

Relationship of Postpartum Depression with Spiritual Well-Being and Some Demographic Variables among Women Referring To Health Care Centers Affiliated To Qom University of Medical Sciences, Qom, Iran

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Abstract

Background and Objectives: Postpartum depression is a disorder affecting individuals' social ability accompanied by dangerous complications in the mother, neonate, and the family of the patient. This study aimed to investigate the relationship of postpartum depression with spiritual well-being and some demographic variables among women referring to health care centers, Qom, Iran.

Methods: This cross-sectional study was conducted on 196 eligible women referring to health care centers affiliated to Qom University of Medical Sciences during 2017. Participants were selected through a convenience sampling technique. Spiritual well-being and postpartum depression of the participants were measured through Spiritual Health Questionnaire and Edinburgh Postnatal Depression Scale, respectively. The data analysis was performed using the SPSS software through Pearson correlation coefficient test, one-way ANOVA test, and independent t-test.

Results: The mean age of individuals was 28.58 ± 5.97 . The postpartum depression score above 12 was among 20 women (10.2%). Postpartum depression had a significant relationship with the mean score of spiritual well-being as well as cognitive/emotional and behavioral dimensions. There was a significantly negative correlation between spiritual well-being and postpartum depression among women ($r = -0.52$, $P < 0.001$). Moreover, postpartum depression significantly correlated with the type of delivery, abortion history, job status, and educational level of the investigated women.

Conclusion: According to the obtained results of the study, the participants had a desirable level of spiritual well-being, and a higher score in spiritual well-being led to a lower postpartum depression score.

Keywords: Depression, Iran, Postpartum, Spirituality.

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Introduction

Postpartum depression is a disorder affecting individuals' social ability accompanied with extreme complications in the mother, neonate, and family of the patient (1). The results of a systematic review indicated that the mean of the prevalence of postpartum depression in Iran is 28.7% (2). On the other hand, the prevalence of postpartum depression in different countries is reported to be within the range of 5-40% (3).

The symptoms of postpartum depression include depressed mood, irritability, insomnia,

and frequent dizziness (4). Despite the controversies surrounding the definition of postpartum depression, the diagnostic and statistical manual of mental disorders describes this disorder as a major event occurring in the first four postpartum weeks (5). According to the available evidence in Iran, the risk factors for postpartum depression are the history of depression, genetic predisposition, low maternal level of education, lack of social support, and occupational status of women (6). Spiritual well-being is considered one of the important dimensions of well-being, which

provides a coherent and integrated relationship between internal forces (7). Evidence shows that spiritual well-being can improve or undermine mental health and lead to contradictory results in this regard (8,9). Therefore, researchers have conducted extensive studies to examine the relationship between spiritual health and various aspects of life (10).

The results of a study conducted by Smith and Murray indicated a reverse relationship between spiritual well-being and symptoms of postpartum depression (11,12). However, some studies indicate a direct relationship between the two-mentioned variables (13,14). Moreover, the study of spiritual well-being and depression is culturally sensitive, meaning that the investigation of these variables requires localized studies. The present study aimed to evaluate the relationship between spiritual well-being and postpartum depression of women referring to health centers.

Moreover, it is important to consider psychological factor as one of the significant risk factors for the incidence of postpartum depression, as well as the variability of postpartum depression factors and spiritual well-being variables with respect to the investigated culture. Therefore, with regard to the lack of relevant studies in this research area and importance of postpartum depression, this study aimed to determine the relationship of postpartum depression with spiritual well-being and some demographic variables in women referring the health centers affiliated to Qom University of Medical Sciences, Qom, Iran, in 2017.

Methods

This descriptive-correlational study was performed on all the women referring to health centers affiliated to Qom University of Medical Sciences. In total, 196 eligible women were selected through a multistage sampling method. In doing so, all healthcare centers affiliated to Qom University of Medical Sciences were selected at first, followed by a random selection of subjects from these centers. The sample size was calculated with 95% confidence interval and 10% margin of

error. The study population composed of 200 individuals based on the obtained score of the correlation coefficient between spiritual well-being and depression among patients suffering from cancer ($r=0.23$) in a study conducted by Khazri et al. (15).

The inclusion criteria were 1) willingness to participate in the study, 2) Islamic religion, 3) age range of 18-45 years, 4) a maximum of one month postpartum, 5) no complication in delivery process, 6) parity, 7) no need for special care, 8) no use of psychiatric medication (e.g., antidepressants and antiepileptics), 9) no history of depression and chronic diseases (e.g., cardiovascular disease, diabetes, and cancer), 10) no chronic disease in immediate relatives (e.g., malignant cancer), 11) and no history of mental distress (e.g., death of family members, severe traffic accidents, addiction in the family) in the last six months.

After the approval of the Ethics Committee of Qom University of Medical Sciences (IR.MUQ.REC.1397.004) and submission of a reference letter to the healthcare centers, sampling was carried out through observing the ethical considerations of the Declaration of Helsinki (16). First, the participants completed a demographic questionnaire, including age, body mass index [BMI], gravidity, type of delivery, history of abortion and stillbirth, gender of the infant, occupational status, level of education and physical activity. Afterwards, they completed the Edinburgh Postnatal Depression Scale (EPDS) and Spiritual Health Questionnaire (SHQ) from the perspective of Islam.

The EPDS was designed by Cox et al. in 1978. This scale has 10 multiple-choice questions, and each question is allocated a score within the range of 0-3. In this regard, the lowest and highest scores of the scale are 0 and 30, respectively. According to the results, scores ≥ 13 confirm the diagnosis of depression, whereas scores within the range of 0-9 demonstrate the lack of depression. It is worth noting that scores within the range of 10-12 indicate a borderline score between the presence and absence of postpartum

depression (17). Montazeri et al. estimated the reliability of this scale at 0.8 (18).

The SHQ of the Iranian population has 48 items in the two dimensions of cognition/emotion and behavior, which measures the attitude and performance of individuals in relation to spiritual well-being. Items 1-28 are related to the cognitive/emotional dimension and items 29-48 are related to the behavioral dimension. The scale items are scored based on a five-point Likert scale (1=completely disagree, 2=relatively disagree, 3=no opinion, 4=relatively agree, 5=completely agree).

To score the behavioral dimension, score 1 is allocated to the alternative of never, whereas the scores 2,3,4, and 5 are given to the alternatives of rarely, sometimes, frequently, and always. In addition, the lowest and highest scores are 48-240, respectively. Moreover, the higher the obtained scores in the questionnaire, the higher the level of spiritual well-being.

In addition, the scores in the range of 48-115 show low levels of spiritual well-being, while the scores of 116-240 demonstrate a high level of spiritual well-being. In a study conducted by Amiri et al., the validity of this questionnaire was approved using content validity method. Moreover, the reliability of the present tool was evaluated by Amiri et al. at the Cronbach's alpha of >0.7 and was confirmed at the same level using the test-retest (19).

Data analysis was performed in SPSS (version 22) using descriptive (mean, standard deviation, and frequency) and analytical (independent t-test, one-way ANOVA, and Pearson's correlation coefficient) statistics. In addition, P-value less than 0.05 was considered statistically significant.

Data collected from four subjects were incomplete. Therefore, the statistical analysis was performed on 196 women referring to health centers affiliated to Qom University of Medical Sciences.

Result

In this study, the mean age of the participants was 28.58 ± 5.97 years. The majority of the subjects were overweight in terms of BMI. In addition, the method of delivery of 108

subjects (55.1%) was C-section. Regarding the level of education, 150 participants (76.5%) had diplomas or higher degrees. Furthermore, most subjects (85.2%) were housewives, and the mean score of sexual health of the participants was reported as 229.30 ± 10.82 .

Out of 196 women participating the research, 20 individuals (10.2%) received a postpartum depression score above 12, whereas the depression score of 15 participants (7.6%) was in the range of 10-12. Furthermore, the obtained results of one-way ANOVA showed that postpartum depression had a significant relationship with the mean score of spiritual well-being as well as cognitive/emotional and behavioral dimensions ($P < 0.001$; Table 1).

Table 1. Comparison of spiritual well-being and different levels of postpartum depression from the perspective of Islam

Spiritual well-being	Depression score			ANOVA	p-value
	<10 (N=161)	10-12 (N=15)	>12 (N=20)		
Cognitive/emotional dimension	136.83± 4.44	134.93± 5.29	125.95 ±13.66	28.75	<0.001
Behavioral dimension	95.22± 6.06	91.40± 8.11	83.40± 12.11	25.90	<0.001
Total score	232.06± 9.09	226.33± 12.00	209.35 ±23.89	34.45	<0.001

The obtained results of Pearson's correlation test indicated a significantly negative correlation between mean postpartum depression score and a total score of spiritual well-being ($r = -0.517$), as well as cognitive/emotional ($r = -0.492$) and behavioral ($r = -0.454$) dimensions in the subjects ($P < 0.001$; Table 2).

Table 2. Correlation between the score of postpartum depression and the scores of spiritual well-being from the perspective of Islam

Variables	1	2	3
1 Postpartum depression	1		
2 Cognitive/emotional dimension of spiritual well-being	-0.492*	1	
3 Behavioral dimension of spiritual health	-0.454*	0.663*	1
4 Total score of spiritual health	-0.517*	0.889*	0.924*

* $P < 0.001$

Table 3 tabulates the comparison of the postpartum depression score among the investigated subjects in terms of some demographic variables. The results showed a higher level of depression among women with some specific features, including overweight, C-

section and a history of abortion, a male neonate, an educational level below a diploma, mean age of above 35 years, and no physical activity.

Table 3. Comparison of the mean and standard deviation of postpartum depression in women referring to healthcare centers based on some demographic variables

Variables		N (%)	Level of postpartum depression (mean± standard deviation)	P-value
Age	Below 18 years	4 (2.0)	0.0±0.0	0.632
	18-25 years	48 (24.5)	4.27±4.52	
	26-35 years	107 (54.6)	6.20±5.79	
	Above 25 years	37 (18.9)	7.64±4.67	
Body mass index	Thin (<19.8)	1 (5.0)	0.0±0.0	0.632
	Normal (19.8-26)	65 (33.2)	5.66±6.01	
	Overweight (26-29)	48 (24.5)	6.93±6.11	
	Obese (> 29)	82 (41.8)	5.50±4.33	
Pregnancy time	First attempt	78 (39.8)	4.47±5.01	0.011
	Second attempt	59 (30.1)	6.28±5.68	
	Third attempt	41 (20.9)	6.60±5.86	
	Fourth attempt	15 (7.7)	8.46±2.89	
	Fifth attempt	3 (1.5)	11.33±3.05	
Method of delivery	Natural	88 (44.9)	4.88±5.01	0.020
	C-section	108 (55.1)	6.68±5.59	
History of abortion or stillbirth	Yes	50 (25.5)	7.30±5.47	0.031
	No	146 (74.5)	5.39±5.31	
Gender of infant	Male	100 (51.0)	6.07±5.32	0.612
	Female	96 (49.0)	5.67±5.51	
Occupational status	Employed	29 (14.8)	3.72±3.88	0.020
	Housewife	167 (85.2)	6.25±5.55	
Level of education	Below diploma	46 (73.5)	7.69±6.79	0.009
	Diploma and higher degrees	150 (76.5)	5.32±4.79	
Physical activity	Yes	28 (14.3)	5.50±4.70	0.691
	No	168 (85.7)	5.94±5.52	

The results of one-way ANOVA indicated a statistically significant difference between the mean score of postpartum depression and the number of pregnancies ($P=0.011$) in the participants. In addition, an independent t-test showed that postpartum depression was significantly related to the type of delivery ($P=0.020$), abortion history ($P=0.031$), occupational status ($P=0.020$), and level of education ($P=0.009$) in the participants (Table 3).

Discussion

According to the results of the present study, the subjects had a high level of spiritual well-being. The results revealed that high scores of spiritual well-being were observed in the

women, who referred to healthcare centers with fewer symptoms of postpartum depression. In addition, it was shown that a significant number of patients (10.2%) had postpartum depression, which was consistent with the results obtained by Man et al., indicating depression rate of 11.7% in women referring to the clinic after delivery (20).

The mean score of overall spiritual health and its dimensions in different levels of postpartum depression was evaluated in the current study. The findings demonstrated that women with a post-delivery depression score above 12 had lower cognitive/emotional and behavioral dimensions of spiritual well-being and overall spiritual well-being scores.

Moreover, the postpartum depression score had a significantly negative correlation with the total score of spiritual well-being as well as cognitive/emotional and behavioral dimensions. In other words, the total score of spiritual well-being and dimensions of cognition/emotion and behavior decreased in subjects with the increase of postpartum depression. A study in 2007 showed that the spiritual well-being score of pregnant women had a significantly negative with their depression score, which was in line with our findings (17). The obtained results of other studies revealed that spiritual well-being can improve the psychological aspects of patients (23-21).

In the current research, there was a significant relationship between the level of education and postpartum depression, which is in congruence with the results obtained by Sehati et al. (24). Contrary to our findings, Esmaeili et al. (2013) showed the lack of significant relationship between the level of education and this type of depression (25). Evidence suggests that a high level of education increases the mothers' awareness of their social rights, and consequently improves collaboration and increases access to information resources (26).

Sehati et al. marked a significant relationship between the gravidity and maternal postpartum depression (24), which was consistent with our findings. However, the results of the mentioned study showed no significant

relationship between the type of delivery and postpartum depression (24), which was in contrast with the findings of the current study.

Edward et al. mentioned that postpartum depression was more prevalent among women who received a C-section (27), which was in line with our results. Black demonstrated that the history of abortion and stillbirth had a significant correlation with postpartum depression (28), which was consistent with the results of the current study. Nonetheless, the results of a study conducted by Sehati et al. contradicted our results (24). In this research, there was a direct relationship between occupational status and postpartum depression, which was consistent with the results obtained by Sehati et al. (24).

The data in this study were collected through self-report. It is recommended to conduct future studies to evaluate the relationship between postpartum depression and spiritual well-being with regard to the social and economic support of mothers.

Conclusion

According to the results of the current research, women referring to the healthcare centers affiliated to Qom University of Medical Sciences had a favorable level of spiritual well-being. In other words, an increase in the spiritual well-being of women after pregnancy decreased their depression level. Moreover, considering the results of the present study, it could be claimed that demographic characteristics, such as gravidity, a method of delivery, occupational status, and level of education, were correlated with postpartum depression. Therefore, with regard to the importance of controlling the negative effects of postpartum depression on mothers, neonates, and family of the patient, it is recommended to improve the level of spiritual well-being in pregnant mothers.

Conflict of interest

The author declares no conflict of interest.

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