Perinatal Depression: Knowledge And Attitude Of Pregnant Women Attending Antenatal Care Clinics In Northwestern Nigeria

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Abstract

Background: *Perinatal depression is highly prevalent and underdiagnosed, with negative impacts on infants or fetuses. Evidence suggests that the most common psychological problem that affects women in the perinatal period is depression. We have conducted this study to assess the knowledge and attitudes towards perinatal depression among women attending antenatal care clinics.*

Materials and Methods: *A semi-structured interviewer-administered questionnaire was used to obtain information from 391 pregnant women selected by systematic sampling technique in a cross-sectional study. The questionnaire contained the following sections, Section A (Socio-demographic characteristics of the respondents), Section B (Respondents' knowledge of perinatal depression), and Section C (Attitude of respondents to perinatal depression). Thirty-one questions were used to assess the understanding of PD. Each question had three possible responses: yes, no, and not sure. Nine questions were used to determine the attitude of PD. Each question had two possible responses: yes and no. Categorical variables were described using frequency and percentage. Data was analysed using IBM SPSS version 25 statistical software package.*

Results: *The mean age of the respondents was 28.16 ± 5.69 years. The majority, 267 (95.0%) have good knowledge of perinatal depression. A larger proportion of the respondents (77.0%) have inappropriate attitudes towards perinatal depression.*

Conclusion: *The majority of the respondents have a good knowledge of perinatal depression. However, the attitude of respondents toward perinatal depression was inappropriate. There should be an advocacy campaign to improve the knowledge and attitude of pregnant women towards perinatal depression. Screening for PD should be part of antenatal care assessment.*

Key word: *Perinatal depression, knowledge, attitude, pregnant women, Nigeria.*

I.   Introduction

Perinatal depression is highly prevalent and underdiagnosed, with adverse impacts on the infant or fetus.[1] Evidence suggests that the most common psychological problem that affects women in the perinatal period is depression.[2] According to the World Health Organization, 1 in 10 women develop perinatal depression in High-income Countries whereas, in Lower Middle-income Countries, 1 in 5 women suffer from perinatal depression.[3] Globally, approximately 17% of women suffer from postpartum depression (PPD).[4] Despite its high disease burden, perinatal depression remains undertreated in many African countries, including Nigeria.[1]

In Nigeria, 10–20% of consecutive attendees in primary care have depression, with reported rates of perinatal depression from 10 to 30%.[2] PD is noted to have long-term consequences by diminishing a woman's capacity for self and baby care, and further affects a woman's physical and mental wellbeing.[5]

Improvements in mental health literacy at the community level have been shown to have positive effects on help-seeking behaviours and to reduce both stigmatising attitudes and social distancing of individuals with mental health problems.[6]

In the study carried out in Australia, negative myths and unhelpful stereotypes about depression and motherhood appear to have little prominence. Over 93.2% have good knowledge of perinatal depression.[7] In another study carried out in Portugal, with a total of 194 women in the survey, the women had good levels (62.8%) of depression literacy during the perinatal period.[8]

In a study carried out at the antenatal clinic of the Department of Obstetrics and Gynecology, in a Nigerian hospital, 83.5% had good knowledge of perinatal depression.[9] In Southwestern Nigeria, 50.3% of the participants had good knowledge of perinatal depression.[10]

Understanding the knowledge and attitude of pregnant women regarding perinatal depression will be beneficial in treating and putting in place measures to deal with the problem. This study assessed the knowledge and attitudes towards perinatal depression among women attending antenatal clinics at Usmanu Danfodiyo University Teaching Hospital, Sokoto State, Northwestern, Nigeria.

II. Materials And Methods

The study was conducted in Nigeria at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto. It was a cross-sectional design involving all pregnant women attending ANC in UDUTH, Sokoto State. Inclusion criteria include all pregnant women aged ≥ 15 with informed consent to participate. Exclusion criteria include self-report history of psychiatric disorder and having serious medical illness that may make it difficult to administer the questionnaire.

Study Design: Cross-sectional study

Study Location: Department of Obstetrics and Gynaecology, Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, Nigeria.

Study Duration: May 2023 to August 2023.

Sample size: 391 patients

Sample Size calculation: The sample size was estimated using the formula,[11] for proportion;

$$n = \frac{Z^2 pq}{d^2} (> 10,000 \text{ study population})$$

Where;
n = Sample size to be determined
Z = Standard normal deviate at 95% confidence interval = 1.96
p = Prevalence of Maternal Depression in pregnancy from a previous study[11] = 41.1% = 0.411
q = Complementary probability of p = 1 - 0.411 = 0.589
d = tolerable alpha error or level of precision which is = 5%
The level of significance was set as 5% ($\alpha = 0.05$)
The sample size was calculated as follows:
n = (1.96)^2 x 0.411 x 0.589
(0.05)^2
n = 372
A response rate of 95% was anticipated, and

the final sample size was determined by dividing the originally calculated size by the anticipated response rate as follows[11];

n_f = n/0.95 = 372/0.95 = 391. Three hundred and ninety-one eligible pregnant women were enrolled on the study.

Subjects & selection method: A systematic sampling technique was employed. Data was collected in 10 days. For each day, about 40 participants were interviewed. Every day, a list of all daily ANC attendees was obtained (sample frame) and divided by the sample size to be collected for the day. This was done to 4get intervals for the day. The first respondent was picked randomly and subsequent respondents were obtained using the interval obtained.

Inclusion criteria
1. All pregnant women attending ANC during the study duration
2. Patients who gave informed consent

Exclusion criteria
1. Patients with a self-reported history of mental illness
2. Patients who are too physically ill to participate

Procedure methodology

The instruments for data collection were a semi-structured interviewers administered questionnaire adapted from previous studies.[10] The questionnaire was created on Ona Kobo collect. The Software was installed on all the data collectors' smartphones via Google Play Store. The Validated questionnaire template was then downloaded from the server into the smartphones for data collection. The questionnaire contained the following sections, Section A (Socio-demographic characteristics of the respondents), Section B (Respondents' knowledge of perinatal depression), and Section C (Attitude of respondents to perinatal depression).

Thirty-one questions were used to assess knowledge of PD. Each question had three possible responses: yes, no, and not sure. Point values for each question were assigned as follows: correct response = 1, incorrect response = 0 and *not sure* = 0. Scaled scores were computed by summing item responses. Scores on the total knowledge scale ranged from 0 to 31. Respondents' knowledge was graded into good and poor knowledge. Those with scores≥ 50% of the expected knowledge score were categorised as good knowledge, and those scores < 50% were categorised as poor knowledge.

Nine questions were used to assess the attitude of PD. Each question had two possible responses: *yes and no*. Point values for each question were assigned as follows: correct response = 1 and incorrect response = 0. Scaled scores were computed by summing item responses. Scores on the total attitude scale range from 0 to 9.

Respondents' attitude was graded into appropriate and inappropriate attitudes. Those with scores ≥50% of the expected attitude score were categorised as appropriate attitudes, and those with scores < 50% were categorised as inappropriate.

Ethical Considerations

Ethical approval was obtained from the Ethical Committee of Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, Nigeria, and informed written consent was also obtained from the participants.

Statistical Analysis

Completed forms were downloaded from Open Data Kit (ODK) in Excel format, data were then exported into Statistical Product and Services Solution (SPSS). Quantitative variables were summarised using the mean and standard deviation and categorical variables were summarised using frequencies and percentages.

Limitations to the study include non-response and misinformation by the respondents which could have led to social desirability bias. Adequate information was given to the study respondents on the objectives of the study in addition they were assured of the confidentiality of the information to overcome these limitations.

III.   Result

Three hundred and ninety-one (391) questionnaires were administered to the participants. All the 391 were correctly filled in the ODK and retrieved for analysis, giving a response rate of 100%.

Table no 1 shows the sociodemographic characteristics of the participants. The mean age of the respondents was 28.16 ± 5.69 years. The majority of the respondents were married (90.5%), Muslim (63.9%), Hausa/Fulani (54.4%), with most having secondary school certificates (45.6%), Full-time house wife's (30.3%) and residing in the urban settlement (88.2%) respectively

Table 1: Sociodemographic characteristics of the participants

Variables	Frequency (%)
Age Group **Mean ± SD** (28.16 ± 5.69)	
15 – 25	137(35.0)
26 – 35	209(53.5)
36 – 45	43 (11.0)
≥ 46	2(.5)
Marital Status	
Married	353(90.5)
Separated	15(7.6)
Divorced	4(1.0)
Widowed	3(0.8)
Religion	
Islam	250(63.9)
Christianity	140(35.8)
Others	1(0.3)
Tribe	
Hausa	140(35.9)
Fulani	72(18.5)

	Yoruba	74(19.0)
	Igbo	62(15.9)
	Others	42(10.8)
	Occupation	
	Full-time housewives	118(30.3)
	Students	75(19.2)
	Petty Traders	63(16.2)
	Office workers	41(10.1)
	Civil servants	82(21.0)
	Professionals	6(1.5)
	Others	5(1.3)
	Level of education	
	None	2(0.5)
	Quranic School only	22(5.6)
	Primary School	25(6.4)
	Secondary School	178(45.6)
	Tertiary	157 (40.3)
	Place of Residence	
	Urban	345(88.2)
	Rural	46(11.8)

Table no 2 shows the knowledge of perinatal depression. Regarding knowledge of the risk factors, 199 (70.8%) of the respondents stated age as a risk factor, and 210 (74.7%) believed that family history is a strong factor. 231 (82.2%) believe unemployment, (91.1%) stressful life events, Caesarean birth (85.1%) and maternal use of alcohol (75.1%) are risk factors in the development of perinatal depression. 239 (85.1%) of the respondents agree that poor marital status is a risk factor for perinatal depression. This shows that the majority of the respondents have good knowledge of the risk factors of perinatal depression with a few having a poor knowledge of the risk factors.

Regarding Knowledge of symptoms of perinatal depression, the most commonly known symptom of perinatal depression according to the respondents is feeling sad, hopeless or empty (91.6%), with withdrawal (84.3%), poor sleep or oversleeping (76.2%), crying more often than usual (76.2%), trouble concentrating (87.5%) as others. The majority of the respondents agree that depressed mood is a symptom of perinatal depression (93.6%), stating that it is commoner in first pregnancy (66.9%). A large percentage of the respondents show good knowledge of the symptoms of perinatal depression (90.7%), and only a few (9.3%) of the respondents have poor knowledge of the symptoms of perinatal depression.

Knowledge of preventive measures of perinatal depression revealed that the majority of the participants knew that perinatal depression could be prevented 250 (89.0%), 221 (78.6%) believe reduced stress can help prevent perinatal depression, other ways according to their responses are avoiding alcohol (78.6%), providing employment (86.5%) and good marital relationships (95.0%). With the appropriate responses to the questions concerning the knowledge of preventive measures for perinatal depression, the majority of the respondents 257 (91.5%) were found to know the preventive measures and 24 (8.5%) of the respondents had poor knowledge in the aspect.

Regarding knowledge of treatment of perinatal depression, the majority of the respondents knew that perinatal depression can be detected early 200 (71.2%), treated when detected 246 (87.5%), with drugs 235 (83.6%) and psychotherapy 230 (81.9%). A larger proportion of the respondents 266 (94.7%) say rendering physical help or assistance can help reduce symptoms of perinatal depression. Symptoms can reduce after drug therapy 239 (85.1%) and perinatal depression may reoccur after treatment 233 (82.9%). Based on the quality of the responses of the respondents, 249 (88.6%) of the respondents have good knowledge of the treatment of perinatal depression, and 32 (11.4%) have poor knowledge of the treatment of perinatal depression.

Figure no 1 shows overall knowledge of Perinatal Depression, based on the participants' knowledge of the risk factors, symptoms, preventive measures and treatment of perinatal depression, it shows that 267 (95%) of the respondents have good knowledge of perinatal depression while 14 (5%) have poor knowledge of perinatal depression.
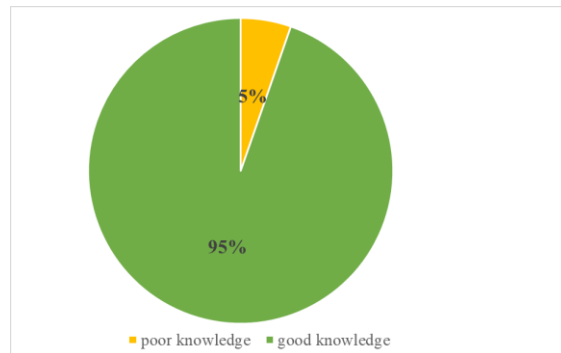
Figure 1: Overall knowledge of Perinatal Depression

Table no 3 shows attitudes towards perinatal depression, the majority do not consider perinatal depression as a sign of personal weakness (59.8%), and neither do they see other women with perinatal depression as dangerous (62.6%) or unpredictable (58.7%). However, the Majority (74.4%) will avoid women with perinatal depression, 212 (75.4%) of the respondents will advise a woman with perinatal depression to see a doctor and 265 (94.3%) of the respondents themselves will see a doctor if they happen to get depressed.

Table 3: Respondents Attitude towards Perinatal Depression

Variables	Responses (n=281)	
	Agree	**Disagree**
	Frequency (%)	**Frequency (%)**
Do you perceive perinatal depression as a sign of personal weakness?	113(40.2)	168(59.8)
Do you believe it's dangerous to live with women with perinatal depression?	116(41.3)	165(58.7)
Depressed mothers or women with perinatal depression should be avoided	105(37.4)	176(62.6)
I will avoid a depressed mother or women with perinatal depression	209(74.4)	72(25.6)
I would be depressed if I got close to a depressed mother	197(70.1)	84(70.1)
I will employ a mother who has been depressed	48(17.1)	233(82.9)
I will vote a mother who had been depressed into a public office	50(17.8)	231(82.2)
Will you advise a depressed mother to see a doctor?	212(75.4)	69(24.6)
I will see a doctor if I happen to be depressed	265(94.3)	16(5.7)

Figure no 2 shows participants' attitudes towards perinatal depression. A large proportion of the respondents (77.0%) have an inappropriate attitude toward perinatal depression, and about 23.0% have an appropriate attitude towards perinatal depression.
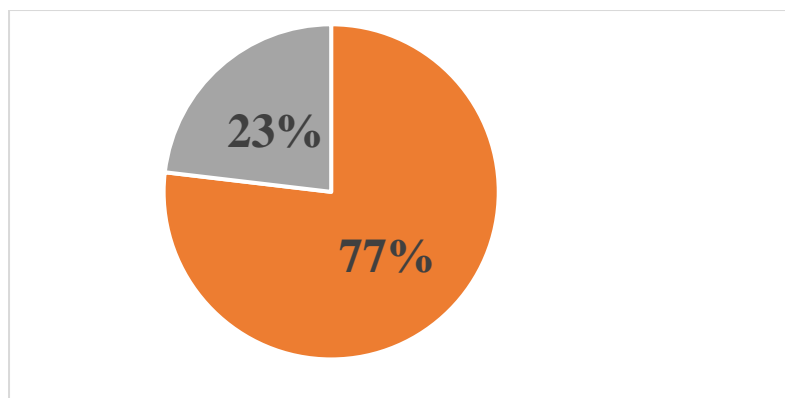

Figure 2: Attitude of respondents towards Perinatal Depression

IV.   Discussion

Most of the study respondents 267 (95.0%) have overall good knowledge of perinatal depression, which was assessed based on the risk factors, symptoms, preventive measures and treatment options. However, this is in discrepancy with a similar study carried out in Southwest, Nigeria, where the majority (43.7%) of the

participants have moderate/poor knowledge of perinatal depression.[10] This may be due to the attached values and cultural interpretation of this perinatal in the North and the religious interpretation leading to increased awareness and improved knowledge of the subject.

The overall good knowledge of perinatal depression in this study is supported by a similar study carried out in the Australian population where 94% of the participants showed good knowledge of perinatal depression.[7] Also, a study done in Kamuli Easter Uganda shows similar findings of good knowledge in the majority (78%) of the women attending the antenatal clinic of the district hospital.[12]

A very large percentage of the respondents have inappropriate attitudes toward perinatal depression. A similar study in Africa, Ghana, showed similar results of poor attitude and this was stated to be a result of the stigmatization associated with perinatal depression even from immediate family members.[13]

The study showed discordance with similar studies done in the Southern part of Nigeria where the majority (88.7%) of the respondents had a moderate attitude toward perinatal depression despite the poor knowledge of perinatal depression.[10] This may be a result of the degree of socialization and low level of stigmatization in the environment. Also, may be a result of a separate and individualised way of living in the South in comparison with the North which has a communal pattern, making the diagnosis of perinatal depression a topic that easily stimulates stigmatization.

A longitudinal cross-sectional study carried out among women in Ghana, Nigeria and Cote d'Ivoire showed similar findings of poor attitude (68.3%) toward perinatal depression among the respondents.[14] The general reason given was the cultural and religious affecting the perspective of the women within the region of the study.

V. Conclusion

The majority of the respondents have a good knowledge of perinatal depression. However, the attitude of respondents toward perinatal depression is inappropriate. There should be an advocacy campaign to improve the knowledge and attitude of community women towards perinatal depression. Screening for PD should be part of antenatal care assessment.

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