ORIGINAL ARTICLE

Assessment of mothers' satisfaction with health care during childbirth in a tertiary-level maternity ward

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ABSTRACT

Aim To evaluate satisfaction of mothers who gave birth at term with received hospital care and to find areas for improvement at a tertiary hospital.

Methods A cross-sectional study at the Department of Obstetrics & Gynaecology at the University Clinical Hospital Mostar was conducted by an anonymous survey using a questionnaire designed exclusively for this study. A total of 100 mothers were included in the study.

Results Satisfaction with midwives' communication and their approach to the women during their stay in the delivery room was rated significantly higher (4.7±0.6) when compared to obstetricians-gynaecologists (4.5±0.8) (p=0.02). Midwives were rated better in providing breastfeeding information (4.5±0.8) than for the speed of arrival after a call bell (average grade 4.2±1.0). Respondents were least satisfied with the hygiene (toilet, shower and rooms) and the quality of food (average grades 3.8±1.1 and 3.9±1.0, respectively). Mothers with previous experience in childbirth at the same hospital rated current stay with a similar level of satisfaction.

Conclusion Good communication skills of medical and non-medical staff are a recommended step to maintain mothers′ childbirth satisfaction, while improvement in quality of nutrition and hygiene should be mandatory.

Key words: delivery room, health care, hygiene, midwifery, obstetrics

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INTRODUCTION

Patient satisfaction with the provided hospital care is recognized as one of the key factors in the assessment of the health care system, and it is defined as the difference between an expectation and experience by health care users (1).

Assessing patient satisfaction with hospital services is an important determinant for taking measures to improve health care (2). The quality of care provided by any hospital can be assessed and monitored in several ways (3). One of the methods, which are not ordinarily used, involves expressing patients' subjective perceptions about the services provided to them. Assessments and perceptions by health care providers and administrators of the quality and standards of service provided can often be completely different from patients' perceptions on the same services (4).-

The quality of communication with health care professionals and health care providers could affect patients of all ages and genders, but women of childbearing age and especially pregnant women and women in labour are more prone to develop depression due to their social and psychological sensitivity (5). This requires a more empathetic and collaborative approach that can be achieved with good communication skills. Obstetricians and midwives need to put more effort into quality communication (6). In some centres, guidelines are defined to achieve good communication such as providing a comfortable environment, quick response, appropriate attitude, and good knowledge of clinical skills (7)

According to the recommendations of the National Institute for Health and Care Excellence (NICE), measuring the satisfaction of mothers with intrapartum care helps to identify problems whose solution will improve the quality of obstetric services (8).

Maternal satisfactions as one of the important quality indicators of health care could be used for comparison between hospitals, public (score 4.46) and private (score 4.60) one (9). There is a lack of research on the maternal satisfaction with hospital care in Bosnia and Herzegovina.

The aim of the study was to evaluate mothers' satisfaction with received hospital care during childbirth and early puerperium at the Department of Obstetrics and Gynaecology, University Clinical Hospital Mostar and to determine areas in which it could be improved.

PATIENTS AND METHODS

Patients and study design

A cross-sectional study of mothers' satisfaction with the received medical care at the Perinatology Ward of the Department of Obstetrics & Gynaecology at the University Clinical Hospital Mostar was conducted in the period from 9 November 2019 to 10 February 2020.

A total of 100 mothers with live and term babies regardless of the mode of delivery (vaginal delivery or caesarean section) were included in the study, while women with preterm delivery or stillbirth were excluded.

All mothers were informed about the study in a written form and signed a consent form for inclusion in the study.

An approval to conduct the survey was previously obtained from the Ethical Committee of the University Clinical Hospital Mostar.

Methods

Anonymous questionnaires specifically designed for this study were applied. The participation of mothers was voluntary and at any time they could have stopped completing the questionnaire.

Mothers who agreed to the survey received the questionnaires and completed them independently.

The questionnaire consisted of questions on general and sociodemographic data, followed by five separate groups of questions. The answers were rated as follows: 1 - very bad, 2 - bad, 3 - good, 4 - very good, or 5 - excellent. The first group of questions focused on the birth experience (Table 1), and the second and third group on the experience and satisfaction with health care at the delivery room (Table 2) and maternity ward, respectively, referring to the satisfaction of interaction with all health professionals who came into contact with the mothers (obstetricians-gynaecologists, paediatricians, midwives and nurses). The fourth group of questions referred to the satisfaction with the hygiene of the space in which the mothers stayed, the quality of the food they received and the attitude of the support staff (Table 4). The fifth group of questions consisted of the overall grades for the Department's medical staff as well as the overall quality of the stay in the delivery room and maternity hospital, the total quality of the previous stay (if the res-

pondent had a previous childbirth at the same department) and the question on personal readiness to take care of the child after discharge from the maternity hospital (Table 5).

Statistical analysis

Statistical analysis included a calculation of descriptive data, and the arithmetic mean and standard deviation (SD) were calculated. A $\chi 2$ test was used for frequency analysis. A non - parametric Wilcoxon test was used to analyse the interval scale of independent samples, while a t - test was used to analyse the mean values. The level of statistical significance was $p < 0.05$.

RESULTS

The majority of mothers belonged to the age group between 20 and 39 years old (mean age 30.6±4.5), finished secondary school, lived in the city, had average socioeconomic status, no previous delivery experience, and a spontaneous onset of labour with vaginal delivery (Table 1). The mean stay in hospital was 4.2±2.3 days.

Communication with obstetricians - gynaecologists and midwives in delivery room was rated with high grades. However, communication with midwives was rated significantly higher than the average grade (p=0.0214). Also, the midwifes' approach towards the mothers' view of the way of giving birth was rated significantly higher when compared to the obstetricians - gynaecologists' approach (p=0.0145) (Table 2).

Table 1. General and obstetric characteristics of mothers

Variable (No of mothers)	No (%) of mothers
Age (years) (n=93)	
20 – 29	42 (45.2)
30 – 39	49 (52.7)
40 – 49	2 (2.1)
Education degree (n=100)	
Primary school	0
High school	51 (51.5)
Undergraduate studies	16 (16.2)
Graduated (University)	33 (32.3)
Marital status (n=100)	
Married	98 (98.0)
Unmarried	2 (2.0)
Residence (n=100)	
Village	45 (45.0)
Town	55 (55.0)
Socioeconomic status (n=99)	
Below average	0
Average	93 (93.0)
Above average	6 (6.1)
Parity (n=99)	
First delivery	40 (40.4)
Second delivery	39 (39.4)
Third and more deliveries	20 (20.2)
Onset of labour (n=100)	
Spontaneous, contraction	47 (48.0)
Spontaneous membrane rupture	14 (14.3)
Induction of labour (oxytocin – misoprostol)	29 (29.6)
Elective caesarean section	8 (8.1)
Type of delivery (n=100)	
Vaginal	73 (72.0)
Caesarean section	27 (27.0)

Table 2. Mothers' satisfaction during the labour and delivery

Question	Number of mothers	Mothers' satisfaction rating (arithmetic mean±SD)*
Communication with an obstetrician– gynaecologist	100	4.5±0.8
Information received during the labour and delivery from an obstetrician - gynaecologist	99	4.4±0.9
Obstetrician - gynaecologist's approach during labour and delivery	98	4.5±0.8
Communication with the midwife	97	4.7±0.6
Personal qualities of midwives (decency, respect, sensitivity, tenderness, patience)	100	4.7±0.6
Approach of midwives towards the mother view of the way of giving birth (alternative way of giving birth)	96	4.7±0.6
Attention of midwife paid for more pleasant experience	100	4.7±0.6

*The answers were rated as follows: 1 - very bad, 2 - bad, 3 - good, 4 - very good, or 5 - excellent; SD, standard deviation

The mothers rated communication with the health care staff, the attention they received and the care they received with relatively high grades. Midwives received better average grade for providing information on breastfeeding than paediatricians (p=0.0026) (Table 3).

Table 3. Mothers' satisfaction during stays at the Maternity Ward

Question	Number of mothers	Mothers' satisfaction rating (arithmetic mean±SD)*
Communication with a paediatrician	100	4.2±1.0
Information obtained on the child health from a paediatrician	100	4.2±1.0
Information on breastfeeding obtained from a paediatrician	99	4.2±1.2
Information obtained on a morning round from an obstetrician–gynaecologist	99	4.2±1.1
Information on breastfeeding obtained from midwives	100	4.5±0.8
The attention that midwives paid for a more pleasant experience	99	4.3±0.9
Comfort and support received from midwives	99	4.3±1.0
Personal qualities of midwives (decency, respect, sensitivity, tenderness, patience)	99	4.3±0.9
Specific breastfeeding assistance from midwives	97	4.3±1.0
Call bell response time	92	4.2±1.0

*The answers were rated as follows: 1 - very bad, 2 - bad, 3 - good, 4 - very good, or 5 – excellent; SD, standard deviation

The attitude of support staff towards the mothers was rated better than tidiness and cleanliness of rooms ($p < 0.0001$), quality of food ($p = 0, 0001$) and tidiness and cleanliness of showers and toilets ($p < 0.0001$), which have the lowest average grade in this study (Table 4).

Table 4. Mothers' satisfaction with hygiene, food and attitude of support staff during their stay at the Perinatology Ward

Question	Number of mothers	Mothers' satisfaction rating (arithmetic mean±SD)*
Tidiness and cleanliness of rooms	100	3.9±1.0
Tidiness and cleanliness of showers and toilets	100	3.8±1.1
Number of meals	99	4.2±0.9
Quality of food	99	3.9±1.0
Relationship of support staff	100	4.3±0.9

*The answers were rated as follows: 1 - very bad, 2 - bad, 3 - good, 4 - very good, or 5 – excellent; SD, standard deviation

The satisfaction of the mothers with midwives in the delivery room was statistically significantly higher when compared to obstetricians-gynaecologists ($p=0.0007$). There was no significant difference in the satisfaction of the respondents with obstetricians-gynaecologists and paediatricians ($p=0.345$) (Table 4).

Table 5. Mothers' satisfaction during their stay at the Perinatology Ward

Question	Number of mothers	Mothers' satisfaction rating (arithmetic mean±SD)*
Obstetricians - gynaecologists in the delivery room	100	4.5± 0.7
Midwives in the delivery room	99	4.7 ± 0.5
Paediatricians in the maternity ward	99	4.4.± 0.8
Nurses for newborns in the maternity ward	99	4.5± 0.8
Overall quality of the stay in the delivery room	99	4.4.± 0.8
Overall quality of the stay in the maternity ward	99	4.2± 0.9
Overall quality of the previous stay	67	4.3± 0.8

*The answers were rated as follows: 1 - very bad, 2 - bad, 3 - good, 4 - very good, or 5 – excellent; SD, standard deviation

A stay at the Perinatology Ward at the time of delivery and at the time of early puerperium were rated with a high average grade (Table 5). However, the stay in the delivery room was rated significantly better ($p=0.0023$). Mothers with previous experience in childbirth in the same hospital rated current hospitalisation with a similar score of satisfaction with health care as in the previous stay ($p=1.0$).

DISCUSSION

The results of this study confirm high satisfaction of mothers with the received hospital care at the Perinatology Ward of University Clinical Hospital Mostar. We should emphasize that there are high grades for satisfaction with communication with midwives during the stay in the delivery room and slightly lower grades for satisfaction with the stay at the Maternity Ward after childbirth, as well as for the grades on satisfaction with communication with obstetricians - gynaecologists and paediatricians.

The quality characteristics of health care include the quality of interpersonal skills of health care providers, competencies of health care staff, physical environment and arrangement of the institution, accessibility of medical services, continuity of care, hospital characteristics and therapeutic outcomes - all strongly related to patient satisfaction (10). This supports a number of theories and models on health service quality, suggesting that health service quality indicators, including indicators of health service processes and outcomes, play a key role in patient satisfaction (10,11). Among the determinants related to the service, the strongest positive correlation was found between interpersonal skills of healthcare workers and patient satisfaction (12). For this reason, it is necessary to try and define patient satisfaction on the basis of several health service quality indicators and the way patients develop their satisfaction with health services (12). Moreover, if patient satisfaction is a central issue of health services, the first step would be to establish or strengthen the education of medical and health students on interpersonal skills to increase communication and empathy skills, as well as ensure continuity of on-the-job training for health workers (13).

Satisfaction is also greatly affected by the cleanliness and tidiness of the space in which the patients stay during hospitalization (14). In this study, the average grades are relatively lower in relation to tidiness, cleanliness and quality of patient rooms, showers and toilets. This issue is also observed by other studies, especially those from third world countries (15). In a study from Pakistan, satisfaction with cleanliness was recorded in only 13% of cases (15). This problem, especially in state institutions, requires appropriate measures to address, as well as to maintain the standard once they are achieved, which ultimately depends not only on finances but also on organizational measures and control over its implementation (16).

Additional factors that potentially limit this study should be taken into account. Published data have shown evidence that sociodemographic factors affected patient satisfaction with health services and therefore these variables should be considered when comparing patient satisfaction between certain groups or countries (17). The analysed group of mothers in our study represented a homogeneous structure with appropriate education and optimal age for birth with average socio-economic status. The effect of the length of stay can also cause changes in satisfaction outcomes (18). In a Japanese study, the factors influencing the patient satisfaction experience differed significantly in those hospitalized for less than one week, between one and four weeks, and those hospitalized for more than a month (18). Additionally, patient illness severity could also contribute to a possible impact on psychological wellbeing (19). In our study, the length of hospital stay, in most cases, was within 6 days, which makes the group compact and reduces possible variations in the expressed satisfaction.

The seasonal fluctuation in hospitalization of patients and the completion of satisfaction questionnaires can further affect outcomes of patient satisfaction (20). The unwillingness of patients to come to the hospital during the summer months must be taken into account (20). Our survey was conducted during the winter months where only a short period, from Christmas (25 December) to the Three Kings Day (6 January), was covered by a reduction in the number of medical staff.

In conclusion, the mothers showed high satisfaction with received health care at the Perinatology Ward of University Clinical Hospital Mostar which represents an obligation for the continuation of the development of good clinical practice with an emphasis on the implementation of communication skills of medical and non-medical staff. Areas that require improvement are hygiene and nutrition and they are largely dependent on the overall organization at the level of the entire hospital. This study, the first of its kind at the University Clinical Hospital Mostar, Bosnia and Herzegovina, should be the starting point for future studies on satisfaction of mothers with hospital care during childbirth and early postpartum period. In the future studies, it is necessary to include specific procedures during hospital care in perinatology and compare them with the expressed satisfaction of health care users.

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TRANSPARENCY DECLARATION

Conflict of interest: None to declare.

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