

Original Article

Prevalence of Postpartum Depression and its Risk Factors among Pakistani Females

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Abstract

Objective: To determine the prevalence of postpartum depression and its risk factors among Pakistani mothers.

Methodology: This Cross-sectional study was conducted after ethical approval on a sample of 200 females of reproductive age (20-45years). Participants were selected through convenient random sampling on the basis of predefined eligibility criteria. Data were collected from primary and secondary healthcare facilities of district Sialkot using the Edinburg postnatal depression screening tool.

Results: The mean age \pm Std Dev of the participants was 28.09 \pm 5.346 years ranging from 20 to 45. The mean \pm SD of the total score EPDS was found to be 3.53 \pm 5.72 with 87.50% of participants with scores below 13. Out of 200, 25(12.50%) females were candidates for postpartum depression.

Conclusion: Postpartum depression screening helps recognition of the disorder. Postpartum depression among females of the target population is not negligible.

Keywords: Postpartum Depression, Edinburg postnatal depression screening tool, depression.

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Introduction

Postpartum depression (PPD) refers to a mood disorder that is experienced by mothers and affects 10-15% of mothers per annum.¹ Postpartum depression (PPD) is identified with depressive symptoms and syndromes that appear within one year of delivering a child.² Postpartum depression poses great suffering for women and has negative consequences

on their families. Its prevalence is higher in low and middle-income countries i.e., 18.7% and lower in developed countries i.e., only 9.5%.³ Main signs and symptoms that predominate PPD are loss of interest, difficulty in sleeping, sadness, fatigue, hostility for newborn, feeling of embarrassment, lack of appetite and self-blame.⁴

PPD has serious implications for the social life of new mothers and it has a vicious cycle of depression that is acute initially and then becomes chronic with a never-ending loop.⁵ In addition to that it has negative effects on the physical and mental health of a mother and even their infants grow up having low social integration, poor regulatory behaviours and higher amounts of cortisol in their blood.⁶

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A meta-analysis comprising 33 studies concluded six risk factors responsible for PPD. These risk factors are a history of depression during previous pregnancies, depression during recent pregnancy, gestational diabetes, giving birth to a baby boy, history of depression and use of epidural anaesthesia. Among these women who had epidural anaesthesia during delivery or who had depression during pregnancy had more reportedly identified with PPD.⁷ According to American Psychological Association, PPD negatively affects every 1 in 7 women with the most serious mental health problems that are different from baby blues or post-partum psychosis. It includes feeling stressed, sad, lonely, anxious and tired. In contrast to baby blues, it does not resolve on its own. It can affect any mother e.g. new mothers, low-income, high-income mothers, multiple pregnancies, easy pregnancies, difficult pregnancies and mothers with more than one child irrespective of age, ethnicity and cultural background.⁸ Many countries have investigated about post-partum depression but in Pakistan, post-partum depression has never received the spotlight. Mothers in Pakistan never discuss this problem openly owing to the stigma attached to depressive disorders. In order to address this issue, this study undertook the task of identifying local risk factors and the prevalence of PPD in mothers from Pakistan.

Methodology

This was a cross-sectional study conducted at Govt Sardar begum teaching hospital Sialkot over a period of three months. A convenient Random sampling technique was used and data was obtained from rural health centres, basic health units and Govt Sardar begum teaching hospital Sialkot. The sample size was calculated as 200 using the WHO sample size calculator. Females of reproductive ages (20-45) were included and data were collected 4 weeks post-partum time. Females with previous psychological history and other red flag signs were excluded. The

informed consent document was signed by the participant. Edinburg postnatal depression screening tool (EPDS) (9) was used to collect the data. EPDS is a 10-item questionnaire, each item has four subsets scoring between 0-3. The total score ranges between 0-30, the higher the score, the greater the postpartum depression and vice versa. Mothers scoring above 12 or 13 are likely to be suffering from depression and should seek medical attention. Some questions regarding demographics, educational status mode of delivery, socioeconomic status and health status of infants and their gender were also incorporated. Those participants who were unable to read and understand the questionnaire were interviewed and responses were recorded alternatively, guidance was provided where needed regarding the understanding of the questionnaire.

Data were analysed using SPSS version 18; qualitative variables were expressed in the form of frequency tables and pie or bar charts. The Chi-square test was applied to find any correlation between variables and $P \leq 0.05$ was considered as significant.

Results:

The mean age \pm SD of the participants was 28.09 ± 5.346 years ranging from 20 to 45. The mean \pm SD of the total score of individual items is expressed in table 1, while the mean \pm SD of the total score EPDS was found 3.53 ± 5.72 with 87.50% of participants in the safe zone with a score below 13 (table 2).

About three-quarters of the participants were housewives and the remaining were working ladies. The mode of delivery of the participants is given in figure 1.

The majority of participants, 133(66.50%) were living in nuclear families and 67(33.5%) in extended families. While considering socioeconomic status, 15% were upper class, 31% were upper middle, 26% were lower middle and 28% belonged to lower socioeconomic class. Eighty-two percent of participants were able

to laugh and see the funny sides of things as much as they could; about 10.5% were not quite as much, 7% were definitely not so much and 0.5% were not at all.

According to the results of Chi-square test, there was a strong association between socioeconomic status and total score of postpartum scale of Edinburg postnatal depression screening tool ($p=0.00$), as well as an association between mode of delivery and the total score was also found (p -value less than 0.05).

Table 1: Total score of individual items of Edinburg postnatal depression screening tool.

Individual items of Edinburg postnatal depression screening tool	Mean± SD
Able to laugh and see funny sides of things	0.26±0.604
Looked forward with enjoyment to the things	0.28±0.634
Blamed myself unnecessarily when things went wrong	0.28±0.601
Anxious or worried for no reason	0.30±0.680
Felt scared or panicky for no very good reason	0.31±0.690
Things have been getting on top of me	0.35±0.762
So unhappy that I have had difficulty sleeping	0.61±0.992
Felt sad or miserable	0.68±0.708
So unhappy that I have been crying	0.36±0.634
Thought of harming myself has occurred to me	0.12±0.432
Total score	3.53±5.720

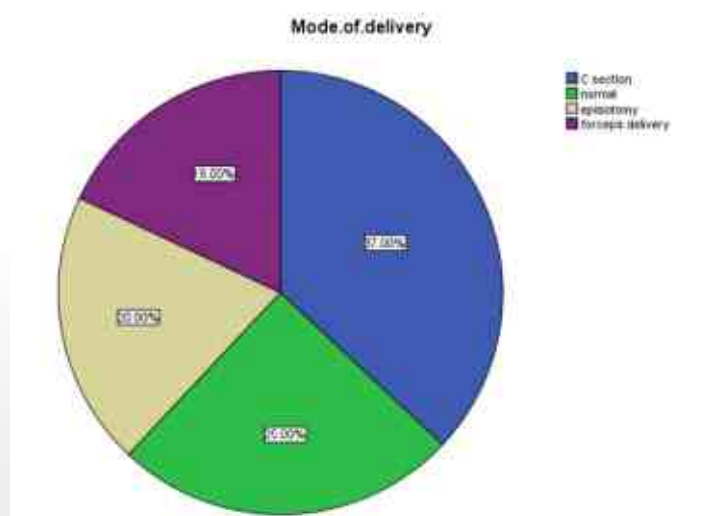


Figure 1: Mode of Delivery of the Participants.

Table 2: Frequency of Participants' Total Score Edinburg Postnatal Depression Screening Tool

Total Score	Frequency	Percentage
0-6	167	83.50%
7-12	8	4.00%
13-18	15	7.50%
19-24	10	5.00%
25-30	00	00%
		100%

Discussion:

This study showed that the prevalence of postpartum depression among women 20-45 years of age is 12.50%. Reasons responsible for the depression included low socioeconomic status, advancing age, biological/physical factors (e.g., riboflavin consumption), unwanted pregnancy, poverty and cultural factors (e.g., preference of infants' gender) which had a negative influence on females themselves as well as on baby's health. The group under study was composed of 73.5% housewives and 26.5% working ladies. The preference for the male gender, low socioeconomic status i.e., inability to afford, extended family system, and C-sections which cost more than normal delivery appear to be the reasons behind postpartum depression.

A systematic review and meta-analysis of 27 studies by Liu X et.al reported the prevalence of PPD ranged from 5.0% to 26.32%, however; when studies at individual levels were contrasted and compared, it was reported that they had a high prevalence of PPD in developing countries that was 15% than 12% prevalence rate in developed countries. It is in agreement with the current study that also showed PPD in Pakistani women at 12.50%.⁷

Similarly, another study by N Daoud et.al found similar prevalence rates in immigrant women that were 13% in Canada. They identified a lack of education, low income, lack of social support, abusive partners, and women on antidepressants.¹⁰

In contrast to the present study, R Azad et.al conducted a study based on Bengali Women and found a lot higher prevalence of PPD which was 39.4%. However, in Pakistani women, PPD is estimated to be 12.50% in the current study which is less than half of the prevalence rate found in mothers in Bangladesh and Pakistan. 11 Risk factors identified in mothers in Bangladesh were similar to the current study and these risk factors were socio-economic factors, demanding partners and pregnancy-related issues.

Similar findings were reported by Q Fan et. al who conducted research on Sri Lankan women. PPD in Sri Lankan women is 15.5% which is in alignment with our study. A study by Q Fan et.al identified advancing age and socioeconomic status as the main risk factors for PPD in new mothers.⁶

Our study had some limitations as the data were collected four weeks postpartum and the group of patients we chose as a sample was from only one city. There were ethical and cultural limitations as the majority of participants were not very comfortable sharing their status of the condition.

More studies are required both nationally as well as internationally to highlight this issue as the majority of mothers themselves are unaware of this condition. Women should be screened for potential risk factors and depressive symptoms during pregnancy and postpartum periods. This may help in intervening at an earlier stage. Education and awareness among the masses about postpartum depression is needed as it affects the entire family not just the mother alone.

Conclusion

Postpartum depression among mothers is less prevalent in Pakistan as found in our study. Women who had postpartum depression mostly underwent C-sections. The most common causes of postpartum depression included socio-demographic factors (e.g., poverty), mode of delivery, and cultural factors

(e.g., preference of infants' gender & family system) which had a negative influence on females themselves as well as on babies' health.

Conflict of Interest *None*

Funding Disclosure *None*

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Authors Contribution

MAA: Conceptualization of study

RA: Drafting

RA & NQ: Critical Revision, Final Approval

KB, KZ: Data Collection and Analysis

All authors are equally accountable for accuracy, integrity of all aspects of the research work.