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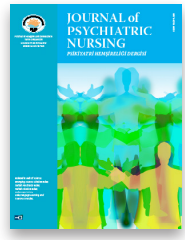

Original Article

Postpartum depression and the factors affecting it: 2000-2017 study results

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Abstract

Objectives: This study aims to determine the factors affecting postpartum depression.

Methods: The study is a cross-sectional, descriptive systematic literature review conducted using document review as the data collection method. ULAKBİM National Databases, Medline/PubMed, Turkish Medline, Dergipark, Scopus and EBSCO were accessed using the keywords "postpartum depression / postnatal depression / puerperal depression". 39 articles published between the years 2000–2017 were included in the study. The articles were evaluated in terms of the year, sample number, research type and results and the frequency distribution of the data.

Results: It is stated that 51% of the articles were published between the years of 2010–2014. The studies were conducted with women between the ages of 15–49 years. Only one study has a sample size greater than 500. More than half of the studies include the postpartum period between 0-6 months. The most significant factor affecting postpartum depression (56.4%) is a history of depression in the mother or her family. Fourteen studies targeted the relationship between the use of antiemetic drugs during pregnancy and postpartum depression and no relationship was determined.

Conclusion: Predominant factors affecting postpartum depression include: history of depression in the mother or her family, unplanned pregnancies, the number of pregnancies, economic condition, and having multiple children. Midwives' awareness of these factors can guide them in follow-up and support during the postpartum period.

Keywords: Midwifery; mood disorders; nursing; postpartum depression.

Pregnancy and the postpartum period has been identified as the most joyful time of a woman's life. However, it is also important in terms of developing psychological disorders.

The symptoms of postpartum depression (PPD) emerges 2-4 weeks after delivery and may persist for 12 months.[1–3] Postpartum depression (PPD) is a mood disorder starting at any time in the first year after delivery and is seen in 10–15% of postpartum women.[3–15]

Studies conducted between the first week and 18th month after delivery identified PPD prevalence ranged from 6% to 58%.[3–15] This prevalence range varies according to the diagnosis method used and changes between 3.5–63.3%.[8,12]

PPD is not only a maternal problem but also impacts the emotional, social and cognitive development of the baby. Additionally, it has negative effects on the entire family. Consequently, PPD affects global societies.[1,6,7,12,13,15–17] PPD in the mother leads to untoward feelings about her family and baby. It also causes physical problems such as delayed physical development along with cognitive behavioral, social and psychological problems.[1–3,8] Responsibilities of the entire patient care team include awareness of the symptoms, psychological support of the mother, assisting with family coping skills, and educating women before delivery. Primary nurses following the mother's care have more time and better communication with the mother. It is crucial for nurses and midwives to identify the susceptibility to and symptoms of postpartum depression.

This study assessed the results of research on the factors affecting postpartum depression.

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The study sought answers to following questions:

1. Which factors lead to postpartum depression?
2. Which factors do not affect postpartum depression?
3. Which scales were used to determine postpartum depression?

Materials and Method

Type of the Study

This cross-sectional study was conducted as a systematic literature review.

Study Environment

A document screening methodology was used in this study. Turkish articles retrieved from ULAKBİM National Databases, Medline/PubMed, Turkish Medline, Dergipark, Scopus and EBSCO search engines were used to determine the criteria to be included in the scope of the research.

Method

"Postpartum depression/postnatal depression/puerperal depression" keywords were used in the study. Each keyword was used in the search to obtain maximum precision results. The screenings were performed between March 3 and 25, 2017 encompassing all studies conducted between 2000 and 2017. The final examination was made on March 25, 2017. The sample group was created assessing the obtained articles (N=237) according to the inclusion criteria.

The inclusion criteria in the study were as follows;

- Articles published in Turkish
- Articles covering postpartum period
- Full text articles
- The entire study was conducted with research methods without making method distinction.

The exclusion criteria in the study were as follows;

- Articles published in foreign language.
- Articles covering antepartum period.
- Articles where the full text was not accessible.

As a result of the screening, 39 studies carried out in 2000-2017 were retrieved concerning depression in the postpartum period. The control list (PRİZMA)[18] was used regarding the necessary materials in systematical compilation research report writing.

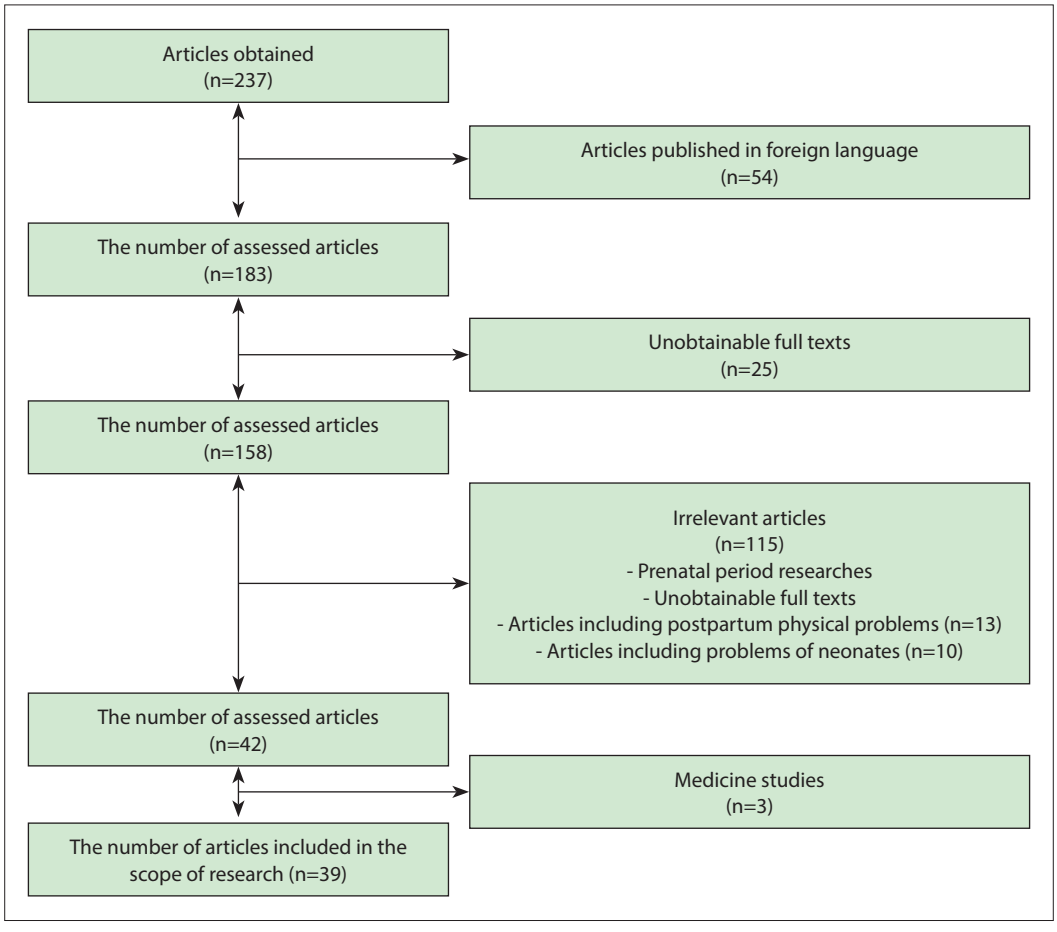

Figure 1. Sample selection flow scheme of the study.

Data Analysis

The screenings used key words determined by three researchers. The results were reviewed and similar studies identified. Only one study was included in the scope of the research. Articles were retrieved and assessed according to the inclusion and exclusion criteria. The research data was summarized from the articles meeting the inclusion criteria. Data were assessed according to a standard data summarizing form. The studies were summarized independently according to the data summarizing form. Finally, the summaries were compared and the researchers came to a consensus.

The data form summarized the following:

- Year of the study
- Design of the study
- Sample size
- Periods when the study was conducted
- Scales used in the study
- Factors regarding postpartum depression were included.

The 39 articles included in the study were manually assessed in terms of pre-determined factors. Data were transformed into a frequency distribution.

Limitations of the Study

This systematic investigation cannot be generalized because it was queried only from Turkish articles. Studies including valid results may not be attained because literature was tried to be achieved within the bound of possibility.

Results

Of the articles 95% were identified with women while only two researches were identified with both mother and father.

51.3% of the articles included in the research scope were conducted between 2010–2014. 74.3% were in the age range of 15–49 years and the sample size of 46.1% was 250 people and under. 35.9% of the articles covered 13 weeks to 6 months postpartum and 52% of them used the Edinburg Postpartum Depression Scale (Table 1).

The three primary factors affecting postpartum depression were a depression history in the mother or her family (56.4%, n=2), education level of the mother (46.2%, n=18) and unplanned or unwanted pregnancy (35.9%, n=14) (Table 2). In 64.1% of the studies no results indicated that the existence of hyperemesis, antiemetic use during pregnancy or holding the baby in the first four hours affected postpartum depression.

Discussion

Article review revealed the following factors affect depression: depression history in the mother or her family, education level of mother, unplanned pregnancy, employment status of the mother, multiple children, the number of pregnancies,

Table 1. Distribution according to the characteristics of the studies on postpartum period (n=39)

Variables	n	%
Publication year of the article		
2000–2004	4	10.2
2005–2009	12	30.8
2010–2014	20	51.3
2015–2017	3	7.7
Age range of the sample group		
15-49	16	41.0
19-49	13	33.3
Compilation	9	23.1
Unspecified age range	1	2.6
Sample size		
1–250	18	46.1
251–500	11	28.2
501–750	1	2.6
Compilation	9	23.1
Postpartum periods of research		
0–8 weeks	8	20.5
9–12 weeks	1	2.6
13 weeks–6 months	14	35.9
7 months and older	7	17.9
Unspecified period	9	23.1
Specified research method		
Case control	4	10.3
Descriptive	4	10.3
Meta-analysis	2	5.1
Compilation	9	23
Case report	2	5.1
Cross sectional	4	10.3
Prospective	2	5.1
Random sampling	1	2.6
Methodological	1	2.6
Descriptive + Cross-sectional	9	23
Descriptive + Analytic	1	2.6
Used scales*		
Beck Depression Inventory	5	10
WHOQOL BREF Life Quality Scale	1	2
Edinburg Postpartum Depression Scale	26	52
Multidimensional Scale of Perceived Social Support	1	2
Maternal Attachment Inventory	1	2
Postpartum Depression Screening Scale	3	6
Delirium Assessment Scale	1	2
Clinical Global Impression Scale	1	2
General Attitude and Belief Scale	1	2
Focus Control Scale	1	2
Non-Scale (Compilation)	9	18

*More than one scale were used in the research. Frequency distribution total score (n-45) was used.

Table 2. Distribution of factors affecting postpartum depression according to researches (n=39)

Variable	Postpartum depression affects		Postpartum depression does not affect		Not specifying Relation	
	n	%	n	%	n	%
Depression history in mother or family	22	56.4	8	20.5	9	23.1
Educational level of mother	18	46.2	11	28.2	10	25.6
Unwanted pregnancy/not wanting child (unplanned pregnancy)	14	35.9	8	20.5	17	43.6
Working status of mother	13	33.3	11	28.2	15	38.5
Having multiple children	13	33.3	10	25.6	16	41.1
Economic status indicators	13	33.3	15	38.5	11	28.2
Number of pregnancies	13	33.3	8	20.5	18	46.2
Age of mother	12	30.7	13	33.3	14	36
Negative relationship with husband	12	30.7	8	20.5	19	48.8
Sex of baby	11	28.2	12	30.7	16	41.1
Support from family for baby	10	25.6	13	33.3	16	41.1
Delivery mode	10	25.6	12	30.7	17	43.6
Dissatisfaction from marriage	8	20.5	10	25.6	21	53.9
Breastfeeding	6	15.4	12	30.7	21	53.9
Medical problems during pregnancy	5	12.8	14	36	20	51.2
Family type	5	12.8	13	33.3	21	53.9
Dead birth or dead birth history	5	12.8	13	33.3	21	53.9
Smoking	4	10.3	12	30.7	23	59
Baby in intensive care	3	7.7	13	33.3	23	59
Birth week of baby	3	7.7	14	36	22	56.4
Premenstrual syndrome before pregnancy	3	7.7	14	36	22	56.4
Hyperemia existence	2	5.2	12	30.7	25	64.1
Infantile colic in baby	2	5.2	13	33.3	24	61.5
Low birth weight	2	5.2	17	43.6	20	51.2
Overweight after delivery	1	2.5	14	36	24	61.5
Congenital abnormality in baby	1	2.5	17	43.6	21	53.9
Returning to work 8 or 11 weeks after delivery	1	2.5	16	41.1	22	56.4
Holding baby in first four hours after delivery	1	2.5	13	33.3	25	64.1
Alcohol use	1	2.5	15	38.5	23	59
Duration of marriage	1	2.5	16	41.1	22	56.4
Subjected to physical violence	1	2.5	14	36	24	61.5
Antiemetic use during pregnancy	0	0	14	36	25	64.1

and a negative relationship with spouse. In the literature, risk factors of depression after delivery include a multitude of factors. Among them are; low socio-economic and educational status, health problems, prenatal depression and existing anxiety, untreated depression during pregnancy or PPD history, and depression history in the family. Additionally, as a known risk factors early age (adolescence mother), unwanted pregnancy, family problems, distortion in family relationships (in childhood), menstruation problems, social isolation, stress about childcare and life, insufficient social support, motherhood sadness, Low self-esteem, an anxious baby, destructive life, disabled or low birthweight baby (preterm birth) and fetal demise after delivery are also among the risk factors of depression after delivery in the literature.[1,2,6–8,15,16] The findings showed that postpartum depression research used certain indicators. These studies were carried out in line with the literature information however each indicator did not affect depression (Table 4).

Of the articles included in the research scope 76.9% of the articles used depression history in mothers and their families as a factor. It was found that a depression history affected postpartum depression in 56.4% of the articles. Study by Arslantaş et al.[15] (2009) found that having antepartum psychological problems increased postpartum depression possibility 9.86 times more. In line with these findings, a medical history assessing depression is important for determining postpartum depression risk.

The Edinburg Postpartum Depression Scale was primarily used in research in the diagnosis of postpartum depression. This scale is an appropriate tool to be used in society-based postpartum depression risk screening. Studies conducted in Canada and France indicated that the Edinburg Postpartum Depression Scale can be used in screening during week one of postpartum. 80–85% of the women showed depression after delivery when the scale was administered during the first week.[15]

No statistically significant difference was found between mother's educational status and PPD.[2] According to some studies PPD risk increased when the educational status was higher.[16,17] Other studies found no correlation.[7,14,15,19,20] 46.2% of the studies indicated that the mothers' educational status had correlation with PPD (Table 4).

The effect of alcohol use and smoking in some literature found significant correlation to PPD, however some studies did not find a correlation. Of the studies, 41% (n=16) found alcohol use and smoking affected PPD. Additionally, it was found that smoking had more affects than alcohol use (Table 2).

In Turkey, the correlation between mothers' working status and depression differs. It was found that non-working mothers in central Turkey and working mothers in Western Turkey had increased PPD frequency.[8,9,11,16,21] Of note, women who returned to work for economic reasons had more PPD.[6,9,12] The studies examined showed working status was a significant factor affecting (33.3%) PPD.

The perception during delivery that it is a life-threatening process for mother and baby is a psychologically stressful situation. PPD can occur in people facing a perceived life-threatening event.[6] In literature women having a vaginal delivery had more PPD frequency than women having a C-section.[2,6,19,22,23] Mode of delivery and PPD correlation was searched in 56.3% and no statistical difference was found in 30.7%.

In 58.9% (n=23) of the studies included the correlation between the baby's sex and PPD. It was found that in half of the studies there was a positive correlation, however the other half showed no correlation. Gender and PPD comparison can affect a country's development and cultural structure. Studies conducted in undeveloped countries showed that female babies increased PPD risk 2.5–3 times more. However, some studies showed gender had no effect in developed countries.[6,24,25] Studies found that having a girl was a risk factor for PPD due to being dissatisfied with the sex of the baby. PPD was three times higher if previous children were girls.[25,26]

A statistically significant correlation was found in some studies conducted in Turkey between PDD and health problems in the baby. For example, increased newborn intensive care or low birthweight babies resulting from preterm delivery.[2,4,5,8,14,20,26] One study found that the most significant factor correlated with PPD was newborn intensive care resulting in increased depression 4.4 times higher.[6] Study by Erdoğan et al.[1] found that the Edinburg Postpartum Depression Scale scores of mothers' of babies with infantile colic were higher than in mothers' of babies without infantile colic. However, 33.3% (n=13) of the studies researched showed that intensive care and infantile colic in baby did not affect PPD. 43.6% (n=17) of the studies found that low birth weight and congenital abnormalities did not affect PPD.

The literature found that women with insufficient family support suffered an increase in postpartum depression.[2,10,13,16,27] A study by Arslantaş et al. (2009) found that living with mother, father and siblings increased the risk of depression 3.53 times. The study found that 58.9% of the research looked at whether the mother and baby were supported in receiving care, however 33.3% of the studies did not find a correlation. This result indicated that sufficient mother/baby support may have correlation with PPD.

Conclusion

The Edinburg Postpartum Depression Scale was the most widely used tool in determining postpartum depression in the studies examined for this research.

Depression history in the mother and her family, the education level of the mother, unplanned pregnancies, working status of mother, having multiple children, the number of pregnancies, and a negative relationship with spouse are factors affecting depression. It was found that low birthweight and congenital anomalies in babies or returning to work 8 to 11 weeks after delivery did not have an effect on depression contrary to expression.

Understanding the causes of PPD will contribute to early diagnosis and treatment. This will aid in protecting the health of the mother and society as a whole. Some factors have little or no effect on postpartum depression, consequently using a verified diagnostic tool can reduce the prevalence of PPD and the impact on society. It is recommended that health care providers be provided with information regarding the factors contributing to PPD.

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