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Research Article

Knowledge, Attitude, and Practice of Obstetrics Trainees in Sudan Medical Specialisation Board (SMSB), Sudan, Towards Postpartum Depression

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Abstract

Introduction: Postpartum Depression (PPD) refers to non-dysphoric changes in a woman's physical, mental and behavioral states that occur in the postpartum period. Approximately one in seven women can suffer from postpartum depression (PPD). Obstetrics trainees have a major role in diagnosing and managing PPD patients, specially in developing countries such as Sudan. **Methods:** A descriptive cross-sectional hospital-based study design to evaluate obstetrics trainees' knowledge, attitude and practice in the Sudan Medical Specialisations Board (SMSB), towards postpartum depression in Sudan, performed between April 2020 to October 2020. Data Collection was done using an Online structured self-filled questionnaire distributed to the Obstetrics registrars in training in Sudan Medical Specialisations Board (SMSB). Data analysis was performed using SPSS. **Result & Conclusion:** The knowledge of PPD among the obstetrics trainees is relatively below average, with moderate attitude and poor practice. Obstetric trainees should have formal training in psychiatry to identify Postpartum Depression. The Edinburgh Postnatal DepressionScale should be used in screening women for postpartum depression.

Keywords: Knowledge, Attitude, Practice, Obstetrics Trainees, Postpartum Depression, Sudan

Introduction

Depression is a common (mood) mental health disorder affecting millions worldwide. While it can occur at any time in a person's life, it is widespread during and after pregnancy. [1] Postpartum Depression (PPD) refers to non-dysphoric changes in a woman's physical, mental and behavioral states that occur in the postpartum period. Approximately one in seven women can suffer from postpartum depression (PPD). Women experiencing baby blues usually improve in a few days; however, postpartum depression (PPD) takes longer and affects their ability to resume normal activities. [2] The DSM-5 classifies postpartum depression as a mental disease during the first four weeks following delivery. [3] Immediately after childbirth, over 85 per cent of women report experiencing mood disturbances. [4] Most women have minor or temporary manifestations; however, 10-15 per cent of women suffer severe symptoms of depression. [5] PPD can significantly affect the mother, the child, and the family as a whole [5].

Some potential risk factors for postpartum depression include early hormonal changes after childbirth, unplanned pregnancies, low incomes, a history of anxiety and depression, "vulnerability," insufficient social support, negative life experiences, and a lack of social support. [6] PPD can potentially be avoided altogether if these modifiable risk factors are addressed and mitigated. These factors interact with one another and help develop PPD. [7] In addition, several studies have shown that mothers who suffer from depression are most likely not going to breastfeed their children than mothers who do not suffer from depression. [8] PPD can potentially be avoided altogether if these modifiable risk factors are addressed and mitigated. These factors interact with one another and help develop PPD.

[9] Reducing a woman's risk of developing postpartum depression (PPD) may involve resolving issues in her marriage and family before she conceives and providing mothers assistance in forming support networks. In addition to ensuring that mothers have reasonable expectations regarding childbirth and parenting, addressing issues related to low self-esteem, and encouraging mothers to quit smoking. [10] It should serve as an example of the necessity of educating women and their families, and the communities in which they live on the symptoms, causes, prognosis, and effects of postpartum depression. Women who participate in support groups and workshops may find it easier to make new friends, establish a social network that will help them feel supported, and become more at ease with the care services available. In order to ensure effective collaboration, the clinician needs to pay attention to the women who are in danger and offer assistance as soon as it is practically possible to do so. Options for treatment should be discussed compassionately and respectfully, considering the patient's culture [11].

Both pregnancy and labour are complex processes since they include several physiological and psychological manifestations and a significant shift in the individual's physical, social, and emotional state. Pregnant women experience a broad range of feelings, from joy and enthusiasm to worry, tension, and anxiety.

Leiferman et al. conducted a surveillance study in which 232 primary care doctors (PCPs) in Southeastern Virginia, USA, answered a sixty-item survey online or by postal mail in 2006. [12] While the doctor has to spot signs of maternal depression, many fail to do so by not doing an assessment 40 per cent or referring the patient 60 per cent.

There was a significant discrepancy in practices, attitudes, and perceived obstacles between the various specialisations. They concluded that these findings would guide the creation of future multimodal intervention strategies to improve doctors' skills in treating mothers experiencing depression while under their care [12].

In addition, Sofronas et al. screened 82 healthcare professionals for PPD screening, attitudes, and barriers to screening. They argued that the ramifications for actual clinical use still needed to be discovered. Even though there are a lot of effective screening methods, more research is needed to pinpoint when and where tests should be conducted and how to handle good results [13].

Justification

Despite the availability of screening tools for the condition, obstetrics clinics in Sudan do not record important information on pregnant women with risk factors for PPD. In order to provide comprehensive treatment, it would be beneficial if obstetrics trainees have solid knowledge and experience in dealing with postpartum depression. The levels of knowledge, attitudes, and practices that trainees have regarding postpartum depression are evaluated in this study. In Sudan, there are increasing opportunities for training in obstetrics and gynecology. There is a wide variety in trainees' understanding regarding treating patients who suffer from postpartum depression. The main target of the current study is to assess the postpartum depression knowledge, attitudes, and practices of obstetrics & gynecology residents.

Methods

We employed a descriptive cross-sectional hospital-based study design to evaluate obstetrics trainees' knowledge, attitude and practice in the Sudan Medical Specialisation Board (SMSB) towards postpartum depression in Sudan. In fact, this study was performed in three major hospitals in Khartoum, the capital of Sudan; Omdurman Maternity Teaching Hospital, Khartoum North Teaching Hospital and Ibrahim Malik Teaching Hospital. The study was performed between April 2020 to October 2020.

Data Collection

Online structured standardised self-filled questionnaire distributed to the Obstetrics registrars in training in Sudan Medical Specialisation Board (SMSB).

Data analysis:

Data analysis was performed using SPSS (statistical package for social sciences, version 25). Quantitative data were analyzed using percentages and the *Chi Squire* test when appropriate. The P-value was considered significant if less than 0.05.

Ethical consideration:

Ethical clearance from Sudan medical specialisation board (SMSB) and the participant's consent was obtained.

Results

One hundred forty trainees participated in this study (total coverage for six months), (75.7%) of them were female doctors, and (24.3%) were male doctors. The majority of participants were

in the Registrar-4 level of training (60.7%). On the other hand, the participants in the Registrar-3, Registrar-2 and Registrar-1 levels of training were approximately (16.4%), (13.6%) and (9.3%) respectively.

Knowledge of Trainees:

A total of approximately (86.9) percent thought that it was a mood disturbance, while, (78.6) percent believed that it was a psychotic disorder. Around (45.7) percent of the participants strongly agreed that obstetrics trainees should have a formal knowledge of training in psychiatry. However, when we questioned the trainees whether they thought postpartum depression screening was required, (42.9) percent of the participants agreed and (42.1) percent strongly agreed that postpartum depression screening was necessary.

Most participants (more than 87) agreed that improving their knowledge about PPD would result in a better quality of care for patients. In fact, most participants improved their knowledge by reviewing academic papers, guidelines, presentations, and textbooks. Similarly, (45.7) percent of registrars were aware of the potential complications associated with postpartum depression, and a further (11.4) percent were aware of the potential consequences. Regarding the risks of suicide and infanticide, the participants had approximately (55) and (45) per cent good understanding of the possible complications of maternal suicide and infanticide, respectively.

The knowledge of participants was better in the R4 category. (77.5) percent who have good knowledge, in comparison to (10) per cent, (5) per cent and (7.5) percent in the R1, R2 and R3 categories of participants, respectively.

Questions	**Strongly agree**	**Agree**	**Undecided**	**Disagree**	**Strongly disagree**
1.Postpartum Depression is a psychotic disorder:	32.10%	46.50%	7.10%	12.90%	1.40%
2.Postpartum Depression is a mood disorder associated with childbirth:	29.30%	57.60%	5%	7.10%	1%
3. Do you think that the obstetrics trainees should have formal knowledge or training in psychiatry?	40%	45.70%	5.70%	6.40%	2.20%
4. Do you think that screening for Postpartum Depression is necessary?	42.10%	42.90%	10%	5%	0
5. Do you think that the knowledge of Postpartum Depression will improve the quality of obstetric care?	42.10%	45.80%	12.10%	0	0
6.You get your information about Postpartum Depression from scientific sources (Journals, text books, Guidelines, presentations)	**Always**	**Often**	**Sometime**	**Rarely**	**Never**
	35.60%	27.90%	22.90%	10%	3.60%
7. Do you need to improve your knowledge of Postpartum Depression?	58.60%	0	1.40%	0.70%	39.30%
8. Can you differentiate between Postpartum Blue and Postpartum Depression?	23.60%	24.30%	20.70%	13.30%	18.10%
9.You consider your knowledge of Postpartum Depression as:	**Excellent**	**Good**	**Average**	**Poor**	**Very poor**
	2.10%	20.70%	52.90%	22.20%	2.10%
10. Do you know the symptoms of Postpartum Depression?	**Very Well**	**well**	**Vaguely**	**Not Well**	**Not at all**
	49.30%	10%	29.30%	10%	1.40%
11. Do you know the complications of Postpartum Depression?	11.40%	45.70%	20.70%	19.30%	2.90%
12.Do you know about the risk of suicide that may occur in Postpartum Depression	17.90%	36.40%	20.70%	21.40%	3.60%
13. Do you know about the infanticide risk that my occur in Postpartum Depression?	15.80%	30.00%	27.10%	6.40%	20.70%

Table 1: Clinical knowledge-related questions.

Attitude of Trainees:

Only (6.4) percent of the doctors interviewed reported that they always teach their junior colleagues to observe the symptoms and signs of postpartum depression in patients, while, (18.6) percent reported that they never did so. Furthermore, regarding the consultation with a psychiatrist in case of postpartum depression, (40.7) percent strongly agreed on consultation with a psychiatry services provider.

1. Do you teach your junior colleagues about Postpartum Depression?	**Always**	**Often**	**Sometime**	**Rarely**	**Never**
	6.40%	30%	16.4	28.60%	18.60%
2. Do you think it is important to consult a psychiatrist in a case of Postpartum Depression?	**Strongly agree**	**Agree**	**undecided**	**Disagree**	**strongly disagree**
	40.70%	55%	3.60%	0	0.70%

Table 2: Attitude-related questions.

Practice of Trainees:

In response to a question concerning postpartum assessment, the trainees reported that only (9.3) percent of providers always inquire about the patient's history of postpartum disorder, while, (21.4) percent never ask about that. Almost (40) percent of participants never give treatment for postpartum depression, while, (27.4) percent rarely attempt to prescribe treatment for Postpartum depression.

1. In your antenatal assessment, do you ask your patients about history of postpartum disorder?	**Always**	**Often**	**Sometime**	**Rarely**	**Never**
	9.30%	22.80%	17.90%	21.40%	28.60%
2.In your antenatal assessment, do you ask your patients about family history of postpartum disorder:	5%	16.40%	16.40%	29.30%	32.90%
3. How often do you ask pregnant or postpartum women about the symptoms of Postpartum Depression?	23.70%	19.30%	14.90%	30.70%	11.40%
4. Do you refer any patient with Postpartum Depression to a psychiatrist?	35%	22.90%	16.40%	13.60%	12.10%
5. Do you call the psychiatrist for inpatient postpartum ladies if you suspect Postpartum Depression?	42.10%	20.70%	15.40%	5.40%	16.40%
6. Do you attempt to treat a patient with Postpartum Depression by yourself?	1.40%	10.70%	20.70%	27.40%	39.80%

Table 3: Clinical Practice-Related Questions.

KAP		
Knowledge	**Frequency**	**Percent**
Poor practice	118	84.3
Moderate practice	13	9.3
Good practice	9	6.4
Total	**140**	**100.0 (%)**
Attitude		
Poor Attitude	**5**	**3.6**
Moderate Attitude	**105**	**75**
Good Attitude	**30**	**21.4**
Total	**140**	**100**
Practices		
Poor practice	**118**	**84.3**
Moderate practice	**13**	**9.3**
Good practice	**9**	**6.4**
Total	**140**	**100**

Table 4: Distribution of study sample according to Participants of the Obstetrics Trainees towards knowledge, attitude and practices.

Discussion and Recommendations

The training in Obstetrics and Gynaecology in SMSB is performed in 4 years; Registrar year 1 (R1), Registrar year 2 (R2), Registrar year 3 (R3) and Registrar year 4 (R4). There are two stop examinations; the first and second parts, and a dissertation and thesis examination between the two exams. There are nearly a thousand registrars of Obstetrics and Gynaecology in the country.

A study comparing the ability of Primary Care doctors to other specialities found that Obstetrics/Gynaecology residents were less likely than family practice residents to feel well-prepared to counsel about depression. [14] In contrast, another study on the knowledge of midwives and nurses about Postpartum Depression found that Nurses and midwives lacked knowledge about various aspects of PPD, including its definition, prevalence, symptoms, risk factors, screening tools, and treatment. Only one-third of participants were confident in educating women about PPD. [15] another study explored why obstetrics trainees' knowledge of Postpartum Depression (PPD) may not be satisfactory. PPD is often under-diagnosed, so trainees may not see many cases. It can be complex to diagnose, as it can mimic other conditions or may not present with obvious symptoms. Moreover, the treatment for PPD can be complex and requires a multidisciplinary approach. Obstetrics trainees must receive adequate education on PPD, which should include identifying and diagnosing the condition and providing effective treatment [16].

Conclusion

In conclusion, the knowledge of Postpartum Depression among the obstetrics trainees is relatively below average, with moderate attitude and poor practice. Obstetric trainees should have formal training in psychiatry to identify Postpartum Depression and other mental health conditions among patients. The Edinburgh Postnatal Depression Scale should regularly be used in screening pregnant women for postpartum depression. This study can be considered a baseline for future studies, and further studies on the same topic should be performed, in Sudan.

Work Tasks

Y.H.H: Did the Data Collection, analysis, interpretation and presentation and wrote the original research manuscript.

H.H: Reviewed and improved the original research manuscript.

E.A: Wrote the research proposal.

A.A: Reviewed the original research manuscript.

S.A: Helped in writing the primary manuscript.

A.E: Reviewed the manuscript.

H.H: Helped in writing the primary manuscript.

M.O: Reviewed the manuscript.

M.O: Reviewed the manuscript.

D.R: Reviewed the manuscript.

A.G: Wrote the Proposal, reviewed the main research, improved the literature review and the final manuscript.

Conflict of interest

All authors declare no conflict of interest.

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Appendix

Edinburgh Postnatal Depression Scale[1] (EPDS)

Name: _____ Address: _____

Your Date of Birth: _____ _____

Baby's Date of Birth: _____ Phone: _____

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:
- ☐ Yes, all the time
- ☒ Yes, most of the time — This would mean: "I have felt happy most of the time" during the past week.
- ☐ No, not very often — Please complete the other questions in the same way.
- ☐ No, not at all

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ Not at all

2. I have looked forward with enjoyment to things
   - ☐ As much as I ever did
   - ☐ Rather less than I used to
   - ☐ Definitely less than I used to
   - ☐ Hardly at all

*3. I have blamed myself unnecessarily when things went wrong
   - ☐ Yes, most of the time
   - ☐ Yes, some of the time
   - ☐ Not very often
   - ☐ No, never

4. I have been anxious or worried for no good reason
   - ☐ No, not at all
   - ☐ Hardly ever
   - ☐ Yes, sometimes
   - ☐ Yes, very often

*5 I have felt scared or panicky for no very good reason
   - ☐ Yes, quite a lot
   - ☐ Yes, sometimes
   - ☐ No, not much
   - ☐ No, not at all

*6. Things have been getting on top of me
   - ☐ Yes, most of the time I haven't been able to cope at all
   - ☐ Yes, sometimes I haven't been coping as well as usual
   - ☐ No, most of the time I have coped quite well
   - ☐ No, I have been coping as well as ever

*7 I have been so unhappy that I have had difficulty sleeping
   - ☐ Yes, most of the time
   - ☐ Yes, sometimes
   - ☐ Not very often
   - ☐ No, not at all

*8 I have felt sad or miserable
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Not very often
   - ☐ No, not at all

*9 I have been so unhappy that I have been crying
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Only occasionally
   - ☐ No, never

*10 The thought of harming myself has occurred to me
   - ☐ Yes, quite often
   - ☐ Sometimes
   - ☐ Hardly ever
   - ☐ Never

Administered/Reviewed by _____ Date _____

[1]Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786 .

[2]Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression N Engl J Med vol. 347, No 3, July 18, 2002, 194-199

Edinburgh Postnatal Depression Scale[1] (EPDS)

Postpartum depression is the most common complication of childbearing.[2] The 10-question Edinburgh Postnatal Depression Scale (EPDS) is a valuable and efficient way of identifying patients at risk for "perinatal" depression. The EPDS is easy to administer and has proven to be an effective screening tool.

Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity. The EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt ***during the previous week***. In doubtful cases it may be useful to repeat the tool after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

Women with postpartum depression need not feel alone. They may find useful information on the web sites of the National Women's Health Information Center <www.4women.gov> and from groups such as Postpartum Support International <www.chss.iup.edu/postpartum> and Depression after Delivery <www.depressionafterdelivery.com>.

SCORING

QUESTIONS 1, 2, & 4 (without an *)
Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

QUESTIONS 3, 5-10 (marked with an *)
Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

Maximum score: 30
Possible Depression: 10 or greater
Always look at item 10 (suicidal thoughts)

Instructions for using the Edinburgh Postnatal Depression Scale:

1. The mother is asked to check the response that comes closest to how she has been feeling in the previous 7 days.
2. All the items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others. (Answers come from the mother or pregnant woman.)
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

[1]Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786.

[2]Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression N Engl J Med vol. 347, No 3, July 18, 2002, 194-199