

Prevalence and effective factors on post-natal depression women in Garmsar, Iran

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ABSTRACT

Background and aims: Depression is an affective (mood) disorder accompanied by the sense of disappointment, incompetence, sense of transgression, fear and sense of humility. Depression is the daily depressed-mood for two weeks. The aim of this study is analysis of the prevalence and effective factors on post-natal depression in women referring to Garmsar city health centers in 2015.

Methods: This study is a descriptive and periodical study. The statistical population in this research includes the women who went to Garmsar city health centers during the second and third quarters in 2015, two months after their labor. The method of collecting data in this study was by census, and the data-collecting tool was Edinburg standard questionnaire for post-natal depression diagnosis. After collecting and re-controlling, the data were analyzed by SPSS 20 software package. Descriptive statistics (average and standard deviation) were used for describing the data. The analytical statistical tests (chi square and independent t-test) were used for the data analysis.

Results: The findings showed that 40 out of 110 mothers were depressed (score of over 12), and the prevalence of post-natal depression mothers referred to Garmsar health centers was about 36%. The results indicated that there were no significant statistical relations between mother's age, education, number of labor, types of childbirth, children's sex, unwanted pregnancies, the history of sterility, and post-natal depression.

Conclusion: Due to unpleasant effects of depression on the living qualities of mothers' and the embryos' and eventually the families, and due to its extensive prevalence in the city of Garmsar, precise identification of effective factors in emergence of this disorder seems to be essential. By awareness from its risk factors, some of the inevitable factors could be reduced or even confronted, and the relevant consequences can be reduced by timely and proper interventions.

Keywords: Prevalence, Depression, Post-natal depression, Effective factors, Garmsar.

INTRODUCTION

Depression is an affective (mood) disorder accompanied by the sense of disappointment, incompetence, sense of transgression, fear and sense of humility.

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Depression is the daily depressed-mood for two weeks.^{1,2} One of the most prevalent mental disorders in the world is the affective disorder, especially depression. Research shows that 30% of the people in the world suffer from depression during their lifetime, and men in this record have the risk of affections by about 10% during their life, but this rate is almost twice in women. In fact, the highest rate of depression occurs in women in the age range of 25-40, such that depression during productivity ages in women is twice or even three times the depression in men.^{2,3}

According to W.H.O., this disorder will be the second leading factor for various diseases in 2020.^{4,5} Women's life includes stages that leave deep effects on their being; consisting of pregnancy period and post-labor that are accompanied by very important physiologic and psychological changes that despite the pleasing sense of becoming a mother, it is sometimes accompanied by pathological changes. One of the most stressful periods in a woman's life is her pregnancy period, and the intensity of the imposed stresses and pressures on a pregnant woman is the highest during the third trimester of pregnancy.⁶ Interpersonal and family physical compatibilities are essential for coping with labor and successful conformity with pregnancy and labor. Extensive pressure and stresses are imposed on inexperienced mother; including disorders in normal and usual activities of pregnant women.⁷ One of the important periods with the highest possibility of risk in the emergence of various affective disorders, such as depression, distress and psychosis, is the pregnancy period. Post-natal depression is a clinical syndrome that is more intensive than

post-natal distress, having higher effects on the families.^{8,9} Pregnancy affects mothers' emotions and seriously causes short-term or long-term mental disorders, including depression, anxiety and post-impact stress disorders.¹⁰ One type of post-natal depression is major depression, and the existence of 5 signs regarding changing physiological orders indicating depression, the least of which is depressed temperament or reducing enthusiasm and pleasure in different activities. These signs should at least last for two weeks and start maximum four weeks after the labor. Regarding the epidemiological findings, researchers consider a three-month range after childbirth for post-natal depression.¹¹ The most important post-natal affective disorder is depression that could be together with disorders in mother and family relations, possibly leading to irrecoverable damages in case of inattention and appropriate treatments.^{9,12,13}

The aim of this study is determination of the causes of depression in women who had childbirth. The importance of that is in the effects that depressed mothers leave on their children and their futures. Moreover, such a study had never been done in Semnan province and the city of Garmsar. Thus, we decided to do this research indicating "Analysis of the prevalence and effective factors on post-natal depression in women referring to Garmsar city health centers in 2015."

METHODS

This study is a descriptive and periodical study. The statistical population in this research includes the women going to Garmsar city health centers during the second

and third quarters in 2015, 2 months after their labor. The method of collecting data in this study was by census, and the data-collecting tool was Edinburg standard questionnaire for post-natal depression diagnosis, which is concerned with depressed temperament, anxiety, sense of transgression and thinking about committing suicide, for identifying women affected by post-natal depression.¹⁴

Edinburg questionnaire was compiled with 10 questions in 1978 by Cox et al.; being used many times for studies on the criteria regarding depression diagnosis, and its sensitivity, specifications and predictive values are also approved in Iran.^{15,16} The reliability of the contents of this questionnaire in Farsi has been approved in Iran for different investigations.¹² The reliability of this questionnaire was reported to be 80% in 2007, in a study by Montazeri.¹⁷ This questionnaire has 10 multiple-choice questions, each question of which would get the scores (0-3) according to its nature. Obtaining the score of "12" or more is considered as the indication for post-natal depression.¹⁴ The questionnaire was filled for all the women two months after their childbirths in the second and third quarters of 2015, who were under the care of Garmsar health centers. Furthermore, the relations of demographic variables, such as the mother's age, number of pregnancies, education, type of labor, unwanted pregnancy, History of Infertility, and the child's sex, with depression were also considered.

The required permissions were acquired in this study from the university research department, the province and the city health centers and relevant organizations, regarding

the observation of moralities, and the personal information are considered confidential, and the data were analyzed, in general manner.

After collecting and re-controlling, the data were analyzed by SPSS software package. Descriptive statistics (average and standard deviation) were used for describing the data, and the analytical statistical tests (Chi square and Independent t-test) were used for the data analysis.

RESULTS

The age average of 110 studied women was 28.15 (the age range of 14-44). The highest frequency regarding education was related to illiterate women.

The findings showed that 40 out of 110 mothers were depressed (score of over 12), and the prevalence of post-natal depression is mothers going to Garmsar health centers was about 36%.

The results indicated that there were no significant statistical relations between mother's age, education, the number of labor, types of childbirth, children's sex, unwanted pregnancies and the history of infertility, and post-natal depression.

35% of the mothers with 3 childbirths and 35% of the mothers, who had their first labor, were depressed. The average number of childbirth for the considered mothers was 1.95.

55% of the infants of the depressed mothers were male, but it was not statistically significant ($P=0.552$).

35% of the depressed mothers had their first labor experience, and 35 had more than 3 children. However, this was not statistically significant ($P=0.774$).

Table 1: Distribution of variables related to post-natal depression women

Variable		Depression	P
Age mother		29.23	0.134
Mother education	Illetrate	13(31%)	0.375
	Diploma	16(45.7%)	
	Associate degree	11(33.3%)	
Delivery	1	14(35%)	0.774
	2	12(33.3%)	
	≥3	14(41.2%)	
Laber	CS	19(33.3%)	0.554
	Nature	21(39.6%)	
Unwanted pregnancy	Yes	4(36.4%)	0.637
	No	36(36.4%)	
History of infertility	Yes	1(50%)	0.597
	No	39(36.1%)	
Infant sex	Male	22(40%)	0.552
	Female	18(32.7%)	

DISCUSSION

According to the results of this study, there were no significant relations between mother's age, number of pregnancies, education, type of labor, unwanted pregnancy, history of sterility, and the child's sex, with depression.

Prevalence of depression in the studies by Narimani et al. and Sadr et al. in the city of Tehran showed 17% and 23.7%, respectively^{1,17}. The prevalence in the study by Jafarpour in the city of Kermanshah was 17.5%.³ Korramirad et al. reported the related prevalence of depression in the city of Qom to be 23.7%.¹¹

The findings in this study showed that 40 out of 110 mothers going to Garmsar health centers were depressed (score of over 12), and the post-natal depression prevalence was about 36%, which was more than the results obtained in similar studies.

Older age of mothers is among the effective factors in post-natal depression.

Due to using newer information resources and taking care during pregnancy as well as higher education, yocaesunger mothers are probably less affected by post-natal depression. There was no relation in this study between mothers' ages and depression. This was in conformity with the studies by Najafian and Hassan Zahraei, but it was not in conformity with the studies by Rahmani and Bek and Salmalian.^{4, 18-21}

Since according to the results of some studies in Eastern communities, such as India and China, dissatisfaction from the child's gender has an effective role in the creation of post-natal depression, the relation between the child's gender and post-natal depression was also considered.²² There was no relation in this research between the infant's sex and post-natal depression, which was in conformity with the studies by Abedian, Yagmar and Dowlatian, but it was not in conformity with the research by Hosseini.^{8,23-25}

Mothers' higher education increases their knowledge about the social rights, psychophysical requirements and also promoting understandings and cooperation. Perhaps due to increasing the knowledge and better and easier access of mothers to information resources, they can be ready in accepting their new responsibility. However, there was no relation between lower education and depression, in this study. This was in conformity with the studies by Verdoux, Wang and Rahmani, but not with the researches by Hassan Zahraei and Chaaya.^{19,20,26-28}

By increasing the number of children, mothers have less time for resting and recreation. Thus, these factors may cause mothers' tiredness and may lead to post-natal depression. However, no relations existed between the number of childbirths and depression, which indicated similar results with the studies by Narimani.¹ But, it was not in conformity with the researches by Hong and Rahmani.^{20,29}

The type of labor is indicated for post-natal depression in some studies.³⁰ No definite mechanism is reported however, for post caesarian depression. However, the longer recovery time, effects of anaesthesia and surgery, delays in daily activities and late fulfilment of daily activities as well as later relations between mothers and their newborn babies are perhaps effective in post-natal depression.³¹ There was no relation in this study between caesarian operation and depression, which indicated conformity with the studies by Sword, Cutter, Najafian and Kamranpour, although it was not in conformity with the studies by Dowlatiun.^{8,18,32-34}

Planned and wanted pregnancy is pleasant in the family. However, unwanted pregnancy has inappropriate effects on the mother, the infant and the whole family.³⁵ The consequences of unwanted pregnancies are quite serious, having considerable effects on the mothers, her spouse, and the child in

case of continuing the pregnancy. The results of the studies by Karakam and Rahmani in Turkey showed that women without planning for pregnancies are exposed to post-natal depression in comparison to the women with planned pregnancies.^{20,36} However, no relation was observed in this study between unwanted pregnancy and depression.

There was no relation observed in this study between the history of sterility and depression, which showed no conformity with the studies done by Narimani.¹

The difference in the results about the existence or lack of relations between the risks concerning post-natal depression in different studies may be due to different methodologies, the studied population and the number of samples used in the studies.

CONCLUSION

Due to the unpleasant effects of depression on the living qualities of mothers' and the embryos' and eventually the families, and due to its extensive prevalence in the city of Garmsar, precise identification of effective factors in the emergence of this disorder seems to be essential. By awareness of its risk factors, some of the inevitable factors could be reduced or even confronted, and the relevant consequences can be reduced by timely and proper interventions. So, Extensive programs with a more number of samples and more variables are proposed for future research in the case of post-natal depression.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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REFERENCES

1. Narimani M, Nakhostin Rouhi P, Yousefi M. Postpartum depression: Prevalence and associated factors. *J Ardebil Univ Med Sci.* 2004; 12(3).
2. Lalulei A, Kashanizade N. Determinethe prevalence of depression among pregnant women attending clinics Najmeie and Baghiatallah hospital. *J Med Counc Iran.* 2007; 3(26): 317-323.
3. Jafarpour M, Esfandyari M, Mokhtarshahi S, Hosseini F. The effect of stressful life events on postpartum depression. *Behbood.* 2006; 10(4).
4. Salmalian H, Nasiri Amiri F, Khirkhah F, Prevalence of depression before and after childbirth and its relation to some of the factors. *J Babol Univ Med Sci.* 2008. 3(10): 67-75.
5. Frozande N, Delaram M, Deris F. The quality of mental health status in pregnancy and it's contributing factors on women visiting the health care centers of Shahrekord, (2001-2002). *J Reprod Infertility.* 2003; 4(2): 146-155.
6. Azizi M, Lamyian M, Faghihzade S, Nematollahzade M. The effect of counseling on anxiety after traumatic childbirth in nulliparous women; a single blind randomized clinical trial. *Behbood.* 2010; 14(3): 69-73.
7. Shobeyri F, Farhadinasab A, Nazari M. Detecting postpartum depression in referents to Medical and Health Centers in Hamadan City. *Sci J Hamadan Univ Med Sci.* 2007, 14(3): 24-28.
8. Dolatian M, Maziar P, Majd HA, Yazdjerdi M. The relationship between mode of delivery and postpartum depression. *J Reprod Infertility.* 2006; 7(3): 260-8.
9. Sadat Z, Taebi M, Saberi F, Abedzadeh Kalarhoudi M, The realationship between mode of delivery and postpartum depression. *Iran J Nurs Midwifery Res.* 2013; 18(6): 499-504.
10. Azizi, M. The effect of counseling on depression after a traumatic childbirth in nulliparous women. *Yafteh.* 2007. 6-7(4).
11. khorami Raad A, Musavi M, Shoori A, Postpartum depression and related factors in Qom city. *Pajohande.* 2010; 2(15): 62-66.
12. Mousavi SGA, Sabahi-Bidgoli M, Omid A, Kosha Z, Ghavami M, Gorji Z, et al. Prevalence of postpartum depression and its relation to some psychosocial factors in mothers referred to health centers of Kashan during 2007-8. *J Kashan Univ Med Sci.* 2010; 15(3): 54-8.
13. Robertson E, Grace S, Wallington T, Stewart DE. Antenatal risk factors for postpartum depression: a synthesis of recent literature. *Gen Hosp Psychiatry.* 2004; 26(4): 289-95.
14. Kiani F, Khadivzadeh T, Sargolzaee M, Behnam Vashani H. Marital satisfaction in pregnancy and postpartum depression. *Iran J Obstet Gynecol Infertil.* 2008; 13: 37-44.
15. Montazeri A, Torkan B, Omidvari S. The Edinburgh Postnatal Depression Scale (EPDS): translation and validation study of the Iranian version. *BMC Psychiatry.* 2007; 7: 11.
16. Mazhari S, Nakhaee N. Validation of the Edinburgh Postnatal Depression Scale in an Iranian sample. *Arch Womens Ment Health.* 2007; 10(6): 293-7.
17. Sadr S, Dowlatiun M, Behboodimoghadam Z. The prevalence of postpartum depression and associated factors in the city of Tehran. *J Med Counc I.R. Iran.* 2004; 22(3): 189-93.
18. Najafian M, Cheraghi M, Namazi M. A Study on the relationship of postpartum depression and method of delivery. *Jundishapur Sci Med J.* 2014; 13(1): 67-75
19. Hassan Zahraie R, Asadollahi GH, Bashardost N, Khodadostan M. The association of some factors with postpartum depression in women referred to Health Center of Isfahan city, First National Seminar of Nursing and Mood Disorders:

From Prevention to Rehabilitation 8-9 November 2000 Tabriz-I.R. Iran: 188-95.

20. Rahmani F, Seyedfatemi N, Asadollahi M, Seyedrasooli A. Predisposing factors of postpartum depression. *Iran J Nurs.* 2011; 24(72): 78-87.

21. Beck CT. Predictors of postpartum depression: an update. *Nurs Res.* 2001; 50(5): 275-85.

22. Hopkins J, Campbell SB, Marcus M. Role of infant-related stressors in postpartum depression. *J Abnorm Psychol.* 1987; 96(3): 237-41.

23. Abedian Z, Soltani N, Mokhber N, Esmaeeli H, Filli A. The relationship between social support and depression after childbirth in women with pre-eclampsia. *J Obstet Gynecol.* 2015; 17(136): 8-10.

24. Yagmur Y, Ulukoca N. Social support and postpartum depression in low-socioeconomic level postpartum women in Eastern Turkey. *Int J Public Health.* 2010; 55(6): 543-9.

25. Hosseini SH, Naghibi AA, Khademlou M. Post partum depression and its relationship with some related factors. *J Babol Univ Med Sci.* 2008; 10(2): 76-81.

26. Verdoux H, Sutter AL, Glatigny-Dallay E, Minisini A. Obstetrical complications and the development of postpartum depressive symptoms: a prospective survey of the MATQUID cohort. *Acta Psychiatr Scand.* 2002; 106(3): 212-9.

27. Wang SY, Jiang XY, Jan WC, Chen CH. A comparative study of postnatal depression and its predictors in Taiwan and mainland China. *Am J Obstet Gynecol.* 2003; 189(5): 1407-12.

28. Chaaya M, Campbell OM, El Kak F, Shaar D, Harb H, Kaddour A. Postpartum depression: prevalence and determinants in Lebanon. *Arch Womens Ment Health.* 2002; 5(2): 65-72.

29. Hung CH, Lin CJ, Stocker J, Yu CY. Predictors of postpartum stress. *J Clin Nurs.* 2011; 20(5-6): 666-74.

30. Pain A. Medical Intervention: Cesarean sections as a case study. *E Con Pilot Wkly.* 2000; 35(31): 2755-61.

31. Kamranpour SB, Shakiba M. Cesarean section and post-partum depression. *Iran J Obstet Gynecol Infertil.* 2012; 15(1): 56-62.

32. Sword W, Kurtz Landy C, Thabane L, Watt S, Krueger P, Farine D, et al. Is mode of delivery associated with postpartum depression at 6 weeks: a prospective cohort study. *Int J Obstet Gynaecol.* 2011; 118(8): 966-77.

33. Carter FA, Frampton CM, Mulder RT. Cesarean section and postpartum depression: a review of the evidence examining the link. *Psychosom Med.* 2006; 68(2): 321-30.

34. Kamranpour SB, Shakiba M. Cesarean section and post-partum depression. *Iran J Obstet Gynecol Infertil.* 2012;15(1):56-62.

35. Abazari F, Arab M, Abbasszadeh A. Relationship of unwanted pregnancy and fertility behavior in pregnant women who visited maternity wards of Kerman hospitals. *J Reprod Infertil.* 2003; 4(1): 39-46.

36. Karacam Z, Onel K, Gercek E. Effects of unplanned pregnancy on maternal health in Turkey. *Midwifery.* 2011; 27(2): 288-93.

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