

ASSESSMENT OF SOME POTENTIAL RISK FACTORS OF POSTPARTUM DEPRESSION

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ABSTRACT

Objectives: Postpartum depression (PPD) has pathological consequences for mother and infant. This study examined some potential risk factors of PPD in Iran.

Methodology: This is a descriptive cross-sectional study which included patients attending two health centers at two months postpartum. They were screened for PPD using Edinburgh Postnatal Depression Scale (EPDS). The participants were 27.93±5.31 years of age.

Results: The prevalence of positive screening test was 21.4%. Unwanted pregnancy material dissatisfaction, infant gender dissatisfaction, lower socioeconomic status, lower educational level, infant illness and previous depression were significantly higher ($p < 0.05$) among women with high score on the EPDS.

Conclusion: Women with positive test who have risk factors may warrant more detailed assessment program. A brief semi-structured psychiatric interview may be a more accurate assessment tools.

KEY WORDS: Postpartum depression, Risk factors, EPDS.

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INTRODUCTION

Since last five years growing attention is paid to mother's depression and impact on their infants.¹ Depressive symptoms in children of depressed mothers are higher than general population.² Recent studies emphasize reciprocal relationship between depression of mother and child.³ The child normal attachment develops from birth through 3rd year.⁴ Depressed mothers are not equipped to respond to the attachment needs of their infants and subsequently lead to significant cognitive psychological and developmental delay in infants.⁵

Postpartum depression (PPD) is a mood disorder that can begin any time during the first year after delivery.⁵ DSM - IV- TR allows the specification of a postpartum mood disturbance if the onset of symptoms is within 4 weeks postpartum.⁴

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Symptoms of PPD can be devastating and may include feelings of loneliness, sleep disturbances, decreased appetite, emotional liability and even thoughts of harming oneself and/or the child.⁵ The reported prevalence in western societies is 10-15%⁶ and in eastern countries it is 10-18.5%.⁷⁻⁹ The reported prevalence in Iran is 14-21.3%.¹⁰⁻¹⁴ Known risk factors for PPD include personal or family history of major depressive illness, anxiety, poverty, lack of social support, marital/ relationship discord, low educational level and unplanned/ unwanted pregnancy.^{5,6,10-12,15-17}

Because of these known risks, the recently published NICE guidelines for the clinical management of antenatal and postnatal mental health (2007) emphasized the importance of prediction and detection of maternal depression in pregnancy and postnatal period.¹⁸ According to socio-cultural effect on predisposition to psychiatric disorders this descriptive cross sectional study was carried out to assess the relationship between some potential risk factors and PPD in Ahwaz city.

METHODOLOGY

The EPDS is a 10-item self reporting scale that measures the intensity of depressive symptoms experienced within the past 7 days. Each statement is rated on a scale from 0 to 3 ("yes, most of the time" to "no, no at all"), resulting in a possible total score range from 0 to 30. Seven of 10 items are reverse scored.⁵ A cut off score of 12/13 or greater is used to indicate PPD.^{5,16,18,19} It was first designed by Cox et al as a screening instrument for the secondary prevention of PPD²⁰ with established validity and reliability.²¹ A cut-off score of 13 or greater on the EPDS has been found to identify probable postnatal depression with a sensitivity of 86% and a specificity of 78%.²¹ The best cut-off point is 12/13 with 95.3% sensitivity and 87/9% specificity in Iranian sample.²² It can be used 6-8 weeks after delivery for screening of PPD.²³ Two hundred-ten women at two months postpartum attending health centers were requested to participate in the study. Informed consent was obtained. Obstetric and demo-

graphic data questionnaire were filled. Besides Edinburgh Postnatal Depression Scale (EPDS) with cutoff of 12 was used to detect postpartum depression. We translated it in Persian. The data were analyzed using SPSS version 15.0. Results were calculated as frequencies (%), means and standard deviations. Group's comparisons were by chi-square test and odds ratio (95% confidence interval). Significance was computed at $p < 0.05$.

RESULTS

A total of two hundred ten women participated in the study. Mean age \pm SD was 27.93 ± 5.31 years. Frequency of positive screen test for depression was 45(21.5%). Unwanted pregnancy, marital dissatisfaction; infant gender dissatisfaction, lower socio-economical and educational level, infant illness and previous depression were statistically significant associated factors. For details see Table-I.

DISCUSSION

The prevalence of women who had a positive screening for PPD was 21.4%. This prevalence is in agreement with other studies in eastern countries especially in Iran⁷⁻¹⁴ but higher than the western countries. This high prevalence may have several reasons. Obstetric clinicians ignore depression or other psychiatric illness during pregnancy. On the other hand women often are hesitant to ask for help because of the shame, cultural expectation or misbelieve that their feelings are normal reaction to this new condition.¹⁷

It is now believed that pregnancy is a risk factor for a mood disorder especially in those with a history of depressive illness and untreated antenatal depression may be associated with 50-62% of post partum episodes and a worsening of the psychiatric conditions.²⁴

In accordance with other studies we also found that a history of depression is significantly related to PPD.^{5,17} Mood disorders have a multifactorial etiology. Therefore hormonal changes due to delivery can trigger postpartum depression in women who are genetically vulnerable to these psychiatric disorders. Other

Table-I: Characteristics of women with postpartum depression (n=210)

	EPDS > 12		EPDS < 12		
	N	%	N	%	
Gravidity	45	(21.4)	165	(78.6)	
Primiparus	16	(35.6)	65	(36.4)	P=0.35
Delivery					
Vaginal	23	(51.1)	68	(41.2)	P=0.235
Cesarean section	22	(48.9)	97	(58.8)	
Difficult pregnancy and delivery					
Without	34	(75.6)	134	(81.2)	P=0.4
With	11	(24.4)	31	(18.8)	
Infant illness					
Without	38	(84.4)	159	(96.4)	P=0.03
With	7	(15.6)	6	(3.6)	
Previous depression					
Without	39	(86.7)	162	(98.2)	P=0.01
With	6	(13.3)	3	(1.8)	
Infant gender dissatisfaction					
Without	45	(93.3)	161	(97.6)	P=0.01
With	3	(6.7)	4	(2.4)	
Unwanted pregnancy					
Without	30	(66.6)	127	(77)	P=0.01
With	15	(33.3)	38	(23)	
Marital dissatisfaction					
Without	39	(87.7)	157	(95.2)	P=0.01
With	6	(13.3)	6	(13.3)	
Educational level					
Elementary	11	(24.4)	24	(14.5)	P<0.01
High school	34	(75.6)	106	(64.3)	
College	35	(21.2)	0	(0)	
Socioeconomic status					
Low	3	(6.7)	4	(2.4)	P<0.01
Moderate	38	(84.4)	102	(61.8)	
High	4	(8.9)	59	(35.8)	
Employment					
Employed	11	(24.4)	38	(23)	P=0.8
Unemployed	34	(75.6)	127	(77)	

variable that was statistically significant in relationship to PPD was low education. This is similar to other studies.^{5,17} Women with higher educational level may have high self esteem, high intellectual function and better coping strategies.

Some other studies^{5,6,17} have showed an association between PPD and unwanted pregnancy and marital dissatisfaction. Pregnancy, childbirth and parity have high emotional significance for women, therefore psychological and physiological preparation is necessary. Unwanted pregnancy as an intolerable stressful life event can lead to depression. Problems

in interpersonal relationship like criticism, conflict and disengagement can also cause depression.

Another variable that is not reported in other studies was infant illness. Ill infant needs more caring, hospitalization and sometimes separation from mother. Self accusation by mother or negative comments from others about infant illness especially congenital anomalies induces guilt feeling or depression. A study from China has reported¹⁶ an association between fetal gender dissatisfaction and PPD. Preference for a male child is also prevalent in Iranian culture and negative reactions of family

members to a female child may cause or exacerbate depression. As reported in other studies^{5-7,15} we also found that lower socioeconomic status was related to PPD. Poverty and decreased social support may play a role in creation and continuation of depression by limitation of treatment resource.

We did not find any relationship between parity, type of delivery, complication during pregnancy or delivery, employment and PPD. Fewer reports regarding these variables exist in other studies. Castordai found a strong association between multiparity and vulnerability. Results regarding association between complication in pregnancy and PPD are contradictory.⁶

There are some limitations in this study such as, convenience sampling which was restricted to participants from just two centers; assessment had been conducted only once at two months postpartum. Because PPD may occur before or after this time, these women may need additional follow up. We believe postpartum screening can be integrated within clinical practice. Women with positive test who have risk factors may warrant more detailed assessment program. Hence, a brief semi-structured psychiatric interview may be a more accurate assessment tools.

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