POSTPARTUM DEPRESSION KNOWLEDGE AMONG HEALTH WORKERS IN SAUDI ARABIA

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Abstract

Introduction: Post-partum depression (PPD), identifiable within a specific period starting during pregnancy or within the first four weeks after birth, presents an opportunity for early detection and diagnosis at the primary healthcare level. This study evaluates the awareness of PPD and its influencing factors among healthcare professionals in a city in Saudi Arabia.

Methods: Conducted as a cross-sectional survey among primary healthcare workers, the study included 110 participants, determined with a 95% confidence level and a 5% error margin. Utilizing a two-part validated questionnaire, the research gathered socio-demographic data and evaluated knowledge on PPD, covering symptoms, identification, risk factors, diagnosis, and treatment.

Results: Among the 110 health workers surveyed, two-thirds were female, and half were between the ages of 21-34. The majority were general practitioners (53.6%), followed by registrars (15.5%) and consultants (18.2%). Around 44% occasionally screened for PPD, whereas 44.5% did so rarely or never. Knowledge scores on PPD varied from 11 to 41, with an average of 30.6±6.6. While 58.2% exhibited a high understanding of PPD, 9.1% showed low awareness. Significant factors affecting PPD knowledge were medical qualifications and job titles, whereas age and gender were not significantly related.

Conclusions: Knowledge about PPD among healthcare workers in primary care settings was generally satisfactory but showed gaps in certain areas, such as screening, diagnosis, and understanding of complications. Although there was a significant awareness of the symptoms and treatment of PPD, knowledge on screening and diagnosis was lacking.

Keywords: Depression, Delivery, Sadness, Mothers, Knowledge, Awareness, Saud

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DOI: 10.53555/ecb/2023.12.5.534

Introduction

Mothers face numerous stress-inducing factors while giving birth, leading to a variety of social, emotional, and physical issues such as sleeplessness, pain, and mental stress. These challenges can pave the way for postpartum depression (PPD), particularly in scenarios where support is lacking [1]. PPD is identified as a significant depressive disorder that impacts the quality of life of women, starting during pregnancy or within the first four weeks after giving birth. While it shares characteristics with the baby blues, PPD is notably more severe and lasts longer [2].

PPD represents a severe condition linked to depression episodes that occur post childbirth. It's noted as the most frequent complication post-delivery by the National Institute of Health Care Management (NIHCM) [3], with a worldwide prevalence rate of 8-20% [4, 5]. Notably, PPD rates are higher among Arab women, with 22% in the United Arab Emirates and 17.8% in Dammam, KSA [6, 7]. Addressing this issue necessitates a multi-disciplinary approach, with primary healthcare workers being at the forefront of detecting, diagnosing, and treating PPD. Despite this, PPD often goes undiagnosed or is confused with the baby blues [8].

The manifestation of PPD includes one or two major symptoms (low mood and/or loss of interest) along with at least three or four minor symptoms (out of a possible nine), totaling at least five symptoms. These minor symptoms can range from changes in appetite/weight, concentration difficulties, sleep issues, fatigue, psychomotor agitation, feelings of guilt or worthlessness, to suicidal thoughts. These symptoms need to last for at least two weeks to be classified as PPD, with onset during pregnancy or within four weeks post-delivery [2].

Diagnosing PPD is challenging due to the absence of a definitive diagnostic tool. Consequently, tools such as the Edinburgh Postnatal Depression Scale, a 10-item self-rated questionnaire, have been developed for PPD detection and symptom measurement, recommended by the U.S. Preventative Taskforce for identifying at-risk women [9]. Several factors contribute to the development of PPD, including psychological factors like antenatal depression and anxiety, past psychiatric disorders, life stresses, and childcare stress, along with obstetric and pediatric factors, physical and biological issues, and socio-demographic factors like low socio-economic status and insufficient social support [10].

PPD not only affects the mother's health but also has profound implications on the infant's cognitive and behavioral development, causing distress for the entire family. Studies have shown that mothers with PPD are less likely to engage in intimate contact with their infants [11, 12]. Managing PPD effectively requires a multi-disciplinary medical team approach, incorporating pediatricians, obstetricians, and primary healthcare practitioners for screening during pregnancy and the postpartum period. Supportive measures such as interpersonal psychotherapy, telephone-based peer support, physical exercise, and family support can be beneficial for those with mild conditions, avoiding medication [13].

For more severe cases, additional interventions with evidence-based psychotherapies like cognitive behavioral therapy and pharmacological treatments are considered, taking into account the patient's preference and depression severity [14]. Highlighting the significance of PPD, one of the authors shared her struggle with PPD after her first child, which severely impacted her final year of medical school. This personal account underlines the importance of addressing this often underdiagnosed disorder, with an estimated global prevalence of 10-15%, and its lasting effects on mothers and their children's development [15]. Given its timing, PPD can be readily identified and managed in primary healthcare settings, prompting this study to evaluate the knowledge and understanding of PPD among health workers at the Ministry of Health (MOH), primary healthcare centers (PHCCs) in Saudi Arabia 2020.

Methods

This study is a cross-sectional investigation focusing on physicians employed at Primary Healthcare Centers (PHCCs) under the Ministry of Health (MOH) in Saudi Arabia, including a range of positions from general practitioners to consultants. The exclusion criteria applied to doctors who were not present at work or who opted not to participate. The participant pool was determined to be 110 doctors, a figure derived from the total estimated number of doctors with a 95% confidence interval and a 5% error margin. A validated structured questionnaire in English was employed for data collection, with validation performed by experts in psychiatry, obstetrics and gynecology, and family and community medicine.

The questionnaire was divided into two sections; the first gathered socio-demographic details and work-related characteristics of the healthcare workers, while the second aimed to evaluate their knowledge on PPD, covering aspects like symptoms, screening processes, risk factors, diagnosis, and management strategies, and included criteria from the DSM V for diagnosis.

Data analysis was conducted using the SPSS software version 20 (SPSS Inc., Chicago, IL, USA), utilizing descriptive statistics to summarize the data and the Chi-square test to assess the relationship between various determinants and outcomes, with a p-value of less than 0.05 being considered statistically significant. All participants provided consent through a form that they read and signed at the survey's commencement, and this research

received the approval of the MOH's ethical committee.

Results

In this study, 110 physicians employed in Primary Healthcare Centers (PHCCs) in a city in Saudi Arabia were surveyed. Approximately two-thirds of these participants were female, and a significant majority (95.4%) were Saudi nationals. Roughly half of the surveyed doctors were between the ages of 21-34, with only 16.7% being over the age of 44. In terms of educational background, the majority (63%) held an MBBS degree, while 26.8% had obtained a board certification in family medicine from either the Saudi or Arab Board. The distribution of job titles showed that 53.6% were general practitioners, 15.5% were registrars, and 18.2% served as consultants.

Work-related characteristics highlighted in the study showed that about half of the doctors had over five years of work experience, while 22.9% had less than a year's experience. A large majority (77.3%) had experience working in a mental health facility, and a quarter of the respondents reported seeing more than 50 patients weekly. Nearly three-quarters always saw female patients in their clinics, whereas 37.3% often worked in well-baby clinics. In terms of PPD screening, 43.6% sometimes screened for PPD, while 44.5% rarely or never performed screenings.

Knowledge about post-partum depression among the physicians was also analyzed. Scores on knowledge about PPD varied from 11 to 41, with an average score of 30.6±6.6. A total of 58.2% of the doctors demonstrated a high level of knowledge on PPD, although 9.1% had a low level of knowledge, defined as less than 50% correct answers. When assessing knowledge using the curve method, around 75.5% of doctors scored average or above. In the specific areas of knowledge, understanding of symptoms was the highest rated, while knowledge on screening and diagnosis was the least developed. A substantial 85.5% were deemed to have a high level of knowledge regarding symptoms of PPD, but only 30.9% showed a high level of understanding in screening and diagnosing PPD. Additionally, 62.7%, 67.3%, and 43.6% of doctors had high knowledge levels regarding risk factors, management, and complications of PPD, respectively.

Table (1): Demographic characteristics of the respondents

Characteristics	***Frequency***	***Percent (%)***
Gender		
Male	37	33.9
Female	72	66.1
Age		
21-34	56	51.9
35-44	34	31.5
45-54	16	14.8
55-64	2	1.9
Nationality		
Saudi	104	95.4
Non-Saudi	5	4.6
Qualification		
MBBS	68	63
Saudi Board FM	22	20.4
Arab Board FM	7	6.4
Other	11	10
Job title		
GPs	59	53.6
Residents	13	11.8
Registrars	7	6.4
Senior residents	10	9.1
Fellow	1	0.9
Consultant	20	18.2

Discussion

In Saudi Arabia, the primary health care centers (PHCCs) operated by the government serve as the foundational layer for both preventive and therapeutic health services. The count of PHCCs in the nation rose from 1925 in 2007 to 2325 by 2016 [16]. The World Health Organization (WHO) advises that primary healthcare settings be equipped to be the initial point of contact for patients experiencing mental health issues [17].

While referring patients with psychological disorders to specialists is a routine procedure within Saudi Arabian primary healthcare [18], it's argued that this approach might not always be optimal. Many mental health conditions are manageable within the primary care context, and stigma associated with psychiatric treatment is another factor driving patients to prefer care from a family doctor over a psychiatrist [19]. Primary healthcare also presents an opportunity for targeted mental health screenings, especially for conditions like PPD that disproportionately affect certain demographics. It is essential for healthcare providers, particularly in primary care, to possess thorough knowledge on the screening, diagnosis, and management of PPD. In our study, 58.2% of doctors displayed a high understanding of PPD, in contrast to 9.1% with minimal knowledge (<50% correct answers). Another investigation focusing on healthcare professionals in Riyadh's hospitals found that approximately 24%, 49%, and 58% of GPs, specialists, and family health workers, respectively, could accurately define postpartum depression [18]. Our study adopted a different classification for medical degrees, distinguishing between GPs, residents, specialists, and consultants, revealing that a greater proportion (61%) of GPs had proficient knowledge of PPD (>50% correct answers) compared to findings among GPs in Riyadh's hospitals.

Literature primarily explores the knowledge of nurses and midwives regarding PPD due to their pivotal role in its early detection. In Sri Lanka, a country recognized for its exemplary maternal health services despite being a lower-middle-income nation, all categories of health workers, including medical officers, midwives, and nurses, are aware of mental illnesses related to pregnancy [20]. Yet, only 77.1% demonstrated an adequate overall understanding of PPD [20], with medical officers (69.7%) lagging behind nurses (80.2%) and midwives (75.3%) in general knowledge [20

Table (2): Distribution of the work-related characteristics of the respondents

Characteristics	*Frequency*	*Percent (%)*
Duration of work		
<1 year	25	22.9
1-5 years	30	27.5
>5 years	54	49.5
Have you worked in mental health facility		
Yes	25	22.7
No	86	77.3
How many patients seen per week?		
<20	11	10.0
20-30	19	17.3
31-40	36	32.7
41-50	17	15.5
>50	27	24.5
How frequent do you see female patients?		
Always	81	74.3
Sometimes	17	15.6
Rarely	8	7.3
Never	3	2.8
How frequent do you cover well-baby clinic?		
Always	41	37.3
Sometimes	37	33.6
Rarely	21	19.1
Never	11	10.0
How frequent do you screen for PDD in your clinic?		
Always	13	11.8
Sometimes	48	43.6
Rarely	27	24.5
Never	22	20.0

These results corroborate the hypothesis that nurses and midwives possess superior knowledge on mental health conditions associated with pregnancy compared to other healthcare workers. The American College of Midwives advocates for certified midwives to undertake screening, management, and referral tasks for mothers experiencing depression [22]. In Ireland, a notable 71.1% of midwives demonstrated extensive knowledge on depression related to pregnancy [23].
A qualitative analysis in Brazil revealed that primary healthcare workers reported an absence of structured understanding regarding PPD. They also pointed out that recognizing the definitive indicators of PPD as mere predisposing factors could contribute to the delayed diagnosis and treatment of the condition [24].
Despite the use of varying tools for evaluation across studies, nurses and midwives are generally found to have knowledge on PPD that is either on par with or exceeds that of other healthcare professionals. In our study, a significant 85.5% were deemed to have in-depth knowledge concerning PPD symptoms, yet only 30.9% showed comprehensive understanding of screening and diagnosis for PPD. This mirrors findings in Sri Lanka, where 85.9% of healthcare providers exhibited satisfactory PPD knowledge [20]. In contrast, Australian midwives showed a high rate of correct responses regarding the onset of PPD but a lower success rate for treatment knowledge (71% versus 32%, respectively) [25]. Meanwhile, only 20% of midwives in Kazakhstan were informed about the onset of PPD [26].
PPD fulfills the criteria for diseases that are suitable for screening, including a high potential for early detection, available treatments, and the risk of long-term consequences if left untreated [27]. Screening thus plays a crucial role, as indicated by various studies. The study revealed that a significant portion of mothers did not pursue medical assistance for mental health issues like depression and anxiety [28]. In our analysis, knowledge regarding the Edinburgh Postnatal Depression Scale (EPDS), a screening tool for PPD, was found lacking, with only a third of healthcare workers possessing comprehensive understanding of PPD screening practices.

Table (3): Distribution of knowledge categories about PPD among the doctors working in PHCCs

Item	***Frequency***	***Percent (%)***
General PPD knowledge		
Low (<50% correct answers)	10	9.1
Moderate (50-75% correct answers)	36	32.7
High (>75% correct answers)	64	58.2
General knowledge categories		
Poor (lower than average knowledge)	27	24.5
Good (average knowledge or higher)	83	75.5
Knowledge about symptoms of PPD		
Low (<50% correct answers)	2	1.8
Moderate (50-75% correct answers)	14	12.7
High (>75% correct answers)	94	85.5
Knowledge about risk factors of PPD		
Low (<50% correct answers)	12	10.9
Moderate (50-75% correct answers)	29	26.4
High (>75% correct answers)	69	62.7
Knowledge about screening and diagnosis of PPD		
Low (<50% correct answers)	31	28.2
Moderate (50-75% correct answers)	45	40.9
High (>75% correct answers)	34	30.9
Knowledge about management of PPD		
Low (<50% correct answers)	15	13.6
Moderate (50-75% correct answers)	21	19.1
High (>75% correct answers)	74	67.3
Knowledge about complications of PPD		
Low (<50% correct answers)	43	39.1
Moderate (50-75% correct answers)	19	17.3
High (>75% correct answers)	48	43.6

The study revealed that a significant portion of mothers did not pursue medical assistance for mental health issues like depression and anxiety [28]. In our analysis, knowledge regarding the Edinburgh Postnatal Depression Scale (EPDS), a screening tool for PPD, was found lacking, with only a third of healthcare workers possessing comprehensive understanding of PPD screening practices. A marginally larger percentage of healthcare providers in Sri Lanka (42.8%) were familiar with the EPDS screening tool [20]. Additionally, a mere 11.8% of health workers consistently conducted PPD screenings in clinical settings. Research indicates a hesitancy among primary healthcare workers to manage mental health conditions in women, showing a preference for psychiatric referrals [29]. In Brazil, a qualitative investigation revealed primary healthcare professionals' unawareness of PPD screening instruments [24].

Concerning knowledge on PPD's risk factors, management, and potential complications, the study documented rates of 62.7%, 67.3%, and 43.6%, respectively. This knowledge appeared slightly more comprehensive among Sri Lankan healthcare workers, where 77.9%, 61%, and 85.9%, respectively, demonstrated satisfactory understanding of PPD [20]. These findings suggest comparable knowledge levels on risk factors and treatment but a significantly higher understanding of complications in the Sri Lankan context compared to our study. Kazakhstani midwives' knowledge on risk factors and PPD management closely matched our findings, with 64% and 45% accuracy in responses, respectively [30]. The Brazilian study also highlighted that health professionals tended to view risk factors as separate entities, whereas literature typically integrates them into a combined framework of physiological, psychosocial, and obstetric factors [24]. In Mexico, healthcare workers' identification of PPD symptoms varied by profession, with different symptoms highlighted by nurses and psychologists [31].

Doctor's age did not significantly impact PPD knowledge in our study, contrasting with findings from Australia where younger midwives showed greater PPD knowledge [25]. Similarly, younger Sri Lankan health workers displayed more familiarity with PPD screening tools [29].

Educational attainment was linked to PPD knowledge; healthcare workers with a board certification in family medicine had better understanding compared to those with MBBS or other qualifications. This correlation between higher education and PPD awareness was also observed among Australian midwives [25] and further supported by the enhanced knowledge and skills among Irish midwives who received perinatal mental health training [32].

To improve PPD awareness, training, especially through cost-effective web-based platforms offering interactive, multimedia-rich content, is crucial. Such educational initiatives should especially target non-physician healthcare professionals like nurses and midwives, providing them with the tools necessary for the early detection and intervention of PPD.

Conclusions

Overall, health workers in primary healthcare demonstrated a respectable level of understanding about post-partum depression (PPD), though their knowledge fell short in certain areas related to the condition. They showed substantial awareness of the symptoms and treatment approaches for PPD but exhibited limited understanding of its screening, diagnosis, and potential complications. Factors such as medical qualifications and professional roles played a crucial role in influencing PPD knowledge, whereas age and gender did not significantly impact their level of awareness.

Training initiatives should particularly focus on general practitioners and residents to enhance their comprehension of post-partum depression. Improving PPD management within primary healthcare settings can increase service accessibility and help diminish the stigma surrounding mental health issues.

Conflict of interests

The authors declared no conflict of interest.

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