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Study of prevalence of postpartum depression among women

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Abstract---Introduction: Postpartum Depression (PPD) refers to non-psychotic depressive episodes that begin in or extend into the postpartum period. According to The American Psychiatric Association (APA) postpartum depression is defined as the occurrence of a Major Depressive Episode (MDE) within 4 weeks after delivery. Objectives of our study: To find out the prevalence of PPD among women aged 20-40 years in our population. Methodology: Data were collected using a valid Edinburgh Postnatal Depression Scale (EPDS). The internal reliability of the scale was 0.84 (Cronbach's alpha). The EPDS has 10 questions, and the scoring is as the following: a score less than eight points shows that depression is unlikely, a score of nine to 11 considered depression possible, a 12-13 score interprets fairly high possibility of depression, +13 scores and higher show positive results, and the cutoff point is 13+. Results: We included a total of 310 women based on the inclusion criteria and diagnostic criteria of PPD, in the age group of 20-40 years. The mean age was found to be 28.5 ± 4.5 years. We used Edinburgh Postpartum Depression Scale for the diagnosis of PPD. Out of 310 women 54 (17.4%) had EPDS score of 13 or >13 which defines depression, 68 (21.9%) had a score between 9 to 12, 188 (60.6%) had a score less than 9 who are less likely to have depression. Discussion and Conclusion: Though significant proportions of postnatal mothers had depression, the prevalence of postpartum depression was lower than most studies in different areas. Major life events and trauma are associated with an increased risk of postpartum depression. Health professionals should be aware of the mother's circumstances during pregnancy. They should initiate support to reduce the risk of depression in the postpartum period. Health care professionals working in maternal and child health clinics should give special attention to pregnant mothers who are widowed/widower, have poor social support, have a current hospitalized child, and experienced a death of a family member or close relative.

Keywords---postpartum depression, prevalence, Edinburgh postpartum, depression scale, women in postpartum period.

Introduction

Over 50 million people worldwide experience trauma through road traffic accidents (RTAs) yearly, and by the year 2020, the injury caused by RTA will be the 3rd-leading cause of disability. [1]. Accumulated evidence has shown that involvement in RTA may put individuals at increased risk for a wide range of psychiatric disorders, including posttraumatic stress disorder (PTSD), depression, anxiety, etc. [2–4]. In particular, PTSD presents a public health issue in RTA-related population. Over 50 million people worldwide experience trauma through road traffic accidents (RTAs) yearly, and by the year 2020, the injury caused by RTA will be the 3rd-leading cause of disability. [1]. Accumulated evidence has shown that involvement in RTA may put individuals at increased risk for a wide range of psychiatric disorders, including posttraumatic stress disorder (PTSD), depression, anxiety, etc. [2–4]. In particular, PTSD presents a public health issue in RTA-related population.

Postpartum Depression (PPD) refers to non-psychotic depressive episodes that begin in or extend into the postpartum period [1]. According to The American Psychiatric Association (APA) postpartum depression is defined as the occurrence of a Major Depressive Episode (MDE) within 4 weeks after delivery [2]. A recent review of 565 studies from 80 different countries or regions, estimated the global prevalence of PPD to be 17.22% (95% CI 16.00–18.51) [3]. This estimate is higher than the often-cited prevalence rate of 13% (95% CI: 12.3–13.4%), derived from a meta-analysis of studies from higher-income countries [4], and lower than the 19% prevalence rate for PPD obtained from studies of low- and middle-income countries [5]. The review also found significant differences between geographic regions and confirmed low- and lower-middle-income countries carry the greatest PPD burden [6]. Within Asia, the study found that Southern Asia had the highest prevalence (22.32, 95% CI 18.48–26.70), followed by Western Asia (19.83, 95% CI 17.33–22.58), Eastern Asia (17.39, 95% CI 16.09–18.77), and South-East Asia (13.53, 95% CI 11.00–16.52) [7].

Postpartum depressive symptoms (PDS) may occur at any time up to a year after childbirth, often peaking 4–6 weeks postpartum and disappearing spontaneously 2–6 months after giving birth but can last longer [8]. Symptoms can include sadness, nausea, anxiety, irritability, decreased libido, feelings of isolation, and disturbances in appetite, energy, and sleep [9]. Thoughts of hurting oneself and/or the infant, are also common symptoms of PPD, which can have negative impacts on family relationships [10]. Negative long-term consequences to the infant can include delayed cognitive, social, emotional, and physical development with potentially long-term effects [11–14]. PDS, however, are often overlooked, resulting in late diagnosis and increased chances of aggravating PPD.

Objectives of the study

The objective of our study is to estimate the prevalence of Postpartum depression among the women.

Materials and Methods**Study site**

This study was conducted at the Department of Psychiatry.

Study population

Post-natal women aged 18 years within 6 months after delivery who were willing to participate were included in this study.

Study design

We conducted a cross-sectional study from January 2021 to December 2021.

Sample size

We included a total of 310 women as per inclusion and exclusion criteria. The required sample size was determined by using a single population proportion formula with the following assumptions: ($Z_{\alpha/2}$) = value for the 95% CI, =1.96, d = margin of error taken as 5%; by adding 10% of study subjects as nonresponse rate, the final sample size became 308. The study subjects were interviewed by using systematic random sampling after determining the sampling fraction ($k = 613/308 = 2$) and the first participant was selected by using the lottery method.

Inclusion criteria

All women who gave birth and who came for postnatal care and vaccination service within 6 weeks after delivery in health centres and referral hospital were included.

Exclusion criteria

we excluded the following subjects with

- Women not willing to participate
- Those who had verbal communication problem
- Hearing loss

Data collection

Data were collected using a valid Edinburgh Postnatal Depression Scale (EPDS). The internal reliability of the scale was 0.84 (Cronbach's alpha). The EPDS has 10 questions, and the scoring is as the following: a score less than eight points

shows that depression is unlikely, a score of nine to 11 considered depression possible, a 12-13 score interprets fairly high possibility of depression, +13 scores and higher show positive results, and the cutoff point is 13+.

Statistical Analysis

Statistical analysis was done using Microsoft Excel spreadsheet, and statistical package for the social sciences (SPSS) version 20.0 software. Descriptive statistics were used to estimate the prevalence of PPD. The chi-square test was applied to assess the association of different categorical risk factors with the occurrence of PPD.

Results

We included a total of 310 women based on the inclusion criteria and diagnostic criteria of PPD, in the age group of 20-40 years. The mean age was found to be 28.5 ± 4.5 years.

EPDS score	Number	Percentage
≥ 13	54	17.4
9-12	68	21.9
<9	188	60.6

We used Edinburgh Postpartum Depression Scale for the diagnosis of PPD. Out of 310 women 54 (17.4%) had EPDS score of 13 or >13 which defines depression, 68 (21.9%) had a score between 9 to 12, 188 (60.6%) had a score less than 9 who are less likely to have depression.

Discussion

The present study aimed to determine the prevalence of PPD among the women in our population. We included a total of 310 women based on the inclusion criteria and diagnostic criteria of PPD, in the age group of 20-40 years. The mean age was found to be 28.5 ± 4.5 years. We used Edinburgh Postpartum Depression Scale for the diagnosis of PPD. Out of 310 women 54 (17.4%) had EPDS score of 13 or >13 which defines depression, 68 (21.9%) had a score between 9 to 12, 188 (60.6%) had a score less than 9 who are less likely to have depression. This study indicates mothers who experience mental health problems during pregnancy are more likely to experience PDS. Similar findings have been reported in studies in Vietnam, Thailand, and South Korea. This finding may be due to hormonal imbalance during pregnancy and the postpartum period contributing to a relapse of depression. While results are mixed, an increasing body of research suggests PPD with onset proximal to childbirth, is a discrete depressive disorder, highlighting the importance of integrating screening, and mental health support into routine maternal care. Integrating mental health into perinatal care requires providers are empowered with the skills necessary for them to offer basic but essential services for PDS, especially in lower- and middle-income countries where there is often very limited access to mental health specialists. Research indicates non-physician primary care providers and nurses can deliver basic evidence-based interventions for depression occurring in perinatal women.¹⁵⁻¹⁸

Conclusion

Though significant proportions of postnatal mothers had depression, the prevalence of postpartum depression was lower than most studies in different areas. Major life events and trauma are associated with an increased risk of postpartum depression. Health professionals should be aware of the mother's circumstances during pregnancy. They should initiate support to reduce the risk of depression in the postpartum period. Health care professionals working in maternal and child health clinics should give special attention to pregnant mothers who are widowed/widower, have poor social support, have a current hospitalized child, and experienced a death of a family member or close relative.

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