Client satisfaction of maternity care in Lorestan province Iran

Farahnaz Changee¹, Alireza Irajpour², Masoumeh Simbar³, Soheila Akbari⁴

ABSTRACT

Background: Client satisfaction is an important indicator for assessment of the quality of care provided. Detecting patients dissatisfaction and trying to find the most effective and costly services is the basic way for improvement of service quality. The purpose of this study was to determine the satisfaction level of women in the maternity care centers (hospitals) of Lorestan University of Medical Sciences, Iran.

Materials and Methods: In this descriptive cross-sectional study, the satisfaction level of 200 patients who received care during childbirth in province hospitals was assessed using a researcher-made questionnaire. Women in maternity care units completed the questionnaires.

Results: The mean maternity care satisfaction score was 66.6 ± 3.5. The lowest satisfaction level was related to getting to know the delivery room (64%) and vaginal examination (66%). The highest satisfaction score was related to confidentiality of the information (86%) and trusting the midwife (84%). Regarding the environmental factors, the lowest satisfaction was related to respecting silence in the pain room (69.5%) and the highest was related to cleanliness and hygiene of the delivery room (84%).

Conclusions: Our results suggest the relative satisfaction of women receiving care in the health centers of Lorestan province; but this level of satisfaction does not mean that the delivery of care in this province is perfect. By reviewing the policies and the existing care programs regarding promoting the quality of services, managers can increase clients’ satisfaction.

Key words: Assessment childbirth, client satisfaction, healthcare quality, Iran

INTRODUCTION

Improving maternal health is one of the eight major developmental aims of the third millennium of World Health Organization (WHO) 2000 summit. Two important criteria for achieving this goal are reducing the maternal mortality ratio by three quarters compared to the year 1990, and improving women’s access to reproductive health services by 2015.¹ Today, maternal mortality is not only a health indicator but also one of the indicators used in developing communities, and shows the extent of care of the societies regarding maternal health.²

WHO has set its main activity goal as reducing the maternal and children mortality, and one of the key strategies for achieving this goal is providing parental care and care during and after delivery.³ The main purpose of providing health care services is to improve public health through the provision of desirable and necessary health and treatment services. Improvement of quality of care requires evaluation of the quality of services and the level of clients’ satisfaction with the services provided.⁴⁻⁵ Patient satisfaction is a concept that is of a particular importance in today’s health care.⁶ Patient satisfaction depends on the health care that the patient receives, and this issue is very important.

Satisfied clients compared with unsatisfied clients show different responses to the care services received. Satisfied clients adapt to the recommendations and follow them, and often invite other people to use these services. Therefore, satisfied clients not only continue using the healthcare services, but also promote their use.⁷ All the community members are committed to protecting and respecting human dignity. This matter is of particular importance during illness. Constitution attention to the human dignity is the basic principle of the Islamic Republic of Iran. Access to appropriate treatment, being informed of the treatment process, making choices and decisions freely about receiving health services, respecting patient privacy-based
health services, respecting the principle of confidentiality, and having access to an effective complaints system constitute the pyramid of the patient’s rights, and health care providers are required to follow it.[8]

In the management of quality, customers’ comments and reviews are considered as an golden opportunity and are necessary in the re-evaluation process of correcting and improving the quality of service.[9] Patient satisfaction can be an important step in promoting or improving the quality of service in today’s competitive world. Patient satisfaction is the most important indicator of quality assessment in a private institution; because assessing the quality of services by the customers determines the market share, profitability, and return on investment (ROI), and is considered as a basic principle for the survival of hospitals. Hospitals which are committed towards the quality assurance program have much better performance indicators than before. Reducing the patient’s waiting time, lengthening the patient’s period of stay, and improvement of the patient and staff satisfaction are few examples of these programs.

Healthcare personnel’s relationship with the patients, personality traits, educational level of the personnel, paying attention to the client’s demands, hospital location, waiting time for receiving service, environmental conditions, and food quality are among the factors that make a difference in patient satisfaction in private and public hospitals.[10] Finding the aspects of the services causes patient dissatisfaction and trying to solve them can be the most effective and least expensive way to improve the quality of services.[11] Since improving the quality of care is not possible without paying attention to the patient’s expectations and opinions, and midwives are the primary health care team members and have an important role in providing care before, during, and after delivery, they must be aware of the factors influencing client satisfaction.[12] Macky and Stepan showed that 90% of women were satisfied with their labor nurses and 10% of them had an unfavorable evaluation; they evaluated the desirability of the nurses regarding contribution, (80%), admission, (76%), giving information, (75%), encouragement, (65%), being present, (53%), and competence, (7%).[13]

Naghizadeh et al., showed that regarding the ethical dimension of care during and after delivery in training hospitals, 52.5% of patients were completely satisfied and 73.5% were satisfied; this was significantly higher than in non-training hospitals.[12] Sehati et al., conducted a study on the satisfaction of mothers who had cesarean procedure in private and public hospitals. The level of satisfaction on physical care and providing information was significantly higher in public hospitals.[10]

Satisfaction evaluation based on WHO proposal is one of the most important indicators to evaluate health care outcomes.[14] Improving the health services and gaining health recipients’ satisfaction is one of the priorities of the Iranian Ministry of Health and Medical Education,[15] and based on the research priorities of Lorestan University of Medical Sciences, Iran, evaluation of service quality during and after delivery is an important priority.[16] Therefore, the researchers aimed to conduct a study on evaluating the quality of care during and after delivery in Lorestan province, Iran. Measuring the client satisfaction with the services was an important part of the provincial research.

**Materials and Methods**

This study is part of a descriptive analytical research which was conducted based on a combination of quantitative and qualitative variables. In the first section, it reviewed the quality of care, and in the second part, it examined the causes and solutions to improve the quality of care. The quality was evaluated in three areas of structure, process, and outcome (satisfaction). In this paper, the results obtained on evaluating the satisfaction of maternity services were are presented. The research environment consisted of nine public hospitals (in the city center and other cities of Lorestan province) affiliated to the Lorestan University of Medical Sciences (three training centers and six non-training centers). The samples size for this study, based on similar studies with 95% confidence and an error rate of 7%, was estimated as 200 subjects. A quota sampling method was used; based on the total population covered by each hospital, between 10 and 30 people were assigned to each hospital. Through convenient sampling, information was obtained from the available subjects.

Data collection tool was based on the guidelines of the Ministry of Health and Medical Education regarding care during delivery. The questionnaire consisted of two parts. The first part included 23 questions on people’s satisfaction of care and the education provided by the midwives. The second part consisted of 12 questions that assessed the satisfaction regarding the environmental factors of the center.

Content and face validity of this questionnaire was determined by 10 professors and faculty members of obstetric and reproductive health, as well as the service providers and managers of labor and delivery units of Isfahan and Lorestan Universities of Medical Sciences (coefficient agreement of 0.82), and the final modifications were done based on the opinions of these experts. Then, the face validity of the questionnaire was re-investigated through interviewing a limited number of subjects from the
population \((n = 20)\). So, the incomprehensible questions for the respondents were scientifically and literally edited. The reliability of the test using test–re-test \((r = 0.82)\) and internal consistency with Cronbach’s alpha coefficient \((r = 0.86)\) were confirmed.

The inclusion criteria included: Being nulliparous and literate, having undergone normal vaginal delivery (NVD) and with normal vital signs, not having any risk factor during labor or afterward, not using forceps and vacuum, and announcing readiness to answer the questions. The exclusion criteria included: Lack of desire to cooperate in completing the questionnaire and having postpartum complications such as bleeding, hematoma, etc., After obtaining approval from the Ethics Committees of Isfahan and Lorestan Universities of Medical Sciences, and the reference letters from both universities, presenting them to the hospital director and the delivery section, and gaining permission from them, the researchers visited the centers in the morning, afternoon, and evening shifts. After introducing themselves and explaining the study aims and obtaining informed consent, the researchers gave the satisfaction assessment questionnaire to the nulliparous women to fill up, after 2–12 hours had passed from their delivery. All the patients were had been admitted in the after-delivery units of the hospitals being studied. For the subjects’ convenience in answering the questions, mentioning their names and information were avoided. Also, the clients were informed that participating in the study and continuing it to participate were optional.

The subjects expressed their satisfaction of each care service based on a five-point Likert scale from very satisfied to very dissatisfied and marked scores of 4 to 0. The minimum score that could be obtained for each questionnaire was 0 and the maximum was 140. The total score for each area was calculated as percentage. The gathered data were analyzed using descriptive statistics by SPSS software version 16 (SPSS Inc., Chicago, IL, USA). A total score of 0–39% was considered as dissatisfied, 40–59% as neutral, and 60% percent and more as satisfied. Each care service was evaluated and analyzed individually and also in total. Prior to the research, ethics committee approval was obtained from the Isfahan University of Medical Sciences.

**RESULTS**

Mean age of the participants was 31.4 \((±5.0)\) years, and 35% of them were graduates, 48% were diploma holders, and 17% had an education lower than diploma level. Mean monthly household income of the subjects was \(8,460,000 ± 2,500,000\) Iranian Rials \($340 ± 100)\).

Most of the recipients of care services in the treatment centers of Lorestan province were satisfied to very satisfied of both care and education services and environmental factors. Mean satisfaction score of the maternity care was calculated as 66.6 ± 3.5. Mean satisfaction scores in the area of education and care was 65.3 ± 2.4.

The frequency and percentage of the subjects divided in accordance to their satisfaction scores of care and education in the treatment centers of Lorestan province are given in Table 1. The lowest satisfaction scores in the area of care and education were related to getting to know the delivery room (64%) and satisfaction of vaginal examination (66%). The highest satisfaction score in the education and care area was for confidentiality of the information and trusting the midwife (86% and 84%, respectively) [Table 1].

Frequency The frequency and percentage of the participant’s according to their satisfaction scores of the environmental factors of the treatment centers of Lorestan province are in Table 2. The mean satisfaction score in the area of environmental factors was 68 ± 3.5. Regarding the environmental factors, the lowest satisfaction mean was related to respecting silence in the pain room (58.2 ± 2.7) and the highest satisfaction mean score was related to cleanliness and hygiene of the delivery room (69.4 ± 3.7) [Table 2].

**DISCUSSION**

This study was the first to assess client satisfaction about maternity care, education, and environmental factors affecting the quality of care in hospitals affiliated with Lorestan University of Medical Sciences. Results indicate client satisfaction of care, education, and environmental factors of the treatment centers. Today, the importance of the quality of health care services is not unknown to any expert. Quality assessment is the first step towards improving the quality, and according to the recommendations of WHO, one of the key elements of quality assessment is evaluating the satisfaction of the clients towards a provided service.\[^{14}\] Maternal satisfaction thus to meet their needs and expectations will be achieved. This satisfaction makes them feel pleasant and promotes their mental health.\[^{17}\]

Since the amount of satisfaction is related to the quality of care, the higher the quality of care, the higher is the satisfaction.\[^{18}\] Therefore, the high satisfaction of the mothers in this study showed appropriate and high quality of care. The results showed that recipients of maternity care were satisfied with the care services and environmental
factors existing in the treatment centers of Lorestan province; but for them to be completely satisfied, there is a need to improve the quality of these two areas, especially in limited areas of care and environmental factors.

A study conducted in 2002 in Canada[19] examined the satisfaction of maternal care provided by midwives and another study conducted in 2004 in America[20] studied the maternal satisfaction with midwifery, and they showed high levels of mothers’ satisfaction of the midwifery care. In a study carried out in 2011 on the measurement of satisfaction of health services in Iran, 20.57% of the people had high or very high satisfaction with the health services, and 36.2% were not satisfied with these services or had little satisfaction.[21] These results are not inconsistent with the results of the present study. It should be noted that these studies showed the level of satisfaction with the entire health care delivery system and it was observed that maternity care was more satisfactory. So, studies conducted in different provinces of the country on the

<table>
<thead>
<tr>
<th>Assessment options</th>
<th>Dissatisfied (0-39%)</th>
<th>Neutral (40-59%)</th>
<th>Satisfied (60-100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
</tr>
<tr>
<td>Getting to know the delivery room</td>
<td>50</td>
<td>25</td>
<td>44</td>
</tr>
<tr>
<td>Vaginal exam</td>
<td>48</td>
<td>24</td>
<td>44</td>
</tr>
<tr>
<td>Knowledge of the delivery process</td>
<td>32</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>Participation in decision making</td>
<td>34</td>
<td>17</td>
<td>38</td>
</tr>
<tr>
<td>Time spent by the midwife with the patient</td>
<td>42</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td>Relationship and meeting the family</td>
<td>14</td>
<td>7</td>
<td>54</td>
</tr>
<tr>
<td>Providing opportunity to express problem</td>
<td>30</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td>Providing request for drinking</td>
<td>24</td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>The midwife’s explanations about the actions taken</td>
<td>26</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Transferring from the pain room to the delivery room</td>
<td>108</td>
<td>54</td>
<td>24</td>
</tr>
<tr>
<td>Controlling the vital signs</td>
<td>24</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Transferring to the postpartum room</td>
<td>24</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Choosing the desired status</td>
<td>22</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>Utilities for providing service</td>
<td>2</td>
<td>1</td>
<td>34</td>
</tr>
<tr>
<td>Midwife’s attention to mother in the delivery room</td>
<td>18</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>Knowledge and skills of the midwives</td>
<td>16</td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td>Breastfeeding education content</td>
<td>4</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Confidentiality of the information</td>
<td>12</td>
<td>6</td>
<td>84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental factors</th>
<th>Dissatisfied (0-39%)</th>
<th>Neutral (40-59%)</th>
<th>Satisfied (60-100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
</tr>
<tr>
<td>Silence in the pain room</td>
<td>46</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>Providing clean clothes</td>
<td>26</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Lighting, ventilation, and temperature in the pain room</td>
<td>32</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Lighting, ventilation, and temperature in the delivery room</td>
<td>24</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Equipment and facilities available</td>
<td>18</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Comfort in the pain room</td>
<td>20</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Lighting, ventilation, and temperature after delivery</td>
<td>18</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Comfort of the delivery bed</td>
<td>12</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Providing blankets and sheets</td>
<td>10</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Cleanliness of the pain room</td>
<td>6</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Cleanliness of the delivery room</td>
<td>2</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>
care services showed clients satisfaction of these services. In 2009, a study conducted on maternal satisfaction in training and non-training hospitals of Tabriz showed that maternal satisfaction score with obstetric care in the labor and delivery rooms of non-academic centers was high.\(^{[12]}\) Given that most of the care centers studied in this article were non-training centers, this study is in agreement with the results of the present study. Similar studies have shown that maternal satisfaction of the midwifery care provided in the pain and delivery room in Zanjan was satisfactory in all the areas, and their mean satisfaction score was 74.6.\(^{[22]}\) Also, Zahrani et al., study showed that the mean satisfaction score of the patients with the performance of health staff in the delivery units of chosen hospitals in Zahedan was moderate and needed to be promoted.\(^{[23]}\)

Studies focusing on satisfaction survey of health services showed different results in different parts of the country and in different groups. Overall, the satisfaction with the quality of services, in addition to being in accordance with quality of service, can be affected by other factors such as personality, cultural and social characteristics, lifestyle, previous experience, and general health.\(^{[24]}\) Perhaps, it can be said that the results of the studies conducted in the country have been influenced by these factors. Also, lack of mothers’ knowledge about the proper care services can cause high maternal satisfaction with the provided services.\(^{[23]}\) It seems that this is the case with the present study. Furthermore, the difference in satisfaction measurement tools should not be overlooked.

The results show that in cases such as becoming familiar with the delivery room, vaginal examination, knowledge about the labor process, participating in decision making, and communicating and meeting the family, the mean satisfaction score was much lower and needed to be promoted. Mothers’ satisfaction score of vaginal examination was 66%, which showed less satisfaction of the clients regarding this care service and was consistent with the finding of Ahmadi et al.\(^{[22]}\) They reported 54.8% satisfaction of vaginal examination in their study. In this regard, Clement says that women are often uncomfortable and sometimes feel pain during vaginal examination. Several factors such as lack of awareness of the indications of examination and history of fetal loss or sexual abuse cause women to feel threatened and dissatisfied while being examined.\(^{[25]}\) Patients’ unawareness of the delivery process and the necessity of cares and, on the other hand, repetitive nature of the provided care services (including vaginal examination) from the perspective of midwives, have caused lower quality of the care services and less satisfaction among clients. Keeping the ethics and culture of the patient in mind and explaining about the need to be examined, their cooperation can be gained and satisfaction of this care system can be promoted.\(^{[26]}\)

One of the cases that still need to be promoted for providing relatively high satisfaction to the patient is the midwife’s attention to the patient and giving her emotional support; based on previous studies, ongoing support and mental relation with the patient during delivery can have a high impact on her satisfaction and confidence.\(^{[27]}\) In most of the assessed options in the areas of education and health care, patients’ satisfaction was above 80%. Among these cases, feeling trust and confidence with the midwife, confidentiality of information, breastfeeding education content, utility services, cleanliness of pain room, and providing blankets and sheets can be named.

Right to access appropriate treatment is the important right of the patient and one of the main international criteria in determining the appropriateness of the level of treatment.\(^{[28]}\) In order to be completely informed about the selection process of the treatment type which is related to the patient, the doctors and staff of the health system should participate in notifying the patient according to their qualifications and expertise. The information about the disease and treatment should be simple, honest, and understandable for the patient.\(^{[29]}\) This issue study had gained the least favorable score (68%) in this study, and shows that in Lorestan healthcare centers, the mothers were not aware about the delivery process and it can lead to patient dissatisfaction. Patients’ awareness of their rights can reduce the costs as it increases their expectations and leads to improvement in the quality of care. Another important issue is that informing the patients, involving them in decision-making process, and respecting their rights would speed up their recovery, reduce the hospitalization period, and prevent irreparable physical damages.\(^{[30]}\) In the present study, the patients were less satisfied with some factors such as awareness of the delivery process, participation in decision-making process, performing vaginal examination, providing opportunity to express problems, and becoming familiar with the delivery rooms, which are all examples of the patients’ rights, and health care providers are obliged to perform them.

Respecting the patients’ privacy while taking care of them and meeting their needs and requests, during consultations and medical examinations, treatment before and after surgery, radiology, etc., should be considered at every moment of their stay in the hospital.\(^{[31]}\) A study of the patients”’ views on their rights that was conducted in Isfahan Shahid Beheshti Hospital (Iran) showed that patients expected a fair deal, preserving respect and dignity of themselves and their family, answering their questions about the disease, and providing medication.\(^{[32]}\)
Another study was conducted in Kashan (Iran) in the field of patient rights which showed that patient’s pyramid of rights was respected in 67.74% of the cases, including information on diagnosis and treatment, dealing with patient’s complaints, and discharge due to patient’s own willingness. The results of the present study also indicated that a high percentage of the patient’s rights was met and their satisfaction was gained to a high large extent.

The results show that mothers had relative satisfaction of the environmental factors and the facilities available at Lorestan healthcare centers. The lowest level of satisfaction was related to the silence in the delivery room (69.5%) and then for the equipment and facilities (73%); lightening and ventilation of the delivery room gained 73% satisfaction. These results show that about 70% of the patients were satisfied or completely satisfied with even those cases mentioned as giving the lowest satisfaction. As mentioned previously, the satisfaction of these factors does not indicate that they are perfect, but it might be due to the patients’ lack of sufficient awareness of the environmental facilities needed to provide care during delivery.

The results suggested high consistency of maternity care services of Lorestan healthcare centers to ensure the rights of patients, based on the patient’s pyramid of rights and clients’ satisfaction in most areas provided. However, this satisfaction may not be solely due to appropriate care services provided; it can also be because of the patients’ unfamiliarity with their rights and limited expectations from the care providers, since similar studies showed low awareness of patients and that the patients have not enough knowledge about their rights.

In the past 2 years (time of this study), changes consistent with the findings of this study regarding restructuring Lorestan hospitals, care services, and gaining patients’ satisfaction have been made. These changes are linked to patient’s satisfaction, installing the patient’s pyramid of right to all units of the hospital for client’s observation, periodic surveys of patients, paying attention to their needs, and responding to their complaints. During the prenatal education classes, client’s knowledge of childbirth and its required care was promoted; therefore, their expectations were more reasonable, and their satisfaction could express the quality of care more.

**Conclusion**

The aim of healthcare services presently is for mothers to be the center of decision making on care and plan the services. Therefore, by improving the quality of services and increasing the maternal satisfaction, it can lead to better use of mothers in these services. Regarding the environmental factors, the lowest satisfaction was related to respecting silence in the pain room (69.5%) and the most satisfaction score was related to cleanliness and hygiene of the delivery room (84%). By reviewing the policies and existing care programs regarding promoting the quality of services, managers can increase clients’ satisfaction. In addition, in the areas wherein satisfaction was less than favorable, they can try to increase the satisfaction by improving the healthcare services.

**Acknowledgments**

This article was derived from a master thesis of Farahnaz Changaee with project number 391160, Isfahan University of Medical Sciences, Isfahan, Iran. This study was part of the findings of a doctoral dissertation. Appreciation goes to the research councils of Isfahan and Lorestan Universities of Medical Sciences, Isfahan School of Nursing and Midwifery, and Deputy of Lorestan University of Medical Sciences that supported and cooperated in this study.

**References**

11. Myr molayy ST, Khakbazan Z, Kazemnezhad A, Azari M.


34. Hajavy A, Tabjee SG, Sarbaz Zainabad M. Comparative study of patients’ rights in selected countries and to provide an appropriate solution to the Iranian legal medicine. Law J 2004;36:201-196.


Source of Support: Isfahan and Lorestan Medical Science Universities, Conflict of Interest: None declared.