REVISTA DA ESCOLA DE ENFERMAGEM DA USP
JOURNAL OF SCHOOL OF NURSING · UNIVERSITY OF SÃO PAULO

ORIGINAL ARTICLE

doi: https://doi.org/10.1590/S1980-220X2020006603720

Women's satisfaction with childbirth and postpartum care and associated variables

Satisfacción de las gestantes con los cuidados en el parto y puerperio y variables asociadas

Satisfação da gestante com a assistência ao parto e pós-parto e variáveis associadas

How to cite this article:
Navas Arrebola R, Peteiro Mahía L, Blanco López S, López Castiñeira N, Seoane Pillado T, Pertega Díaz S. Women's satisfaction with childbirth and postpartum care and associated variables. Rev Esc Enferm USP. 2021;55e:03720. doi: https://doi.org/10.1590/S1980-220X2020006603720

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ABSTRACT

Objective: To determine the level of satisfaction with childbirth and the postpartum period. **Method:** This is a longitudinal, observational study. Clinical variables of the patients and delivery were collected, and a descriptive and inferential analysis was performed. The validated state-trait anxiety inventory (STAI) and the satisfaction survey Care in Obstetrics Measure For Testing Satisfaction Scale (COMFORTS) in Spanish were used. **Results:** A total of 381 women was included in the study and grouped into satisfied vs. dissatisfied (94.54% vs. 5.46%). Women having given birth by eutocic delivery (p = 0.005), as well as those who had skin-to-skin time with their newborn (p = 0.012) after delivery, report more satisfaction. Mothers who were separated from their babies reported being less satisfied (p = 0.004), as did those who did not meet the expectations raised in the birth plan (p = 0.013). All the women with minimal anxiety are satisfied (p = 0.004), the same happening for those showing postpartum anxiety (p <0.001). **Conclusion:** The percentage of satisfied women is high; it is necessary to monitor childbirth and postpartum care, promoting good practices in childbirth care, as well as in women's emotional well-being.

DESCRIPTORS

Delivery, Obstetric; Postpartum Period; Patient Satisfaction; Obstetric Nursing.

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Received: 03/31/2020
Approved: 11/09/2020

INTRODUCTION

According to the latest data from the National Institute of Statistics (INE), in its document Hospital Morbidity Survey, in Spain there were 4,862,352 hospital discharges in 2017, of which 448,738 were related to "pregnancy, childbirth, and postpartum episodes", accounting for 9.2% of all hospital discharges, the 5th group of diagnosis by number of discharges, and the 9th in total hospital stays. The "pregnancy, childbirth and postpartum episodes" accounted for a mean stay of 3.07 days. The highest morbidity rate among women was present in the pregnancy, childbirth, and postpartum episodes[1].

Satisfaction is an integral part of quality healthcare, as patients are able to evaluate the quality of care; and this satisfaction can be measured[2].

The Care in Obstetrics: Measure For Testing Satisfaction Scale COMFORTS[3] in its Spanish version[4] was selected because it is validated and has a graphical scoring system that allows its easy completion in an estimated time of approximately 10 minutes. In addition, questions were incorporated to provide more information about the experience, related to attention to maternal education, pain relief methods, movement and position chosen during delivery, newborn feeding, and provision of the birth plan.

Some authors associate maternal satisfaction with continuous and personalized support from caregivers, especially the midwife, during delivery[5-7].

Others relate parity, the medicalization of the birth process, skin-to-skin time with the baby after delivery, breastfeeding, vaginal delivery without epidurals, the beginning and end of delivery, unscheduled cesarean section, the number of caregivers during childbirth, or the psychological state with the level of satisfaction[8-12].

The Spanish public health system coverage is universal and free. The public system is decentralized and each regional government is in charge of the system operation in its region. Childbirth care in the public service does not allow the choice of the method of delivery, that is, elective caesarean sections, without a justified medical reason. Most of the studies carried out in Spain with validated scales have been conducted with low-risk women who have natural vaginal delivery; it seems pertinent to assess satisfaction in high-risk women who end their pregnancy with cesarean sections, or instrumental deliveries[4,8-9]. This study is proposed with the objective of analyzing satisfaction in childbirth and postpartum, both in low-risk and high-risk women who undergo a natural delivery, instrumental delivery, or a cesarean section. Did changes in childbirth care, medicalization in the process of childbirth, new offers for pain relief, birth plans, the mode of initiation and end of delivery, newborn care change childbirth experience and the mother's level of satisfaction?

METHOD

Design of study

This is a longitudinal, observational, prospective study.

Setting

Women attended at the HULA, between January and November 2016, who consented to participate in the study, were studied.

Selection criteria

Pregnant women who attended to the fetal monitoring consultation between weeks 37 and 40 of pregnancy. The sampling was non probabilistic for convenience.

Patients who attended the consultation consecutively during the study period and who gave their consent to participate were included in the study, and those under 18 years of age and those with a language barrier were excluded.

Sample definition

The total number of women studied was 381 (Confidence 95%, Margin of error 5.5%), with an information loss percentage of 15% being assumed.

Data collection

The following was recorded: medical history; variables related to pregnancy progression; attendance of birth preparation classes; information about the birth plan and decision-making about it; clinical variables related to the beginning, progression and end of childbirth; perceived intrapartum and postpartum care adding some questions related to the use of non-pharmacological pain relief methods; movement in dilation; delivery position; skin-to-skin time with the baby, and breastfeeding; information about whether the newborn required admission to the intensive care unit or was able to stay with the mother. The results of the STAI questionnaire, the objective of which is to evaluate two independent concepts of anxiety, each of them with 20 questions, were obtained. Anxiety as a state: it assesses a transitory emotional state, characterized by subjective feelings. Anxiety as a trait: indicates a relatively stable, anxious propensity that characterizes individuals with a tendency to perceive situations as threatening[13]. The patients answered the whole questionnaire (state-trait anxiety) at the end of pregnancy in the fetal monitoring consultation and answered the questionnaire on state anxiety again in the maternity ward 24 hours after delivery.

The COMFORTS satisfaction questionnaire[4] modified to its Spanish version[5] consists of 40 items divided into 4 areas of care. Care during delivery, the postpartum period, newborn care, and logistics and environment are analyzed. The response options are Likert-type from 1 to 5 points with a scoring range from 40 to 200, the greatest satisfaction being the highest score. The categorization to facilitate the interpretation of the results is divided into two groups, dissatisfied or indifferent with care (score between 40 and 135 points) and satisfied (score between 136 and 200 points). In the scale description, according to the four established dimensions and after a rescaling process, scores ≤3.0 were classified as dissatisfied or indifferent.

Data analysis and processing

Data were analyzed with the Statistical Package for Social Sciences software (SPSS version 22.0). A descriptive analysis was carried out, quantitative variables were expressed as mean (SD), qualitative variables as absolute value (percentage). The possible association between satisfaction (yes/no-indifference) and the different variables studied was determined using the Chi-square test or Fisher's exact test. The comparison of mean values was carried out with Student's t test or the nonparametric Mann-Whitney U test, checking a priori if the data followed normal distribution

(Kolmogorov-Smirnov). Logistic regression models were implemented to determine the factors associated with women's dissatisfaction or indifference during the delivery and hospital postpartum periods.

Ethical aspects

The study has the approval of the Galicia Clinical Research Ethics Committee (CAEIG) (2015/61), ensuring the confidentiality of all data collected.

RESULTS

Women's mean age is 33.6 (4.4) years, with 57% being under 35 years of age. Regarding medical history, 18.4% had mental health consultations prior to pregnancy; of the gynecological-obstetric variables, 69.3% were primiparous and 10.2% had a previous cesarean section.

Of the sample, 39.4% were considered high-risk pregnancy; 58.6% started labor spontaneously, with 54.5% of deliveries ending eutocically, 19.5% being instrumental, and 26.1% being a cesarean section. The median duration of labor was 3.0 hours (range: 0-14). A total of 77.8% of the women opted for the use of epidural analgesia as a method of pain relief. Six percent of the newborns were admitted to the Intensive Care Unit. Seventy percent of newborns had skin-to-skin contact time with the mother and 15.9% with the father.

Regarding anxiety as a state, in the data collected in the fetal monitoring consultation, it was observed that 13.5% of the women present a severe level of anxiety, 35.2% moderate anxiety, 27.2% mild anxiety, and 24.1% minimal anxiety. These postpartum data were 11.1%, 25.5%, 25.5% and 37.9% respectively. Trait anxiety in women was minimal in 44.6%, mild in 28.6%, moderate for 18.4% and severe in 8.4% of the sample.

The sample studied was mostly satisfied, 94.5% of the women surveyed were satisfied in the global assessment, while 5.5% of the cases were indifferent or dissatisfied. The mean score of the COMFORTS global satisfaction questionnaire was 168.3 (22.2). Describing the results in more details, 198 women (52.0%) report being very satisfied, 42.5% satisfied, 4.5% showed indifference, and 1.0% were dissatisfied or very dissatisfied (Table 1).

In the analysis by dimensions, one highlights that the percentages of satisfied women are high in "logistics and environment" and in "delivery care" (99.0% and 97.6% respectively); and it is observed that the aspects with which pregnant women showed the highest level of dissatisfaction or indifference were newborn care (12.3%) and postpartum care (7.9%) (Table 1).

Table 1 – Satisfaction score with care received according to the COMFORTS scale of pregnant women included in Lugo – Lugo, ES, 2016.

	Total score	Dissatisfied or indifferent	Satisfied
	Mean (SD)	N (%)	N (%)
Total	168.3 (22.2)	21 (5.5)	360 (94.5)
Dimensions			
Childbirth care	57.9 (7.8)	9 (2.4)	372 (97.6)
Postpartum care	44.8 (8.1)	30 (7.9)	351 (92.1)
Newborn care	39.4 (7.5)	47 (12.3)	334 (87.7)
Logistics and environment	26.2 (3.4)	4 (1.0)	377 (99.0)

A significant relation between satisfaction and type of delivery was demonstrated. Thus, 97.6% of women undergoing eutocic deliveries reported being satisfied, compared to 87.8% of instrumental deliveries, and 92.9% of cesarean sections (p=0.005). The patients who have the baby with them are significantly more satisfied than the mothers of babies in the Intensive Care Unit (95.7% vs. 77.3%; p=0.004). Of the patients who have skin-to-skin contact time with their child, 96.6% report being satisfied, compared to 89.4% of those who do not (p=0.012) have it (Table 2).

Table 2 – Differences between satisfied and dissatisfied women, according to characteristics of the beginning, progress of labor, and perinatal results of the pregnant women included in Lugo – Lugo, ES, 2016.

		Not satisfied (%)	Satisfied	p	OR (95% CI)
Beginning of delivery	Spontaneous	11 (5.0)	207 (95.0)	0.718	
	Induced	8 (5.6)	135 (94.4)		
	Scheduled cesarean section	0 (0.0)	11 (100.0)		
Type of delivery	Vaginal	14 (5.0)	267 (95.0)	0.447	1
	Caesarean section	7 (7.1)	92 (92.9)		1.451 (0.568-3.706)
End of delivery	Eutocic	5 (2.4)	202 (97.6)	0.004	1
	Dystocic	16 (9.2)	157 (76.2)		4.117 (1.476-1.482)
Use of epidural	Yes	18 (6.3)	266 (93.7)	0.432	1
	No	3 (3.6)	80 (96.4)		0.554 (0.159-1.929)
Newborn care	Next to mother	15 (4.3)	332 (95.7)	0.004	1
	Intensive care	5 (22.7)	17 (77.3)		6.510 (2.117-2.019)
Skin to skin time (mother-baby)	Yes	9 (3.4)	255 (96.6)	0.012	1
	No	12 (10.6)	101 (89.4)		3.366 (1.376-8.234)

CI Confidence Interval; OD: Odds ratio

Of those who considered the expectations raised in the birth plan fulfilled, 96.7% were satisfied with the care received, compared to 70% of those who did not have their wishes met regarding the birth plan. The level of anxiety during pregnancy is significantly associated with satisfaction; 86.3% of patients with a severe state of anxiety (state) are satisfied; this percentage increases as the level of anxiety decreases, 100% of women with minimal anxiety are satisfied (p=0.004). The state anxiety scale was answered again 24 hours postpartum, and the results obtained were similar, 88.1% of women with a moderate or severe state of anxiety reported being satisfied compared to 97.9% of women with no anxiety or with mild anxiety (p<0.001) (Table 3).

Table 3 – Differences between satisfied and dissatisfied women, according to preparation for motherhood, the woman's perceptions, and mental health of the pregnant women included in Lugo – Lugo, ES, 2016.

		Dissatisfied (%)	Satisfied	p	OR (5% CI)
Attendance to maternal education	Yes	16 (6.5)	232 (93.5)	0.350	1
	No	5 (3.8)	128 (96.2)		0.566 (0.203-1.582)
Provision of delivery plan	Yes	6 (5.9)	95 (94.1)	0.793	1
	No	13 (5.0)	248 (95.0)		0.83 (0.307-2.437)
Birth plan expectations	In doubt or does not disagree	3 (30.0)	7 (70.0)	0.013	1
	Agrees	3 (3.3)	87 (96.7)		0.080 (0.014-0.475)
Prepartum State Anxiety	Minimal- Mild	4 (2.1)	190 (97.9)	0.002	1
	Moderate- Severe	17 (9.2)	167 (90.8)		4.835 (1.595-14.655)
Prepartum Trait Anxiety	Minimal-Mild	10 (3.7)	190 (97.9)	0.037	1
	Moderate- Severe	9 (9.1)	167 (90.8)		2.616 (1.028-6.627)
Postpartum State Anxiety	Minimal-Mild	5 (2.1)	229 (97.9)	<0.001	1
	Moderate- Severe	16 (11.9)	119 (88.1)		6.158 (2.202-17.220)

CI: Confidence Interval; OD: Odds ratio

Taking into account the variables that showed a significant association in the bivariate analysis with a negative or indifferent response, a multivariate logistic regression model is implemented. It is observed that presenting moderate-severe prepartum and postpartum anxiety increases significantly the probability of dissatisfaction or indifference (OR=3.5 95% CI=(1.1-11.1); OR=4.0 95% CI=(1.4-11.8), respectively). An instrumental delivery increases the probability of a negative response compared to a eutocic delivery (OR=4.3 95% CI=(1.3-14.2)) and a similar result is obtained in caesarean section compared to eutocic deliveries (OR=2,8 95% CI=(0.8-9.9)). The use of an epidural does not have a significant effect on a negative or indifferent response (OR=1.4 95% CI=(0.4-5.4)). Finally, one highlights that women with a medium pregnancy risk and with a high or very high risk decrease the probability of dissatisfaction or indifference, but not significantly (Table 4).

Table 4 – Multivariate logistic regression model of variables associated with dissatisfaction or indifference with care during delivery and postpartum of the pregnant women included in Lugo – Lugo, ES, 2016.

	Sig.	OR	Inferior (95% CI)	Superior (95% CI)
Eutocic delivery	0.053	1		
Instrumental delivery	0.016	4.322	1.314	14.216
Caesarean section	0.103	2.835	0.811	9.904
Postpartum State Anxiety	0.012	4.006	1.363	11.777
Prepartum State Anxiety	0.034	3.495	1.102	11.086
Low pregnancy risk	0.316	1		
Medium pregnancy risk	0.148	0.388	0.108	1.397
High pregnancy risk	0.192	0.417	0.112	1.553
Epidural (ref no)	0.582	1.451	0.385	5.466

Sig. Significance; OD: Odds ratio; IC: Confidence Interval.

DISCUSSION

The support from caregivers during childbirth[9], especially if the professional, generally the midwife, provides continuous and personalized support[5], as well as the accompaniment by a person of the woman's choice[14], have proven to be influencing factors in the birth experience. Women need to be part of the process, having a sense of control during delivery[15], participating in decision-making, and being well informed about events. In the four dimensions of the COMFORTS scale, aspects of the care provided and the information they receive are assessed, with the dimension newborn care being the one that obtained the lowest score.

The delivery end influences perceived satisfaction. The end as a eutocic delivery improved satisfaction, when the results are compared to those of instrumental delivery and cesarean section, as in other investigations[10,16].

In this study, no differences were detected in patient satisfaction related to the route of delivery, vaginal vs. abdominal, with the results being divided into scheduled and unscheduled cesarean sections; this finding may be the result of the normalizing effect of cesarean births due to the high rate they represent. Unscheduled cesarean sections have elicited less positive feelings in other studies[10]. In contrast, other studies have not detected significant differences according to the route of delivery[11].

The first moments of the newborn are crucial, the implementation of skin-to-skin time, a simple technique that consists of placing the naked baby on the mother's abdomen, has shown many benefits, both for the mother and the baby. Being able to see, hold, and feed the baby as soon as possible is a more satisfactory birth experience[16]; the separation of the baby makes it impossible to perform skin-to-skin with the baby, decreasing the level of satisfaction significantly, such as shown in this study, both when analyzing the performance or not of the skin-to-skin practice and when analyzing the separation of the newborn admitted to the intensive care unit.

Knowing the woman's expectations regarding childbirth is an important predictor factor related to satisfaction[11-12]. Prior information that women have is essential, because the degree of consistency between what the woman expects and what actually happens is related to the more or less satisfactory experience of the birth process[17-18]. The birth plan is a document in which the woman can express her preferences, needs, wishes, and expectations about the labor and delivery process. It offers information and alternatives, if applicable, regarding the period of dilation, expulsive period, childbirth, and hospital postpartum. It facilitates communication between clients and caregivers, while promoting and facilitating informed decision-making by women[19].

In the hospital where the study was carried out, an informative talk about the birth plan is offered, and the document is given to all pregnant women who wish to take it; this document is given voluntarily upon admission. Whether or not to deliver the birth plan does not show differences in the satisfaction perceived by the woman, but when asked about the fulfillment of the expectations reflected in that plan, it is observed that the women who did not agree with the exceptions of the plan appear as less satisfied; however, other authors conclude that there is not enough evidence to support or refute that delivery plans can improve the experience[20].

According to the data obtained, high levels of anxiety in pregnancy, as well as in the postpartum period, are related to worse levels of satisfaction. The perception of childbirth has implications for maternal and child health and affects its experience. Anxiety in pregnancy would explain differences in the experience of childbirth[21].

Other published studies have shown a significant association between patient satisfaction and the duration of labor; women who have had longer labors report being less satisfied[8]. Women who received oxytocin to accelerate labor[8] or who underwent more medical interventions[11] were less satisfied. Those women who attended a childbirth preparation program are more satisfied[22]. These variables did not show a significant relation in this study.

The pain relief method has not shown differences in satisfaction levels either. Despite the fact that nonpharmacological methods for pain relief such as hydrotherapy or spherodynamics are offered, a high number of women opted for epidural analgesia. Although pain relief influences satisfaction, its relief to a greater or lesser extent is not the only factor influencing perceived satisfaction[14,23].

The interpretation of this study results shall consider possible limitations. The sampling carried out was non-probabilistic. However, the characteristics of the patients and the results obtained in relation to satisfaction have been consistent with the published literature. Information bias was minimized with the use of validated questionnaires. The difficulty of choosing the optimal moment to deliver the above-mentioned questionnaire shall be highlighted. The results could vary depending on the moment chosen for collection, because during the immediate postpartum a healthy newborn eliminates or masks the negative part of the process as a consequence of the halo effect[10]. To minimize the confounding bias, sociodemographic and clinical variables such as parity or level of pregnancy risk were collected, which could modify the objective parameters for measuring satisfaction.

CONCLUSION

In conclusion, satisfaction in the birth experience is influenced by different factors; one is having a natural delivery with a newborn who can stay with the mother, with skin-to-skin time in the first hours of life, and who stays with her in the hospital unit; also, women with less anxiety during pregnancy, as well as in the postpartum period, and users with good information regarding childbirth progress that can meet and enjoy real expectations for the delivery will be the women with the greatest satisfaction in the childbirth and postpartum process. Promoting good care practices for natural childbirth, as well as detecting women with high levels of anxiety during pregnancy, could be of great help in improving the birth experience.

RESUMEN

Objetivo: Determinar el grado de satisfacción en el parto y puerperio. **Método:** Estudio observacional longitudinal. Se recogieron variables clínicas de las pacientes y del parto, realizándose un análisis descriptivo e inferencial. Se utilizaron los cuestionarios validados de ansiedad estado y rasgo (STAI) y la encuesta de satisfacción Care in Obstetrics Measure For Testing Satisfaction Scale (COMFORTS) en Español. **Resultados:** Se incluyeron en el estudio 381 mujeres que se agruparon en satisfechas vs. no-satisfechas (94,54% vs. 5,46%). Las mujeres con un parto eutócico refieren estar más satisfechas (p=0,005), así como aquellas que realizaron piel con piel con su recién nacido (p=0,012). Las madres que se separaron de sus bebés refieren estar menos satisfechas (p=0,004), al igual que las que no cumplieron las expectativas reflejadas en el plan de nacimiento (p=0,013). El 100% de las mujeres con ansiedad mínima están satisfechas (p=0,004), de igual manera sucede con el grado de ansiedad estado postparto (p<0,001). **Conclusión:** El porcentaje de mujeres satisfechas es elevado, es necesario cuidar la atención al parto y puerperio, fomentando las buenas prácticas de atención al parto, así como el bienestar emocional de las mujeres.

DESCRIPTORES

Parto Obstétrico, Periodo Posparto, Satisfacción del Paciente; Enfermería Obstétrica.

RESUMO

Objetivo: Determinar o grau de satisfação no parto e puerpério. **Método:** Estudo observacional longitudinal. Foram coletadas variáveis clínicas das pacientes e do parto, realizando-se análise descritiva e inferencial. Foram utilizados os questionários validados de ansiedade como traço e estado (STAI) e a pesquisa de satisfação da Care in Obstetrics Measure For Testing Satisfaction Scale (COMFORTS) em espanhol. **Resultados:** 381 mulheres foram incluídas no estudo, agrupadas em satisfeitas vs. não satisfeitas (94,54% vs. 5,46%). Mulheres com parto eutócico relataram estar mais satisfeitas (p = 0,005), assim como aquelas que realizaram contato pele-a-pele com o recém-nascido (p = 0,012). As mães que se separaram de seus bebês relataram estar menos satisfeitas (p = 0,004), assim como aquelas que não tiveram atendidas as expectativas refletidas no plano de parto (p = 0,013). 100% das mulheres com ansiedade mínima estão satisfeitas (p = 0,004), o mesmo ocorre com o grau de ansiedade pós-parto (p <0,001). **Conclusão:** O percentual de mulheres satisfeitas é alto, é necessário cuidar da assistência ao parto e puerpério, promovendo boas práticas na assistência ao parto, bem como o bem-estar emocional da mulher.

DESCRITORES

Parto Obstétrico; Período Pós-Parto; Satisfação do Paciente; Enfermagem Obstétrica.

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