

Mother's satisfaction of postpartum care and its relationship with midwifery care at Urban Health Centers, Mashhad, Iran

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ABSTRACT

Background & aim: Maternal satisfaction of health services is an inherent element of healthcare policies, and quality of midwifery care essentially influences this parameter. This study aimed to evaluate maternal satisfaction of postpartum care and its association with midwifery care at the urban health centers of Mashhad, Iran in 2012.

Methods: This descriptive, cross sectional study was conducted on 411 mothers selected via multistage sampling from 16 urban health centers in Mashhad, Iran in 2012. Data were collected using the structured questionnaire of maternal satisfaction and observation checklists to assess the technical and communication skills of midwives. Data analysis was performed in SPSS V.16.

Results: Among the aspects of midwifery care, 92% of postnatal women were satisfied with consultation and training, 92.3% were satisfied with the technical competency of midwives, and 96.6% were satisfied with the communication skills of midwives. Moreover, high levels of maternal satisfaction of midwifery services were reported in dimensions of providing demographic and delivery history, use of dietary supplements and breastfeeding, and performing physical examinations (blood pressure measurement and scleral examination). However, no significant coloration was observed between maternal satisfaction and quality of care ($P < 0.05$).

Conclusion: According to the results of this study, the majority of mothers were satisfied with the quality of postnatal care and midwifery services. Considering the desirable level of maternal satisfaction with the competency of clinical staff, which could not be authentically cited due to the limited information of mothers regarding professional medical care, special attention must be paid to the enhancement of the performance and responsiveness of midwives. In addition, identification of the causes of poor healthcare services in the provision of postnatal care requires further investigation.

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Introduction

Maternal and neonatal care is one of the inherent components of primary health care. The postpartum period might be life-threatening to both the mother and infant (1, 2). In this period, women experience a new life stage, and proper adjustment with the changes during this period plays a pivotal role in the successful transition of postnatal women to motherhood (3).

Statistics suggest that 40% of mothers experience postpartum complications, and 15% may be faced with severe health problems in this period (4). Complications such as hemorrhage, infections, and gestational hypertension are likely to occur within 1-2 weeks after childbirth. Other complications associated with the postpartum period include uterine prolapse, vesicovaginal

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fistula, depression, urinary incontinence, infertility, pelvic inflammatory disease, perineal lesions, and breast problems, which could adversely affect the physical, mental and emotional health of mothers (5-7). On the other hand, mental and emotional problems during the postpartum period have been shown to reduce maternal quality of life and impair the cognitive development of infants.

In general, maternal quality of life is known to decrease during pregnancy and the postpartum period due to the associated physical, sexual, mental, and emotional changes (8, 9). Therefore, provision of high-quality postpartum care through considering the physical, emotional, and mental status of mothers by healthcare professionals, especially midwives, is of paramount importance (10).

Midwives could support new mothers through the proper assessment of their physical and mental health, as well as the provision of useful guidance on self-care and infant care (11, 12). In fact, midwives are responsible for maintaining and improving the health of mothers and infants by offering high-quality care services and accurate information (13).

According to the World Health Organization (WHO), the midwife is responsible for the care of both the mother and infant within the first 28 days after delivery. In this regard, the Iranian Ministry of Health and Education has developed a comprehensive program for postpartum care, which categorizes postpartum maternal care into three time intervals (during days 1-3, 10-15, and 42-60) after childbirth. This care procedure encompasses examinations, observations, surveys, and educational interventions related to personal hygiene, psychological, sexual and oral health, postpartum danger signs, common complaints, use of dietary supplements and nutrition, breastfeeding, possible complications, proper infant care, and family planning for the mothers (8).

Poor performance of healthcare providers may lead to patient dissatisfaction with medical services (11). Patient satisfaction largely depends on the healthcare services provided for the patients. In comparison, satisfied and dissatisfied patients have different responses to the treatment and care services they receive. Satisfied clients comply with healthcare recommendations and often invite others to benefit from these services (14). Among the most

imperative dimensions of health service quality are communication and interaction of healthcare providers with patients, responsiveness and technical skills, provision of patient education and training, accessibility of care services, waiting time of patients to receive care, informed selection, and the hygiene of the clinical environment. All the aforementioned dimensions have a remarkable influence on the treatment process, clinical outcome improvement, and patient satisfaction with the quality of care (15-17).

Maternal satisfaction of medical services is a significant indicator of the quality of care and monitoring of healthcare services. Evaluation of patient satisfaction with healthcare services is considered an inherent element of health policies and plays a pivotal role in the enhancement of healthcare services (4). In addition, patient satisfaction provides the required information to improve care services owing to the indirect influence of psychological and mental factors in fostering effective healthcare (18).

According to the literature, identification and elimination of the causes of patient dissatisfaction is a valid, cost-effective approach to enhance the quality of care services (19). In a study, Peter (2010) observed that the quality of nursing care was moderate during the intrapartum period, while it was poor during the postpartum period in Buea Hospital (Africa), which resulted in the dissatisfaction of the majority of mothers with the provided health services (20). On the other hand, the findings of Waldenstrom (2004) indicated that only 26% of mothers were dissatisfied with the quality of postpartum care, and the most significant factors associated with maternal dissatisfaction were insufficient time for the training of mothers on breastfeeding, lack of support by midwives, and unwillingness of healthcare staff to answer the questions of mothers (21).

In another study, Naghizadeh et al. stated that the majority of mothers were satisfied with the quality of postpartum care in all the related dimensions (14). Furthermore, Montasser et al. (2012) reported that the majority of pregnant women were satisfied with the technical performance of physicians, such as the provision of medical history (73%), answering questions (82.7%), privacy protection (87.2%), waiting

time for examinations (76.5%), and explanation of test results to patients (69.6%) (22).

Limited studies have investigated the concept of maternal satisfaction with the quality of postnatal care in healthcare centers, and most studies in this regard have focused on the postpartum units of hospitals. This study aimed to evaluate maternal satisfaction of the quality of postpartum care and its association with midwifery care at the urban health centers of Mashhad, Iran in 2012.

Materials and Methods

This descriptive, cross sectional study was conducted on 411 mothers selected via multistage sampling at the urban health centers of Mashhad, Iran in 2012. Participants were selected via multistage sampling.

Initially, five healthcare centers in Mashhad city (No. 1, 2, 3, and 5 and Samen Health Center) were selected via stratified sampling. Afterward, using proportional-to-size sampling, 16 clusters were selected from the list of the centers covered by healthcare centers No. 1, 2, 3, and 5 and Samen Health Center. In total, we selected five clusters of health centers No. 1, three clusters of health centers No. 2, five clusters of health centers No. 3, one cluster of Samen Health Center, and five clusters of health centers No. 5.

. In this study, convenience sampling was the method of choice to select the mothers who met the inclusion criteria from each cluster.

Sample size of the study was determined based on the formula for estimating the population proportion. Inclusion criteria were as follows: 1) women with natural vaginal delivery and cesarean section; 2) nulliparous and multiparous women; 3) basic literacy and 4) referral to the selected health centers to receive second and third sessions of postpartum care.

Exclusion criteria of the study were as follows: 1) unwillingness to participate; 2) healthcare team members; 3) hospitalization or long-term treatment due to psychological disorders and 4) use of psychiatric drugs (e.g., imipramine, diazepam, phenobarbital, fluoxetine, haloperidol, and chlorthalidone).

Data were collected via observations and interviews with the participants, and data collection tools included prepared checklists

and questionnaires. In this study, satisfaction level of the mothers with postpartum care was evaluated using a structural researcher-made questionnaire consisting of 27 items classified into three categories of consultation and training (13 items), technical skills (7 items), and interpersonal communication (7 items).

Items in the maternal satisfaction questionnaire were scored based on a five-point Likert scale (totally dissatisfied=1, totally satisfied=5). In this scale, scores of ≤ 40 were interpreted as complete dissatisfaction, scores 40-65 were defined as moderate maternal dissatisfaction, scores 65-90 were defined as "Do Not Know", scores 90-115 were indicative of moderate satisfaction, and scores of ≥ 115 were indicative of complete maternal satisfaction.

Another data collection tool in this study was a prepared checklist focusing on the quality of midwifery care during the postpartum period, which consisted of two forms to assess the clinical performance and communication skills of midwives. The clinical skills evaluation form consisted of two sections. The first section focused on the provision of medical history by midwives, which included 19 items on demographic and delivery data, prompt evaluation of postpartum danger signs, assessment of hemorrhage, underlying diseases, urinary, reproductive and temperamental complications, mental health problems, domestic violence, common complaints, and use of dietary supplements during the postnatal period.

The second part of the clinical skills evaluation form focused on the competency of midwives in performing clinical examinations, which included 10 items on the assessment of vital signs and performing scleral, oral, breast, abdominal, suture, and extremity examinations by midwives.

The clinical skills evaluation form was developed based on postnatal care guidelines, and each item was replied with three options of Thoroughly Performed (score 2), Partially Performed (score 1), and Not Performed (score zero).

In the researcher-made checklist, the communication skills form consisted of 17 items, and each item was replied with two options of Performed (score 2) and Not Performed (score zero). In this scale, scores

above 70% of the maximum score were interpreted as favorable communication skills of the midwife, and scores below 70% of the maximum score were indicative of inadequate communication skills of the midwife.

After the approval of the study protocol by the Ethics Committee of Mashhad University of Medical Sciences, an introductory letter was obtained from the School of Nursing and Midwifery of this university and delivered to the authorities of the selected health centers. In this process, the researcher referred to the authorities of each health center and elaborated on the objectives of the study. Checklists were completed by the researcher after the approval of the authorities. Moreover, after explaining the objectives of the study to the service providers in these centers, the researcher observed and evaluated the performance of midwives during postnatal care.

Objectives of the study were explained to the mothers prior to participation, and they were assured of confidentiality terms regarding their personal information. Following that, satisfaction questionnaires were distributed and completed by the mothers who were willing to participate in the study.

In this study, content validity was used to determine the validity of data collection tools. Moreover, reliability of the structured observational checklist of midwife performance

quality was confirmed via the inter-rater reliability method at the reliability coefficient of 85%. In addition, reliability of the maternal satisfaction questionnaire was determined using internal consistency at the Cronbach's alpha coefficient of 89%.

Data analysis was performed in SPSS V.16 using descriptive statistics to determine the current status of data. Moreover, Chi-square test, Kruskal-Wallis test, and Pearson's correlation-coefficient were used to evaluate the correlations between the studied variables. In addition, the general linear model was performed to control the effect of confounding variables, and P value of less than 0.05 was considered statistically significant.

Results

According to the information in Table 1, the majority of the participants in this study had low income and education status.

Our findings indicated that 52.6% of the mothers had high satisfaction, 39.4% had moderate satisfaction, and only 0.7% of the mothers were dissatisfied with the quality of postpartum care in the selected healthcare centers.

Frequency distribution of the responses of participants to survey items in the aspects of technical skills of service providers, consultation and training in postpartum care, and interpersonal

Table 1. Demographic characteristics of participants

Demographic Characteristics	N (%)	
Age (year)	10-25	159 (38,8)
	25-35	213 (51,7)
	>35	39 (9,5)
Occupational Status	Employee	17 (4,1)
	Housewife	389 (94,6)
	Student	5 (1,2)
Education Level	Primary	87 (21,3)
	Secondary	108 (26,4)
	High School Diploma	168 (41,1)
	Above Diploma	46 (11,2)
Income Status	Unfavorable	124 (30,2)
	Adequate	218 (68,5)
	Favorable	5 (1,2)
Parity	First	191 (46,5)
	Second	129 (31,4)
	Third	61 (14,8)
	Fourth or More	30 (7,3)
Mode of Delivery	Cesarean Section	179 (43,6)
	Natural Vaginal Delivery	231 (56,4)

Table 2. Frequency distribution of maternal satisfaction of postpartum care at health centers of Mashhad, Iran

Satisfied N (%)	Do Not Know N (%)	Dissatisfied N (%)	Very Dissatisfied N (%)	Item	Very Satisfied N (%)
156 (38)	23 (5.6)	7 (1.7)	2 (0.5)	Technical Skills	223 (53.4)
138 (33.6)	25 (6.1)	6 (1.5)	2 (0.5)	Consultation and Training	240 (58.4)
131 (31.9)	12 (2.9)	0	2 (0.5)	Interpersonal Communication	266 (64.7)

Table 3. Quality of postpartum care provided by midwives at health centers of Mashhad, Iran

Quality of Midwifery Care	Desirable N (%)	Undesirable N (%)
Clinical Skills	54 (10.8)	366 (89.2)
Providing Clinical History	105 (25.7)	306 (74.3)
Performing Clinical Examinations	-	411 (100)
Communication Skills	65 (15.8)	346 (84.2)
Overall Quality of Midwifery Care	65 (11.0)	365 (89.0)

Table 4. Correlation between maternal satisfactions of postpartum care and quality of midwifery care at health centers of Mashhad, Iran

Midwifery Care	Maternal Satisfaction of Postpartum Care	
	R	P-value
Clinical Skills	-0.281	<0.0001
Performing Clinical Examinations	-0.205	<0.0001
Provision of Clinical History	-0.264	<0.0001
Communication Skills	-0.264	<0.0001

communication is presented in Table 2.

With regard to the aspect of providing medical history by midwives, the results of this study indicated that the most commonly evaluated parameters at the maternity wards of the selected healthcare centers were demographic and delivery data and postpartum danger signs, such as hemorrhage, discharge, and dizziness. Moreover, in almost all the cases, use of dietary supplements during breastfeeding and proper breastfeeding by the mother were evaluated by midwives. However, assessment of immediate danger signs, psychiatric symptoms, and temperamental problems were less frequently investigated compared to other aspects of midwifery care.

With regard to the aspect of performing clinical examinations by midwives, the results of this study indicated that measurement of blood pressure, maternal pulse rate, and scleral examination in terms of anemia accounted for the most frequent evaluations during the postpartum period. On the other hand, examination of lower extremities and abdomen, measurement of body temperature and respiration, and suture assessment were the least frequently evaluated parameters during postnatal care.

Findings of this study regarding the quality of midwifery care indicated that only 15.8% and 10.08% of midwives were within the standard range in terms of communication skills and clinical skills, respectively. As such, overall status of the quality of midwifery care in the provision of postnatal services was reported to be poor in the selected healthcare centers (Table 3).

To determine the relationship between maternal satisfaction of postpartum care with the quality of midwifery care in the aspects of clinical examination, provision of clinical history, and communication skills, we used the Spearman's correlation-coefficient in this study. As shown in Table 4, the results were indicative of a statistically significant association between the maternal satisfaction of postpartum care and quality of midwifery care (Table 4).

According to the results of Kruskal-Wallis test, there was no significant association between the level of maternal satisfaction and variables such as age, parity, number of children, and employment status ($P > 0.05$). Furthermore, the results of Kruskal-Wallis and Mann-Whitney U tests were indicative of significant correlations between maternal satisfaction of postpartum care, education level, and mode of delivery ($P < 0.05$) (Table 5).

Table 5. Comparison of mean scores of maternal satisfaction of postpartum care and its dimensions based on demographic characteristics

Variables		Overall Satisfaction (Mean±SD)	Technical Skills (Mean±SD)	Consultation and Training (Mean±SD)	Interpersonal Skills (Mean±SD)
Age (year)	10-25	204,77±17,59	208,06±5,39	207,90±9,81	195,96±4,69
	25-35	205,28±16,38	202,06±5,02	201,91±9,18	215,88±3,62
	>35	215,28±11,85	219,07±3,94	220,63±7,95	193,97±3,81
Test Results		P=0.878	P=0.681	P=0.643	P=0.213
Education Level	Primary	241,7±16,04	235,94±4,94	242,76±8,09	229,17±4,28
	Secondary	230,09±16,92	229,65±4,97	225,30±9,31	221,79±4,23
	High School Diploma	187,11±14,87	186,97±4,66	190,89±9,01	189,96±3,47
	Above Diploma	141,48±18,47	154,08±6,03	137,7±9,91	175,97±4,80
	Test Results		P<0.00	P<0.00	P<0.00
Employment Status	Employee	151,43±18,09	172,68±6,07	149,07±10,03	157,96±4,07
	Housewife	208,19±16,22	207,66±4,96	207,92±9,15	208,19±3,93
	Student	190,32±28,44	175,83±7,76	214,00±13,72	175,17±8,55
Test Results		P=0.20	P=0.44	P=0.18	P=0.23
Parity	First	184,77±18,29	182,51±5,68	189,42±10,38	187,89±4,41
	Second	222,5±15.07	226,99±4,22	216,99±8,66	209,96±3,79
	Third	229,08±13,20	227,58±3,98	231,80±6,86	219,23±3,47
	Fourth or More	212,73±13,76	208,58±5,02	202,44±7,21	228,00±3,28
	Test Results		P=0.195	P=0.105	P=0.125
Mode of Delivery	Natural Vaginal Delivery	222,72±18,20	225,62±5,38	220,99±10,42	202,94±4,23
	Caesarean Section	191,80±13,63	190,36±4,44	193,85±7,19	202,06±3,62
Test Results		P=0.007	P=0.002	P=0.02	P=0.03

Table 6. General linear model coefficient for controlling the effect of confounding variables on level of maternal satisfaction with postpartum care

Variable	Coefficient	Standard Error	T	P-value	
Education Level	Primary	11.6	3.001	3.8	<0.001
	Secondary	10.1	2.87	3.5	<0.001
	High School Diploma	6.16	2.74	2.5	0.025
	Above Diploma	·α	-	-	-
Mode of Delivery	Caesarean Section	-3.5	1.6	2.19	0.029
	Natural Vaginal Delivery	·α	-	-	-
Quality of Midwife Performance	-0.114	0.071	1.59	0.112	

*α was considered as reference

In order to control the effect of confounding variables in this study, education level, mode of delivery, and quality of midwifery care were considered as independent variables in the general linear regression model, while maternal satisfaction was considered as the main dependent variable.

According to the information in Table 6,

variables of mode of delivery and education level were the influential factors for maternal satisfaction of postpartum care. As such, mothers with primary education, secondary education and high school diploma had higher satisfaction with midwifery services compared to those with education status of higher than diploma. With regard to the mode of delivery,

women with cesarean section had lower satisfaction levels with midwifery care compared to those with natural vaginal delivery ($\beta=-3.5$). However, the quality of the performance of midwife was found to have no effect on the level of maternal satisfaction ($P=0.112$).

Discussion

Patient satisfaction has been set as a foremost healthcare objective by the Iranian Ministry of Health and Education. Dissatisfaction of patients with health services leads to their poor adherence to prescriptions and treatments. According to the results of the present study, the majority of the mothers (92%) were satisfied with the quality of postpartum care in all the aspects of technical expertise, consultation and training, and interpersonal communication. Our findings were in line with the results of a study conducted by Tork Zahrani et al. (2009) at a maternity ward, as well as the findings of Nikpour et al. (2007) (17, 23).

In their study, Nikpour et al. evaluated the level of maternal satisfaction with the quality of prenatal care services, and the results showed that 91.7% of mothers were satisfied with the provided services during pregnancy. Furthermore, in another study by Danesh Kojuri et al. (2005) performed on women referring to the health centers of Shirvan city (Iran), 87.2% of the participants were reported to be satisfied with the quality of postnatal care, which was similar to the results of the present study (24).

On the other hand, the study by Rudman et al. (2008) aimed to investigate different dimensions of postnatal hospital care and evaluate maternal satisfaction of interpersonal communication, training and presentation of information, and clinical skills in the context of self-care and infant care. According to the results, only 32% of the studied mothers were satisfied with the quality of care in the aforementioned dimensions (25).

In the current study, 92.3% of the mothers were satisfied with the technical skills of midwives in postpartum care. The research conducted by Montasser et al. (2012) aimed to assess the level of maternal satisfaction and expectations regarding prenatal care, as well as the satisfaction with the performance of

healthcare providers in this regard. According to the findings, 73% of the studied mothers were satisfied with the ability of the healthcare personnel in providing medical history, 75.6% were satisfied with the time of medical examinations, and 82.2% were satisfied with the competency of healthcare personnel in answering their care-related questions. In general, the findings of Montasser et al. indicated that the majority of mothers were satisfied with the quality of care, which was consistent with the results of the present study (22).

With regard to maternal satisfaction of the dimension of consultation and training, findings of the current research showed that 92% of the participants had satisfaction of midwifery training during postpartum care. In this regard, the studies by Mirmolaei et al. (2007), which evaluated the rate of prenatal care utilization and patient satisfaction, and Alidosti et al. (2012) revealed that the majority of mothers were satisfied with the quality of postpartum care and family planning provision. This was in congruence with the results of the present study (19). On the other hand, Varghese et al. (2012) assessed the level of maternal satisfaction with the care services provided in the postpartum unit and reported that only half of the studied mothers were dissatisfied with the quality of education and training during the postpartum period, which was inconsistent with our findings (4). In the research by Verghese et al., maternal satisfaction was measured in six aspects of satisfaction with the organization of human resources, facilities and equipment of the health center, overall satisfaction with care services, satisfaction with communication skills, satisfaction with the level of convenience during hospitalization, and overall satisfaction with the care services provided by health workers and preferences of mothers in this regard. According to the obtained results, maternal satisfaction with the aforementioned aspects was at an average level. Differences in the mentioned study and our findings could be due to the variations in the education level and income status of the subjects.

In the current research, 86.6% of the mothers expressed satisfaction with the interpersonal manners and communication skills of midwives. Our findings in this regard are in line with the

results of the studies by Oladapo and Danesh Kojuri (24, 26), in which the majority of mothers were reported to be satisfied with the behavior of midwives, especially the respect, politeness, and privacy protection of midwives during visit and consultation.

Contrary to the present study, Taghizadeh et al. (2006) evaluated the level of patient satisfaction with the verbal and non-verbal communication skills of midwives at the health centers affiliated to Tehran University of Medical Sciences (Iran) and reported that nearly half of the studied mothers were moderately satisfied with the communication skills of midwives (13). Moreover, competency of midwives in the provision of medical history was considered unfavorable in 75% of the cases.

In the current study, assessment of the competency of midwives in providing clinical history in various aspects showed that the mothers were relatively satisfied with the evaluation of bleeding problems, discharge (leukorrhea), dizziness, use of dietary supplements, and proper breastfeeding. However, low maternal satisfaction was reported regarding the assessment of urinary, reproductive and temperamental complications, domestic violence, and common complaints, as well as the prompt evaluation of postpartum danger signs and underlying diseases.

In another research conducted by Simbar et al., mothers had moderate satisfaction of the competency of healthcare personnel in providing clinical history (27). In addition, low satisfaction levels were observed regarding the ability of healthcare providers in performing clinical examinations.

Findings of the present study indicated that midwives performed blood pressure and pulse rate measurements in almost all the visiting sessions. However, inaccurate measurements were reported in nearly half of the cases. Furthermore, evaluation of other vital signs, including body temperature and respiration rate, and further examinations (extremities, abdomen and sutures, breast and teeth) were not within the standard range. In addition, genital examinations and Pap smear were not performed on the mothers. This finding was consistent with the results of the study by Peter (2009), which denoted the poor quality of

clinical examinations by healthcare providers during postpartum care. According to their findings, 29% of the mothers received clinical breast examination, 29.7% were evaluated in terms of uterine involution, and eye examination was performed on less than half of the cases (20).

In another study by Jahani Shourab et al., which reviewed the prenatal care process, status of the technical skills of healthcare providers was reported to be moderate (11). However, the study by Mohamed et al., which examined the perspective of postnatal women toward the quality of postpartum nursing care, was indicative of the low quality of postnatal services (28). In this regard, the findings of Farrokhi et al. (2008) revealed that the quality of midwifery care with respect to postpartum clinical examinations was unfavorable in 91.9% of the cases (29).

According to the results of the present study, the majority of midwives had undesirable communication skills. Most of the mothers did not have the opportunity to ask questions and were not encouraged to express their concerns to the service providers. However, it is noteworthy that during midwife visits, eye contact was established with the mothers, and the educational content was taught clearly and at a moderate pace in the majority of the cases. According to the literature, physicians tend to interrupt the patients while asking questions after only 23 seconds, and only 28% of hospitalized patients are able to fully express their concerns to physicians (30). Communication skills are considered an inherent element in increasing patient satisfaction with medical services.

Results of the present study were indicative of no significant associations between maternal satisfaction of postpartum care and factors such as age, parity, socioeconomic status, and employment status. This is inconsistent with the results obtained by Wagner et al. (2009) and Nikpour et al. (2007), which reported no significant correlations between maternal age, mode of delivery, and satisfaction with the quality of postpartum care (17, 31). In the current study, a significant association was observed between the education level and maternal satisfaction of postpartum care, which is in line with the findings of Waldenstrom (21).

Findings of the current study were indicative of a significant correlation between maternal satisfaction of postpartum care and level of midwifery care. In the study by Taghizadeh et al., the researchers evaluated the communication skills of midwives and its association with the level of patient satisfaction reporting a significant relationship in this regard. Moreover, they stated that the majority of the patients were moderately satisfied with the verbal and non-verbal communication skills of midwives (13). Similarly, our findings denoted a statistically significant correlation between the application of communication skills by midwives and level of maternal satisfaction.

Considering the findings of the present study, it is recommended that the causes of poor midwifery care and low quality of postnatal health services be identified through further investigation.

One of the limitations of the current study was the possibility of introducing bias due to the presence of the researcher in the premises of the selected health centers, which was minimized through further observation and clarification of study objectives for the healthcare staff.

Conclusion

According to the results of this study, the majority of mothers were satisfied with the quality of postpartum care services, while the overall quality of midwifery care was relatively undesirable. This discrepancy could be due to the inadequate information of postnatal women on proper care procedures, low expectations from healthcare providers or fear of being deprived of health services in the future.

Conflicts of interest

The authors declared no conflicts of interest.

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References

1. Simbar M, Ghafari F, Tork ZS, Alavimajd HR. Quality of midwifery care in labor and delivery wards of selected Kordestan medical science university hospitals. *Payesh*. 2009; 8(2):191-201 (Persian).
2. Ejaz S, Ahmad K. Postpartum care utilization among primigravida: a study in rural Punjab, Pakistan. *Research on Humanities and Social Sciences*. 2013; 3(4):1-19.
3. Lugina HI, Christensson K, Massawe S, Nystrom L, Lindmark G. Chang in Maternal concerns during 6 weeks postpartum period: a study of primiparous mothers in Dar Es Salaam, Tanzania. *Journal of Midwifery & Women's Health*. 2001; 46(4):248-257.
4. Varghese J, Rajagopal K. Development of a new tool for evaluating postnatal mother's satisfaction following nursing care: in India. *Journal of Biology, Agriculture and Healthcare*. 2013; 2(5):7-19.
5. Vallely L, Ahmad Y, Murray SF. Postpartum maternal morbidity requiring hospital admission in Lusaka Zambia-a descriptive study. *BMC Pregnancy and Childbirth*. 2005; 5(1):1-8.
6. Bibi S, Ghaffar S, Memon S, Memon S. Severe acute maternal morbidity (SAMM) in postpartum period requiring tertiary Hospital care. *Iranian Journal of Reproductive Medicine*. 2012; 10(2):87-92.
7. Mirmolaei ST, Amelvalizadeh M, Mahmoudi M, Tavakol Z. Effect of home postpartum care on quality of life of low risk mothers. *Hayat*. 2011; 17(2):42-51 (Persian).
8. Karami K, Bakhtiar K, Hasanvand B, Safary S, Hasanvand S. A comparison of life quality and public health after natural and cesarean delivery in women referred to Khorramabad health centers in 2009-2011. *Yafteh*. 2012; 14(4):59-69 (Persian).
9. Khadivzadeh T, Katebi MS, Sepehri Shamloo Z, Esmaily H. Assessment of midwives' communication skills at the maternity wards of Mashhad teaching hospitals in 2014. *Journal of Midwifery and Reproductive Health*. 2015; 3(3):394-400.
10. Varghese J, Rajagopal K. A study to evaluate the level of satisfaction perceived by postnatal mothers following nursing care in postnatal wards as expressed by themselves: pilot study. *Journal of Biology, Agriculture and Healthcare*. 2012; 2(6):101-112.
11. Jahani Shourab N, Ghaffari Sardasht F, Jafarnejad F, Esmaily H. Assessment of prenatal care process based on donabedian model in Mashhad health centers. *The Iranian Journal of Obstetrics, Gynecology and Infertility*. 2013; 16(53):7-17 (Persian).
12. Mohseni M, Bahadoran P, Abedi H. The quality of

- postpartum care from mothers' viewpoint. *Hakim*. 2009; 12(1):27-34 (Persian).
13. Taghizadeh ZI, Rezaiepour A, Mehran AB, Alimoradi Z. Usage of communication skills by midwives and its relation to clients' satisfaction. *Hayat*. 2006; 12(4):47-55 (Persian).
 14. Naghizadeh S, Sehhati Shafaei F, Barzanje Atri S, Ebrahimi H, Ebrahimipour M. Assessment and comparison of mother's satisfaction of maternal care givers during hospitalization in teaching and non-teaching hospitals of Tabriz city. *The Iranian Journal of Obstetrics, Gynecology and Infertility*. 2013; 15(38):24-31 (Persian).
 15. Tabrizi JS, Gharibi F, Eteraf Oskouei MA, Asghari Jafarabadi M. Investigating the effect of interventions on improving the service quality of physiotherapy clinic in rehabilitation faculty of Tabriz in 2011-2012. *Journal of Fasa University of Medical Sciences*. 2014; 3(4):348-354 (Persian).
 16. McLellan J, Laidlaw A. Perceptions of postnatal care: factors associated with primiparous mothers perceptions of postnatal communication and care. *BMC Pregnancy and Childbirth*. 2013; 13(1):227.
 17. Nikpour S, Shahpourian F, Hajikazemi ES, Hosseini FA, Safdari M. The relationship between women's satisfaction with prenatal care services and characteristics of the women and the provision of services. *Iran Journal of Nursing*. 2007; 20(49):15-27 (Persian).
 18. Farzadi F, Maftoon F, Aeenparast A, Azin A, Omidvari S, Jahangiri K, et al. Determinants of satisfaction with health care system: a population-based study from Iran. *Payesh*. 2011; 10(3):323-330 (Persian).
 19. Alidosti M, Tahmasebi M, Raeisi M. Evaluating the women's satisfaction of Hajar hospital services after the delivery. *Journal of Clinical Nursing and Midwifery*. 2013; 2(1):1-8 (Persian).
 20. Peter ND. Patient satisfaction with intrapartum and postpartum nursing care. *Buea, Cameroon: Faculty of Health Sciences Department of Nursing*; 2009.
 21. Waldenström U, Rudman A, Hildingsson I. Intrapartum and postpartum care in Sweden: women's opinions and risk factors for not being satisfied. *Acta Obstetrica et Gynecologica Scandinavica*. 2006; 85(5):551-560.
 22. Montasser NA, Helal RM, Megahed WM, Amin SK, Saad AM, Ibrahim TR, et al. Egyptian women's satisfaction and perception of antenatal care. *International Journal of Tropical Disease & Health*. 2012; 2(2):145-156.
 23. Torkzahrani SH, Khazaiyan S, Shaykhan Z, Akbarzadeh A. Satisfaction of mothers with the performance of Health care providers in postpartum ward of hospitals in Zahedan. *Journal of Shahid Beheshti School of Nursing & Midwifery*. 2010; 20(69):21-24 (Persian).
 24. Kojuri MD, Karimi S, Shekarabi R, Hossinei F. Study of satisfaction with prenatal care services in the women attending to the health centers of the Shirvan Chardavel (Iran). *Iran Journal of Nursing*. 2005; 18(43):61-69 (Persian).
 25. Rudman A, El-Khoury B, Waldenström U. Evaluating multi-dimensional aspects of postnatal hospital care. *Midwifery*. 2008; 24(4):425-441.
 26. Oladapo OT, Iyaniwura CA, Sule-Odu AO. Quality of antenatal services at the primary care level in southwest Nigeria. *African Journal of Reproductive Health*. 2008; 12(3):71-92.
 27. Simbar M, Nahidi F, Akbarzadeh A. Assessment of quality of prenatal care in Shahid Beheshti medical sciences university health centers. *Payesh*. 2012; (11)4:529-544 (Persian).
 28. Mohamed HA, El-Ngger N, Lamadah SM. Women' perspectives regarding the quality of postpartum nursing care in Ain Shams Maternity Hospital- Cairo, Egypt. *Journal of American Science*. 2012; 8(2):366-377.
 29. Farrokhi F, Khadivzadeh T. Quality assessment of midwives performance in prenatal cares in urban health centers in Mashhad, Iran. *Payesh*. 2008; 7(3):203-210 (Persian).
 30. Farmahini Farahani M, Kashaninia Z, Hosaini M, Biglarian A. The effect of communication skills training of nursing on clients' satisfaction. *Iranian Journal of Nursing Research*. 2007; 1(3):47-54 (Persian).
 31. Wagner DL. Patient satisfaction with postpartum teaching methods used by nurses. [Dissertation]. *Hollywood, US: Barry University School of Nursing*; 2009.