Original Article

Evaluation of Anxiety and Depression among Pregnant Women in Enugu, Nigeria

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ABSTRACT

Background: Maternal depression and anxiety during pregnancy are public health concerns. They are commonly reported among pregnant women from all over the world. Maternal mental health has not been prioritized, especially in low- and middle-income countries. **Aim:** To evaluate depression and anxiety among pregnant women who receive antenatal care in four randomly selected hospitals in Enugu, Nigeria. **Materials and Methods:** A multicenter questionnaire-based cross-sectional survey of 434 pregnant women was conducted at four selected health institutions offering antenatal services in Enugu, Enugu State. The prevalence of anxiety and depression was assessed using the hospital anxiety and depression scale (HADS). Factors associated with anxiety and depression were determined using logistic regression. P <0.05 was taken as significant. **Results:** The mean age of study participants was 30.09 ± 5.12 years. The proportion of participants with depressive symptoms and borderline depressive symptoms was 9.7% and 11.1%, respectively. The proportion of participants with anxiety symptoms and borderline anxiety symptoms was 10.1% and 15.7%, respectively. Husband's employment status (P = 0.033, odds ratios (OR) =0.354, 95% confidence intervals (CI) =0.137–0.918) and gestational age (P = 0.042, OR = 2.066, 95% CI = 1.028–4.151) were the only factors associated with depressive symptoms, while only educational level (P = 0.001, OR = 3.552, 95% CI = 1.674–7.537) and husband's employment status (P = 0.013, OR = 0.295, 95% CI = 0.113–0.772) were the only factors associated with anxiety symptoms. **Conclusions:** Anxiety and depressive symptoms are relatively common in antenatal women in Enugu. The factors associated with depressive and anxiety symptoms were the respondent's educational level, gestational age, and the employment status of the husband.

Keywords: *Antenatal care, anxiety, depression, evaluation, pregnant women*

Introduction

Pregnancy and childbirth are often seen as joyful events to cherish. However, they have been noted to be laden with challenges that can become overwhelming. Major physical and psychological changes accompany pregnancy and the journey to motherhood. Pregnancy and childbirth are vulnerable periods when some women develop perinatal depression or anxiety.[1] In addition, this critical period is associated with a lack of self-confidence, and, as such, pregnant women are often vulnerable to unpleasant features of this transition to motherhood.[1] Pregnancy can initiate a chain of psychological, emotional, and sometimes traumatic events from the perinatal to postpartum periods.[2] Research has shown that up to 20% of women experience clinical anxiety or depression at some point during pregnancy, and this figure is approximately half the value for men.[3] Many women undergo depression for the first time during pregnancy, and women with

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previously established cases of depression are at a higher risk of its recurrence, continuation, or exacerbation.[4]

Pregnancy is one of the physiological phenomena that modulate the activity of the hypothalamic–pituitary–adrenal–cortical axis, which could lead to maternal mood disturbances and thus affect the neurodevelopmental outcomes in a child. Consequently, studies have shown that maternal depression, anxiety, and prenatal psychological distress are associated with postnatal maternal mental disorders with psychopathological disturbance in neonatal and early childhood.[5,6] Bhamani *et al*. in 2012 noted that pregnancy and the postpartum period are times of increased vulnerability for the onset or relapse of mental illness.[7]

Maternal depression and anxiety during pregnancy is a public health concern, and a prompt evaluation is needed to ensure an optimal functional outcome in maternal–child health. The estimated prevalence of perinatal anxiety and depression varies between studies: the prevalence of antenatal depression is between 7 and 20% in high-income countries and 20% and above in low- and middle-income countries.[8]

According to the World Health Organization, mental health disorders in women are the leading cause of morbidity in their reproductive age.[9] The prevalence of antepartum depression in sub-Saharan Africa at 26.3%.[10] In Nigeria, the prevalence of antepartum depression ranges from 8.3 to 26.6%.[11,12] while the prevalence of pregnancy-related anxiety symptoms was 43.5%.[12] The prevalence of maternal depression and anxiety could vary with respect to heterogeneity between studies and associated risk factors, which could be largely attributed to the sociodemographic background.[13]

Studies have shown that anxiety and depressive symptoms fluctuate throughout the perinatal period and with the prevalence of depressive symptoms varying across the three Trimesters.[14,15] It should be noted that other sociodemographic and psychosocial risk factors could influence the prevalence of antepartum depression and anxiety, such as low socioeconomic status, lack of social support and partner support, poor educational background, teenage pregnancy, and undesired pregnancy.[10,16,17] Recently, anxiety has been noted as a risk factor for postnatal depression, and depression and anxiety are the most common psychiatric disorders during pregnancy and the postpartum period, and symptoms can range from mild to severe.[6]

According to the World Health Organization, mental health disorders in women are the leading cause of morbidity in their reproductive age.[9] Pregnancy with depression poses a risk of low birth weight in babies. Preterm birth, infant malnutrition, perinatal complications, and maternal mortality could also occur.[2] Maternal depression and anxiety during pregnancy have become a public health concern, and a prompt evaluation is needed to ensure an optimal functional outcome in maternal–child health. Unfortunately, maternal mental health has not been on the priority list, especially in low- and middle-income countries, as other maternal mortality health issues such as little or no antenatal care with its attendant consequences (such as obstructed labor, postpartum hemorrhage, and preeclampsia), have yet to be significantly addressed. The paucity of data on the prevalence and factors associated with depression and anxiety among pregnant women in Nigeria, especially in Enugu, can be a major setback in mitigating the poor mental health care faced by pregnant women in the area. Determining the prevalence and factors associated with depression and anxiety among pregnant women in our society is a critical step toward addressing women's mental health care during the perinatal and postpartum periods. Policymakers can rely on the findings of this study on a decision to inculcate mental health screening as part of routine antenatal and postnatal care evaluation for pregnant women and nursing mothers, respectively.

Materials and Methods

Setting

The study was conducted in four randomly selected Enugu-based health institutions in Southeastern Nigeria. It was conducted over six months between June 18 and December 17, 2021. The four health institutions are;

1. University of Nigeria Teaching Hospital, Ituku-Ozalla (UNTH): a pioneering teaching hospital that offers antenatal, delivery, and postnatal care services to pregnant women in Enugu state and its environs and manages more than 1000 deliveries annually.
2. Enugu State University of Science and Technology Hospital (ESUTH) Parklane: a tertiary health care institution owned by the Enugu State government and located in Enugu metropolis. The hospital manages an average of 1800 deliveries annually.
3. Poly General Hospital (PGH): a state government-owned secondary level facility in Enugu North local government area. It caters for the majority of people in semi-urban areas. The facility oversees an average of 2440 deliveries per year.
4. Palms Medical Consultants (PMC): A private specialist health institution also in Enugu metropolis offering antenatal and postnatal services. PMC oversees an average of 300 deliveries annually.

Study design

This multicenter, cross-sectional study involved women attending antenatal clinics in the four hospitals. Prevalidated structured questionnaires were distributed among consenting pregnant women. The questionnaire comprises a sociodemographic characteristics section and a validated structured section of the hospital anxiety depression scale (HADS).[18] The latter was used to assess the current state of anxiety and depression among the respondents.

Study respondents

The respondents were consenting women across the three trimesters of gestation who attended routine antenatal care at the four hospitals during the study period. Women with a history of psychological illness or anxiety and depression, those taking antidepressants, and/or those who refused to consent were excluded from the study.

Sample size determination

We assumed a prevalence (p) of depression among pregnant women to be 13.6%, obtained from a previous study by Nwafor *et al*.[2] at Abakaliki and a precision of 5%, and the sample size came to 181. The prevalence of anxiety in the same study was 11.0%, and if we also assumed a 5% precision, the sample size would be 150. Considering the larger value of 181, and the 10% incomplete response rate to the questionnaire, the sample size was calculated as 199.1. However, we recruited 434 pregnant women because it is a multicenter study and to increase the power of the study.

Sampling technique

The stratified random sampling technique was used to select samples for the study. The four study sites formed the strata, and the sample sizes were allocated proportionately to each. Each hospital was randomly selected from the four levels of healthcare institutions providing specialized care. The University of Nigeria Teaching Hospital, Ituku-Ozalla, was selected from among the federal tertiary health institutions, ESUTH_Parklane was selected from among the state tertiary health institutions, Poly General Hospital was randomly selected from among the secondary health institutions. In contrast, PMC was randomly selected from among the private specialist hospitals. Afterward, participants were allocated to each hospital based on the number of deliveries each facility attended per annum (already discussed above) and the determined sample size. Therefore, 78 participants were allocated to the University of Nigeria Teaching Hospital (UNTH) Ituku-Ozalla, 141 to the Enugu State University Teaching Hospital (ESUTH-Parklane) Enugu, 191 to Poly General Hospital Enugu and 24 to Palms Medical Consultants (PMC).

Study instrument

Sociodemographic characteristics

An English version of a structured questionnaire was used. The questionnaire included the participant's age, parity, marital status, religion, ethnicity, educational status, employment status, husband's educational status, and occupation.

Hospital Anxiety and Depression Scale (HADS)

The HADS is an instrument used in the hospital setting to assess anxiety and depressive symptoms in patients quantitatively. It is a 14-question instrument used to determine anxiety or depression with seven questions for each independently. Each question is scored between zero and three, with a maximum score of 21 for anxiety or depression. Positive scores for anxiety or depression are scores of 8 and above. The outcome variables were the prevalence and factors associated with anxiety and depression. Using the HADS, participants were classified as normal, borderline, or abnormal for anxiety or depression. The English version of the validated scale was used for the interview. The external validity, logical sequence of questions, and understanding were tested in a pilot study before the official survey. The pilot study involved 20 pregnant women whose data were excluded from the final analysis. The internal consistency of the HADS was assessed using Cronbach's alpha, and a value of 0.80 declared the tool reliable.

Data collection

A clinical psychologist collected the data with his trained assistants at the different hospital sampled. They completed the prevalidated structured questionnaire comprising the sociodemographic characteristics and HADS of the study participants.

Ethical consideration

The approval for ethical clearance was obtained from the Ethics Committee board of the UNTH, Ituku-Ozalla, Enugu, with ethical code (NHREC/05/01/2008B-FWA0000245 8 -1RB00002323). The same was presented to the Ethics Committees of the Enugu State University Teaching Hospital (ESUTH-Parklane) Enugu, Poly General Hospital, Enugu, and PMC, Enugu.

Statistical analysis

Data were analyzed in IBM SPSS Statistics 22.0. Descriptive statistics were applied to the study variables and general characteristics. We compared demographic variables between pregnant women with and without depression using the Chi-square test for categorical variables. Furthermore, we applied

multivariate logistic regression analysis to examine the factors related to antenatal depression. Odds ratios (ORs) with their 95% confidence intervals (CIs) were calculated to measure the strength of the association. *P* (two-tailed) <0.05 was considered statistically significant.

Table 1: Demographic characteristics of the subjects (*n*=434)

	Frequency	Percent (%)
Age group (years)		
≤25	102	23.5
26-30	132	30.4
31-35	116	26.7
36-40	82	18.9
41-45	2	0.5
Parity		
0	160	36.9
1	72	16.6
2	112	25.8
3	52	12.0
4	30	6.9
5	8	1.8
Marital status		
Single	34	7.8
Married	398	91.7
Widowed	2	0.5
Religion		
Christianity	432	99.5
Islam	2	0.5
Ethnic group		
Ibo	422	97.2
Hausa	6	1.4
Yoruba	2	0.5
Others	4	0.9
Educational level		
No formal	2	0.5
Primary	4	0.9
Secondary	116	26.7
Tertiary	312	71.9
Employment status		
Government	116	26.7
Self	106	24.4
Private	72	16.6
Unemployment	126	29.0
Others	14	3.2
Husband's Educational level		
No formal	4	0.9
Primary	12	2.8
Secondary	110	25.3
Tertiary	306	70.5
Others	2	0.5
Husband's employment status		
Government	110	25.3
Self	182	41.9
Private	106	24.4
Unemployment	6	1.4
Others	30	6.9

Results

The age range of respondents in this study is 19–42 years, with a mean age of 30.09 ± 5.12 years. One hundred and sixty (36.9%) were nulliparous, most were married (91.7%), and had tertiary education (71.9%), with 26.7% being employed by the government. Most (70.5%) of their husbands had tertiary education, and 25.3% were civil servants [Table 1].

The prevalence of depressive and anxiety symptoms was 9.7% and 10.1%, respectively. The prevalence of borderline depressive and anxiety symptoms was 11.1% and 15.7%, respectively [Figure 1].

Parity was significantly associated with borderline anxiety (*P* = 0.002, OR = 2.36, 95% CI = 1.387–4.008). Nulliparous women were twice as likely to have

Table 2: Association between some sociodemographic factors, depression, and anxiety

	Age group		*P*	OR	95% CI for OR
	≤35 years *n* (%)	>35 years *n* (%)			
Depression					
Normal	278 (79.4)	66 (78.6)			
Borderline	38 (10.9)	10 (11.9)	0.787	0.90	0.428–1.903
Abnormal	34 (9.7)	8 (9.5)	0.983	1.01	0.446–2.281
Anxiety					
Normal	254 (16.0)	68 (81.0)			
Borderline	56 (16.0)	12 (14.3)	0.520	1.25	0.634–2.462
Abnormal	40 (11.4)	4 (4.8)	0.069	2.68	0.926–7.743
	Parity		***P***	**OR**	**95% CI for OR**
	0 *n* (%)	**1 and above *n* (%)**			
Depression					
Normal	128 (80.0)	216 (78.8)			
Borderline	22 (13.8)	26 (9.5)	0.251	1.43	0.777–2.624
Abnormal	10 (6.3)	32 (11.7)	0.091	0.53	0.251–1.109
Anxiety					
Normal	104 (65.0)	218 (79.6)			
Borderline	36 (22.5)	32 (11.7)	0.002	2.36	1.387–4.008
Abnormal	20 (12.5)	24 (8.8)	0.086	1.75	0.923–3.305
	Gestational Age		***P***	**OR**	**95% CI for OR**
	<28 *n* (%)	**≥28 *n* (%)**			
Depression					
Normal	138 (71.1)	206 (85.8)			
Borderline	30 (15.5)	18 (7.5)	0.004	2.49	1.335–4.638
Abnormal	26 (13.4)	16 (6.7)	0.008	2.43	1.255–4.689
Anxiety					
Normal	138 (71.1)	184 (76.7)			
Borderline	32 (16.5)	36 (15.0)	0.526	1.19	0.701–2.003
Abnormal	24 (12.4)	20 (8.3)	0.146	1.60	0.849–3.014

borderline anxiety as nonnulliparous women. GA was significantly associated with depression. Pregnant women with GA less than 28 weeks were twice as likely to have borderline depression as those with GA of 28 weeks or more (P = 0.004, OR = 2.49, 95% CI = 1.335–4.638). Similarly, pregnant women with GA less than 28 weeks were twice as likely to have depression as those with 28 weeks or greater (P = 0.008, OR = 2.43, 95% CI = 1.255–4.689) [Table 2].

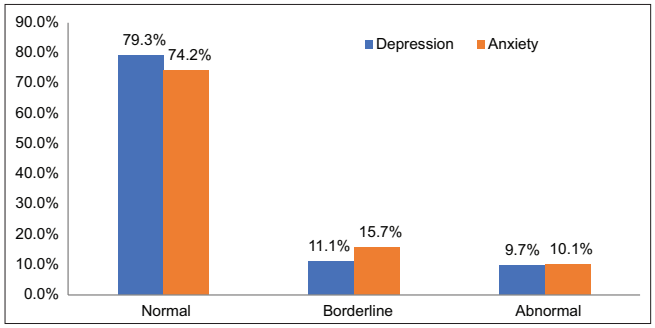

Figure 1: Proportion of subjects with depression and proportion of subjects with anxiety

Pregnant women with no more than a secondary level of education were three times more likely to have depression than those with a postsecondary level of education (P = 0.003, OR = 2.65, 95% CI = 1.378–5.077). Similarly, pregnant women with no more than a secondary level of education were three times more likely to have anxiety than those with a postsecondary level of education (P = 0.002, OR = 2.74, 95% CI = 1.446–5.207). Employment status was not significantly associated with depression and anxiety among pregnant women (P > 0.05) [Table 3].

The level of education of the husband was significantly associated with depression (P = 0.002, OR = 2.84, 95% CI = 1.484–5.442). Pregnant women whose husbands are employed were less likely to have depression than those whose husbands were unemployed (P = 0.01, OR = 0.29, 95% CI = 0.120–0.702). Similarly, pregnant

Table 3: Association between some sociodemographic factors and depression and anxiety

	Marital status		*P*	OR	95% CI for OR
	Single *n* (%)	Married *n* (%)			
Depression					
Normal	28 (82.4)	316 (79.0)			
Borderline	6 (17.6)	42 (10.5)	0.32	1.61	0.631–4.122
Abnormal	0 (0.0)	42 (10.5)	NA	NA	NA
Anxiety					
Normal	30 (88.2)	292 (73.0)			
Borderline	0 (0.0)	68 (17.0)	NA	NA	NA
Abnormal	4 (11.8)	40 (10.0)	0.96	0.97	0.326–2.908
	Educational level		***P***	**OR**	**95% CI for OR**
	Secondary and below *n* (%)	Postsecondary *n* (%)			
Depression					
Normal	88 (72.1)	256 (82.1)			
Borderline	14 (11.5)	34 (10.9)	0.60	1.20	0.614–2.336
Abnormal	20 (16.4)	22 (7.1)	0.003	2.65	1.378–5.077
Anxiety					
Normal	86 (70.5)	236 (75.6)			
Borderline	14 (11.5)	54 (17.3)	0.30	0.71	0.376–1.346
Abnormal	22 (18.0)	22 (7.1)	0.002	2.74	1.446–5.207
	Employment status		***P***	**OR**	**95% CI for OR**
	Employed *n* (%)	Unemployed *n* (%)			
Depression					
Normal	236 (80.3)	108 (77.1)			
Borderline	34 (11.6)	14 (10.0)	0.76	1.11	0.573–2.156
Abnormal	24 (8.2)	18 (12.9)	0.14	0.61	0.318–1.171
Anxiety					
Normal	212 (72.1)	110 (78.6)			
Borderline	52 (17.7)	16 (11.4)	0.09	1.69	0.920–3.091
Abnormal	30 (10.2)	14 (10.0)	0.76	1.11	0.566–2.183

women whose husbands are employed were less likely to have anxiety than those whose husbands were unemployed (P = 0.01 OR = 0.33, 95% CI = 0.137–0.796) [Table 4].

When demographic variables were included in a multivariate logistic regression model, the educational level of the husband (P = 0.011, OR = 0.308, 95% CI = 0.124–0.760) and gestational age (P < 0.001, OR = 3.399, 95% CI = 1.726-6.645) were the only significant factors associated with borderline depression. Husband's employment status (P = 0.033, OR = 0.354, 95% CI = 0.137–0.918) and gestational age (P = 0.042, OR = 2.066, 95% CI = 1.028–4.151) were the only factors associated with depression. Parity was the only significant factor associated with borderline anxiety (P < 0.001, OR = 2.904, 95% CI = 1.629–5.177), whereas educational level (P = 0.001, OR = 3.552, 95% CI = 1.674–7.537) and husband's employment status (P = 0.013, OR = 0.295, 95% CI = 0.113–0.772) were the only significant factor associated with anxiety [Table 5].

Discussion

The mean age of our respondents was 30.09 ± 5.12 years which corroborates the findings of previous studies.[1,2] More than two-thirds of our respondents were married and had tertiary education. This is similar to the finding of an earlier study by Nwafor *et al*.[2] that was conducted in Southeastern Nigeria. However, the finding differs from a study in Latin America, where barely a third of the study participants were married.[19] This further strengthens the African cultural ideology where marriage remains a statutory obligation for every woman of reproductive age.

The prevalence of depressive symptoms and borderline depressive symptoms were 9.7% and 11.1%, respectively. These findings are similar to reports from previous studies by Nwafor *et al*.[2] which reported a prevalence of 13.6%, and Bisetegn *et al*.[20] which found one of 11.8%. However, it differs from the findings of Gadanya *et al*.[12] with a prevalence of depression of 26.6%. The difference in the instruments used to assess could partly explain this wide prevalence gap. For example, HADS was used in the present study, while Gadanya *et al.* used Mini International Neuropsychiatric Interview (MINI 6.0).

In this study, there was no significant association between the age of the respondents and depression. This differs from reports of some studies that showed that depression was significantly associated with increasing maternal age.[1,2] The difference in this observation is unclear but could be attributed to the geographical differences of the study settings.

The gestational age of below 28 weeks had a significant association with maternal depression. However, some other studies showed that the prevalence of depression in pregnancy did not show significant differences for the trimesters.[21,22] Nevertheless, the finding of this study is similar to report of Guereje *et al*.[23] that showed a lower

Table 4: Association between depression, anxiety, and husband's demography

	Husband's Education		*P*	OR	95% CI for OR
	Secondary and below *n* (%)	Postsecondary *n* (%)			
Depression					
Normal	96 (76.2)	248 (80.5)			
Borderline	8 (6.3)	40 (13.0)	0.10	0.52	0.233–1.144
Abnormal	22 (17.5)	20 (6.5)	0.002	2.84	1.484–5.442
Anxiety					
Normal	98 (77.8)	224 (72.7)			
Borderline	14 (11.1)	54 (17.5)	0.11	0.59	0.314–1.117
Abnormal	14 (11.1)	30 (9.7)	0.85	1.07	0.542–2.100
	Husband's employment status		***P***	**OR**	**95% CI for OR**
	Employed *n* (%)	Unemployed *n* (%)			
Depression					
Normal	322 (80.9)	22 (61.1)			
Borderline	42 (10.6)	6 (16.7)	0.13	0.48	0.183–1.247
Abnormal	34 (8.5)	8 (22.2)	0.01	0.29	0.120–0.702
Anxiety					
Normal	300 (75.4)	22 (61.1)			
Borderline	62 (15.6)	6 (16.7)	0.56	0.76	0.295–1.946
Abnormal	36 (9.0)	8 (22.2)	0.01	0.33	0.137–0.796

Table 5: Multivariate logistic regression analysis of factors associated with depression and anxiety

	P	Odd's Ratio	95% CI for OR	
			Lower	Upper
Depression (borderline)				
Age (≤35 years)	0.080	0.459	0.192	1.097
Parity (0)	0.088	1.838	0.913	3.698
Marital status (single)	0.286	1.787	0.615	5.189
Educational level (secondary and below)	0.499	1.299	0.608	2.775
Employment status (employed)	0.665	1.170	0.574	2.384
Husband's education (secondary and below)	0.011	0.308	0.124	0.760
Husband's occupation (employed)	0.071	0.381	0.134	1.085
GA	<0.001	3.399	1.726	6.695
Depression (Abnormal)				
Age (≤35 years)	0.819	1.113	0.447	2.773
Parity (0)	0.083	0.495	0.223	1.097
Educational level (secondary and below)	0.064	2.048	0.958	4.375
Employment status (employed)	0.237	0.658	0.329	1.317
Husband's education (secondary and below)	0.147	1.773	0.818	3.841
Husband's employment status (employed)	0.033	0.354	0.137	0.918
Gestational age	0.042	2.066	1.028	4.151
Anxiety (borderline)				
Age (≤35)	0.644	0.837	0.393	1.783
Parity (0)	<0.001	2.904	1.629	5.177
Educational level (secondary and below)	0.403	0.740	0.365	1.499
Employment status (employed)	0.058	1.839	0.980	3.452
Husband's education (secondary and below)	0.077	0.526	0.258	1.072
Husband's occupation (employed)	0.578	0.755	0.281	2.032
Gestational age	0.109	1.594	0.901	2.821
Anxiety (Abnormal)				
Age (≤35 years)	0.148	2.310	0.743	7.176
Parity (0)	0.140	1.710	0.838	3.488
Marital status (single)	0.510	0.660	0.192	2.271
Educational level (secondary and below)	0.001	3.552	1.674	7.537
Employment status (employed)	0.500	1.285	0.620	2.661
Husband's education (secondary and below)	0.092	0.493	0.216	1.123
Husband's occupation (employed)	0.013	0.295	0.113	0.772
Gestational age	0.054	1.962	0.989	3.892

prevalence of depression in late pregnancy compared to the earlier period. Clinicians should have a high index of suspicion when evaluating pregnant women in their first and second trimesters, as early diagnosis and treatment will ensure optimal maternal and child mental health.

The prevalence of anxiety symptoms and borderline anxiety symptoms were 10.1% and 15.7%, respectively. This corroborates the findings of Nwafor *et al*.[2] with a prevalence of anxiety symptoms of 11.0%, but this differs from the findings of Gadanya *et al*.[12] that found a prevalence of anxiety of 23.2%. The use of different anxiety assessment methods in both studies could partly explain this wide prevalence gap.

The parity of the woman could provide insight into how readily she is prepared to accept the role of motherhood during the prenatal and postnatal periods. This study shows nulliparous women were twice as likely to have borderline anxiety compared to women of higher parity. Thus, parity moderated the psychological environment during pregnancy, leading to better maternal mental health and a better neonatal outcome.[21]

Pregnancy can be physically and psychologically challenging**.** The associated responsibilities could be made easier through the emotional and financial support of the partner, as reported in previous studies.[21,22] However, there was no significant association between marital status, anxiety, and depression in this study. This could be because women are getting more educated and socio-economically empowered, thus improving their general physical and mental health status.

Other sociodemographic variables such as the level of education of the couple and the employment status of

the husband had significant associations with anxiety and depression. An unemployed husband's inability to meet his family responsibilities could trigger anxiety and depression, which negatively affects maternal mental health. A systematic review showed the relevance of male partners in alleviating the burden of pregnancy.[24]

The parity status was the only factor associated with borderline anxiety, while gestational age and the husband's employment status were associated with depression. These are the key variables that must be addressed at the levels using different public health intervention programs, as mental health is one of the key components of sustainable development goals.

Limitations

The limitation of the study was that the diagnosis of depression and anxiety was based on a validated screening tool. This has been reported to overestimate the prevalence of depression and anxiety compared to standard clinical assessments such as the Diagnostic and Statistical Manual of Mental Disorder-5 and the International Classification of Diseases-11.

Conclusion

Anxiety and depression are relatively common in antenatal women in Enugu. The factors associated with depression were the patients' educational level and the husband's employment status, while the factors associated with anxiety were also the husband's educational status and the gestational age of the patients. Therefore, more emphasis should be placed on female education and enhanced socioeconomic status of partners to improve pregnant women's mental health status.

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Conflicts of interest

There are no conflicts of interest.

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