PREVALENCE OF POSTPARTUM DEPRESSION AMONG MOTHERS SEEKING POSTNATAL CARE AT NAKURU LEVEL FIVE HOSPITAL NAKURU - KENYA

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ABSTRACT

Background: Postpartum Depression (PPD) is a non–psychotic mood disorder that affects women postpartum. The prevalence of PPD in Africa is estimated between 10 – 28%, while the local prevalence is between 10.6% - 13.5%.

Objective: This study aimed to determine the prevalence and the awareness level of postpartum depression among mothers seeking postnatal care at Nakuru level five hospital, Kenya.

Methodology: A cross-sectional descriptive study design was used in this study. A sample size of 381 postpartum mothers was identified through systematic random sampling. Data were collected using a researcher-administered semi-structured questionnaire. The Edinburgh Postnatal Depression Screening tool was used to screen for postpartum depression. Data were analyzed using the IBM Statistical Package for Social Sciences (SPSS), version 23.

Results: Forty-three (11.3%) of the total study population were positively screened for postpartum depression. Only 32% (n=122) and 2% (n=7) of the study population were aware of PPD or ever screened for PPD previously.

Conclusion: This study contributes towards the growing evidence of the burden of postpartum depression in our local setting and overall in Sub-Saharan Africa. However, there is a need for more prospective studies to examine the clinical profile of postpartum depression objectively.

Keywords: postpartum, postpartum depression, mood disorder, psychosis

INTRODUCTION

Postpartum Depression (PPD) is a chronic, debilitating, non-psychotic mood disorder that affects women postpartum (1). Women who suffer from PPD are often diagnosed with intense depression, and the accompanying symptoms may include a feeling of anger, crying more than usual, withdrawal from their family, distress and detached from baby, worry that they may injure their baby, and a feeling of guilt about not being a good mother (2). Women who experience PPD have a reduced quality of life, costly treatment and management, and increased risk of life-threatening events and complications (3). According to the WHO's Classification of Diseases, 10th revision (ICD-10), postpartum depression is classified under mental and behavioral disorders associated with puerperium (4).

The global prevalence of PPD is estimated between 10 - 20% (5). However, the prevalence rate varies significantly worldwide from as low as 0% in Singapore to a high of 57% in Brazil (6). Globally, 10% and 13% of women experience PPD during pregnancy and postpartum, respectively (7). Similar rates have been reported in developing countries where 15.6% and 19.8% of women suffer from PPD during the antenatal period and postpartum, respectively (8). Perinatal mental disorders, including postpartum depression, are relatively high in low and middle-income countries (7).

In Africa, the prevalence of PPD is estimated at between 10% - 28% (9). However, higher rates have been reported elsewhere (10). A comparison of the prevalence rate of PPD across Africa shows a variation in the prevalence of PPD. Rates of 22%, 23.4%, and 27% - 50% were reported in Nigeria, Cameroon, and South Africa, respectively (11-13). However, relatively lower rates, 9.2% and 12%, were reported in Sudan and Tanzania (13, 14). The reported rates in Kenya are 10.6 and 13.5% (9, 15). The variation in the prevalence of PPD is attributed to several factors including, differences in socioeconomic status and the determinants of health care, cross-cultural variables, different reporting styles, differences in perception of mental health and stigma, biological vulnerability factors, and differences in social-economic environments (8, 16-17).

According to the National Institute of Mental Health (NIMH) of the United States, the disease burden is more remarkable in mothers who had already experienced PPD in their previous pregnancy, with a likelihood of between 20% - 25% (18). The majority, 40 - 67% of PPD cases begin at 12 weeks postpartum, and 30-70% of the affected mothers may suffer from PPD for more than a year (19). The Edinburgh Postnatal Depression Scale (EPDS), the Nine-item Physician's Health Questionnaire (PHQ-9), and the Postpartum Depression Screening Scale (PDSS) are the three most commonly used tools in the diagnosis of postpartum depression (20-22). The EPDS is the most widely used due to its extensive validation and simplicity with acceptable validity and reliability (23). Moreover, this tool is highly recommended due to the inclusion of anxiety symptoms, a prominent feature of perinatal mood disorder, hence highly specific for perinatal depression (24).

Maternal health care programs, such as antenatal care and safe delivery, have significantly reduced maternal mortality in Kenya (25). However, little emphasis has been placed on the mother's emotional and psychological aspect, whereby many cases of PPD go undetected, and if detected, remain untreated (26). This study aimed to determine the prevalence and level of awareness of postpartum depression among mothers seeking postnatal care at Nakuru county Level Five Hospital (NL5H), Kenya.

METHODOLOGY

Study design: A cross-sectional descriptive study design was used in this study. The study sample size was determined using systematic random sampling.

Study setting and population: This study was conducted in Nakuru county-level five hospital. The target population was all postpartum mothers seeking postnatal and child welfare clinical services at the facility. All mothers six to eight weeks postpartum, who were above 18 years and gave written consent, were included in this study. Consent was sought from guardians for mothers below eighteen years. Non-consenting, sick, and mothers with previous mental illness were excluded from this study. A total of 381 postpartum mothers were included in this study.

Data collection: Data were collected using a semi-structured questionnaire, which included both closed and open-ended questions. Variables included sociodemographic factors and awareness level. The EPDS tool was used to screen the postpartum mothers for PPD. The EPDS screening tool consisted of 10 items whose response categories were scored 0, 1, 2, and 3, depending on the severity of symptoms. The total score was obtained by adding the scores on each item, and a score of 13 or above was positive for PPD.

Quality control and data analysis: The data collection tool was pre-tested and validated. All research assistants were trained on confidentiality, data collection, and were required to adhere to the study's required code of conduct. Data analysis was done using the IBM Statistical Package for Social Sciences (SPSS), version 23. Descriptive variables were summarized using frequencies and rates and presented in figures and tables.

Ethical consideration: Ethical approval was sought and obtained from the Kenyatta university's Ethical Review Committee. A research permit was also obtained from the National Commission for Science, Technology, and Innovation (NACOSTI). Permission to conduct the study was obtained from the Nakuru county health and education administration and the medical superintendent of NL5H. Participation in the study was voluntary, and those who met the eligibility criteria were allowed to consent.

RESULTS

A total of 381 mothers between 10 - 49 years were included in this study. The mean and median age of the participants was 23.8 and 24.0 years, respectively. A majority, 78.7% (n=300) of the study participants, were married, while 2.4% (n=9) were divorced. Most of the study participants had attained secondary education, while only 3.7% had no education (Table 1).

Table 1: Sociodemographic characteristics of study participants attended at Nakuru level five hospital

Demographic variables	Frequency (n=381)	Percentage (%)
Age		
10-19	29	7.6
20-29	226	59.3
30-39	119	31.2
40-49	7	1.8
Marital status		
Single	72	18.9
Married	300	78.7
Divorced	9	2.4
Education status		
None	14	3.7
Primary	110	28.9
Secondary	155	40.7
Tertiary	102	26.8

Using the Edinburgh Postnatal Depression Screening tool, 43 (11.3%) of the respondents screened positive for PPD (Figure 1).

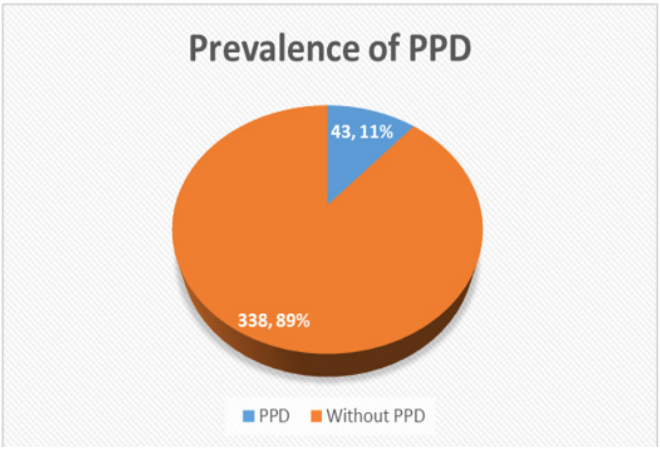

Figure 1: Pie chart showing the prevalence of postpartum depression among postpartum mothers attended at Nakuru level five hospital

The EPDS scores were fairly distributed among all study participants. The majority of mothers, 88.7 % (n=338), scored 12 and below, whereas one scored highest on the EPDS screening tool (Figure 2).

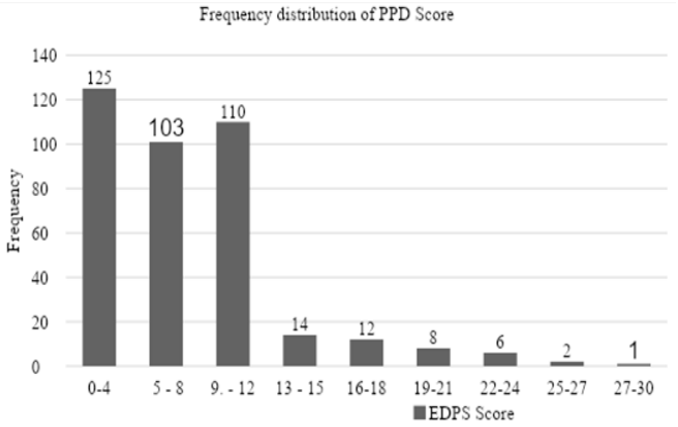

Figure 2: Bar chart showing the distribution of the Edinburgh Postnatal Depression Scale score among postpartum mothers attended at Nakuru level five hospital

Only 32% (n=122) of the mothers were aware of PPD, whereas 68% (n=259) were not aware of PPD (Figure 3).

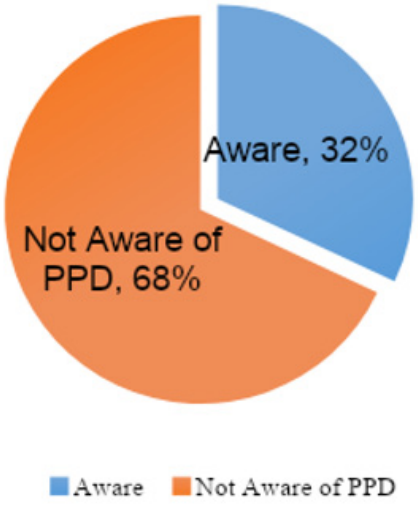

Figure 3: Pie chart showing the level of awareness of postpartum depression among postpartum mothers attended at Nakuru level five hospital

The majority of the respondents (43%) who were aware of postpartum depression had tertiary education, while most respondents were not aware (43.5%) had a secondary education level (Table 2).

Table 2: PPD awareness level and education level of postpartum mothers attended at Nakuru level five hospital

Level of education								
	None		Primary		Secondary		Tertiary	
Awareness	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	2	1.7	25	20.7	42	34.7	52	43.0
No	12	4.6	85	32.7	113	43.5	50	19.2

Only 2% (n=7) of the respondents had ever been screened for PPD, while 98% (n=374) of the mothers were never screened for PPD previously (Figure 4).

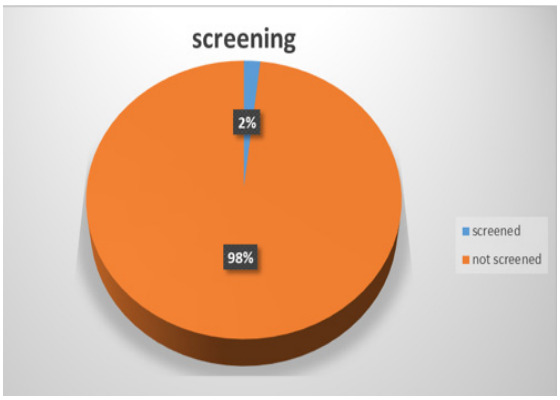

Figure 4: Pie chart showing mothers previously screened for postpartum depression among postpartum mothers attended at Nakuru level five hospital

DISCUSSION

Globally, the prevalence of postpartum depression is estimated between 10 – 20%. However, compared to developed countries, a higher prevalence rate is reported in developing countries (5). This is attributed to the little emphasis placed on postnatal care and mental health issues (27). The present study reported a prevalence rate of 11.3%. This is similar to local studies previously done at a tertiary facility and in a low-income urban settlement, which reported 10.6% and 13.5% prevalence rates, respectively (9, 15). The variation in PPD prevalence, even in local settings, may be attributed to cultural practices that significantly influence the mother's mental health. For instance, in some tribes, the mother and the newborn are confined in the house exclusively for three months postpartum; thus, leading to PPD (9). The different use of postpartum screening tools and the postpartum period during which the study was done may also give varying results (9). For instance, in the current study, PPD screening was done at 6 – 8 weeks postpartum, while studies in Nigeria and South Africa were done between 3 - 12 months postpartum, reported 22% and 27% PPD rates, respectively (11, 28).

The apparent positive influence on young mothers' education was observed as the majority had a secondary education level and above. However, this contrasts with knowledge and awareness of PPD. This may be attributed to the lack of understanding between PPD and postpartum psychosis, as noted in this study. Some mothers were specifically unaware of PPD but could explain the symptoms consistent with postpartum psychosis. This is similar to a Canadian study that found out awareness of PPD does not necessarily imply an awareness of its symptoms (29). In this study, most women who were aware of postpartum depression had achieved tertiary education. However, correlation analysis between PPD awareness level and mother's education level was not done. A study in Canada found a significant correlation between the level of awareness of PPD and education level (29). This study also noted that only 2% of the study participants were ever screened for PPD previously, although none of the screened respondents were found to have postpartum depression. This may imply that the disease can go undetected, similar to findings reported elsewhere (30). Moreover, this finding concurs with other researchers who noted low uptake of screening programs and low awareness of PPD among Chinese women (31). The minimal uptake of PPD screening may be attributed to the lack of screening tools in facilities, the increased workload of healthcare workers in the perinatal clinics, and a little emphasis on mental health (27).

Study limitations

The study relied on the Edinburgh Postnatal Depression screening tool, which only assesses symptoms other than a clinical diagnosis.

CONCLUSION

This study contributes towards the growing evidence of the burden of postpartum depression in our local setting and overall in sub-Saharan Africa. However, there is a need for clinical studies to critically examine the clinical profile of postpartum depression and offer patient education.

RECOMMENDATIONS

Postpartum depression screening tools should also be introduced during the perinatal period to screen mothers during clinic visits. Further research should also be done on the early detection of PPD.

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