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Investigating the Status of Mothers and Newborns' Access to Safe and Quality Care from the Perspective of Midwifery Personnel Working in Government Hospitals: A Cross-sectional Study

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Abstract:

Aim: The present study was conducted to determine the status of mothers' and newborns' access to safe and quality care from the perspective of midwifery personnel.

Background: Safe and quality care is recognized as a principle in providing healthcare to mothers and newborns.

Methods: This was a cross-sectional study conducted through random sampling on 270 midwifery personnel working in government hospitals of Mashhad University of Medical Sciences in 2023. The data were collected using a questionnaire created by a researcher and analyzed using descriptive and inferential statistical tests in SPSS-22 statistical software at a significance level of less than 0.05.

Results: The average age of the participants was 34.41 ± 7.93 years. The results showed the status of mothers' and newborns' access to safe and quality care to be in the average range of 38.30 ± 6.67. The midwifery personnel have demonstrated adherence to scientific and specialized protocols regarding the way for childbirth and how to care for mothers and newborns to be the most frequent (51.5%), while the provision of emotional and psychological support to women who have given birth with newborn problems to be the least frequent (8.5%).

Conclusion: Midwifery personnel believe that the safe and quality care provided to mothers and newborns is adequate. Midwifery personnel are committed to following evidence-based practices, but need additional training and resources to support women in need emotionally and psychologically. This is particularly concerning given the potential impact of maternal mental health on both the mother and the newborn.

Keywords: Midwifery, Evidence-based care, Gynecology, Women, Childbirth, Newborn, Hospital, Patient safety, Quality of care.

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1. INTRODUCTION

Care is the essence, core, and main element of the health system, which leads to the improvement of the health and well-being of patients [1]. Quality in the health system is defined as providing safe, timely, effective, efficient, fair, and patient-centered care [2]. Therefore, one of the most basic and important conditions in providing health and medical services is to provide safe and quality care while delivering health services [3]. Today, safe and quality care is a priority for any healthcare system that seeks to guarantee and improve the quality of care. Safe and quality care is at the heart of healthcare delivery, and providing safe and error-free care is the ultimate goal of all healthcare organizations [4].

In 1999, with the publication of the American Institute of Medicine's report titled “Humans are Fallible: Creating a Safer Health System,” attention to the category of safe and quality care increased, and this category became a major concern in the health system [5]. Providing safe and quality care is one of the challenges that the health systems of all countries are struggling with and trying to improve [4]. The main motivation and ultimate goal of all the efforts and developments of human societies are to provide and improve human health, and in this, mothers and newborns as two vulnerable groups of society require more attention [6, 7]. Improving maternal health is one of the eight important goals of the third-millennium development of the World Health Organization in the meeting of 2000 [8].

The World Health Organization has always strived to reduce maternal and newborn mortality as one of the main goals of its activities, and one of the basic strategies to achieve this goal is to provide safe and quality care during pregnancy, delivery, and post-delivery [9]. Surveys show that providing safe and quality midwifery care plays a vital role in reducing the mortality of mothers and newborns [10]. Failure to pay attention to the provision of safe and quality care to women and newborns during childbirth is the most common cause of hospitalization [11]. Prenatal care aims to achieve the highest level of maternal and newborn health with the least interventions. The Ministry of Health of Iran, in line with the goals and strategies of global reproductive health accepted in the International Conference on Population and Development by the World Health Organization, has made improving the quality of reproductive health care and family planning one of the priorities of its program [12, 13].

To achieve the desired results, safe and high-quality care must be provided by skilled and educated individuals during pregnancy, delivery, and post-delivery [14]. The provision of unsafe and low-quality care leads to an increase in maternal and newborn mortality. Studies show that the mortality rate of mothers and newborns is still high, and there is a long way to go to achieve the Millennium Development Goal-3 (MDG-3) [15, 16]. Providing safe and quality care services depends on physical infrastructure, human resources, knowledge, skills, and the ability to deal with pregnancy and problems that require quick and life-saving intervention. Increasing the availability of safe and high-quality care in maternity facilities is recognized as an important focus in addressing preventable mortality and morbidity among mothers and newborns [17].

Research has shown an inadequate coverage of essential interventions to prevent severe maternal mortality and morbidity [18]. In addition, there is a complex interaction between caregiving experience and pregnancy outcomes [19]. To prevent maternal and neonatal mortality and morbidity, every pregnant woman and her newborn must receive skilled care during labor based on evidence-based practice in a humane, respectful, and supportive environment [17, 20, 21]. Safe and good quality care requires appropriate use of effective medical and non-medical interventions, strong health infrastructure, high skill, and a positive attitude towards the provider. These factors can improve health outcomes and provide a positive experience for women, their families, and healthcare providers. Safe and high-quality care is crucial for health and is fundamental to the equality and preservation of women and newborns [22, 23]. Ensuring access to trained birth attendants and effective skilled midwifery care is important because safe, quality care reduces maternal and neonatal morbidity and mortality. WHO standards for safe and quality maternal and newborn care during the critical period of care are based on priorities and evidence-based interventions. The World Health Organization envisions a world in which every pregnant woman and her newborn receive safe and quality care during pregnancy, delivery, and the early postpartum period [24, 25].

Over the past two decades, many advances have been made in the field of childbirth in birthing facilities; however, reductions in maternal and newborn mortality have progressed at a slower pace. With the increase in the number of births in maternity facilities, attention has been focused on safe and high-quality care because poor and non-quality care leads to an increase in mortality and morbidity [26, 27]. The period close to childbirth is the most critical time to save the lives of more mothers and newborns and prevent complications during childbirth. The World Health Organization envisions a future where every pregnant mother and her newborn receive safe and high-quality care during pregnancy, delivery, and the postpartum period. To support this vision, the World Health Organization has defined the issue of safe and quality care and provided a framework for modern times [28, 29].

Every pregnant woman and newborn require skilled medical care with evidence-based practices in a compassionate and supportive environment. Providing good quality care involves the appropriate use of effective clinical and non-clinical interventions, strengthening health infrastructure, and ensuring that health providers have the necessary skills and attitudes to improve health outcomes and the experiences of women and providers [30-32]. As significant programs are being implemented in many countries to enhance pregnant women's access to services,

improving the capacity of health systems to deliver safe and quality care is the next step in public health. Understanding what constitutes safe and quality care in maternal and newborn health and how it can be evaluated is crucial for enhancing healthcare delivery. Therefore, prioritizing the provision of safe and quality care for mothers and newborns is essential. Additionally, Mashhad University of Medical Sciences in Iran, in alignment with the goals of the WHO and the Ministry of Health of Iran, considers providing safe and quality care for mothers and newborns a top priority. Consequently, this research was conducted to assess the accessibility of safe and quality care for mothers and newborns from the perspective of midwifery personnel at Mashhad University of Medical Sciences, serving as a valuable tool to measure this priority. It is hoped that the results of this research can help improve safe and quality care in the provision of health services to mothers and newborns, ultimately leading to appropriate policies by managers in this field.

2. MATERIALS AND METHODS

This was a cross-sectional descriptive-analytical study that was conducted by random sampling on 270 midwifery personnel working in government hospitals of Mashhad University of Medical Sciences in 2023. To determine the appropriate sample size, first, the statistics of the total number of midwives working in Mashhad University of Medical Sciences in the studied period was taken from the midwifery unit of the university. The total number of midwifery personnel working in government hospitals at Mashhad University of Medical Sciences was 540. Therefore, using Cochran's sample size formula and taking into account a 5% error, the sample size was calculated to be 225 people. Considering the 20% sample loss, the final sample size was considered as 270 people. Consent to participate in the study, formal employment status, contract plan and company, at least 2 years of work experience, and access to a smartphone to receive the link to the electronic questionnaire were considered as inclusion criteria. Incomplete completion of the questionnaire was considered the exclusion criterion. Data collection was performed using a researcher-made questionnaire on the status of mothers and newborns receiving safe and quality care. This questionnaire was prepared electronically, and the link to the electronic questionnaire was emailed and SMSed to all midwifery personnel by the Information Technology Unit of Mashhad University of Medical Sciences. This questionnaire consisted of two parts; the first part included demographic information (age, marital status, education level, work history, and employment status) and the second part included eleven questions related to examining the status of the mother and newborn's access to safe and quality care. This researcher-made questionnaire was designed based on similar studies and library reviews. The scoring of the questionnaire was based on a 5-point Likert scale from 1 to 5, respectively, corresponding to very low, low, medium, high, and very high. The lowest score was 11 and the highest score was 55. A score between 11 and 21 indicated the status of the mother receiving safe and quality care as poor. A score between 22 and 44 indicated the status of the mother receiving safe and high-quality care as average. A score between 45 and 55 indicated the status of the mother receiving safe and high-quality care as high.

The instrument's validity was determined using the quantitative content validity method and by determining CVI (Content Validity Index) and CVR (Content Validity Ratio). The opinion of 8 faculty members with expertise related to the present study showed the CVR questionnaire as having acceptable content validity in all terms. In the CVI dimension, the obtained scores were between 0.7 and 1, which showed the appropriateness of the statements in terms of simplicity, relevance, and clarity. Then, the reliability of the tool was assessed by determining the retest coefficient and Cronbach's alpha coefficient, and the correlation coefficient was confirmed as 0.86.

The collected data were analyzed using SPSS-22 statistical software. Descriptive statistics, including mean and standard deviation, was used to describe normal quantitative variables. The median and interquartile range were used for non-normal quantitative variables. Frequency and frequency percentage were used for qualitative variables. ANOVA test was used to compare quantitative variables among three groups. Additionally, the chi-square test was used to compare the qualitative variables in the groups. The significance level in all tests was considered to be less than 0.05.

3. RESULTS

In this study, 270 midwifery personnel working in government hospitals of Mashhad University of Medical Sciences were examined. The findings showed that the average age of the participants in the research study was 34.41 ± 7.93 years. Table **1** shows the demographic characteristics of the participants.

Table **2** shows the answers of the participants to each question in the questionnaire.

Table **3** shows the general status of mothers' and newborns' access to safe and quality care from the perspective of midwifery personnel. As can be seen, 217 people (80.4%) believed that mothers and newborns receive safe and quality care at an average level. It should be noted that the average score of the participants was 38.30±6.67.

Table **4** examines the relationship between demographic variables and midwifery personnel's point of view regarding the status of mothers and newborns in receiving safe and quality care. As can be seen, there was a significant relationship between the employment status and the midwifery personnel's point of view; 98% of the contract workers rated the status of mothers’ and newborns' access to safe and quality care as average. However, this rate was equal to 79.5% and 70.2% in official and planned employees, respectively, and none of the company employees had evaluated the status of mothers and babies receiving safe and quality care as average. Also, there was a significant relationship between the work experience and the staff's point of view; 94% of the people who had work experience between 5 and less than 10 years rated the status of mother and newborn having safe and quality care as average. However, this rate was equal to 75.8% and 75.9% in people who had experience under 5 years and over 10 years, respectively.

Table 1. Demographic characteristics of study participants.

Variable	-	Frequency	Percentage
Marital status	Divorced	11	4.1
	Married	179	66.3
	Single	80	29.6
Education level	Bachelor's degree	258	95.6
	Master's degree and higher	12	4.4
Employment status	Contract	50	18.5
	Formal	161	59.6
	Company	2	0.7
	Planned employment	57	21.1
Work experience	<5 years	116	43
	5-10 years	67	24.8
	≥10 years	87	32.2

Table 2. Answers of the participants to each of the questions in the questionnaire.

The Text of the Question	Options	Frequency	Percentage
In providing mother and newborn care services, the principle of no harm and providing the best interests of the client is observed.	Very little	**2**	**0.7**
	Little	**8**	**3.0**
	Medium	**83**	**30.7**
	Much	**135**	**50.0**
	Very much	**42**	**15.6**
All maternal and newborn care is performed based on standards and clinical guidelines and instructions issued by the relevant ministry.	Very little	**2**	**0.7**
	Little	**8**	**3.0**
	Medium	**78**	**28.9**
	Much	**139**	**51.5**
	Very much	**43**	**15.9**
Comprehensive care to mother and newborn, including physical, emotional, mental, and spiritual care is provided.	Very little	**4**	**1.5**
	Little	**11**	**4.1**
	Medium	**82**	**30.4**
	Much	**130**	**48.1**
	Very much	**43**	**15.9**
A suitable care environment is considered for the mother in terms of light, sound, heat, cleanliness, neatness, safety, and calmness during labor and after delivery.	Very little	**6**	**2.2**
	Little	**32**	**11.9**
	Medium	**101**	**37.4**
	Much	**103**	**38.1**
	Very much	**28**	**10.4**
Medical analgesia services for natural childbirth are provided at the mother's request and after obtaining her consent.	Very little	**13**	**4.8**
	Little	**41**	**15.2**
	Medium	**112**	**41.5**
	Much	**79**	**29.3**
	Very much	**25**	**9.3**
Stressful items, such as delivery items and emergency trolleys, are hidden from the mother's view.	Very little	**11**	**4.1**
	Little	**34**	**12.6**
	Medium	**96**	**35.6**
	Much	**95**	**35.2**
	Very much	**34**	**12.6**
It is forbidden to perform unnecessary procedures (without indication) on the mother and newborn.	Very little	**9**	**3.3**
	Little	**32**	**11.9**
	Medium	**99**	**36.7**
	Much	**93**	**34.4**
	Very much	**37**	**13.7**

(Table 2) contd.....

The Text of the Question	Options	Frequency	Percentage
All mothers and babies benefit from services based on individual needs.	Very little	**3**	**1.1**
	Little	**24**	**8.9**
	Medium	**116**	**43.0**
	Much	**101**	**37.4**
	Very much	**26**	**9.6**
If there is a possibility of harm from the parents to the newborn, while registering the matter in the file and submitting the report to the relevant authorities, necessary counseling and care will be taken.	Very little	**3**	**1.1**
	Little	**19**	**7.0**
	Medium	**83**	**30.7**
	Much	**101**	**37.4**
	Very much	**64**	**23.7**
In cases of newborn problems (such as disease or abnormality), parents receive emotional, spiritual, and soothing support.	Very little	**10**	**3.7**
	Little	**30**	**11.1**
	Medium	**125**	**46.3**
	Much	**82**	**30.4**
	Very much	**23**	**8.5**
In case of newborn/infant loss, parents receive culture-based bereavement care.	Very little	**20**	**7.4**
	Little	**62**	**23.0**
	Medium	**104**	**38.5**
	Much	**59**	**21.9**
	Very much	**25**	**9.3**

Table 3. General status of mothers' and newborns' access to safe and quality care from the perspective of midwifery personnel.

General Status of Mothers' and Newborns' Access to Safe and Quality Care	Frequency	Percentage
Weak	2	0.7
Average	217	80.4
High	51	18.9

Table 4. The relationship between demographic variables and midwifery personnel's point of view regarding the mothers' and newborns' access to safe and quality care.

Variable	-	Weak Quality and Safe Care Status, mean ± SD or Frequency (percentage)	Average Quality and Safe Care Status, mean ± SD or Frequency (percentage)	High Quality and Safe Care Status, mean ± SD or Frequency (percentage)	P-value
Age	-	9.89±33	34.59±7.91	8.09±33.73	*0.759
Marital status	Divorced	(0) 0	(90.9) 10	(9.1) 1	0.151**
	Married	(0)0	(78.8) 141	(21.2) 38	
	Single	(2.5)2	(82.5) 66	(15) 12	
Education level	Bachelor's degree	(0.8) 2	(79.5) 205	(19.8) 51	0.216**
	Master's degree and higher	(0) 0	(100) 12	(0) 0	
Employment status	Contract	(0) 0	(98) 49	(2) 1	0.001>**
	Formal	(0.6) 1	(79.5) 128	(19.9) 32	
	Company	(50) 1	(0) 0	(50) 1	
	Planned employment	(0) 0	(70.2) 40	(29.8) 17	
Work experience	<5 years	(0.9) 1	(75.8) 88	(23.3) 27	0.031**
	5-10 years	(0) 0	(94) 63	(6) 4	
	≥10 years	(1.1) 1	(75.9) 66	(23) 20	

Note: * ANOVA test.
** Chi-square test.

4. DISCUSSION

The present study has assessed the accessibility of safe and quality care of mothers and newborns from the perspective of midwifery personnel at Mashhad University of Medical Sciences. The results obtained from the present study have shown most midwifery personnel to believe

that mothers and newborns have access to safe and high-quality care at an average level. Some of the midwifery personnel have evaluated the status of mothers and newborns receiving safe and quality care as high, and less than 1% of the participants have evaluated the status of mothers and newborns receiving safe and quality care as poor.

According to the participants of the current study, the strengths of Mashhad government hospitals regarding the will to provide high-quality and safe care to mothers and newborns lie in the fact that all maternal and newborn care is provided based on standards and clinical guidelines and the instructions issued by the Ministry of Health. So, in response to this question, more than 67% of the participants believed that this is done to a great extent. Also, another area considered as one of the strengths of Mashhad government hospitals by the participants was that in providing maternal and newborn care services, the principle of non-harm and providing the best interests of the client is observed. So, two-thirds of all participants provided a high or very high score for this item. In addition, 64% of the participants agreed with the statement that comprehensive care is provided to the mothers, including physical, emotional, psychological, and spiritual care to a great extent, which shows that in this area as well, the government hospitals of Mashhad University of Medical Sciences have a favorable situation.

On the other hand, there were some issues that the participants considered to be weak points of Mashhad University of Medical Sciences government hospitals. The lowest score among the questionnaire's questions in our study was provided to the question "In case of fetal/infant loss, parents receive culture-based bereavement care." Only 30% of the participants agreed with this item to a great extent or very much. Also, to the question "In cases of newborn problems (such as illness or abnormality), parents receive emotional, spiritual, and soothing support," the participants gave a very low score. Only 38% gave a high or very high score to this question. In addition, the high and very high score for the question "The provision of medical analgesia services for natural childbirth is provided at the request of the mother and after obtaining her consent" was 38%, showing the government universities of Mashhad to not be successful in this field.

In summary, it can be concluded that the most important strengths of the hospitals where the study was conducted were regarding the access of mothers and babies to safe and quality care, compliance with scientific and specialized protocols regarding the way of childbirth and how to care for mothers and babies. Since the centers of our study were academic and most of the time medical students and assistants in the field of obstetrics and gynecology are present at the patients' bedside, full compliance with the scientific principles of childbirth is completely predictable. This may also be because the specialists working in these hospitals are also members of the academic staff of the university and have up-to-date and sufficient information in their field of expertise. The same can be said about the weaknesses. The participants of our study reported the government hospitals of Mashhad to be weak in the field of providing emotional and psychological support for mothers in difficult situations (such as when babies die or when they are suffering from serious and incurable diseases). With respect to this issue, it can be stated that due to the appropriate tariff of government hospitals, many mothers from Mashhad city and even surrounding cities choose government hospitals to give birth. This causes the number of mothers and babies admitted to the hospital to be very high and sometimes more than the capacity of the hospitals. Due to the nature of this issue, the personnel present in the hospital have the duty of serving more patients and, naturally, they cannot be present with the mothers in sufficient quantity and sympathize with them when necessary. It seems that to solve the problems found in our study, government hospitals should be developed in the city of Mashhad. Also, the necessary force to serve a large number of clients in hospitals should be recruited so that these people can spend more time with patients and have enough time to do so in cases where there is a need to empathize with patients.

The results confirming the findings of our study have also been obtained in previous studies. In a study conducted in 2020 by Kouhestani *et al*. [33], in Tehran, the authors investigated the opinion of pregnant mothers about receiving prenatal care at a government hospital in this city. The results showed that the lowest level of satisfaction was related to the overcrowding of government hospitals. Also, in this regard, another research was conducted on nurses working in government hospitals in Birjand by Nakhaei *et al*. [34] in 2016. The results of their study showed that the authors considered the overcrowding of these hospitals as one of the main causes of the decrease in nurses' satisfaction and, consequently, the decrease in the quality of services provided to patients.

Finally, we examined the relationship between the participants' assessment of the state of mothers' and newborns' access to safe and quality care and their demographic characteristics. The obtained results showed no significant difference between the age and marital status of the participants and their views regarding the access of mothers to safe and high-quality care. All the participants who had a graduate education level or higher had evaluated the status of their well-being as average, and none of them had evaluated the status as good. However, the relationship between education level and participants' views was not statistically significant.

A significant relationship was found between employment status and personnel's point of view. It appeared that the planned and official forces had a better view than the contract forces. So only 2% of the contract forces assessed the situation as good, while this rate was 20% and 30% for the official and planned employees, respectively. Regarding company employees, since the number of these people was very small, it is not possible to make a precise statement. Also, there was a significant

relationship between the amount of work experience of the participants and their views. Only 6% of people who had work experience between 5 and 10 years had a positive view of the provision of high-quality and safe care. However, this rate was 23% among people with work experience under 5 years and people with work experience over 10 years in both cases. In a research conducted by Simbar *et al*. [35], the authors investigated the quality of post-natal care at Shahid Beheshti University of Medical Sciences and Health Services-affiliated hospitals. A total of 60 patients from these hospitals were included in the study. The quality of care at the postpartum department was rated as poor in most cases. Vital signs measurement and mobility had an average quality of care, while the rest of the care was poor. In our study, more favorable results were observed than in this study, with the majority of participants having an average view of service provision. An important difference between the two studies should be noted; in our study, the respondents were working personnel, while in Alizadeh's study, mothers present in the hospital answered the questions. Additionally, the questionnaires used in the two studies were different.

In another study conducted in 2022 by Khakbazan *et al*. [36], the authors investigated the quality of services provided by midwives working in the maternity department of hospitals in Hamadan province. The obtained results indicated that 79% of the midwives believed that the services provided in the delivery room were of good quality. The authors stated that the results showed that having the ability to manage stress and control job stress improves the quality of services provided by midwives. It should be noted that in this study, only the ability of midwives to provide optimal services was investigated, while in our study, the overall quality of services provided to mothers and babies in the hospital was investigated. This issue may have led to different results obtained in the two studies.

CONCLUSION AND RECOMMENDATIONS

The results showed that from the point of view of the midwifery personnel working in the government hospitals of Mashhad University of Medical Sciences, the score of the state of mothers' and newborns' access to safe and quality care was average. From the point of view of midwifery personnel, "adherence to scientific and specialized protocols regarding the delivery and how to care for mother and newborn" had the highest frequency (51.5%). Also, from the point of view of midwifery personnel, "providing emotional and psychological support to women who have given birth with newborn problems" had the lowest frequency (8.5%). The research findings suggest that while the midwifery personnel working in the government hospitals of Mashhad University of Medical Sciences believed the care provided to mothers and newborns to be average, there is room for improvement in certain areas. The highest frequency of responses has indicated adherence to scientific and specialized protocols regarding delivery and care for mother and newborn as an area of strength, while providing emotional and psychological support to women who have given birth with newborn problems as an area needing improvement. The findings have also suggested that midwifery personnel are committed to following evidence-based practices, but they may need additional training and resources to provide emotional and psychological support to women in need. This is particularly concerning given the potential impact of maternal mental health on both the mother and the newborn. The results have also highlighted the importance of ongoing monitoring and evaluation of the quality of care provided to mothers and newborns in government hospitals. By regularly assessing the effectiveness of care protocols and identifying areas for improvement, health policymakers can ensure that midwifery personnel are equipped to provide safe and quality care to all women and newborns.

To improve the quality of care provided to mothers and newborns in government hospitals, health policymakers should consider implementing the following recommendations: providing additional training and resources to midwifery personnel in the area of emotional and psychological support for women who have given birth with newborn problems; regularly monitoring and evaluating the quality of care provided to mothers and newborns in government hospitals, and using this data to identify areas for improvement; encouraging the use of evidence-based practices in the delivery and care of mothers and newborns, and providing ongoing training and support to midwifery personnel to ensure that these practices are being implemented effectively; considering implementing policies that prioritize the mental health and well-being of women during pregnancy, childbirth, and the postpartum period; fostering a culture of continuous improvement in the delivery and care of mothers and newborns in government hospitals, and empowering midwifery personnel to be leaders in this effort.

By taking these steps, health policymakers can ensure that midwifery personnel are equipped to provide safe and quality care to all women and newborns and that the state of mothers' and newborns' access to safe and quality care is improved.

LIMITATIONS OF THE STUDY

This study has the following limitations:

1- Due to a lack of relevant works and studies, the findings could not be easily compared with those of related research reports.

2- A questionnaire was used to collect data for this study; as a result, some participants may have refused to provide reliable information.

3- This study was conducted cross-sectionally, which has made it difficult to conclude causality.

4- The present study's findings apply to all midwifery personnel in the Mashhad University of Medical Sciences' government hospitals. Therefore, there are limitations to the generalizability of the current study's findings.

5- The short period of study, the use of the self-

reporting method, and the small number of samples in the period under investigation also constitute the other limitations.

However, there have existed some important strengths in our research, among which we can mention the innovation of our research in designing a questionnaire to evaluate the quality of services provided to mothers and babies, which has been done for the first time. We suggest that in the coming years, more research should be conducted to check the quality of services provided to mothers and babies at the level of hospitals so that the problems in the gynecological and maternity departments as well as pediatric departments can be identified and steps can be taken to solve them.

AUTHORS' CONTRIBUTION

It is hereby acknowledged that all authors have accepted responsibility for the manuscript's content and consented to its submission. They have meticulously reviewed the results and unanimously approved the final version of the manuscript.

LIST OF ABBREVIATIONS

MDG-3	=	Millennium Development Goal-3
CVR	=	Content Validity Ratio

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was approved by the ethics committee of Mashhad University of Medical Sciences, Iran with the code of ethics (IR.MUMS.MEDICAL.REC.1401.491).

HUMAN AND ANIMAL RIGHTS

All procedures performed in studies involving human participants were in accordance with the ethical standards of institutional and/or research committee, and with the 1975 Declaration of Helsinki, as revised in 2013.

CONSENT FOR PUBLICATION

Informed consent was obtained from the participants.

STANDARDS OF REPORTING

STROBE guidelines have been followed.

AVAILABILITY OF DATA AND MATERIALS

The data that support the findings of this study will be available from the corresponding author [R.R] upon reasonable request.

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CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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