RESEARCH ARTICLE

FREQUENCY OF POSTPARTUM DEPRESSION AND ITS EFFECTS ON QUALITY OF LIFE AMONGST MOTHERS ATTENDING EPI CENTER, PIMS ISLAMABAD

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ABSTRACT

Objectives:

- *To assess the prevalence of postpartum depression.*
- *To assess the effects of postpartum depression on quality of life.*

Study Design: *Cross sectional study design and Non probability convenient sampling technique was used.*

Study Place & Duration: *Data were collected in EPI centre, PIMS (Pakistan Institute of Medical Sciences) Islamabad over a duration of eight months (October 2022 to May 2023).*

Materials and Methods: *Demographic questionnaire, Edinburgh Postnatal Depression Scale (EPDS) Urdu version [1] was used to assess frequency of postpartum depression and WHOQOL-BREF [2] (World Health Organization Quality of Life Brief Version) to assess the quality of life of the participants.*

Consent was obtained from all participants before they completed the questionnaire. SPSS version 25 was used for data analysis. For categorical and continuous variables, frequency was calculated. Chi square was applied. P value of less than 0.05 was considered statistically significant.

Our study population is mothers of infants presenting in EPI centre of PIMS. Sample size of 240 was calculated using WHO sample size calculator with 95% confidence level and 5% margin of error.

Results:

- *Overall, 66.3% of the population had postpartum depression (PPD) according to EPDS.*
- *10.8% participants with postpartum depression scored 45 or below on WHOQOL (World Health Organization Quality of Life) scale showing low quality of life.*
- *68.3% participants with postpartum depression scored between 46 and 65 on WHOQOL scale showing moderate quality of life.*
- *20.8% participants with postpartum depression scored 66 or above on WHOQOL scale showing high quality of life.*

Conclusion: *This study shows that frequency of postpartum depression is very high in our society and has a substantial effect on the quality of life of mothers.*

Keywords: *Depression, Mothers, Postpartum, Quality of Life*

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INTRODUCTION

The main purpose of this research was to identify the frequency of postpartum depression amongst women who have given birth in the last year, and to assess the consequences of this depression with respect to their quality of life. Till date of this writing no similar research was found

to be conducted on the mothers presenting to EPI centre, PIMS Islamabad.

Postpartum depression is a major public health problem faced by mothers (after having a baby), worldwide and nationally and it affects quality of life of these mothers.

Postpartum depression is a mental condition that affects women during or after pregnancy.[3] The onset of postpartum depression generally appears during 4 to 6 weeks of delivery. Childbirth marks as one the major happenings in a woman's life. The sudden addition of new responsibilities leads to increasing risk for the development of postpartum depression during this period. [4]

Postpartum depression affects almost 20% of mothers annually around the world.[5] Only about 50% of these women are diagnosed.[6] The condition is seen to be much more prevalent in developing and underdeveloped countries.[7] Throughout Asia postpartum depression was found to range between 3.5%(Malaysia) and 63.3%(Pakistan).[8] Its prevalence was found to be about 11% in China[9], 22% in India[10], 38.8% in Iran[11] 39.4% in Bangladesh[12] and 56.2% in Afghanistan.[13]

The prevalence of postpartum depression within Pakistan also varies from province to province and city to city with 19.3% in Sindh[7] and 41% in Punjab. A study at two tertiary care hospitals in Peshawar estimated a frequency of postpartum depression to be 62.7% in RMI and 37.3% in HMC.[14]

The symptoms, which are quite similar to Major Depressive Disorder, includes, mood swings, loss of energy, decreased concentration, loss of interest, disturbed sleep, loss of appetite, feelings of insignificant guilt, anxiety, and suicidal thoughts.[15] Postpartum depression must not be confused with baby blues which include mild symptoms of depression. They generally peak within four to five days after child's birth and subsides within a few days.[16]

Despite the advances in diagnosis and treatments, postpartum depression is still one of the most under diagnosed and misconceived condition because mothers may not always be comfortable to discuss their mood changes with the health care provider or someone close.[5]

Postpartum depression affects new mothers as proved by evidence. Women with postpartum depression undergo multiple changes during this period which includes biological, social and emotional changes. As a result, postpartum depression can greatly affect the quality of life of these women.[9] It had been observed that women with postpartum depression have lower scores on QOL dimensions than those without postpartum depression during fourth to sixteenth week of postpartum.[17] Taking care of themselves and the additional responsibility of the baby after delivery can negatively impact the mother's QOL. Furthermore, they also face challenges that have an impact on their physical QOL, like fatigue, haemorrhoids, back pain, urine incontinence and perineal pain etc. The tiredness, changes in body shape and increased responsibilities might also cause changes in the intimacy with their spouse.[18] The purpose of the study was to analyse the frequency of postpartum depression and spread awareness about this grave issue. This would help in improving quality of life of mothers by timely diagnosis and treatment.

MATERIALS AND METHODS

A cross sectional study design was used. Non probability, convenient sampling technique was applied and a sample size of 240 was calculated using WHO sample size calculator with 95% confidence level and 5% margin of error. The study was conducted in EPI centre, PIMS Islamabad. All mothers having infants presenting in EPI centre were included in the study however mothers having past psychiatric disorders or those on psychiatric medications and those not willing to participate in the study were not made a part of the study. The study was conducted over a duration of eight months, starting in October 2022 and continuing until May 2023. For data collection purpose three questionnaires were combined, a demographic questionnaire, Edinburgh Postnatal Depression Scale (EPDS) Urdu version [1,19,20] to assess frequency of postpartum depression and WHOQOL-BREF (World Health Organization Quality of Life Brief Version) to assess the quality of life of the participants. The participants manually filled the questionnaire with written consent. Data were analysed using SPSS version 25. For categorical and continuous variables, frequency was calculated. Chi square was applied. *P* value of less than 0.05 was considered statistically significant.

RESULTS

In the current study overall 66.3% of the participants were positive for postpartum depression (PPD) according to EPDS

Out of the 10.8% participants having low QOL, 80% had postpartum depression. Out of the 68.3% participants having moderate QOL, 70.7% had postpartum depression. Out of the 20.8% participants having high

QOL, 41% had postpartum depression. The effect of postpartum depression on quality of life is highly significant (p=0.00). Association between postpartum depression and history of trauma during delivery is significant (p=0.002).

Postpartum depression was found to be more frequent among younger age groups. Three participants were below 20 years of age out of which 72% had postpartum depression, 72% participants were between 21 and 30 years of age out which 68% had postpartum depression. Twenty five percent participants were between 31 and 40 years of age out which 59% had postpartum depression. No participant of age 41 years or above, participated in the study. Among the age group of less than 20, none of the participants had low quality of life, 85.7% had moderate quality of life and 14.2% had high quality of life. Among the age group of 20-25, 11.8% of participants had low quality of life, 69.7% had moderate quality of life and 18.4% had high quality of life. Among the age group of 26-30, 9.27% of participants had low quality of life, 67% had moderate quality of life and 23.7% had a high quality of life. Among the age group of 31-35, 12.7% of participants had low quality of life, 68.08% had moderate quality of life and 19.14% had high quality of life. Among the age group of 36-40, 16.6% of participants had low quality of life, 66.66% had moderate quality of life and 25% had high quality of life

Out of mothers living in joint families 68.5% had postpartum depression while 61.7% of those living in nuclear families had postpartum depression. Out of the 159 participants living in joint families, 13% had relatively low quality of life, 66.66% had moderate quality of life and 20.1% had relatively high quality of life. Out of the 81 participants living in nuclear families, 6.17% had relatively low quality of life, 71% had moderate quality of life and 22% had relatively high quality of life.

Out of the employed mothers 74% had postpartum depression, while 64 percent of mothers who were unemployed had postpartum depression making it 10 percent more common among working mothers.

Out of the total unemployed mothers, 11.5% had relatively low quality of life, 67.8% had moderate quality of life and 20.5% had relatively high quality of life. Out of the employed women 8% had relatively low quality of life, 70% had moderate quality of life and 22% had relatively high quality of life.

Table I: Demographics of Participants

Variable	Percent
AGE	
< 20	2.9% (7/240)
20-25	31.7% (76/240)
26-30	40.4% (97/240)
31-35	19.6% (47/240)
36-40	5.4% (13/240)
> 40	0% (0/240)
EDUCATION	
Illiterate	10.0% (24/240)
Primary	10.4% (25/240)
Secondary	25.0% (60/240)
Graduation	31.7% (76/240)
Post-graduation	22.9% (55/240)
OCCUPATION	
Housewife	79.2% (190/240)
Working	20.8% (50/240)
FAMILY TYPE	
nuclear	33.8% (81/240)
Joint	66.3% (159/240)

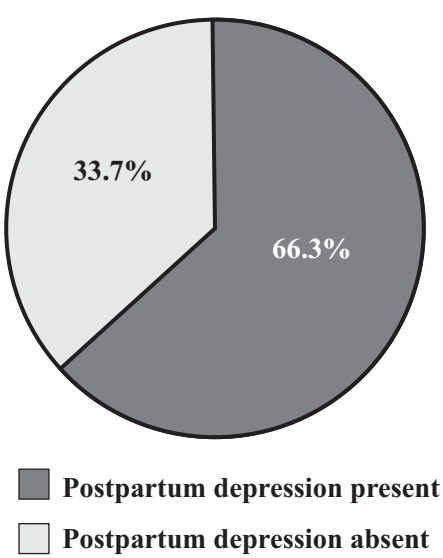

Figure 1: Frequency of Postpartum Depression among Participants

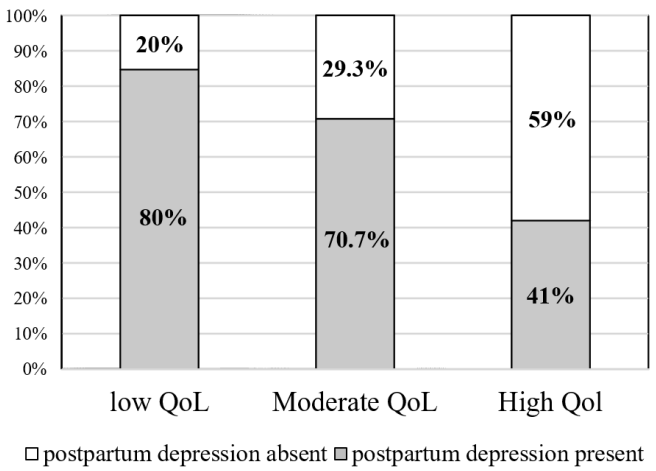

Figure 2: Effect of Postpartum Depression on Quality of Life of Participants

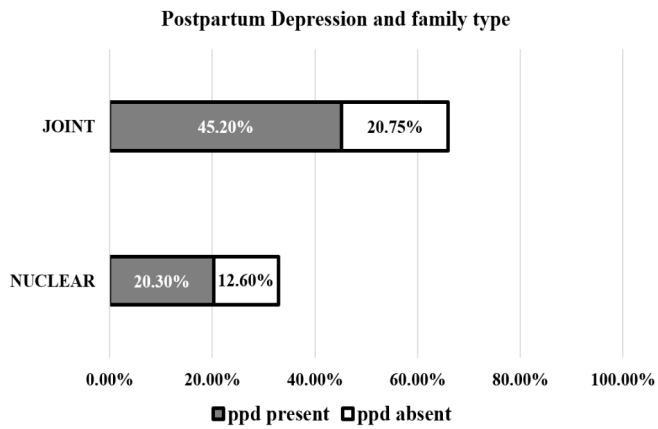

Figure 3: Association of Postpartum Depression with Family Type

DISCUSSION

The study showed that, 66.3% of the population had postpartum depression according to Edinburgh Postnatal Depression Scale. This was consistent with a research on prevalence of postpartum depression in Asian countries which ranked Pakistan the highest with 63.3% while Malaysia was ranked lowest with prevalence of 3.5%. [8]

Women of age less than 20 years were 3% of our study population out of which almost 72% were positive making them the most prone to postpartum depression. This aligns with a systemic review to check the prevalence of postpartum depression among mothers of India, in which it was observed that postpartum depression was more common in mothers of age 25 or less than mothers above 25 years[10] however a study conducted in Sri Lanka in 2017 for prevalence of postpartum depression and risk factors associated with it shows that mothers older than 35 were more prone to develop postpartum depression. [21]

It was found that women who reported to have low quality of life showed highest percentage of postpartum depression with 80% of them being positive and 20% negative. Of those scoring moderate quality of life, 60% were positive and 40% were negative for postpartum depression. However, the women with high quality of life showed only 25% being positive and 75% negative for postpartum depression. Similarly, 38 researches from year 2000 to 2016 were analysed for a systemic review to check the prevalence of postpartum depression among mothers of India in which many risk factors were also reported and the most common of them was financial issues.[10] In comparison, in a cross-sectional study to compare the cases of postpartum depression of public sector with private sector it was found that frequency of postpartum depression in Hayatabad medical college (public sector) was 37.3%, p value for which was 0.001 and that of Rehman medical institute (private sector) 62.7%. [14]

According to this study, women living in joint families had a higher percentage (45%) of postpartum depression as compared to those living in nuclear families. In comparison, a clinic based cross-sectional review was directed on 426 ladies the results of which shows that prevalence of postpartum depression was 17.4% and the factors contributing to postpartum depression include age of mother, number of children and family type as postpartum depression was more common among mothers with nuclear family type and a major contributing factor was unwanted pregnancy.[22]

Out of all the participants who were working mothers 73.9% mothers were positive while 63% of housewives were positive showing a comparatively higher rate in working mothers This contradicts the study conducted in China which showed that house wives out of other occupations had highest prevalence of postpartum depression.[9]

CONCLUSION

This study shows a high frequency of postpartum depression in our society (66.3%), significantly affecting the quality of life of mothers. Public awareness campaigns and increased resources are needed to improve postpartum mental health and, consequently, the well-being of both mothers and their babies.

LIMITATIONS OF OUR STUDY

The participants' quality of life was not analysed before the study due to short study duration. So before and after could not be compared. The sample size taken was only

for PIMS, Islamabad due to limited resources. No mother of age 41 or above participated in the study.

Most of the participants involved in the study had a moderate quality of life and an equal representation of all types of quality of life was not present.

ETHICAL STATEMENT

Confidentiality was maintained throughout the study period.

Approval was taken from Ethical Review Board.

Conflict of interest: The authors declared no conflict of interest.

Authors' Contribution

Zaupash Mahmood, Mahnoor Noman, Fakiha Naeem, Ayesha Khan: Topic selection

Fakiha Naeem: Questionnaire development

Fakiha Naeem, Ayesha Khan, Mahnoor Noman, Zaupash Mahmood: Methodology

Zaupash Mahmood, Mahnoor Noman, Fakiha Naeem, Ayesha Khan, Fatima Naeem, Dr. Hajr-e-aswad Khan Khattak: Data collection

Ayesha Khan: Data Analysis

Fakiha Naeem: Manuscript Writing

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