«Original Articles »
Mother`s satisfaction assessment on education and information provided by maternal care givers from Tabriz educational and non-educational hospitals

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Abstract
Background: Satisfaction with health care is an important criterion and variable in assessing the quality of medical care. Especially mother`s satisfaction from childbirth care procedure is a determinant factor in psychological and social health The study aimed to assess mothers` satisfaction in terms of education and information provided by maternal care givers.

Materials and methods: A descriptive comparative study was carried out on 270 childbirth admitted mothers in Alzahra, Taleghani and 29 Bahman Hospitals in Tabriz. Data were collection using mother`s satisfaction questionnaire which evaluated the satisfaction from labor, delivery and postpartum care givers.

Results: In teaching-hospitals mother`s satisfaction from educational hospitals in labor, delivery and postpartum phase were 33%, 89.5%, 46% , respectively and in non teaching-hospitals 81.4%, 100%.35.7%, correspondingly. There was a significant difference for mother`s satisfaction from labor and delivery phase comparing both teaching and non teaching-hospitals (PV=0.005). However, there was not a significant difference for postpartum phase (PV=0.487).

Conclusion: The obtained results showed that satisfaction rate in non teaching-hospitals was higher than teaching hospitals in both labor and delivery phase and one of the reasons for low satisfaction in teaching-hospitals is the presence of students and a large number of care givers. In both teaching and non teaching-hospitals the mothers` satisfaction rate from labors and postpartum care givers was low so that, it is necessary to encourage care givers provide mothers with necessary educations.

Key words: satisfaction, care givers, normal vaginal delivery, education.

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**Introduction**

Birth delivery is a very important physiological event along with deep physical, psychological and emotional effects in woman's life. This phenomenon is associated with pain, psychological strain, vulnerability, probable physical effects and death in some rare cases (1). Taking care of mother in delivery with no side effects is midwife responsibility. She is the only person who is skillful in this regard and has the responsibility of looking after mothers and babies. The quality of midwifery care is one of the issues, which has major effects on the results of delivery. The performance and activities of the midwife in this critical situation might not only have different results ranging from life to death and health to physical damage but also they might considerably affect the psychological and emotional health of the mother and the baby.

Patient satisfaction is a concept that is highly important in medical care (3, 4). Patient’s satisfaction refers to the health care provider (5). Harvey (2002, as cited in Donabedian) believes that "satisfaction with health care is an important criterion and variable in assessing the quality of medical care" (6). Patients’ satisfaction with the caring services is important since the satisfied patients show different reactions in comparison to the unsatisfied ones, and the satisfied patients continue the treatment, follow it encouraging others to apply the provided treatments. Therefore, the satisfied patients not only do not stop using nursing services but they also tend to use it growingly (5). Moreover, Chunuan (2002) (7) claims that if a woman feels unsatisfied with her delivery experience, she can hardly communicate with her baby, and a positive labor experience might affect her next delivery and her opinion about herself as a mother. Mackey and Stepans (2006) (8) in their study entitled, “Women’s evaluation of child labor and delivery nurses” indicated that 90 percent of the women labeled their labor and delivery desirable and 10 percent considered it to be undesirable. They considered the nurses performance to be desirable in the following aspects: participation (80%), reception (76%), given information (76%), encouragement (65%), presence (53%), capability and merit (7%) (8). The recent studies in middle east and developing countries confirmed the usefulness of women’s report in determining the quality of caring services. In Lebanon, they showed that women who had complete confidence in their doctors and rarely asked questions, considered many routine processes to be useful, even at times when the researchers considered them to be unnecessary. Taylor et al (2005) believe that education can help reduce stress, and the instructed patient often resists against exhaustion from pain and gets less stress (10). Ordibeheshti (1998) in his study indicated that information expectations of the mothers were not fulfilled in 51.10 percent of the cases; in 23.8 percent of the cases the expectations are fulfilled to some extent and in 25.1 percent, they are fulfilled (11). A study by Mir Movlayi (2004) indicated that 82 percent of the mothers were completely satisfied with the way they received information support (16).

Since it is not possible to improve the quality of patient care services without attending to the patients’ ideas and expectations and considering the fact that midwifes are among the main members of primary health care team and have major roles in pre-labor and postpartum care, they need to be aware of the factors affecting the patients’ satisfaction (12). Due to the lack of research on determining satisfaction with education and the provision of the information mothers need by labor process nurses (from the time of checking into the hospital to the time of checking out), there is a gap of research in this area. Therefore, the researchers decided to conduct a research on the satisfaction of mothers with the
instructions and information provided by labor nurses during the delivery and postpartum period in educational and non-educational hospitals of Tabriz in order to use the results for determining the weaknesses in the current care programs.

**Materials and methods:** The present study is a cross-sectional descriptive analytical research that was conducted in the educational hospitals of Al-Zahraa (S) and Taleqani and the non-educational hospital of Bahman 29th in Tabriz. To calculate the sample size, ratio formula was used:

\[
n = \frac{\left( \frac{\alpha}{2} \right)^2 P(1 - P)}{d^2}
\]

At a probability level of 95%, the sample size was estimated to be 270. The sampling procedure in this study was based on quota sampling. Since the number of child deliveries in Tabriz hospitals was different, the statistics of vaginal delivery from each hospital was obtained, so in the first six months of 2009, the number of natural delivery in Al-Zahraa (S), Taleqani and Bahman 29th hospitals was respectively 2849, 2184 and 1698. In proportion to the number of birth deliveries in each hospital, the intact sample of the qualified mothers was selected, and respectively 114, 86 and 70 mothers who had referred to Alzahraa (S), Taleqani and Bahman 29th hospitals were selected. The instruments of data collection in this study included a questionnaire which was prepared by the Newcastle Satisfaction with Nursing Scale (NSNS) (5), Sylheti questionnaire (13), Labor/delivery evaluation scale (14), Patient Satisfaction Questionnaire (PSQ), Patient Satisfaction with Health Care Questionnaire (PSHCQ) (7), Satisfaction with Intrapartum care, Satisfaction with Antenatal Care Scale, Satisfaction with Postnatal care scale and the questionnaires from the theses of Ordibeheshti (11) and Mir Movlayi (16). The first part of this questionnaire is about personal-social features and the history of previous and present deliveries, and the second, third and fourth parts of the questionnaire are about satisfaction with the education and instructions provided to the mothers by labor caretakers before and after the delivery. The mothers’ satisfaction was measured in a five-scale Lickert scale that included "I am completely satisfied" (5 scores), "I am satisfied" (4 scores), "I have no idea or I have no objection" (3 scores) and "I am completely unsatisfied" (1 score). The validity of the questionnaire was established by content validity procedures. To ensure the content validity of the questionnaire, it was given to 10 members of academic staff at the Tabriz Medical Sciences University. In order to determine the reliability, the questionnaire was completed by 30 mothers. The reliability in Cronbach’s alpha was determined to be 0.829. To start the research, having obtained the needed reference letter from the faculty and having introduced himself to the hospital authorities, the researcher went to postpartum section. After the mother’s state stabilized, the researcher asked permission from her for examining her file in terms of meeting research conditions including being in the age range of 18 to 35, no background of physical and psychological illnesses (according to the mothers’ self-statement), the mother’s willingness to take part in the research, no indication of cesarean section, term pregnancy, having trouble-free pregnancy and being hospitalized 2 hours before the delivery. If the patient met the needed qualifications, the questionnaire was completed. Before the study, the necessary permits were obtained from the research committee of Tabriz Medical Sciences University. Moreover, all cases under study were informed of the purpose of the study, methodology, optional nature of participation in the study and the confidentiality of the information. They
were also informed that they can leave the study whenever they wanted.

To analyze the data, SPSS software was used. To examine the degree of satisfaction, descriptive statistics was used. To study the relationship between individual-social characteristics and the satisfying midwives, ANOVA, correlational studies, and independent T-tests were used. Finally, to compare satisfaction in educational and non-educational hospitals, independent samples T-test was used.

**Results**

The average age of the mothers was 24.96±4.791. Most of the women (46.7 %) were between the age ranges of 18 to 23. Seven percent of the mothers had university level education, 35.2 % had senior high school level education, 30.7 % had primary schooling, 22.2 % had junior high school education and 13 people (4.8%) were uneducated. Most of the subjects (80%) were housewives, 4.8 percent were employed out of home and 15.2 percent were self-employed home businesses. The average number of surviving children per families under study was 1.49±0.803; the average number of dead children per family was 0.04±0.208, and the average number of abortions was 0.15±0414. The majority of the family units under study were nulliparous. Among the mothers 245 cases (90.7 %) had no pain or problem during the delivery and pregnancy, and 249 cases (92.2%) had previous information or familiarity with the delivery. The main source of information about mothers was the health personnel (25.6 %), and the least important source of information (2.2 %) was through the people with whom the patients were in contact.

In studying the rate of satisfaction, it became clear that the rate of satisfaction with instructions and the provision of the information needed by mothers in hospitals (both educational and non-educational) in labor and postpartum period was less than the rate of satisfaction in delivery period, so in Lickert scale only 11.9 percent of the mothers were satisfied with labor. On the whole, 33.7 percent were satisfied, 41.5 percent had no idea, 9.6 percent were unsatisfied and 3.3 percent were completely unsatisfied. In delivery period, 55.9 percent of the mothers were completely satisfied, 36.3 were satisfied, 6.7 percent had no idea, 0.7 were unsatisfied and 0.4 percent was completely unsatisfied. In postpartum period, the rate of dissatisfaction was higher, therefore, 24.8 % were unsatisfied and 2.2 % were completely unsatisfied while 8.9 % and 34.5 % were respectively completely satisfied and satisfied, and 29.6 % had no opinion. The range of mothers’ satisfaction with education and the information provided by delivery care takers in each hospital in labor, delivery and postpartum stages are given in Table 1 for educational hospitals and in Table 2 for non-educational hospitals (Tables 1 and 2).

For studying the relationship of personal-social characteristics and care services of mothers with their satisfaction with delivery care takers in terms of age, the number of surviving, dead and aborted children correlational analysis was used. To examine the relationship between educational level, job and the source of gaining information, ANOVA was used, and to study the relationship between the existence of pain and problem in previous delivery and previous familiarity with delivery, independent sample T-test was run. Concerning the personal-social characteristics and midwifery, there was a significant statistical relationship only about the sources of obtaining information in terms of the delivery process (F = 4.52 and P = 0.0001) and previous familiarity about delivery (t = 0.27, p = 0.024) (Table 3).

To compare the satisfaction of mothers with the instructions and the information provided by child labor nurses in delivery and postpartum periods in educational and non-educational hospitals of Tabriz,
independent samples T-test was run. The results indicated that satisfaction with instructions and the needed information in educational and non-educational hospitals of Tabriz in labor and delivery period was statistically significant (t = 5.91, P = 0.0001), but in postpartum period it was not statistically significant (t = 5.91, P= 0.0001).

**Table 1: Frequency the Mother’s Satisfaction of Education and Information provided by labor, delivery and postpartum care givers in Tabriz educational hospitals**

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Completely satisfied</th>
<th>Satisfied</th>
<th>No idea</th>
<th>Unsatisfied</th>
<th>Completely unsatisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information needed</td>
<td>Labor</td>
<td>7(3.5)</td>
<td>59(25.5)</td>
<td>100(50)</td>
<td>25(12.5)</td>
<td>9(4.5)</td>
</tr>
<tr>
<td></td>
<td>Delivery</td>
<td>100(50)</td>
<td>79(39.5)</td>
<td>18(9)</td>
<td>2(1)</td>
<td>1(0.5)</td>
</tr>
<tr>
<td></td>
<td>Postpartum</td>
<td>23(11.5)</td>
<td>69(34.5)</td>
<td>41(20.5)</td>
<td>61(30.5)</td>
<td>6(3)</td>
</tr>
</tbody>
</table>

**Table 2: Frequency the Mother’s Satisfaction of Education and Information provided by labor, delivery and postpartum care givers in Tabriz non-educational hospitals**

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Completely satisfied</th>
<th>Satisfied</th>
<th>No idea</th>
<th>Unsatisfied</th>
<th>Completely unsatisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information needed</td>
<td>Labor</td>
<td>25(35.7)</td>
<td>32(45.7)</td>
<td>12(17.2)</td>
<td>1(1.4)</td>
<td>0(0)</td>
</tr>
<tr>
<td></td>
<td>Delivery</td>
<td>51(72.9)</td>
<td>19(27.1)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>0(0)</td>
</tr>
<tr>
<td></td>
<td>Postpartum</td>
<td>1(1.4)</td>
<td>24(34.3)</td>
<td>39(55.7)</td>
<td>6(8.6)</td>
<td>0(0)</td>
</tr>
</tbody>
</table>

**Table 3: Studying the relationship of personal-social characteristics and Mother’s Satisfaction of Education and Information provided by labor, delivery and postpartum care givers**

<table>
<thead>
<tr>
<th>Satisfaction Characteristics</th>
<th>P-value</th>
<th>Analysis</th>
<th>DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.198</td>
<td>r=0.079</td>
<td></td>
</tr>
<tr>
<td>Educational</td>
<td>0.58</td>
<td>F=0.718</td>
<td>df=4</td>
</tr>
<tr>
<td>Job</td>
<td>0.185</td>
<td>F=0.698</td>
<td>df=2</td>
</tr>
<tr>
<td>Surviving children</td>
<td>0.009</td>
<td>r=-0.159</td>
<td>df=2</td>
</tr>
<tr>
<td>Dead children</td>
<td>0.747</td>
<td>r=-0.02</td>
<td></td>
</tr>
<tr>
<td>Abortion</td>
<td>0.194</td>
<td>r=0.079</td>
<td></td>
</tr>
<tr>
<td>Existence problem in previous delivery</td>
<td>0.355</td>
<td>t=-0.927</td>
<td>df=268</td>
</tr>
<tr>
<td>Previous familiarity with delivery</td>
<td>0.024</td>
<td>t=0.276</td>
<td>df=268</td>
</tr>
<tr>
<td>The source of gaining information</td>
<td>0.0001</td>
<td>F=4.515</td>
<td>df=7</td>
</tr>
</tbody>
</table>

**Discussion**

The results of the present study indicated that the satisfaction of the mothers with instructions and getting information was low in labor and postpartum period, but it was higher at the child delivery stage. Ordibeheshti (2008) (11) showed that the mothers’ informational expectations in educational hospitals was 25.1 percent. The highest rate was related to providing mothers with information about Postpartum care (91%), and advice about the way of breathing, and the lowest rate was related to an explanation of medical and midwifery terms (6%) and the explanation of the duties of the care-takers and other personnel (8%). These cases did
not match the present study; the current rate of satisfaction was higher, especially in delivery period (11).

Generally, the present study showed that mothers’ satisfaction with instructions and getting the needed information from care takers in delivery period was higher than that of labor and postpartum care takers. This might be due to child delivery operation by one person (in non-educational hospitals by a midwife) and the high number of care takers in labor and postpartum periods. The results of the present study showed that mothers’ satisfaction with instructions and the information provided by labor and delivery care takers in educational and non-educational hospitals was statistically significant, but in postpartum period no significant difference was observed. Therefore, satisfaction in labor and delivery period was higher for non-educational hospitals. This lower rate of satisfaction can be justified due to fewer number of care takers and students in educational hospitals. In non-educational hospitals, delivery process care was given by midwives (except for deliveries with side effects). In a study by Sharami (2007) (17), it became clear that treatment hospitals were more successful than educational hospitals in terms of gaining the satisfaction of pregnant women in prenatal care. The reason for this lower rate of satisfaction in educational hospitals was assumed to be the care indexes of educational hospitals (17).

The limitations of the study included mothers’ exhaustion with labor and too much attention to herself and the baby that may cause incorrect reply to questionnaire items. To help remove this problem, the questionnaires were completed after the stabilization of the mother’s state or they were completed by the researcher. Since the findings of this study showed that satisfaction rate in non-educational hospitals in which the delivery was done by the midwives under the supervision of women’s and labor specialists was higher, it is suggested that in the coming studies, the role of the midwives in attracting the mothers’ satisfaction with instructions and the information provided by labor nurses be examined. Since the provision of information to mothers or instructing mothers is among the responsibilities of child delivery nurses, the findings of this study can help draw the attention of the officials and managers of midwifery services to the creation of the conditions for gaining higher satisfaction in women so that the present policies and planning on nursing services should be corrected and rewritten in order to provide appropriate instructions and information to the patients.

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I do express my deep appreciation to the head, officials and personnel of Postpartum section of Bahman 29th, Alzahraa (S) and Taleqani Hospitals of Tabriz. Moreover, my thanks go to the Vice President for Research of Tabriz University Medical Sciences for providing the financial grants of the project.

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