ORIGINAL ARTICLE

Postpartum Depression: Knowledge, Attitudes, Practices, and Underdiagnosis Among Zambian Health Practitioners

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ABSTRACT

Background: Post-partum depression (PPD) is an underdiagnosed condition, affecting 1 in 8 women worldwide. This study aimed to investigate the knowledge, attitudes, beliefs, and practices in relation to PPD among health practitioners at Levy Mwanawasa University Teaching Hospital Obstetrics and Gynaecology (OBS/GYN) departments. The study further sought to gain insight from mental health practitioners at Chainama Hills College Hospital (CHCH) on the reasons for the underdiagnoses of PPD.

Methods: This cross-sectional study collected data from 20 OBS/GYN health practioners at LMUTH through questionnaires and CHCH mental health practioners through a focus group discussion. Quantitative data was analyzed using descriptive statistics in SPSS Version 27, while qualitative data was analyzed thematically in Nvivo software.

Results: 85% (17) of the respondents could define PPD, 50% (10) were able to identify risk factors, only 40% (8) had attended to patients with PPD, with 60% (12) reporting not having provided care to patients with PPD. Additionally, 80% (16) of the respondents had negative attitudes towards early assessment and diagnostic interventions for PPD, citing its perceived rarity and the time required for screening as reasons. Themes underlying underdiagnosis of PPD include prioritization of child care over maternal well-being and time constraints within postnatal clinics.

Conclusion: This study identified critical gaps in healthcare practitioners' knowledge and attitudes toward postpartum depression (PPD), particularly regarding early assessment and diagnosis. Factors contributing to PPD underdiagnosis include community-related issues such as cultural misconceptions, practitioner-related limitations including insufficient knowledge and skills, and facility-related challenges like prioritizing child care over maternal care. These findings highlight the need to incorporate comprehensive PPD education into healthcare training programs, implement routine screening protocols, foster supportive patient-care environments, address cultural misconceptions at the community level, enhance healthcare practitioners' competencies through ongoing training, and promote interdisciplinary collaboration.

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INTRODUCTION

Postpartum depression is a serious condition that typically arises from a combination of hormonal changes, psychological adjustment to motherhood, and fatigue.[1] It usually begins within six weeks after childbirth (1). Previous studies have shown that it affects 1 in 8 women worldwide[2], with a global prevalence of 10-15%.[3] A previous study conducted reported rates of 48% and 37% during antenatal and post-natal periods, respectively.[4] Despite this high prevalence, there is a lack of routine screening for perinatal depression in maternal health care services.[5]

Postpartum depression poses a significant threat to an infant's well-being, as the period following birth is a critical window for many developmental events.[6] In perinatal, antenatal, and postnatal care, it is essential for nurses, doctors, midwives, and all healthcare providers to demonstrate evidence-informed knowledge, skills, attitudes, and proper judgment when addressing conditions with serious consequences for women and their children.[7] Despite its prevalence, postpartum depression often goes unnoticed by obstetric and primary care teams.[3] The major problem that has been noted, especially in developing countries like Zambia, is the separation of maternal mental health and medical health.[8] This has resulted in general healthcare providers becoming reluctant and therefore not screening for mental conditions. This further results in the failure to provide a holistic approach to the management of the patients.[8] This problem has been made worse in Zambia by the shortage of mental health practitioners.[8] Another notable problem has been the lack of education and professional development strategies among healthcare providers, which negatively impact the quality of care and contribute to the stigmatization of women experiencing mood alterations.[7]

Identifying postpartum depression early is challenging due to the non-specific nature of its symptoms, such as sleep disturbances, irritability, and weight changes. These somatic symptoms, common during the postpartum period, complicate detection and treatment.[7] Therefore, it is crucial for healthcare providers to accurately differentiate these symptoms to ensure adequate care. However, a lack of consistent education and professional development creates barriers for healthcare providers, hindering their ability to effectively detect and treat postpartum depression.[7] Understanding current knowledge and practices among healthcare practitioners is essential. Raising awareness and promoting continuing education can foster the development of professional strategies, requiring collaboration among doctors, educators, employers, and researchers.[7] Additionally, continuing education can help healthcare providers address their own attitudes and stigmatization towards women with postpartum depression, leading to accurate diagnoses and effective treatment plans.[7]

Therefore, this study sought to determine the knowledge, attitudes, beliefs, and practices in relation to PPD among health practitioners at Levy Mwanawasa University Teaching Hospital. The study also sought to gain insights from mental health practitioners from Chainama Hills College Hospital on the reasons for the under diagnosis of PPD.

METHODS

Study Design

This cross-sectional study was conducted in 2023 to assess the knowledge, attitudes, beliefs, practices and under diagnosis of postpartum depression (PPD) among healthcare practitioners. The study involved two distinct populations: doctors and nurses from the OBS/GYN department at LMUTH, and mental health professionals from CHCH.

Sample Size

A total of 25 health practitioners were conveniently selected for this study, including 20 doctors and nurses from LMUTH and 5 mental health practitioners from CHCH. A convenience sampling approach was employed, resulting in a sample size of 25 participants. This may impact on the reliability and validity of the results. However, despite this limitation, the study aims to contribute to the existing body of knowledge.

Data Collection

The data presented in this paper was collected using both a quantitative and qualitative approach. The paper-based questionnaires were administered to doctors and nurses at LMUTH to assess the health practitioners' knowledge, and attitudes towards PPD. Qualitative data was collected using a focused group discussion conducted to gain insights from mental health practitioners at CHCH into the reasons for the under diagnosis of PPD.

The questionnaire used in this study consisted of a combination of open-ended questions and multiple-choice questions. In doing so, both quantitative and qualitative data was collected. The questionnaire used in the study was developed based off a comprehensive literature review, ensuring that questions addressed the key research objectives and were informed by existing knowledge on the topic. The questionnaire was administered to 20 participants all in the OBS/GYN department because it is the entry point for patients with PPD. While the sample size is limited, the questionnaires development provide confidence in the validity of the data collected.

A focus group discussion was conducted with five mental health professionals at Chainama Hills College Hospital, using a structured guide to facilitate the conversation and ensure all relevant aspects and topics were covered. To ensure data accuracy and credibility, the discussion was audio recorded and supplemented with note taking. This approach allowed for a comprehensive capture of participant responses and facilitated data analysis. While the sample size was small, the structured approach and rigorous data collection methods provide confidence in the trustworthiness of the focus group findings.

Data Analysis

Quantitative Data Analytical Approach

The quantitative data collected from the paper-based anonymous questionnaires were analyzed using statistical methods to assess the knowledge and attitudes of healthcare practitioners towards postpartum depression (PPD). The following steps were undertaken:

Data Entry and Cleaning

1. **Data Entry**: Responses from the questionnaires were entered into a statistical software program, SPSSv27, for analysis.
2. **Data Cleaning**: The dataset was reviewed for any inconsistencies or missing values. Incomplete responses were handled according to predefined criteria, such as excluding them from certain analyses.

Descriptive Statistics

1. **Demographic Information**: Descriptive statistics, including frequencies and percentages, were calculated for demographic variables such as job title.
2. **Knowledge and Attitudes**: Descriptive statistics were also used to summarize the responses to questions assessing knowledge and attitudes towards PPD. The findings were presented as proportions and percentages.

Qualitative Data Analytical Approach

The qualitative data analysis for this study was conducted using thematic analysis. The data were categorized into four components, focusing on the reasons for the under diagnosis of PPD. NVivo software was employed as the primary tool for data analysis.

Data Organization

Using Nvivo, heading styles were created for responses to specific questions from the focused group discussion that addressed the under diagnosis of PPD. This organization facilitated the systematic analysis of responses.

Theme Development

Themes were generated from the data collected. Key words and frequently used phrases were identified and used as codes. This coding process helped in organizing the data into meaningful categories that reflected the core components of the qualitative component of the study. This qualitative analytical

approach provided a comprehensive understanding of the perspectives of healthcare practitioners in the under diagnosis of PPD, informing strategies for improved education and professional development in the context of postpartum depression.

RESULTS

Demographic Characteristics of the respondents

The study included a total of 25 respondents, including 10 doctors and 10 nurses from LMUTH while 5 were mental health practitioners from CHCH (Refer to figure 1).

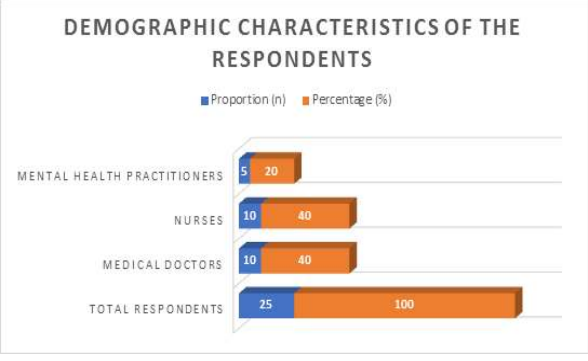

Figure 1. Demographic Characteristics of the Respondents

Knowledge and Attitudes towards PPD

85% of the participants were able to provide an acceptable definition for postpartum depression while 15% could not provide a definition. 50% of the participants in the study were able to provide at least one acceptable risk factor for PPD, with the commonly cited risk factors being lack of emotional support and history of losing a child. Only 40% reported having provided care to patients with PPD, with more than half (60%) reporting no such history. Over half (60%) of the respondents reported that PPD is not common enough to warrant screening during post-partum visits, with less than half (40%) of the respondents reporting that it is common enough and should be screened during post-partum visits (Refer to Figure 2).

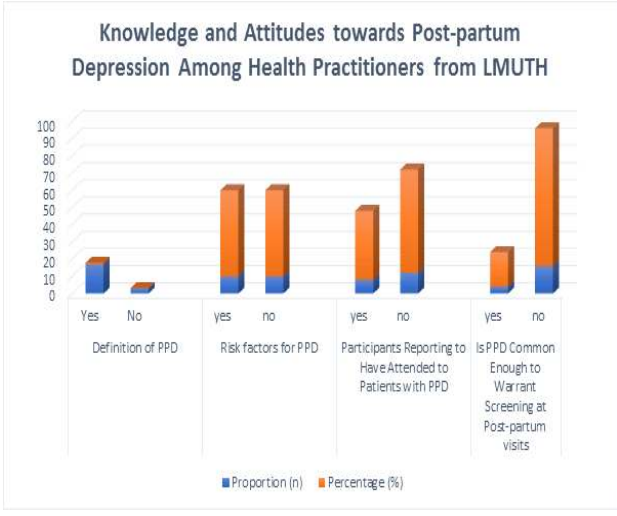

Figure 2. Knowledge and Attitudes towards Post-partum Depression Among Health Practitioners from LMUTH

Thematic Areas on Under diagnosis of Post-Partum Depression

Four thematic areas emerged on the reasons for the under diagnosis of post-partum depression from the focus-group discussion conducted at CHCH among Mental Health Professionals, namely, (1) False and cultural beliefs in the community (2) Insufficient knowledge and Skills on/for PPD (3) Prioritizing care for the child (4) Lack of time in the post-natal clinic.

Table 3. Common Themes That Emerged from the Focus- Group Discussion on Reasons for Under-Diagnosis of Post-Partum Depression

Number of Themes	Reason for Under diagnosis of Post-Partum Depression	Additional Comments
1.	False and Cultural Beliefs on PPD	PPD being related to spiritual attacks, witchcraft, curses
2.	Insufficient Knowledge and skills on the Condition	Not familiar with screening tools used screen for PPD Inability to provide treatment for patients with PPD
3.	Prioritizing the care for the Child	Focus shifts to the well -being of the new born baby
4.	Lack of Time in the Post - Natal Clinic	Post-natal clinic too busy to apportion time to screening and assessment for PPD

DISCUSSION

Our study sought to determine the knowledge, attitudes, beliefs, practices and under diagnosis of post-partum depression among health practitioners at Levy Mwanawasa University Teaching Hospital and Chainama Hills College Hospital. The study found knowledge gaps in the definition of post-partum depression, risk factors for post-partum depression, burden of post-partum depression and screening for post-partum depression, with less than half of the participants reporting having attended to patients with post-partum depression. Qualitative insights showed that patients with post-partum depression tend to get underdiagnosed or receive a late post-partum depression diagnosis due to false cultural beliefs in the community, insufficient knowledge and skills among health practitioners, lack of time in the post-natal clinic and prioritization of childcare over that of the mother.

Our study highlights knowledge gaps regarding post-partum depression (PPD) among health practitioners at the LMUTH Obstetrics and Gynaecology department. Only half of the respondents mentioned at least one risk factor for PPD, and less than half had a history of involvement in treating patients with PPD. Furthermore, only 1 in 5 respondents recognized PPD as a common condition, underscoring the urgent need for routine screening during post-partum visits. These findings align with earlier studies, such as those conducted in Malaysia and Oregon, which also identified substantial gaps in PPD awareness and treatment among healthcare providers.[9, 10, 11] The consistent lack of knowledge and involvement across different regions highlights a global issue that necessitates enhanced training and education for healthcare practitioners to improve PPD detection and management.[10, 11]

Our qualitative component of the study found important insights from mental health practitioners' focus-group discussions into the reasons for the under diagnosis of post-partum depression (PPD) by health practitioners working within the obstetrics and gynaecology departments of LMUTH. Specifically, the thematic areas emerging from this study showed that PPD is underdiagnosed due to false and cultural beliefs that attribute the aetiology of PPD to spiritual attacks, witchcraft, and being cursed. These findings are consistent with previous research, which has highlighted how cultural beliefs and misconceptions can significantly impact the diagnosis and treatment of PPD.[12, 13] For instance, a study found that in many non-Western cultures, PPD symptoms are often attributed to supernatural causes, leading to delays in seeking appropriate medical care.[12] Similarly, a study noted that cultural factors could either exacerbate or alleviate PPD symptoms, depending on the prevailing beliefs and practices.[13] In most Sub-Saharan communities, traditional healers experience increasing patronage from women who may have the wrong perception of the cause of PPD.[14] To systematically incorporate cultural beliefs of postpartum depression (PPD) into healthcare education, training programs should focus on cultural competency, teaching providers about the diverse cultural perspectives on PPD, including stigma and differences in manifestation of PPD in different cultural contexts. This involves adapting screening tools and care plans to be culturally relevant, promoting open dialogue between providers and patients, and using case studies that reflect cultural diversity. Additionally, engaging with local communities, offering cultural immersion opportunities, and ensuring ongoing professional development will help healthcare providers navigate cultural differences effectively. By fostering an understanding of cultural beliefs, healthcare education can enable providers to offer more sensitive, patient-centred care for those experiencing PPD.

Our study further highlighted that PPD is underdiagnosed due to insufficient knowledge and skills regarding post-partum depression (PPD) by health practitioners working in the Obstetrics and Gynaecology department and other General health care facilities. This deficiency is compounded by inadequate awareness of screening tools for PPD and limited involvement in the care of patients with PPD. This lack of awareness and involvement in the care of patients with PPD is further compounded by the

inadequacy of mental health services in Sub-Saharan Africa.[14] The findings of our study are consistent with previous research, which has similarly identified gaps in knowledge and training among healthcare providers. For instance, a study noted that inconsistent screening practices and a lack of awareness about validated screening tools contribute to the under diagnosis of PPD.[15] Additionally, another research emphasized the need for continuous education and professional development to equip healthcare providers with the necessary skills to effectively manage PPD.[16] The lack of involvement in the care for patients with PPD, as observed in our study, aligns with findings from another study that reported that healthcare providers often feel unprepared to address perinatal mental health issues due to insufficient training.[17] These findings highlight the critical need for enhanced training programs and increased awareness of screening tools to improve the detection and management of PPD in clinical settings. By enhancing knowledge and awareness, improving screening, assessments, and promoting effective communication and collaborative care, these programs can educate professionals on standardized screening tools for early detection and treatment of PPD. To further combat the increasing prevalence of postpartum depression (PPD) in Sub-Saharan Africa (SSA), expectant mothers identified with risk factors, should be provided with psychotherapy, conflict resolution services, social support, and specialized childcare training.[14] To reduce costs and enhance care efficiency, it is essential to prioritize PPD screening for at-risk pregnant women.[14] Preventive strategies and early interventions should be tailored to each individual, addressing their specific risk factors.[14]

Our study also showed that post-partum depression (PPD) is underdiagnosed due to a lack of time for additional tasks in the post-natal clinic and a shift in the focus of care from the mother to the well-being of the newborn during the post-partum period by health practitioners working in the post-natal wards at general healthcare facilities. This finding is consistent with previous research, which has highlighted similar challenges. For instance, one study noted that healthcare providers often prioritize the physical health of the newborn over the mental health of the mother, leading to missed opportunities for PPD screening.[15] Additionally, another study found that time constraints and competing clinical demands significantly hinder the ability of healthcare providers to conduct thorough mental health assessments during post-natal visits.[17] The findings of our study reinforces the need for integrated care models that balance the health needs of both the mother and the newborn to improve PPD detection and management.[15, 17] Integrated care models bring together obstetric, paediatric, and mental health professionals to provide comprehensive care that addresses the complex needs of new mothers. Additionally, maternal health policies should prioritize routine PPD screening, allocate resources for mental health services, and integrate PPD care into broader maternal health frameworks. By doing so, these models can facilitate earlier detection and treatment of PPD, ultimately leading to better health outcomes for both mothers and babies.

Study Limitations

Our study has several limitations worth considering when interpreting the findings. Firstly, the small sample size used for both the quantitative and qualitative components means our findings may not be generalizable to all health workers in the field of obstetrics and gynaecology in Zambia. This limitation is further compounded using convenience sampling methods, resulting in a non-probabilistic sample where not all healthcare providers had an equal chance of being included. Additionally, the cross-sectional study design limits our ability to draw causal inferences between the variables examined. It is worth noting that our study did not utilize inferential statistics to account for potential confounding between the variables. Therefore, the readers of this study should interpret the findings with caution.

Another notable limitation of this study is the use of a single focus group, which may not accurately represent the broader population. While the focus

group provided valuable insights, the results may be influenced by the specific characteristics and experiences of the participants. Additionally, saturation of qualitative insights may not have been reached. Therefore, future research should consider utilizing more focused group sessions to achieve saturation of the qualitative insights on the factors that contribute to the under diagnosis of PPD.

Despite these notable limitations, this study serves as an important first step for further research. It can inform future studies with a larger sample size of healthcare providers and more robust study designs, such as longitudinal cohort studies, to examine the reasons contributing to the under diagnosis of PPD. Future research should also determine salient factors amenable to interventions using experimental study designs to enhance early detection and reduce the under diagnosis of PPD.

CONCLUSION

Our study highlights knowledge gaps in the definition of post-partum depression, risk factors for post-partum depression, the burden of post-partum depression, and screening for post-partum depression, with less than half of the participants reporting having attended to patients with post-partum depression. Qualitative insights from mental health practitioners further point out that patients with post-partum depression are underdiagnosed or receive a late diagnosis due to community-related factors (e.g., false and cultural beliefs in the community), practitioner-related factors (e.g., insufficient knowledge and skills among health practitioners), and facility-related factors (e.g., lack of time in the post-natal clinic and prioritization of child care over that of the mother). To effectively implement PPD screening protocols and culturally sensitive training in postnatal care, healthcare systems must first establish routine screening for all new mothers, ensuring that tools are adapted to reflect cultural nuances in symptom expression. Screening should be conducted in a nonjudgmental, supportive manner to encourage openness, particularly in communities where mental health may carry stigma. Culturally sensitive training should be incorporated into healthcare providers' education, focusing on understanding cultural beliefs about mental health, the potential impact of stigma, and the ways PPD might manifest differently across cultures. Training should also emphasize the importance of effective communication and personalized care, ensuring that interventions are tailored to each mother's needs while respecting their cultural values. By combining systematic screening with culturally competent care, postnatal services can better support mothers experiencing PPD, leading to improved outcomes for both maternal mental health and overall family well-being.

List of Abbreviations

1. CHCH- Chainama Hills College Hospital
2. LMUTH- Levy Mwanawasa University Teaching Hospital
3. PPD- Post-partum depression
4. OBS- Obstetrics
5. GYN- Gynaecology
6. UNILUS- University of Lusaka

Ethical Considerations

Our study received ethical clearance from the University of Lusaka Ethics Committee (*IRB Approval Ref no: ORG0010092-2022/087*) and was subsequently approved by the National Health Research Authority (*NHRA Ref No: NHRA010/16/06/2023*). Permission was granted by the Ministry of Health and Chainama Hills College Hospital, facilitated by the Senior Medical Superintendent. All participants were treated with respect and courtesy. Informed consent was obtained after clearly explaining the research aims and methods. Specific consent was secured for audio-recorded face-to-face meetings. Participants signed a consent form, ensuring confidentiality and anonymity. They were informed of their right to withdraw from answering any question that invaded their privacy. Emphasizing the research purpose helped ensure participants felt comfortable answering the questions.

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