.425/.155	1.512/.131	4.298/.000	2.181/.031
Type of childbirth				
Vaginal (<i>n</i> = 551)	99.47±17.16	117.38±23.20	130.14±21.29	—
Caesarean (<i>n</i> = 174)	97.68±17.73	118.53±23.25	—	125.59±21.09
<i>t/p</i>	1.186/.236	0.570/.569	—	—
Intervention at vaginal birth				
Yes (<i>n</i> = 405)	95.63±22.26	116.92±22.15	130.16±20.74	—
No (<i>n</i> = 146)	100.86±14.69	108.64±25.95	130.07±22.81	—
<i>t/p</i>	3.177/.002	2.765/.004	0.046/.963	—
Perineal tearing				
Yes (<i>n</i> = 249)	96.86±20.33	120.06±27.38	115.86±17.52	—
No (<i>n</i> = 302)	102.64±11.52	114.12±16.26	131.11±21.19	—
<i>t/ ->p</i>	3.893/.000	3.013/.003	4.160/.000	—
Health problem at postpartum				
Yes (<i>n</i> = 142)	96.63±22.22	118.25±21.28	129.02±18.74	120.53±30.51
No (<i>n</i> = 583)	99.63±15.84	115.23±29.80	135.67±30.47	126.78±15.97
<i>t/p</i>	1.855/.064	1.391/.165	2.763/.006	1.198/.003
Mother–baby interaction				
Within the first 20 minutes (<i>n</i> = 477)	102.23±17.45	118.21±21.2311	130.41±19.98	133.30±13.28
≥20 minutes (<i>n</i> = 248)	97.39±17.01	6.58±26.61	128.85±26.67	124.41±21.83
<i>t/p</i>	3.597/.000	0.901/.368	0.658/.511	1.898/.059

^aSCIB Scale: Perceived Support and Control in Birth Scale.

W-DEQ B: Wijma Delivery Expectancy/Experience Questionnaire Version B; SSMS-NB: Scales for Measuring Maternal Satisfaction in Normal Birth; SSMS-CB: Scales for Measuring Maternal Satisfaction in Caesarean Birth.

Bold value signifies *p* < .05.

Table 5. The correlation of scale total scores.

	SCIB ^a	
	<i>r</i>	<i>p</i> Value
W-DEQ B	-0.707	.000
SSMS-NB	0.417	.000
SSMN-CB	0.661	.000

^aSCIB Scale: Perceived Support and Control in Birth Scale.

W-DEQ B: Wijma Delivery Expectancy/Experience Questionnaire Version B; SSMS-NB: Scales for Measuring Maternal Satisfaction in Normal Birth; SSMS-CB: Scales for Measuring Maternal Satisfaction in Caesarean Birth.

not undergo any intervention during vaginal delivery, who did not have perineal tears and who had mother–baby interaction within the first 20 minutes of birth. The results of the present study demonstrate that rising levels of perceived control during delivery positively influence women's delivery experience.

Pregnant women have moderate or high levels of fear of childbirth (Sahin et al. 2009; Gulec et al. 2014; O'Connell et al. 2017). In our study, however, 92.8% of the women experienced fear of childbirth at a clinical level. According to the results of the study, the fear of childbirth affected some of the women very substantially.

Factors influencing the fear of childbirth are multidimensional (Gulec et al. 2014; Toohill et al. 2014). It has been reported that primiparous women have stronger fear of childbirth than multiparous women (Toohill et al. 2014); as the social support systems of pregnant women increase, their fear of childbirth decrease (Gulec et al. 2014); and women with low educational level, who are dissatisfied with spouse support, and who have previously suffered a miscarriage, have high levels of fear of childbirth (Gao et al. 2015). In our study, the fear of childbirth was found to be high among the puerperal women with educational status at the secondary education level or below, among those who were single, had unplanned pregnancy, were subject to interventions during delivery, and had perineal tears. According to research, factors such as a low level of education, lack of social support systems, deliveries requiring intervention and unplanned pregnancies raise the level of fear of childbirth.

The concept of childbirth satisfaction is used when assessing the quality of physical and psycho-social experiences and care experienced by women during delivery (Sawyer et al. 2013; Yanikkerem et al. 2013; Conesa Ferrer et al. 2016; Jafari et al. 2017). Childbirth satisfaction has priority primarily in

the protection and promotion of mother and newborn health and secondarily in the protection and improvement of family health (Yanikkerem et al. 2013; Conesa Ferrer et al. 2016; Jafari et al. 2017). Maternal satisfaction during delivery is affected by the mode of delivery, the number of childbirths, the state of interventions (use of vacuum or forceps), health problems experienced by the mother or baby, postnatal pain and postnatal time of interaction with the baby (Hinic 2017; Bilgin et al. 2018). In a study carried out by Hinic (2017), it was found that there was a negative correlation between childbirth satisfaction and perceived stress levels, while positive correlations in those who felt that they were ready for childbirth and had strong breastfeeding self-efficacy. In a study conducted in Egypt, it was found that lack communication and privacy were among the causes of dissatisfaction felt by mothers during delivery (Sayed et al. 2018). In another study carried out in Iran, it was found that women who received quality midwifery care at the delivery room had higher levels of satisfaction (Hoseini et al. 2019). In our study, maternal satisfaction was low during vaginal and caesarean deliveries, but the mothers who did not experience any problems during their pregnancy and during the postpartum period, and those who did not have perineal tears were more satisfied. The results of the present study indicate that maternal satisfaction during delivery is influenced by many factors (the state of interventions (use of vacuum or forceps), health problems experienced by the mother or the baby, postnatal pain, postnatal interaction with the baby, and so forth).

Women's having strong perception of support and control during delivery reduces their fear of childbirth (Guittier et al. 2014; Toohill et al. 2014) and increases their satisfaction levels (Donmez et al. 2014; Ozcan and Aslan 2015; Conesa Ferrer et al. 2016; Jafari et al. 2017). Similar to the literature, in our study, stronger perception of support and control during delivery was found to reduce fear of childbirth, but also increase the levels of satisfaction from care during vaginal delivery and caesarean delivery. This finding shows us the importance of increasing women's levels of perception of support and control during delivery in order to alleviate their fear of childbirth, improve their levels of satisfaction towards care and help them live a positive delivery experience.

Conclusions

Stronger perception of support and control during delivery reduces fear of childbirth, and also increases puerperal women's levels of satisfaction from care during vaginal and caesarean deliveries. The perception of support and control during delivery is influenced by several factors (fear of childbirth, deliveries requiring intervention, and so forth), which influences maternal satisfaction and fear of childbirth. In line with these results, it may be recommended that all healthcare professionals, midwives in particular, strive to implement care initiatives that comply with the needs of women.

Limitations of this study

The sample size was relatively small, and restricting the statistical inference of the results, so that the findings are not generalisable to all puerperal women. Extraneous variables different in the two clinics at the same hospital (such as different activities and routines) may have influenced internal validity. In spite of the limitations, this study demonstrates that childbirth satisfaction is multidimensional with different factors predicting the various dimensions of satisfaction. Further research should include a larger sample and incorporate other potential predictors of childbirth satisfaction. Additionally, research that examines the association of various components of satisfaction with birth outcomes and subsequent mothering activities would provide useful information for care providers.

Disclosure statement

No conflict of interest has been declared by the author(s).

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