

The Relationship between Postpartum Depression with Self-efficacy and Mental Health Literacy

Zahra Zahmatkesh

MSc student in Health Education and Health Promotion, Student Research Committee, Mashhad University of Medical Sciences

Nooshin Peyman

*Professor, Department of Health Education and Health Promotion, Social Determinants of Health research center, Mashhad University of Medical Sciences, Mashhad, Iran. (corresponding author):
Email: peymann@mums.ac.ir

Hadi Tehrani

Assistant Professor, department of health education and health promotion, Social Determinants of Health research center, Mashhad University of Medical Sciences, Mashhad, Iran

Habibollah Esmaeeli

Professor, department of statistics and epidemiology, Social Determinants of Health research center, Mashhad University of Medical Sciences

Received: 26 January 2020

Accepted: 28 April 2020

Doi: 10.22038/jhl.2020.46110.1097

ABSTRACT

Background and Objective: Pregnancy is one of the most exciting developments for most people. For the successful adaptation of this event, it is necessary to have interpersonal and family physiological interactions. Postpartum depression is a serious disorder that has devastated and long-term effects on the mother-family. The aim of this study was to determine the relationship between mental health literacy and self-efficacy and post-partum depression in the suburb of Mashhad in 2018.

Materials and Methods: This study was a descriptive cross-sectional study which was conducted to evaluate the relationship between mental health literacy and self-efficacy and depression in 2-8 years after treatment in the health and medical centers of the Mashhad city. The statistical population of the study consisted of 250 mothers in the third trimester of pregnancy to 8 weeks post-pregnancy. They were selected using cluster sampling method. Instruments used in this research were parenting self-efficacy questionnaires, mental health literacy questionnaire, and depression questionnaire (BECK). Total data were analyzed using SPSS 16 software and paired t-test. P value <0.05 was considered as a significant level of difference.

Results: In this study, the total number of women was 250. In this study, a significant relationship was found between employment status, education and postpartum depression and parental self-efficacy and family income with mental health literacy ($p < 0.05$). There was no significant statistically significant relationship between postpartum depression and mental health literacy ($p = 0.295$), while there was a significant statistical relationship between postpartum depression and self-efficacy ($p < 0.007$).

Conclusion: According to the results of this study, in order to prevent this complication, it is suggested that supportive and educational programs be implemented during pregnancy and postpartum for mother and relatives.

Paper Type: Research Article

Keywords: Mental Health Literacy, Parental Self-Efficacy, Mothers, Post-Traumatic Depression

► **Citation:** Zahmatkesh Z, Peyman N, Tehrani H, Esmaeeli H. The Relationship between Postpartum Depression with Self-efficacy and Mental Health. *Journal of Health Literacy*. Spring 2020; 5(1): 32-38.

Introduction

The postpartum period is so stressful that it can cause a new mental disorder, relapse or exacerbation of a mental disorder. Postpartum depression is a common and treatable serious problem with widespread effects on the mother and family (1). Postpartum depression is characterized by sadness, inability to enjoy, irritability, anger, and self-esteem. (2). Depression is one of the most common mental illnesses in different societies and is predicted to be the second most prevalent after cardiovascular disease in 2020. The prevalence of depression in the population as a whole is 20-13% and is more common in low socioeconomic groups and people with no effective interpersonal relationships (3).

A study by Bagherzadeh et al. In Bushehr showed that 15.5% had postpartum depression and there was no statistically significant relationship between their demographic characteristics (4). In a governmental study and colleagues' postpartum self-efficacy is an important factor in the relationship between mother and child and plays an important role in promoting child mental health and is likely to affect maternal health, infant development, and postpartum depression (5).

Self-efficacy was first introduced by Bandura in 1997 (6). Self-efficacy involves assessing one's ability to cope with stressful situations and to perform essential behaviors. One of the most stressful situations for women is during childbirth. Understanding self-efficacy before an event predicts whether individuals will attempt to cope with the situation and how long this effort will continue, which can be examined in two ways: expectation of outcome and expectation of self-efficacy (7). Outcome expectancy refers to one's belief that a particular behavior will lead to a particular outcome, while self-efficacy

expects one's beliefs about one's ability to successfully perform a particular behavior under certain conditions and the degree of control over the condition (8). In the process of changing behavior, promoting self-efficacy is very important. Repeating the operation, simplifying and dividing a task into small steps can make the individual self-sufficient in each step of the task and ultimately lead to complete self-efficacy (9).

Negative emotions such as fear, anxiety, stress, and depression cause individuals to underestimate their abilities when performing their duties, which is a concept of low self-efficacy and low self-efficacy also causes mental states such as fatigue, anger, and suffering (10). Pregnancy is a critical and consequently limited crisis, and in cases of poor management, it becomes a There is a prolonged crisis that puts a lot of stress on the mother and her surroundings (10). Thorsteinsson research on postpartum women has shown that mental health literacy is directly related to the reduction of postpartum depression (11).

Mental health literacy is seen as one of the most important determinants of mental illness, and it is awareness and attitude about mental disorders in a way that helps one to understand, manage and control mental illness (12). Mental health includes a set of interconnected components: the ability to recognize disorders to help facilitate the dynamic process, professional knowledge of available help, knowledge of effective self-help methods, and knowledge of self-help and early support of others, and how-to Mental disorders should be avoided (Health and Services 2000). The prevalence of mental illnesses that affect the quality of life of individuals and communities worldwide is increasing (WHO). On the other hand, the level of mental health in Iran and the world is

low (12-15). Since perceived self-efficacy is an important component of one's performance, it acts as an independent part of the core skills and beliefs of individuals about their abilities to generate the motivation, cognitive resources, and actions required to exercise control over given events. A study by Patricia II on postpartum women confirms that self-efficacy reduces mental illnesses such as postpartum depression (16).

Therefore, as an effective and efficient force, women play an important role in educating and raising awareness at the family and community level, and with regard to the high prevalence of postpartum depression disorder and traumas to mother and infant and existence. Contrary to the results of previous research reported in this regard, this study aimed to determine the relationship between self-efficacy, postpartum depression and mental health literacy.

Materials and Methods

This is a descriptive-analytic study that the study population included pregnant women in the third trimester of pregnancy in Mashhad in 1396.

In this study, sample size was calculated based on depression ratio 0.33% with 95% confidence and 6% accuracy 235 samples and finally 250 people were studied in this study. Inclusion criteria were: residence in the study area, women in the third trimester of pregnancy and personal consent to participate in the study.

At first, the list of eligible mothers was prepared in coordination with the health authorities, and then the names of mothers who did not consent to study were removed from the list. Finally, 250 mothers were selected through cluster sampling from 5 health centers under cover of Mashhad province. Each center was considered as a cluster and then 50 individuals from the center were included in the study. After qualifying the mothers, the study was contacted and invited

to participate in the study.

The parenting self-efficacy questionnaire was used to measure self-efficacy. The questionnaire consists of 10 questions and the answer to this questionnaire is scored on a seven-point Likert scale from 1 to 7. The highest score is 70 and the lowest score is 10, which is considered low (10 to 20), moderate (20 to 40) and high (above 40) at three levels of parenting self-efficacy. Domka et al. (1996) reported the internal consistency of this questionnaire with a 70% Cronbach's alpha coefficient. Talie (2010) assessed the Cronbach's alpha coefficient as 70% and validity of the questionnaire (17).

Mental Health Questionnaire was used to measure the mental health questionnaire. Feyri et al., Which was reported to be 0.83 for internal consistency. The final structural questionnaire consisted of two parts. The first part deals with health literacy and consists of 28 main questions on "cognition" of the disorder "(1 question)," intention to seek help and perceived barriers "(6 questions)," belief in interventions "(7 questions).", "Beliefs about prevention" (1 question), "Gender attitudes and social isolation" (3 questions), "Mental exposure disorders" (6 questions), "Campaign and media effects" (3 questions) and "Service delivery" (1 question).

Beck Depression Inventory was used to measure the depression of pregnant mothers. This questionnaire was validated by Moloodi and colleagues on 354 subjects (18). The Beck Depression Inventory is a 21-item questionnaire based on symptoms of depressive disorder and symptoms such as sadness, skepticism, feeling of failure, dissatisfaction, guilt, expecting punishment, self-loathing, self-accusation, suicidal thoughts, crying, restlessness, withdrawal. It assesses social adjustment, indecision, body image perception, difficulty working, insomnia, fatigue, appetite change, body weight loss,

mental activity, and decreased sexual interest. The test questions are scored on a four-point scale from zero to zero / between scores of 13 mild depression, 19-14 mild depression, and 60-20 severe depression.

Data were analyzed by SPSS software (version 16) and t-test and Mann-Whitney test. $P < 0.05$ was considered as the level of significance. Ethical considerations, including informed consent from women, explanation of research objectives, and the principle of confidentiality of information

were respected in this study and approved by the Ethics Committee of Mashhad University of Medical Sciences.

Results

In this study, the total number of women was 250 and their average age was 27.43 years. Eighty-five percent of them had Low income and 41 percent of them had a High school degree Education and family history ($p < 0.001$) were significantly associated with postpartum depression. (table 1)

Table 1: statuses of mental health literacy, postpartum depression and self-efficacy according to demographic factors

Variable		N (%)	Mental health literacy		Postpartum Depression		Self-efficacy	
			Mean \pm SD	P*	Mean \pm SD	P	Mean \pm SD	P
Employment status	Employed	48(19.2)	56.46 \pm 3.27	0.041	21.49 \pm 6.01	0.086	36.75 \pm 8.03	0.561
	Housekeeper	202(80.8)	70.51 \pm 10.70		17.59 \pm 7.9		37.46 \pm 7.60	
education	High school	103(41.2)	61.73 \pm 2.50	<0.001	17.28 \pm 6.91	<0.001	39.64 \pm 8.14	0.003
	Diploma	97(38.8)	65.20 \pm 2.50		15.17 \pm 4.91		36.71 \pm 4.25	
	Graduated	50(20.0)	37.11 \pm 2.40		22.57 \pm 12.39		33.89 \pm 10.13	
income	Low income	143(57.2)	41.63 \pm 2.32	0.019	17.56 \pm 5.94	0.38	38.76 \pm 6.37	0.003
	Medium income	81(32.4)	35.70 \pm 4.20		34.50 \pm 3.85		71.27 \pm 12.40	
	High income	26(10.4)	38.2 \pm 0.00		22.75 \pm 4.03		31.77 \pm 2.53	
Number of children	Single child	161(64.4)	60.00 \pm 2.35	0.229	17.85 \pm 9.18	0.50	38.73 \pm 8.10	0.001
	Without child	89(35.6)	33.83 \pm 2.43		19.24 \pm 8.03		34.77 \pm 8.20	
Disease history	Yes	30(12.0)	52.00 \pm 2.62	0.006	19.96 \pm 8.20	0.54	37.00 \pm 5.20	0.90
	No	220(88.0)	51.00 \pm 2.34		18.13 \pm 4.16		37.00 \pm 7.90	
Family history	Yes	30(18.0)	54.00 \pm 2.39	0.79	31.50 \pm 3.90	0.001	36.00 \pm 4.50	0.52
	No	220(82.0)	52.00 \pm 2.37		16.60 \pm 8.90		37.00 \pm 5.15	

Spearman correlation test was used to investigate the relationship between two variables of postpartum depression and mental health literacy. There was no significant relationship between these two variables ($P < 0.29$) and also the relationship between two variables

of postpartum depression and Self-efficacy was evaluated and there was a statistically significant relationship between these two variables according to P-value (0.007).

Table 2: relation between mental health literacy, self-efficacy and postpartum depression in Mashhad suburban women

variables	Mental health literacy	Self-efficacy	Postpartum depression
Mental health literacy	1	Rs = 0.174 P=0.997	Rs=0.876 P=0.998
Self-efficacy	Rs = 0.114 P=0.072	1	Rs=-0.172 P=0.007

Correlation test and linear regression test for relationship between health literacy and postpartum depression show that Self-efficacy not found and no linear relationship between them ($p = 0.997$). results of linear regression

analysis show that 1.2% of Mental health literacy predicted by Self-efficacy and Postpartum depression. (table 3).

Table 3: relationship between mental health literacy and postpartum depression

Dependent variable	independent variable	Standard beta	P	R2
Mental health literacy	Self-efficacy	0.73	0.127	0.012
	Postpartum depression	0.638	0.182	

The results showed that there was a significant positive correlation between mental health literacy and self-efficacy in women with postpartum depression. (table 4).

Table 4: comparison of Mean of mental health literacy and self-efficacy according to depression levels

		frequency	Mental health literacy	Self-efficacy	Correlation
Postpartum depression	Yes	68	242.24±35.37	37.32±8.54	R=0.354 P=0.003
	No	82	236.26±57.12	39.14±6.20	R=0.023 P=0.75
Independent T-test result			T=0.74 P<0.046	T=6.4 P<0.001	-

Discussion

Postpartum depression is highly prevalent among postpartum women. Mothers who, despite having a pregnancy and enduring postpartum pain or postpartum problems, despite having a healthy baby, do not enjoy life as they should and live with a negative feeling. This disrupts the mother-child relationship as well as the spouse and family and does not allow them to experience happy days. Findings showed that there was a significant relationship between self-efficacy and postpartum depression. This means that with the improvement of self-efficacy skill, postpartum depression decreases which this difference was statistically significant and the findings of this study are in line with the results of several researches which show that the promotion of self-efficacy skill is effective in

reducing postpartum depression. In Iran, it is also in line with the results of a study conducted by Fathi et al in mothers referring to postpartum depression health centers in Bonab (19). Similar research by LashkariPoor et al, Mothers in Zahedan showed that there was a significant relationship between prevalence of depression and type of delivery, maternal age, unwanted gender of parents, level of education, previous history of maternal depression, previous history of psychiatry and use of psychotropic drugs in mother. (20).

Numerous studies have been conducted on samples with different conditions such as people with disabilities, pregnant women, anxiety, eating disorder, marital problems, and mood disorder. Similar results were obtained and the results

showed the effect of parental self-efficacy skill on postpartum depression. Numerous studies have been conducted in Iran and other countries that support the improvement of assertive behavior and other maternal mental health indicators by increasing self-efficacy skills. (21-23)

While there was no significant relationship between mental health literacy and postpartum depression in this study, the results of a study conducted by Sarah Guy in 2014 on the relationship between mental health literacy and postpartum depression are inconsistent with the low sample size and primiparous mothers in this study (22). This may be due to the low sample size and education level of adolescents.

In this study, employment status was correlated with mental health, education, and family income with mental health and self-efficacy, the results of which were in line with the research by Hosseini et al.

Conclusion

The cause of postpartum depression can be considered a set of risk factors that make women vulnerable to postpartum depression. Therefore, it is suggested that while determining the risk factors, the severity of postpartum depression should be considered in terms of risk factors. In general, it can be said that pregnancy is a vulnerable period for postpartum depression and women are at higher risk for postpartum depression despite depression. Therefore, by examining the prenatal mental health, it identified High risk pregnant women. One of the limitations of the present study is the lack of review of the history of stressful events, or lack of social support and feeling of childcare in the subjects, which are related to postpartum depression, which have been studied in different studies in the previous period. Of childbirth - is reported then necessary. According to the results of this study, it is necessary to screen all postpartum

women for postpartum depression in order to prevent the consequences of not diagnosing the disease in time in lactating women.

Competing interests: The authors declare that they have no competing interests.

Funding: No financial support was received for this study.

Acknowledgment: Here, we would like to thank all the women who participated in the study, the staff of the health centers covered by Mashhad University of Medical Sciences, the Health Assistant who contributed to this study.

References

- 1- Castañón C, Pinto J. Use of the Edinburgh Postnatal Depression Scale to detect postpartum depression. *Revista médica de Chile.* 2008;136(7):851-8.
- 2- Tannous L, Gigante LP, Fuchs SC, Busnello ED. Postnatal depression in Southern Brazil: prevalence and its demographic and socioeconomic determinants. *BMC psychiatry.* 2008;8(1):1. <https://doi.org/10.1186/1471-244X-8-1> PMID:18173833 PMCID:PMC2265281
- 3- Korja R, Savonlahti E, Haataja L, Lapinleimu H, Manninen H, Piha J, et al. Attachment representations in mothers of preterm infants. *Infant behavior and development.* 2009;32(3):305-11. <https://doi.org/10.1016/j.infbeh.2009.04.003> PMID:19446341
- 4- Bagherzadeh R, Zahmatkeshan N, Moatamed N, Khorramroudi R, Ganjoo M. Prevalence of maternal blues, postpartum depression and their correlation with premenstrual syndrome in women referred to health centers affiliated to Bushehr University of Medical Sciences. *The Iranian Journal of Obstetrics, Gynecology and Infertility.* 2009;12(3):9-15.
- 5- Kouhsali M, Mirzamani S, KARIMLOU M, Mirzamani M. Comparison of social adjustment in mothers of educable mentally retarded daughter. *Journal of Behavioral Sciences.* 2008;2(2): 165-172.
6. Bandura A. Self-efficacy. *The Corsini encyclopedia of psychology.* 2010:1-3. <https://doi.org/10.1002/9780470479216.corpsy0836>
7. Sajedi S, A. P. S., Kamkar M, Samsam Shariat MR. The effect of life skills training on interpersonal relationship, self esteem and assertiveness of blind girls in the Fateme Zahra institute of Isfahan. *Knowledge & Research in Applied Psychology.* 2009;11(39): 14-26.
8. Manesh RS, Fallahzadeh S, Panah MSE, Koochehbiuki N, Arabi A, Sahami MA. The Effectiveness of assertiveness training on social

- anxiety of health volunteers of Yazd. *Psychology*. 2015;6(06):782. <https://doi.org/10.4236/psych.2015.66077>
9. Tavakoli P, Setoodeh G, Dashtbozorgi B, Komili-Sani H, Pakseresht S. The influence of assertiveness training on self-esteem in female students of government high schools of Shiraz, Iran: A randomized controlled trial. *Nursing Practice Today*. 2014;1(1):17-23.
 10. Sayarifard A, Ghadirian L, Mohit A, Eftekhari M, Badpa M, Rajabi F. Assessing mental health literacy: What medical sciences students' know about depression. *Medical journal of the Islamic Republic of Iran*. 2015;29:161.
 11. Thorsteinsson EB, Loi NM, Moulynox AL. Mental health literacy of depression and postnatal depression: A community sample. *Open Journal of Depression*. 2014;2014. <https://doi.org/10.4236/ojd.2014.33014>
 12. Lent RW, Brown SD, Hackett G. Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of counseling psychology*. 2000;47(1):36. <https://doi.org/10.1037/0022-0167.47.1.36>
 13. Leahy-Warren P, McCarthy G. Maternal parental self-efficacy in the postpartum period. *Midwifery*. 2011;27(6):802-10. <https://doi.org/10.1016/j.midw.2010.07.008> PMID:20888092
 14. Mohebi S, Sharifirad G, Shahsiah M, Botlani S, Matlabi M, Rezaeian M. The effect of assertiveness training on student's academic anxiety. *J Pak Med Assoc*. 2012;62(3 Suppl 2):S37-41.
 15. Swami V, Barron D, Smith L, Furnham A. Mental health literacy of maternal and paternal postnatal (postpartum) depression in British adults. *Journal of Mental Health*. 2020;29(2):217-24. <https://doi.org/10.1080/09638237.2019.1608932> PMID:31070064
 16. Macfie J, Swan SA. Representations of the caregiver-child relationship and of the self, and emotion regulation in the narratives of young children whose mothers have borderline personality disorder. *Development and psychopathology*. 2009;21(3):993. <https://doi.org/10.1017/S0954579409000534> PMID:19583894 PMID:PMC2825084
 17. Rahmani F, Seyedfatemi N, Asadollahi M, Seyedrasooli A. Predisposing factors of postpartum depression. *Iran Journal of Nursing*. 2011;24(72):78-87.
 18. Moloodi R, Dobson K, Fata L, Pourshahbaz A, Mohammadkhani P, Mootabi F, et al. Psychometric properties of Persian version of Cognitive Behavioural Avoidance Scale: results from student, general population and clinical samples in Iran. *Behavioural and Cognitive Psychotherapy*. 2020:1-12. <https://doi.org/10.1017/S1352465820000247> PMID:32372733
 19. Fathi F, Mohammad-Alizadeh-Charandabi S, Mirghafourvand M. Maternal self-efficacy, postpartum depression, and their relationship with functional status in Iranian mothers. *Women & health*. 2018;58(2):188-203. <https://doi.org/10.1080/03630242.2017.1292340> PMID:28277156
 20. Lashkaripoor, K. Postpartum depression and its related factors. *Journal of Basic Principles of Mental Health*. 2011; 13: 412-440.
 21. Sayarifard A, Ghadirian L, Mohit A, Eftekhari M, Badpa M, Rajabi F. Assessing mental health literacy: What medical sciences students' know about depression. *Medical journal of the Islamic Republic of Iran*. 2015;29:161.
 22. Guy S, Sterling BS, Walker LO, Harrison TC. Mental health literacy and postpartum depression: A qualitative description of views of lower income women. *Archives of psychiatric nursing*. 2014;28(4):256-62. <https://doi.org/10.1016/j.apnu.2014.04.001> PMID:25017559
 23. Muris P. A protective factor against mental health problems in youths? A critical note on the assessment of self-compassion. *Journal of child and family studies*. 2016;25(5):1461-5. <https://doi.org/10.1007/s10826-015-0315-3> PMID:27110084 PMID:PMC4824838