Original Article

Postpartum depression and sleep disorders among working women with social support, referring to Health Centers in Shiraz, Iran, 2018 – 2019

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Article Info

Abstract

Background: Postpartum depression (PPD) is a significant health problem that affects women's health. Tthe purpose of this study was to predict sleep disorders and postpartum depression based on the social support provided for employed women referred to health centers in Shiraz, Iran, from 2018 to 2019.

Materials & Methods: A descriptive study was conducted on 90 working mothers, who were assessed 4 weeks after childbirth at health centers in Shiraz, from November 13 to December 13, 2018. The participants were selected through a multi-stage random sampling method. Data collection was done using the Standard Pittsburgh Sleep Quality Index (PSQI), Edinburgh Postnatal Depression Questionnaire (EPDS), and Multidimensional Scale of Perceived Social Support (MSPSS). Data were analyzed via Pearson's simple correlation coefficient and multivariate regression.

Results: Regression analysis showed significant correlations between social support, postpartum depression, and sleep disturbances in respondents (MR=0.409 and p <0.001). Social support dimensions can predict about 17% of the variance in the postpartum and sleep disturbance among women. There was not a significant correlation between social support and postpartum depression.

Conclusion: During the postpartum period, health practitioners should provide psychological education or counseling, and emphasize social support, particularly for spouses.

Keywords: Postpartum, Sleep Disorder, Social Support

Introduction

Postpartum depression (PPD) is described as a psychological mood disorder that takes place in a mom one or two months after childbirth, or it may begin some months after the infant's delivery (1). This period refers to mood disorders that may have been started or expanded during the postpartum period. It has a high effect on mom health, family functioning, and child improvement (2). The fifth edition of the diagnostic and statistical manual (DSM-V) described postpartum depression as a major depression along with the care of postpartum onset, a diagnosis that can be utilized signs manifest throughout being pregnant and within the four weeks after delivery (3). Some women may not experience PPD; however, mothers who are most at risk have a history of depression (4), substance use problems (5), high stress in life (6), poor socioeconomic status (7),

and lack of social support (8, 9); also they might be single (10) or old mother (11). PPD is understood to have brought damages or harms to the personal mom adjustment, marital relationship, and mother-infant communication (1). Postpartum depression can lead to (in rare cases) maternal suicide or even kill the infant if left untreated (12).

In the postpartum period, certain groups of mothers are at a greater risk of developing depression. Working mothers are especially prone to workplace stressors and sleep disturbances due to caring of newborn babies; then they are more at risk of health problems because of work activities to meet the family needs (13). Moreover, Gurudatt in a study reported a higher degree of depression in the initial months after delivery both in working and non-working women (14). Furthermore, the findings indicate a high rate of depression in housewives (15). As stated earlier, several studies have described working mothers as risk factors for developing PPD; however, the results are controversial and contradictory in this regard (13-15). Among Turkish women, the occurrence of PPD was found to be 23.8% (16). Just like all over the world, PPD is a common issue among Iranian women (17).

One crucial but often neglected change after child delivery is the increased risk of sleep deprivation that causes a problem for mother health (18). There is emerging evidence to suggest that women with significant sleep disturbance, characterized by insomnia signs and/or poor sleep quality, are more presumably to develop PPD (19). Significant subsequences may arise as a result, including maternal-infant attachment, effective care of the infant, and behavioral or emotional difficulties in the infant (19). Sleep disorders in mothers may cause marital dissatisfaction among couples as well (20). Early parenthood is a period of endless rest in which parents are at increased depression risk. Poor sleep and rest quality have been distinguished both as an indicator of childcare burdensome side effects and their outcome (20). In the perinatal period, sleep and mood disorder are usually reported by women (21).

In the postpartum period, women may not have sufficient time for sleep; the newborn baby needs attention and disturbs mothers sleep in the first months after childbirth (22). Having psychosocial support during pregnancy and after delivery is of great importance in preventing depression (23). According to the emphasis on social support as an important factor in the admission of maternity (24), there are various kinds of social supports by family, spouse, friends, and peers (25). A study showed that support from husbands and families

was expected and many women believed this support should be provided without demanding (26). Some of the studies in this area confirmed that associative support positively influences the tendency of the woman to the motherhood role at the maternity and the postpartum period; thus, it strengthens an infant-mother relationship (27, 28).

In the literature, risk elements for postpartum depression are examined; however, a woman's partner or spouse is generally regarded to be the primary source of support (29). Indeed, support from the husband has been found to be a consistent and substantial protective factor for postpartum depression (30). Better social support received from partners during pregnancy is accompanied by lower postpartum emotional distress (31); those mothers, who have PPD, reported that it was effective to have a supportive partner to assist them in coping with depressive symptoms (32).

Prevalence of postpartum depression was found to be high. Therefore, it is necessary to pay attention to this problem, especially among working women. Studies are required to find methods of supporting working women with PPD. According to previous studies, there has been less investigation of PPD among working women. Thus, this study aimed to predict postpartum depression and sleep disturbances on the basis of social support among working women referred to health centers in Shiraz.

Materials and Methods

This descriptive study was performed on a census sample of 90 delivered women attending 6 health care centers in Shiraz. Participants were selected based on a multi-stage random sampling by the lottery method. The criteria for entering the study include working women between twenty and thirty-nine years old, having a healthy child without a history of depression, and receiving a score up to 13 in the Edinburgh depression questionnaire. Dissatisfaction with participation in the research, as well as having more than 40 years old and a history of mood disorders or depression excluded people from the study. Before the data collection, participants were explained concerning the aim and usage of data, as well as the confidentiality of the collected sample. Required data, such as age, education, delivery number, and occupation, were collected from participants through their medical record at health care centers. Other information collected from the questionnaires, including the Standard Pittsburgh Sleep Quality Index (PSQI), Edinburgh Postnatal Depression Questionnaire

(EPDS), and Multidimensional Scale of Perceived Social Support (MSPSS).

In order to collect the samples for this research for a month from November 13 to December 13, 2018, the health centers of Shiraz in districts 1 and 2 were selected. Out of these two districts, health centers were randomly picked up, and according to the inclusion and exclusion criteria mentioned earlier participants were selected. It is necessary to mention that the number of qualified people was 115, among them, 25 were excluded from the analysis process due to incomplete and misleading questionnaires. At each center, at first, participants were familiarized with the goal of the study besides explaining to them that it is not necessary to mention personal information. The study was also done according to the participants' opinions without any compulsion. Those people who were referred to the health centers for monthly checkups of their infants in the waiting room responded to the questionnaire, in which all the Declaration of Helsinki were considered.

PSQI is a self-report questionnaire that is done over 19-items. It creates 7 components, which produce one global score of sleep quality and disturbances during the postnatal period (33). The PSQI measures several aspects of sleep, offering seven component scores and one composite score. Each item is weighted on a 0–3 interval scale. In scoring the PSQI, seven component scores are derived, from 0 (no difficulty, very good) to 3 (severe difficulty, very bad). The component scores are summed to produce a global score (range 0 to 21). Higher scores indicate worse sleep quality and where lower scores denote healthier sleep quality. The component scores consist of subjective sleep quality, sleep latency (i.e., how long it takes to fall asleep), sleep duration, habitual sleep efficiency (i.e., the percentage of time that one is asleep), sleep disturbances, use of sleeping medication, and daytime dysfunction.

This scale has good internal consistency, test-retest reliability, and validity (33). In Iranian version, sensitivity and specificity of discrimination in insomniac patients from control subjects were 94% and 72% for a PSQI cutoff value of 5, as well as 85% and 84% for a PSQI cutoff value of 6 (34). Cronbach's alpha coefficient for all subjects was 0.77, 0.52 for the patient group, and 0.78 for the control group (34).

This scale encompasses ten items, and each item is rated on a four-point scale, the maximum scores of 30. A score of 13 or upper is considered to be a significant 'case' of postnatal depression; scores between 10 to12 represent 'borderline' and 0 to 9 'not depressed' (35). In the Iranian version of this scale, the Cronbach's alpha was ranged from 0.7 to 0.79 (36).

Zimet et al. developed the 12-question MSPSS in 1998; it was used for subjective evaluation of social support (37). MSPSS is a Likert type scale that is rated as 7. It provides response options of 0 (very strongly disagree), 1(strongly disagree), 2(Mildly disagree), 3(Neutral), 4(Mildly agree), 5(strongly agree), and 6(very strongly agree). Cronbach α has an internal consistency of 0.95 for family support, 0.94 for friend support, 0.91 for special person's support, and 0.94 for total scale (38). In this study, Cronbach α, has internal coordination 0.92 for family support, 0.92 for friend support, 0.88 special person's support, and 0.94 for the total scale. In Iran, Cronbach's α coefficient for friends, important people, and family subscales for the patient sample was, 0.89, 0.92, and 0.87, respectively; it was 0.92 for the scale as a whole (39).

Data were analyzed using SPSS v.23. To demonstrate the initial results, Pearson's simple correlation coefficient and multivariate regression were used to examine the prediction of sleep disturbances and postpartum depression through the social support variable among working women. The cutoff for determining significance was $p < .05$.

Results

As shown in Table 1, the mean age of mothers was 26.65±5.08 years (age range: 20-39). Demographic characteristics, i.e., mother's delivery number, education, age, and occupation, are presented in Table 1.

Table 1: Frequency & percentage of demographic variables of working women, who referred to health centers in 2018-2019

Variable	Group	Frequency	Percentage
Delivery number	1	41	45.55
	2	42	46.66
	3	7	7.77
Education	BA	49	54.44
	MA	36	40
	Ph.D.	5	5.55
Age	20 to24	10	11.11
	25 to 31	43	47.77
	32 to 39	37	41.11
Occupation	Working at office	35	38.88
	Working at school	55	61.11

As shown in Table (2), the mean ± SD score of sleep disturbance was 27.81±4.65; these results indicate that the level of postpartum sleep disorders is moderate. The mean score of mothers' postpartum depression was found to be 15.23±4.47; these results show that the rate of depression in women after delivery is higher than the average. As a result, the mean score of social support was 27.65 ±4.48; these results indicate that family support has the highest mean in working women.

Table2: Mean, standard deviation, minimum and maximum scores of postpartum sleep disorders, depression, and social support of women in Shiraz, Iran, 2018-19

Variable		Mean	SD	Max	Min
Sleep disorders		9.46	2.94	15	2
Postpartum depression		15.23	4.47	5	23
Social support	Friend support	22.26	5.50	13	60
	Family support	27.81	4.65	18	60
	Other support	27.65	4.48	18	60
	Total social support	77.76	13.82	50	113

As shown in Table (3), regression analysis by inter method shows that the multiple correlations between social support and postpartum sleep disturbances in working women were significant (MR=0.409 and p <0.001). That is, through the social support, about 17% of the variance in the variable of the postpartum sleep disturbance among women can be predicted.

Meanwhile, the regression coefficients showed that the other support with a beta of 0.78 and family support with a beta of 0.73 could predict the postpartum sleep disturbance; they are the best predictor of the postpartum sleep disturbance criterion in working women. In addition, there was not a significant correlation between social support and postpartum depression MR=0.107 and p <0.88. That is, through the social support dimensions, only about 0.01 percent of the variance in the criterion variable of the postpartum depression among working women can be predicted, which is negligible.

Also, according to the results of the correlation coefficient shown in the Table, there is not a significant relationship between the dimensions of social support and postpartum depression of working women.

Table 3: Multivariate correlation coefficients (input method) between social support with sleep disorders and postpartum depression among women in Shiraz, Iran, in 2018-19

Criteria variable	Indexes of predicting variable	MR	R2	F	P	Coefficient of regression
Sleep disorders	Friend support	0.409	0.167	3.74	P=0.001	B=0.05 t=0.24 P= 0.81
	Family support					B=0.73 t= 2.21 P=0.007
	Other support					B=0.78 t= 3.02 P=0.004
	Total social support					B=0.05 t= 0.24 P=0.81
Postpartum depression	Friend support	0.107	0.01	0.21	P=0.88	B=0.06 t= 0.28 P=0.77
	Family support					B=0.21 t= 0.75 P=0.45
	Other support					B=0.09 t=0.33 P=0.77
	Total social support					B= 0.06 t=0.28 P=0.77

Discussion

Women have many responsibilities of their families; they take care of their families, fulfill the demands of their husbands, and meet expectations of society. According to the mentioned responsibilities, our findings suggest that social support dimensions can predict sleep disturbance and postpartum depression. These results indicate that there is a significant relationship between social support and sleep disturbances among women. In addition, results specify that there is no significant relationship between social support and postpartum depression of working women.

In line with the results of this study, the research literature shows that women, who have had enough sleep, are less likely to get PPD (19-22). Mothers with poor sleep have been linked to perceiving distress or depression by the infant (40). Sleep deprivation is a potential factor, which can be associated with postpartum depression (41). The potential role of the partner will help to improve mother and infant welfare postpartum, relationships in mental health interventions with possible benefits to babies (31). Getting social supports after birth, especially from the spouse for mothers of all ages is important to decrease the risk of PPD (42).

Women who receive social support are less likely to report depressive symptoms during pregnancy (43). Dibaba et al. stated that social support during pregnancy plays a protecting role in depression (43). Women who had social support during pregnancy delivered a child with more weight (45). On the other hand, women who missed adequate social support had a higher risk of pregnancy complications, such as feticide, pre-eclampsia, and preterm births (40).

The results of the studies showed that 28% of women had postpartum depression, and the mean of depression marks was high among the housekeepers (15,46) Conversely, certain studies revealed that employed women had higher levels of postpartum depression (48,49) This may be due to the fact that working mothers had to deal with harder responsibilities. Thus, greater exposures to the hardness of working outside home tend to increase the amount of situational anxiety in working mothers. Issues that can occur as a result of PPD in the workplace are absenteeism and low work performance (13). On the other hand, non-working mothers are just concerned with their household field. Therefore, they have less scope to deal with an external stressful situation. Their unique role creates less pressure in their life and

situation; and hence, anxiety is less prominent in them than those of employed mothers (49).

The finding may be delineated to the very fact that working mothers totally involved with several works simultaneously as they had not enough time for creating fancy leisure; nevertheless, the sensation of losing interest was less tough by working mothers than non-working ones. Besides, these working mothers could not provide much time for their family and kids so that they feel guilty. This was the main explanation for the upper level of depression among working mothers than non-working ones. Stressful life events were the prime reason for depression; for working women, balancing the job, as well as the household may also lead to depression. On the other hand, non-working mothers typically bore the foremost responsibilities for housework & childcare. Their attention was continuously engaged by their children and household tasks; however, the working mothers could not share this family bonding (49).

Results showed that there is no significant relationship between social support and postpartum depression of working women. It should be noted that the involvement of husbands in filling in questionnaires at the stage of implementation had a significant impact on the results. On the other hand, the limitation of this study was that the mothers did not have adequate time to complete the questionnaires because of the nutrition and care of infants. Due to the qualitative nature of the study, the results cannot be made public to the population of postpartum women as a whole.

Conclusion

Working women who have little social support, poor health, and a history of stressful life events are in danger of poor psychological state throughout the perinatal period.

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