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Knowledge, attitude and perception of postpartum depression among pregnant women attending antenatal clinic in Nnobi Primary Health Center, Anambra State, Nigeria

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Abstract

Postpartum depression (PPD) is a serious mental health condition affecting women after childbirth, characterized by emotional instability, fatigue, and feelings of hopelessness. Despite its prevalence, many women lack adequate knowledge about PPD, leading to delays in seeking help. This study aims to assess the knowledge, attitude, and perception of postpartum depression among pregnant women attending the antenatal clinic at Nnobi Primary Health Center. Descriptive cross-sectional design was employed. Data were collected using a structured, self-administered questionnaire among pregnant women selected through a simple random sampling technique. Analysis was performed using frequency distributions and percentages, mean and standard deviation. The findings revealed that while a significant proportion of the respondents had heard about postpartum depression, their depth of knowledge was limited. Most women demonstrated a positive attitude toward seeking help if symptoms occurred, yet misconceptions about the causes and seriousness of PPD persisted. Cultural beliefs and stigma were identified as major barriers to early intervention. The study highlights the need for increased awareness programs on postpartum depression during antenatal visits. Strengthening education about mental health could promote early recognition, reduce stigma, and improve maternal and child health outcomes.

Keywords: Postpartum depression, Knowledge, Attitude, Perception, Antenatal women, Mental health

1. Introduction

The postpartum period, also known as the puerperium, is the time after childbirth when the mother's body returns to its pre-pregnancy state. It is a critical period for the mother's physical and emotional recovery (ACOG, 2020). The postnatal period is known to be one of the most beautiful phases in a woman's life, filling

her with the joy of motherhood and the responsibility to nurture a new living being (Obioha *et al.,* 2021). Mothers often experience biological, emotional, financial, and social changes during their postnatal period and as such; may often be in a vulnerable state of mind. However, some women especially those with an increased risk for developing mental health problems, particularly depression and anxiety are not able to cope with the emotional upsurges during their postnatal period and this may result in depressive episodes or mood disorders amongst them (APA, 2023).

Postpartum depression (PPD) is a serious, but treatable medical illness involving feelings of extreme sadness, indifference and/or anxiety, as well as changes in energy, sleep, and appetite (APA, 2023). It is a cross-disciplinary disorder between obstetrics and psychology, which not only has a negative impact on the health of a lying-in woman, her marriage and family but also on breastfeeding, the mother-infant relationship, and the growth and development and emotional behavior of the infant. In more serious cases, infanticide and suicidal tendencies or behaviors may even occur, causing great harm to the mother's family and society (Payne and Maguire, 2019). The mood disorder most commonly occurs within 4 weeks after childbirth and the symptoms may linger through the first postnatal year if left untreated (Mughal *et al.,* 2022); although women remain at risk for developing depression for several months following delivery (Center of Perinatal Excellence (COPE, 2022). Symptoms of Postpartum depression include feelings of extreme sadness, indifference and/or anxiety, as well as changes in energy, sleep, and appetite (APA, 2023).

The estimated prevalence of PPD in Africa is 16.84% (Dadi *et al.,* 2020). However, various countries have reported higher rates such as Uganda (43.0%) and Cameroun (23.4%) as compared to Ethiopia (13.1%), Ghana (3.8%) and Morocco (11.6%) (Nakku *et al.,* 2019; Weobong *et al.,* 2015; Agoub *et al.,* 2005). In Nigeria, prevalence of PPD is also high in different regions; in western Nigeria, two high prevalence of PPD were reported which are: 23.0% and 35.6% respectively (Adewuya, 2020; Adeyemo *et al.,* 2020), in South-eastern Nigeria a high prevalence of 22.9% was reported (Chinawa *et al.,* 2016) while in Northern Nigeria, seemingly high prevalence rates of 44.5% and 21.8% were reported (Obindo, 2019; Tungchama *et al.,* 2018). Given the rising prevalence and the profound impact on mothers, children, and families, prevention and management of postpartum depression is an urgent matter (Grech *et al.,* 2022).

In a study conducted in Eti-Osa Local Government Area of Lagos State, Nigeria, not getting help with caring for the baby, experiencing intimate partner violence, and having an unsupportive partner were identified as precipitating factor of postpartum depression (Adeyemo *et al.,* 2020). In addition to the above, job involvement after child delivery, job loss due to pregnancy, history of miscarriage or stillbirth or child death, unintended pregnancy, management of delivery cost by borrowing, selling or mortgaging assets, and depressive symptoms during pregnancy are identified as risk factors of postpartum depression (Azad *et al.,* 2019).

Since the prevalence and odds of postpartum depression are significantly higher (Lin *et al.,* 2023), there is a need for greater awareness on knowledge, perception and attitude towards postpartum depression. Therefore, the study was conducted to determine the knowledge, individual perception and attitude of postpartum depression among pregnant women attending antenatal clinic at Nnobi Primary Health Center.

2. Materials and methods

Research design: A descriptive cross sectional survey design was used for this study.

Area of the study: The study was conducted in Primary Health Centers (PHC), Nnobi. This PHC is located in Idemili South Local Government Area, Anambra State. Nnobi is a town in Anambra State, Nigeria. It is located about 30 kilometers northeast of Awka, the state capital. Nnobi is a popular tourist destination, known for its beautiful scenery, traditional culture, and historical sites. The activities/weekly schedule of the primary health center includes: Tuesday weekly child immunization and Wednesday antenatal services. Other weekly activities include: Outpatient services like consultations and treatment, delivery services, health education and promotions,

Population of study: This study focused on all the pregnant women who attended antenatal at Nnobi Primary Health Center from the month of January 2025 to March 2025 (a period of three (3) months). The total population is 420 (Information on the population of study was gotten from the Officer in Charge (OIC) of the Primary Health Centre).

Sample size and sampling technique: A Sample size of 204 was calculated from the population of study through Taro Yamen formula. The sampling technique employed for selecting participants of this study was a simple random sampling technique by balloting.

Instrument for data collection: The instrument for data collection was a self-structured 29 itemed structured questionnaire. The questionnaire was divided into four sections (A, B, C and D). Section A consists of the socio-demographic data of the individual such and it contains 6 items. Section B was designed to find out the knowledge of postpartum depression and it contains 7 items. Section C was designed to elicit information on the attitude pregnant women towards postpartum depression and it contains 9 items. Section D was designed to elicit information on the perception towards postpartum depression among pregnant women attending antenatal clinic at Nnobi Primary Health Center. It contains 7 items.

The face and content validity of the instrument was done by three research experts. To determine the reliability of the instrument, 10% of the questionnaire (20 copies) was administered to pregnant women attending Okofia PHC who were not included in the study. Data generated from the pilot study were analyzed using split-half method and spear-man brown. A reliability index of 0.70 was obtained indicating that the instrument was reliable

Method for data collection: A letter of introduction was collected from the Head of Department, Nursing Science. Ethical approval was sought and obtained from Idemili South LGA Ethical Research Committee. The data collection was achieved though face-to-face administration of questionnaires. The respondents' consent was gained prior to administration of the copies of questionnaire and the respondent was allowed to participate willingly. Respondents who could read and write were guided on how to fill the questionnaire while respondents who could not read and write were asked the questions verbally and their reply were filled accordingly. The distribution of the copies of questionnaires was completed within three (3) weeks and the researcher ensured that information obtained from the respondents is treated with utmost confidentiality by maintaining anonymity in all the questionnaires. At the end of the data collection, 204 questionnaires were returned giving a 100% return rate.

Method of data analysis: Data collected was coded and entered into excel then the data was analysed using descriptive and inferential statistics of the Statistical Package for Social Sciences (SPSS V.25). Results were presented in frequency, percentage, mean and standard deviation.

3. Results

3.1. Socio-demographic data

Results from Table 1 show that the mean age of the respondents is 27 years. Most of these respondents were married 128(62.6%) and practiced Christianity as a religion 136(66.7%). Majority of the respondent were secondary school graduates 83(40.8%) and a large number of participants were civil servants 82(40.1%). The highest number of children under-5 children that the respondents have was 74(36.3%).

Research question 1: What is the level of knowledge of postpartum depression among pregnant women attending antenatal clinic at Nnobi Primary Health Center?

The Table 2 and the Figure 1 above revealed that majority of the respondents had poor knowledge of postpartum depression (59.9%). Most of the respondents got majority of their information from friends 70(34.4%) and family 66(32.2%) instead of health care providers such as nurses and doctors. Only 56(27.5%) of the respondents correctly defined postpartum depression as a mood disorder. The major symptoms known were: Feeling sad, hopeless or empty 147(72.1%), depressed mood 132(64.5%), and withdrawal 111(54.3%). Major treatment options known were: drug therapy 129(63.0%) and herbs 150(73.6%). The condition was mostly prevented by having a good marital relationship 161(79.0%), and reducing stress 113(55.4%).

Research question 2: What attitude do pregnant women attending antenatal clinic at Nnobi Primary Health Center have towards postpartum depression?

Decision rule: Mean score of 2.5 to 4.0 is accepted and means that respondents' attitude is negative while mean score of 2.4 and below is rejected and means that positive attitude.

Table 1: Socio-demographic data of respondents (n = 204)		
Items	**Frequency (n)**	**Percentage (%)**
Age		
Mean age of the respondents = 27 years		
Marital status		
Single	53	25.9
Married	128	62.6
Divorced	16	7.8
Widowed	7	3.7
Religion		
Christian	136	66.7
Muslim	29	14.3
Traditionalist	39	19.0
Educational level		
No formal education	19	9.2
Primary education	37	18.0
Secondary education	83	40.8
Tertiary education	65	32.0
Occupation		
Trader	60	29.6
Civil servant	82	40.1
Full housewife	47	22.8
Others	15	7.5
Number of children under-5 years		
1	59	28.9
2	74	36.3
3	53	26.0
More than 4	18	8.8

The findings from the study indicate that the overall attitude of pregnant women attending the antenatal clinic at Nnobi PHC towards postpartum depression is negative, with a grand mean score of 2.7. This suggests that many respondents hold stigmatizing beliefs and misconceptions about postpartum depression. For instance, a significant proportion agreed that PPD is a sign of personal weakness and even attributed it to possession by an evil spirit. Additionally, many perceived depressed mothers as unpredictable or dangerous, and some expressed discomfort about being close to them. However, there were areas where positive attitudes

Table 2: Knowledge of postpartum depression among pregnant women attending antenatal clinic at Nnobi PHC (n = 204)

Items	Yes (%)	No (%)
Do you know about postpartum depression?	192(93.9)	12(6.1)
What is the source of your knowledge? (n = 204)	**Frequency (n)**	**Percentage (%)**
Friends and neighbors	70	34.4
Family	66	32.2
Media	16	7.6
Nurses and doctors	48	23.6
Others	4	2.2
Definition (n = 204)		
PPD is a health problem	73	35.5
PPD is a Mood Disorder	56	27.5
Possession by Evil Spirit is a cause of PPD	47	23.2
PPD is a weakness of character	28	13.8
Risk factors (n = 204)	**Yes (%)**	**No (%)**
Age	43(21.0)	161(79.0)
Family history	118(57.6)	86(42.4)
Maternal use of alcohol	98(47.8)	106(52.2)
Unemployment	64(31.3)	140(68.7)
Stressful life events	116(56.9)	88(43.1)
Poor marital relationship	134(65.5)	70(34.5)
Caesarean birth	110(54.0)	94(46.0)
Symptoms (n = 204)		
Depressed mood	132(64.5)	72(35.5)
Feeling sad, hopeless or empty	147(72.1)	57(27.9)
Isolation	72(35.1)	132(64.9)
Withdrawal	111(54.3)	93(45.7)
Poor sleep or oversleeping	41(20.3)	163(79.7)
Crying more often than usual	68(33.3)	136(66.7)
Treatment (n = 204)		
Psychotherapy	41(20.3)	163(79.7)
Drug therapy	129(63.0)	55(27.0)
Herbal medications	150(73.6)	54(26.4)
Prevention (n = 204)		
Reducing stress	113(55.4)	91(44.6)
Avoiding alcohol	75(36.6)	129(63.4)
Providing employment opportunities	41(20.3)	163(79.7)
A good marital relationship	161(79.0)	43(21.0)
Good social support	94(46.0)	110(54.0)
Good knowledge	**82(40.1)**	

**Figure 1: Level of knowledge of postpartum depression**
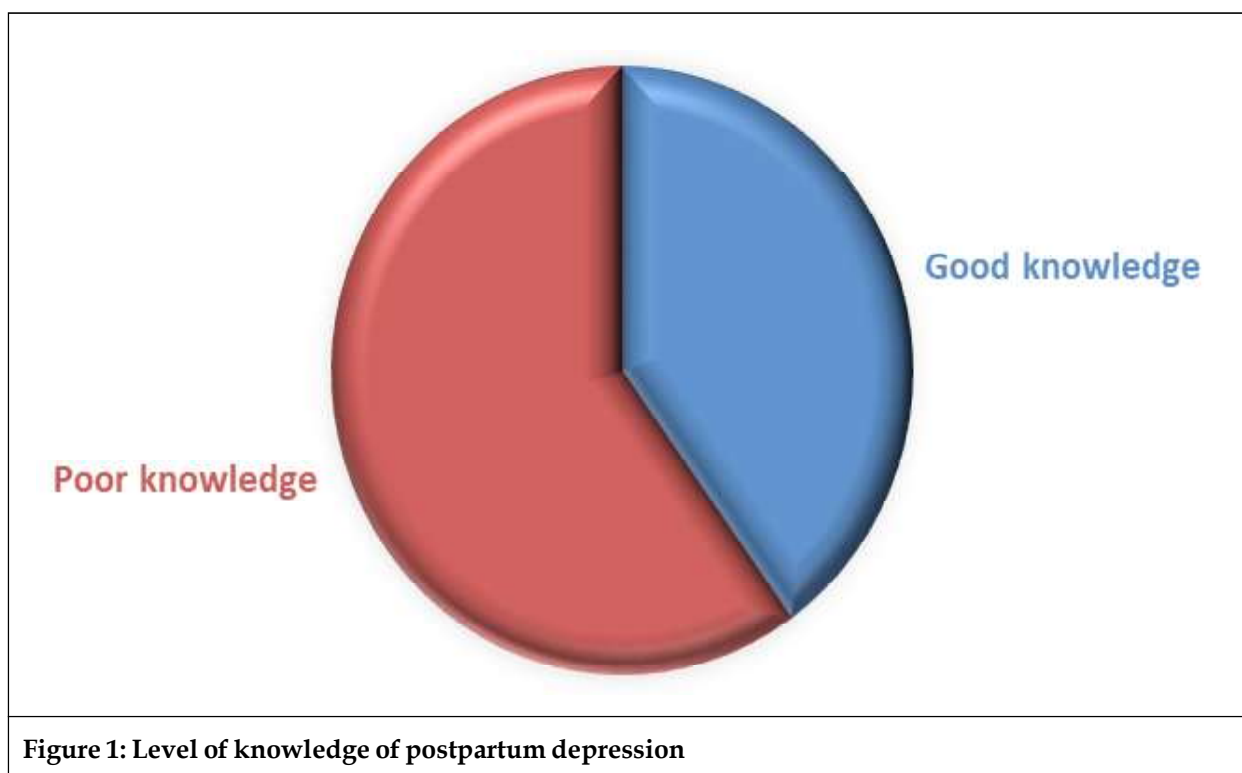
emerged, such as willingness to vote for a mother who had experienced depression. Despite these few positive indicators, the overall results point to a prevailing negative attitude, underscoring the need for targeted health education and awareness campaigns to address misconceptions and reduce stigma surrounding postpartum depression.

Figure 2 revealed that 53% of the respondents have a negative attitude towards postpartum depression. This figure was also seconded by the grand mean of 2.7 obtained in Table 3 which denotes negative attitude. Most of the respondents believe that depressed mothers are unpredictable 134(45.6%) and are dangerous to live with 120(40.8%). They think that having postpartum depression means being possessed by evil spirit 104(35.3%) and it is a sign of personal weakness 114(38.8%).

Table 3: Attitude of pregnant women attending antenatal clinic at Nnobi PHC have towards postpartum depression (n = 204)

Negative statements	SA (%)	A (%)	D (%)	SD (%)	Mean	Decision
PPD is a sign of personal weakness	62(30.3)	79(38.8)	42(20.7)	21(10.2)	2.9	Accepted
All postnatal mothers are at risk	17(8.1)	38(18.4)	83(40.8)	66(32.7)	2.0	Rejected
Having PPD means being possessed by an evil spirit	72(35.3)	77(37.8)	24(11.6)	31(15.3)	2.9	Accepted
Depressed mothers are unpredictable	93(45.6)	67(33.0)	28(13.6)	16(7.8)	3.2	Accepted
Depressed mothers are dangerous to live with	83(40.8)	78(38.1)	26(12.6)	17(8.5)	3.1	Accepted
Will avoid a depressed mother	63(31.0)	81(39.8)	18(8.8)	42(20.4)	2.8	Accepted
Would be depressed if I get close to a depressed mother	64(31.3)	90(44.2)	39(19.1)	11(5.4)	3.0	Accepted
I will vote a mother who had been depressed into a public office	25(12.2)	62(30.6)	72(35.0)	45(22.2)	2.3	Rejected
I am at risk of developing postpartum depression	23(11.2)	53(25.9)	64(31.3)	64(31.6)	2.2	Rejected
Grand mean					**2.7**	**Accepted**
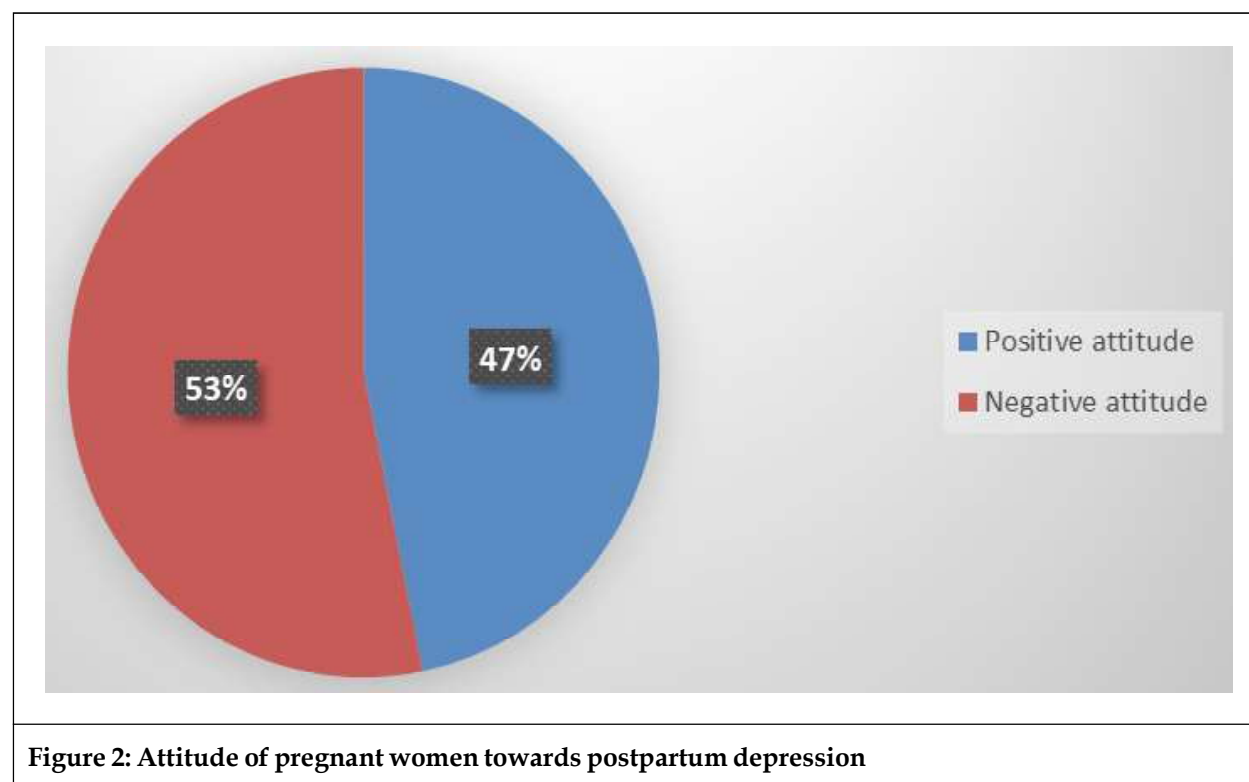
**Figure 2: Attitude of pregnant women towards postpartum depression**

Research question 3: What are the perception of postpartum depression amog pregnant women attending antenatal clinic at Nnobi Primary Health Center?

The Table 4 revealed that majority of the respondents have moderate perception of postpartum management measures 83(40.8%). Most of the respondents perception PPD such as: Most respondents believe women should try to hide their depression (46.9%).

Table 4: Perception of Postpartum Depression among Pregnant Women Attending Antenatal Clinic (n = 204)				
Statements	**Agree (%)**	**Strongly agree (%)**	**Disagree (%)**	**Strongly disagree (%)**
I believe that hormonal changes after childbirth are major cause of PPD	61(29.9)	80(39.1)	40(19.4)	23(11.6)
I believe lack of sleep and exhaustion after childbirth can contribute to PPD	53(26.2)	75(36.7)	45(22.1)	31(15.0)
I believe that having a difficult pregnancy or delivery can increase a woman's risk of PPD	69(34.0)	82(40.5)	30(14.6)	22(10.9)
I believe that financial difficulties can contribute to a woman developing PPD	88(43.2)	69(33.7)	40(19.4)	7(3.7)
I believe that PPD mainly affects first time mothers	26(12.6)	36(17.7)	67(33.3)	75(37.4)
I believe that women should try to hide their feelings of sadness or depression after childbirth from others	49(24.2)	96(46.9)	45(22.1)	14(6.8)
I believe that seeking help for mental health issues like PPD is as important as seeking help for physical health issues	30(14.6)	56(27.6)	74(36.1)	44(21.7)
Good perception	**78(38.4)**			
Moderate perception	**83(40.8)**			
Poor perception	**43(20.8)**			

The Table 4 and Figure 3 above marked 4.4 revealed that majority of the respondents have moderate perception of postpartum management measures 83(40.8%). Most of the respondents perception PPD such as: Most respondents believe women should try to hide their depression (46.9%)

Figure 3: Perception of postpartum depression
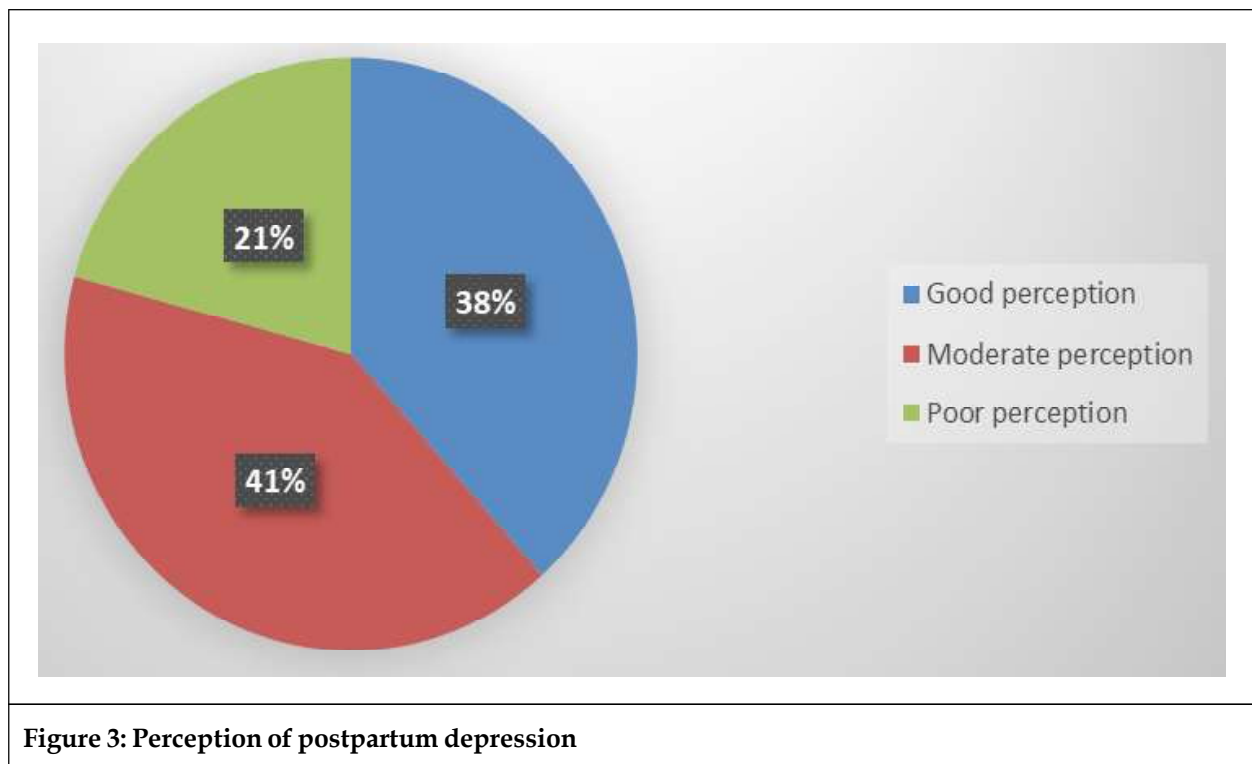
4. Discussion of Findings

Discussion will be done in line with the objectives of the study:

4.1. *Knowledge of postpartum depression among pregnant women attending antenatal clinic at Nnobi PHC*

Findings of the study revealed that majority of the pregnant women attending antenatal clinic at Nnobi PHC had poor knowledge of postpartum depression (59.9%). This might be because most of the women got majority of their information from friends and families instead of health care providers such as nurses and doctors. This finding is in agreement with the study of Obioha *et al*. (2021) and that of Abazie and Usoro (2021) whose findings show poor level of knowledge among more than (50%) of the respondents. However, this finding does not agree with the studies of Wang *et al*. (2023) and Grech *et al*. (2022) whose findings show that more than (50%) of the respondents have good knowledge of PPD. The varying level of knowledge could be attributed to the different sources of knowledge, types of research instrument used, the study designs, the differences in geographical location, differences in socioeconomic status, the cut off score of the research instruments as well as the various factors that affect the level of knowledge in such studies.

4.2. *Attitude of pregnant women attending antenatal clinic at Nnobi PHC have towards postpartum depression*

Findings of the study revealed a grand mean of 2.7 indicating that pregnant women attending antenatal clinic at Nnobi PHC have a negative attitude towards postpartum depression. This finding agrees with the study of Obioha *et al*. (2021) and that of Abazie and Usoro (2021) whose findings show negative attitude among majority of the respondents. However, this finding is not in collaboration with the studies of Wang *et al*. (2023) and Grech *et al*. (2022) whose findings show that more than (50%) of the respondents have good knowledge of PPD. The varying level of knowledge could be attributed to the different sources of knowledge, types of research instrument used, the study designs, the differences in geographical location, differences in socioeconomic status, the cut off score of the research instruments as well as the various factors that affect the attitude of respondents in such studies.

4.3. Perception of pregnant women attending antenatal clinic at Nnobi PHC against postpartum depression

Results from the study revealed that majority of the pregnant women attending antenatal clinic at Nnobi PHC have moderate perception of postpartum management measures (40.8%). This result does not correspond with the findings of Obioha *et al.* (2021).

Although some respondents practiced preventive measures such as seeking adequate rest and avoiding stress or alcohol, these practices were not widespread. This reflects a gap between awareness and behavior, possibly due to negative attitudes and social stigma.

5. Conclusion

The study revealed that majority of women in this study had poor knowledge, moderate perception and negative attitude towards postpartum depression. This is a disappointing result giving their level of education. This means awareness needs to be created across different socioeconomic groups, irrespective of their level of education.

Recommendations

The researcher recommends that the following should be done:

1. Nurses should include health talks on postpartum depression during antenatal and postnatal visits, to enlighten women and help them prevent or recognize postpartum depression.

2. Nurses should ensure prompt referral of women suspected of having postpartum depression to the appropriate level of care.

3. Appropriate policies should be developed to educate mothers about PPD and improve their attitude and practice towards PPD. Such improvements could have public health implications considering that PPD is associated with serious morbidity.

4. Government, as well as non-governmental institutions, should carry out interventions and support programmes for women with postpartum depression and unmarried women who are prone to post-partum depression.

Acknowlegement

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