

# EMOTIONAL STRESS, ANXIETY AND DEPRESSION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC IN MAKURDI LOCAL GOVERNMENT AREA OF BENUE STATE

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## Abstract

*This study investigated* Emotional Stress, anxiety and depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. The study adopted a cross-sectional survey design. A total of 248 (100%) pregnant women attending antenatal clinic in Makurdi Local Government participated in the study. Their age ranged between 21 and 44 years. They were sampled using a purposive sampling method. *Perceived Emotional stress Scale* (PSS) with reliability of .853, the Hamilton Anxiety Rating Scale of .717 and Beck Depression Inventory (BDI-II) with reliability of .732 were used for data collection. Three hypotheses were formulated and tested using simple linear regression and multiple linear regression. Findings of the study revealed that, emotional stress positively influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. The results further revealed that, anxiety also significantly influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. Finally, the results shows that emotional stress and anxiety jointly predicted depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State ( $\beta = .558$ ,  $P < .05$ ). From the results, the study concluded that, independent variables of the study namely: stress and anxiety have significant independent and joint influences on depression. The study recommended that it is imperative healthcare providers and policymakers develop and implement targeted interventions at healthcare facilities to mitigate stress and anxiety among pregnant women receiving antenatal care in Makurdi and nationwide. This proactive approach can significantly reduce the incidence of depression among this vulnerable population. It was finally recommended that pregnant women take proactive steps to manage stress and anxiety. Specifically, they should strive to understand and avoid stressful activities and minimize worry about their condition.

**Keywords:** Emotional Stress, Anxiety, Depression and Antenatal

## Introduction

Depression is the most prevalent common health disorder affecting pregnant women. Depression has always been a health problem

for human beings. Historical documents written by healers, philosophers, and writers throughout the ages point to the long-standing existence of depression as a health

problem (Saket et al., 2022). The global prevalence estimates of depression among pregnant women attending antenatal care vary across regions. Depression is one of the types of mood disorders characterized by markedly decreased interest or pleasure in almost all activities, significant weight loss or gain, disturbed sleep, feelings of fatigue, loss of appetite, feelings of hopelessness, reduced self-esteem and confidence, diminished ability to think or concentrate, and recurrent thoughts of death. Antenatal depression is a non-psychotic depressive episode ranging from mild to severe symptoms that occur while the woman is pregnant (Christine & Lynlee, 2019). Women are known to be at higher risk of mental disorders like depression than males. The mental health of women of reproductive age is becoming a significant public health problem both in developing and developed countries, and depression is the most prevalent mental disorder during pregnancy (Abraham, 2021). The *aim of this study is to investigate* Stress, anxiety level and depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

Historical documents written by healers, philosophers, and writers throughout the ages point to the long-standing existence of depression as a health problem (Kobrosly & Van, 2010). According to Kobrosly and Van (2010), people have continuously and sometimes very cleverly struggled to find

effective ways to treat this condition. Depression was initially called "melancholia," with the earliest accounts appearing in ancient Mesopotamian texts from the second millennium B.C. At this time, all mental illnesses were believed to be caused by demonic possession, and individuals were treated by priests. A separate class of "physicians" treated physical injuries but not conditions like depression. The first historical understanding of depression was that it was a spiritual or mental illness rather than a physical one (Arthur, 2016). Kaneez (2016), Posits that depression is a common illness worldwide, with more than 300 million people affected. Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when long-lasting and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family. At its worst, depression can lead to suicide. Close to 800 000 people die due to suicide every year. Suicide is the second leading cause of death in 15-29-year-olds.

Practical observations indicate that depression among pregnant women attending antenatal clinics in Makurdi Local Government Area of Benue State is multi-factorial, with stress and anxiety being significant contributing factors. **Stress** is a feeling of emotional strain and pressure.

Excessive amounts of emotional stress, however, may lead to [bodily harm](#). Stress can increase the risk of [strokes](#), [heart attacks](#), [ulcers](#), and [mental illnesses](#) such as depression and also aggravation of a pre-existing condition of pregnant women. Stress can be external and related to the environment, but may also be caused by internal perceptions that cause an individual to experience [anxiety](#) or other negative emotions surrounding a situation, such as pressure, [discomfort](#), etc., which they then deem emotional stressful (Blalock & Joiner, 2018).

As mentioned earlier, Deshmukh, Borkar, and Khamgaonkar (2013) studied the prevalence of anxiety and depression symptoms during pregnancy. A sample of 100 pregnant women was screened while waiting for their prenatal visit at the obstetric clinic of Fatima Memorial Hospital (FMH). Participants were eligible for the study if they were pregnant and provided consent. A control group (n = 100) consisted of non-pregnant women matched by age, education, marital status, and monthly income. This cross-sectional study utilized a convenience (non-probability) sampling technique and was conducted over six months.

A questionnaire was used to collect demographic information, while DSM-IV criteria were applied to assess past psychiatric illness. The Hospital Anxiety and Depression Scale (HADS) was used to

measure anxiety and depressive symptoms. The results indicated that among the 100 pregnant women, 39% scored above the cut-off for anxiety, and 18% for depression. In contrast, within the control group, 28% experienced anxiety, and 12% reported depression. Additionally, 17% of pregnant women disclosed receiving psychiatric treatment (pharmacological or psychotherapy) for psychological issues. T-test results showed a significant difference between the two groups regarding anxiety and depression, indicating that pregnant women experience higher levels of these conditions compared to their non-pregnant counterparts. The study emphasized the lack of adequate monitoring during pregnancy and called for improved detection, referral, and treatment of anxiety and depression. Further clinical studies are needed to examine maternal mental health and fetal consequences.

Antepartum anxiety and depression are major public health concerns globally. Abraham (2021) conducted a study to estimate the frequency of antepartum anxiety and depression among pregnant women. This cross-sectional study was conducted in a tertiary care hospital with a total sample of 165 pregnant women. Participants were interviewed by a clinical psychologist using HADS to assess anxiety and depression while also collecting information on sociodemographic factors, obstetric history, family relationships, and home environment.

The findings highlighted that anxiety and depression are highly prevalent among pregnant women, emphasizing the need to integrate mental health screening into existing antenatal care programs. The study further stressed the importance of developing targeted strategies to provide practical support for affected women.

Dunkel (2018) opined that prenatal anxiety and depression are major health problems worldwide. The purpose of the study was to assess common antenatal depression (CAD) and associated factors among pregnant women in Arba Minch Zuria district, Gamo zone, Southern Ethiopia. A community-based cross-sectional study was conducted among 676 pregnant women. Bivariate and multivariable analyses were carried out using binary logistic regression to identify factors associated with CAD. Statistical significance was set at  $p < 0.05$ . A total of 667 women participated, with a CAD prevalence of 10.04% (95% confidence interval [CI]: 7.76–12.33).

Abraham (2021) conducted a study aimed at assessing stress, anxiety, and depression levels among HIV/AIDS patients. The study included 100 HIV/AIDS patients (equal numbers of male and female participants), selected through a simple random sampling method. The findings revealed that AIDS patients experience high levels of anxiety (14% moderate, 59% severe), stress (2% mild, 35% moderate, and 63% severe), and

depression (26% moderate, 74% severe). The study further found that female and married patients exhibited higher levels of anxiety, stress, and depression than their male and unmarried counterparts. These results suggest that most AIDS patients experience moderate to severe levels of these mental health conditions, warranting greater attention to psychological support for this group.

### **Statement of the Problem**

The prevalence estimates of depression among pregnant women attending antenatal vary across regions. The burden of antenatal depression is generally higher in low- and middle-income countries. Depression is one of the types of mood disorders characterized by markedly decreased interest or pleasure in almost all activities, significant weight loss or gain, disturbed sleep, feeling of fatigue, loss of appetite, feeling of hopelessness, reduced self-esteem and confidence, diminished ability to think or concentrate, and recurrent thoughts of death. Antenatal depression is a non-psychotic depressive episode ranging from mild to severe symptoms that occur while the woman is pregnant. Women are known to be at higher risk of mental disorders like depression than males. The mental health of women of reproductive age is becoming a significant public health problem both in developing and developed countries, and depression is the most prevalent mental disorder during pregnancy.

Depressive disorders during pregnancy may have devastating consequences not only for the mother but also for the child and family. Antenatal depression is identified to be a risk factor for adverse obstetric and birth outcomes like fetal growth retardation, low Apgar score, preterm birth, low birth weight, and stillbirth. Antenatal depression is also associated with increased smoking, alcohol consumption, and unhealthy behaviors. These factors, together with depression, may predispose the mothers to obstetric complications such as preterm labor, preeclampsia, and abruption placenta. Furthermore, depression during pregnancy is also associated with postnatal depression, which negatively affects child development, mother-infant interaction, and the family at large. Compared with women in developed countries, women in developing countries are more exposed to the risk factors for the development of antenatal depression, such as; younger age of mothers, low level of education, exposure to domestic violence or relationship conflicts, history of obstetric complications, history of depression, unplanned pregnancy, lack of social support, and low economic status. Despite variations in the magnitude and associated factors of antenatal depression across different countries of Africa, pooling the available evidence and reporting the extent of the problem in a more precise way might help policymakers to prioritize the problem more than ever. Therefore, the objective of the current review is to assess the epidemiology

of antenatal depression in Africa.

### **Research Questions**

The following research questions were raised for the study

- i. What is the influence of Stress on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State?
- ii. To what extent does anxiety level influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State?
- iii. What is the joint influence of Stress and anxiety level on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

### **Research Hypotheses**

The following hypotheses were formulated for the study.

- I. There will be a significant influence of Emotional Stress on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State
- ii. There will be a significant influence of anxiety level on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State
- iii. There will be a significant joint influence of emotional stress and

anxiety level on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

## **Method**

### **Design**

The researcher is a correlational study. A correlational study is a type of research design that aims to investigate the relationship between two or more variables. This makes the study a correlational study because it investigated to know the relationship between Stress, anxiety and depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

### **Sampling**

The sample size for this study was estimated using Krejcie and Morgan (1970) Sample Size Estimation table for known populations. The sample size estimated from the total population of 692 pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State is 248.

### **Sampling size determination/ Sample size**

In order to arrive at a representative sample of pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State, purposive sampling approach was adopted to sample participants for the study. Purposive sampling according to Pilot & Beck (2010), involves selecting individuals

judged to be typical of the population of interest. This means that only registered pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. Specifically, General Hospital North Bank and First Fertility Hospital Makurdi who were available and willing to participate were considered and given questionnaire to respond to.

### **Participants**

Participants for this study were pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. The researcher considered only registered pregnant women from General Hospital North Bank Makurdi and First fertility Hospital Makurdi. 248 (100%) pregnant women participated in the study. Their age ranges from 21- 44 years. Out of the participants, 204 (82.3%) married, 10 (4%) single and 34 (13.7%) others. It was also gathered that, 158 (63.7%) Christians, 65 (26.2%), Muslims and 25 (10.1%) others participated in the study. Again, it was revealed that, 89 (35.9%) were Tiv, 92 (37.1%) Idoma, 36 (14.5%) Igede and 31 (12.5%) others respectively.

### **Instruments**

A structured questionnaire was used to collect relevant information from the participants of the study. The instrument (questionnaire) is designed to collect information on the demographic characteristic of each respondent.



- i. Perceived Emotional stress Scale (PSS)
- ii. The Hamilton Anxiety Rating Scale
- iii. Beck Depression Inventory (BDI-II)

#### ***Perceived Emotional stress Scale (PSS)***

The PSS is a 10 item self-report measure designed to assess one's perception about the degree of a given situation in daily life is considered emotional stressful (Cohen, Kamarack & Mermelstein, 1983). The PSS contains seven positively worded 'emotional stress' items (e.g., How often have you felt upset because of something that happened unexpectedly?) and seven negatively worded 'counter-emotional stress' items (e.g., How often have you felt confident about your ability to handle personal problems?). Items are rated on a 5-point Likert scale of occurrence these statements over the past 4 weeks (0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, 4 = very often). The *Perceived Emotional stress Scale*(PSS) is the most widely used psychological instrument for measuring the perception of emotional stress. It is a measure of the degree to which situations in one's life are appraised as emotional stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced emotional stress. The PSS was designed for use in community samples with at least a junior high school education. The items are

easy to understand, and the response alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. The Cronbach's alpha coefficients were 0.83 (Factor 1), 0.77 (Factor 2) and 0.87 (Total Score). The test-retest reliability scores were 0.83 (Factor 1), 0.68 (Factor 2) and 0.86 (Total Score).

#### **The Hamilton Anxiety Rating Scale**

The Hamilton Anxiety Rating Scale is a clinician-rated evaluation whose purpose is to analyze the severity of anxiety. It was originally published by [Hamilton](#) (1959). The scale consists of 14 items designed to assess the severity of a patient's anxiety. Each of the 14 items contains a number of [symptoms](#), and each group of symptoms is rated on a scale of zero to four, with four being the most severe. Each item is a five-point scale, displaying the numerals 0 to 4 outlined by a square. The scale is intended for adults, adolescents, and children and should take approximately ten to fifteen minutes to administer. The scale is a public document. Since it is in the public domain, it is widely available for administration. The evaluator is instructed to assess the extent to which the patient displays the given criterion. Each item is scored independently based on a five-point, ratio scale. A rating of 0 indicates that

the feeling is not present in the patient. A rating of 1 indicates mild prevalence of the feeling in the patient. A rating of 2 indicates moderate prevalence of the feeling in the patient. A rating of 3 indicates severe prevalence of the feeling in the patient. A rating of 4 indicates a very severe prevalence of the feeling in the patient. To implement the Hamilton Anxiety Rating Scale, the acting clinician proceeds through the fourteen items, evaluating each criterion independently in form of the five-point scale described above. Upon the completion of the evaluation, the clinician compiles a total, composite score based upon the summation of each of the 14 individually rated items. This calculation will yield a comprehensive score in the range of 0 to 56. It has been predetermined that the results of the evaluation can be interpreted as follows. A score of 17 or less indicates mild anxiety severity. A score from 18 to 24 indicates mild to moderate anxiety severity. Lastly, a score of 25 to 30 indicates a moderate to severe anxiety severity. HAM-A (Cronbach alpha=0.921),

### **Beck Depression Inventory (BDI-II)**

The Beck Depression Inventory–II BDI-II; (Beck, Steer, & Brown, 1996) is an immensely popular screening instrument for depression among adults and adolescents. It is designed for use among individuals 13 years old and older. The BDI-II is a substantially revised and upgraded version of the original Beck Depression Inventory

(BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Beck Depression Inventory (BDI–II) is a 21 item self-report inventory that reflects cognitive, affective and somatic components of depression, utilized in adolescents and adults. The BDI-II assesses 21 symptoms and attitudes which include Mood, Pessimism, Sense of Failure, Lack of Satisfaction, Guilt Feelings, Sense of Punishment, Self-dislike, Self-accusation, Suicidal Wishes, Crying, Irritability, Social Withdrawal, Indecisiveness, Distortion of Body Image, Work Inhibition, Sleep Disturbance, Fatigability, Loss of Appetite, Weight Loss, Somatic Preoccupation, and Loss of Libido. It is a widely used measure of depressive symptoms.

The BDI-II is scored by summing the highest ratings for each of the 21 symptoms. Items are organized according to the severity of the content of alternative statements and each symptom is rated on a 4-point scale ranging from 0 (not) to 3 (severe) which covers cognitive, emotional / affective and somatic/vegetative symptoms with no sub scale and total scores can range from 0 to 63. Use the highest response when an item has greater than 1 severity rating. The scoring is criterion-referenced and performed by hand with scores 0-13 indicates minimal range, 14-19 mild depression, 20-28 moderate depression and 29-63 severe depression. However, the interpretation of the final score requires a professional with clinical training and experience and no arbitrary cutoff score



available for all purposes to classify different degrees of depression in this measure. Cutoffs have been recommended for specific medical populations. For instance, in post-myocardial infarction patients, the recommended cutoff value was greater than or equal to 16, with a sensitivity of 88.2% and a specificity of 92.1%.

### **Validity and Reliability**

The original manual, the one-week test-retest correlation of the scale is 0.93, in the Turkish adolescent it was stated as 0.89 and a Persian version psychometric study demonstrated 0.73 that shown a relative stability.

### **Procedure**

The researcher adopted the face-to-face approach in administering the questionnaire on the respondents. Pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State will be used in this study. These women were contacted in two different facilities in Makurdi Local Government Area of Benue State, preferably, General Hospital North Bank Makurdi and first fertility Hospital Makurdi.

These Pregnant women were contacted at the facilities in Makurdi Local Government. First the researcher collected a letter of introduction from the department of psychology Benue State University Makurdi which serves as introductory statement for the researcher to ethic and research committee of the hospital. After the approval,

informed consent was sought from participants, this was done to ensure participants voluntarily agree to participate after being fully informed of the study's purpose, methods, risks, benefits, and their right to withdraw at any time without repercussions.

The researcher created a rapport with the respondents and the confidentiality of their responses was assured. Also, the respondents were notified of their rights to withdraw from the study and no longer fill the questionnaire at any given time of the study. Pregnant women who were willing to participate in the study were issued with a copy of the research questionnaire. The researcher only used those pregnant women who could read and write. After filling the questionnaire, the researcher collected them and appreciates them for the exercise.

### **Data Analysis**

Data for this study was analyzed using descriptive and inferential statistics. Descriptive statistics including frequency counts, percentages, means and standard deviations were used in making sense of the demographic information of the participants. Inferential statistics was also used in testing the hypotheses of the study. The inferential statistics of choice was Multiple Regressions. The choice of statistical tool for this study was chosen in a cross-sectional survey design of this nature because, it helps researcher to identify relationships between variables, it

also controls for confounding variables, provide predictive models, account for multiple predictors and interrelationships and inform future studies or interventions. The whole analysis was performed via Statistical Packages for Social Sciences (SPSS) Version 23.

## Results

### Presentation and Interpretation of

#### Results.

The hypotheses of this study were tested to

*investigate* Stress, anxiety and depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

Hypothesis 1 stated that, there will be a significant influence of Stress on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State Simple Linear Regressions was used to test for the significance of this hypothesis and the results is presented in Table1.

**Table 1: Summary of Simple Linear Regressions showing the influence of Emotional Stress on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.**

Predictor Variable	R	R <sup>2</sup>	df	F	.	t	Sig
Constant	.970	.528	1.246	3894.524		-25.042	.000
Emotional Stress					.970	62.406	.000

The result presented in Table 1 above showed that emotional stress significantly influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.  $R = .970$ ,  $R^2 = .528$ .  $F(1, 246) = 3894.524$ ,  $P < .05$ . This result showed that stress made a contribution of 52.8% to the total variance in depression. Based on this result the hypothesis was therefore confirmed.

Hypothesis 2 stated that, there will be significant influence of anxiety on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

Simple Linear Regressions was used to test for the significance of this hypothesis and the results is presented in Table 2.

**Table 2: Summary of Simple Linear Regressions showing influence of anxiety on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.**

Predictor Variable	R	R <sup>2</sup>	df	F	$\beta$	t	Sig
Constant	.921	.571	1.246			-14.126	.000
Anxiety				1369.835	.921	37.011	.000

The result presented in Table 4.3 above showed that anxiety significantly influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State  $R = .921$ ,  $R^2 = .571$ ,  $F(1, 246) = 1369.835$ ,  $P < .05$ . This result showed that anxiety contributed to 57.1% to the total variance in depression. Based on this result the hypothesis was therefore confirmed.

Hypothesis 3: This hypothesis stated that, there will be a significant joint influence of Stress and anxiety on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. The hypothesis was tested using Standard Multiple Regressions and result is presented in Table 3.

**Table 3: Summary of Standard Multiple Regressions showing joint influence of Emotional Stress and anxiety on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State**

Predictor Variable	R	R <sup>2</sup>	df	F	t	Sig
Constant	.974	.558	2.245	2251.114	-27.482	.000
Stress				.773	21.857	.000
Anxiety				.215	6.087	.000

The result presented in Table 3 above shows that emotional stress and anxiety jointly predicted depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State [ $R = .974$ ,  $R^2 = .558$ ,  $F(2, 245) = 2251.114$ ,  $P < .05$ ]. This result showed that emotional stress and anxiety jointly made a contribution of 55.8 % to the variance in depression. Based on this result the hypothesis was therefore confirmed.

depression

### Discussion of findings

The study investigated Emotional Stress, anxiety and depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

The results further revealed that emotional stress ( $\beta = .773$ ,  $P < .01$ ) was the strongest predictor of depression, accounting for the largest proportion of variance. In contrast, anxiety ( $\beta = .215$ ,  $P > .01$ ) had a relatively weaker contribution to the variance in

Hypothesis one stated that, there will be a significant influence of Stress on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State Simple Linear Regressions was used to test for the significance of this hypothesis and the results showed that stress significantly influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue

State. This result showed that stress influence depression. Based on this result the hypothesis was therefore confirmed. The present results is consistent with that of Christine and Lynlee, (2019) who assess the influence of perceived stress on depression during pregnancy in Surinamese women. Survey data were used from 1143 pregnant women who participated in the Caribbean Consortium for Research in Environmental and Occupational Health-MeKiTamara prospective cohort study that addresses the impact of chemical and non-chemical environmental exposures in mother/child dyads in Suriname. It was reviewed that Pregnant women with low individual resilience during early pregnancy (52.1%) had 1.65 (95% CI 1.03–2.63,  $p=0.038$ ) increased odds of having probable depression during later stages of pregnancy compared to those with high individual resilience. Low educational level ( $p=0.004$ ) and age of the mother (20–34 years) ( $p=0.023$ ) were significantly associated with probable depression during the third trimester.

In the same manner, Bhatia and Munjal (2014) study aimed to assess the prevalence of depression and its relation to stress level and other factors among medical students. A cross-sectional study was conducted among medical students at a tertiary care medical institution in Puducherry, coastal south India. Results from the study revealed that, depression was significant to severe stress

level and more common among medical students. Stress coping mechanisms and improvement of interpersonal relationship may help to reduce depressive symptoms among medical students.

Hypothesis two stated that, there will be significant influence of anxiety level on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. Simple Linear Regressions was used to test for the significance of this hypothesis and the results showed that anxiety significantly influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. This result showed that anxiety made a significant contribution in depression. Based on this result the hypothesis was therefore confirmed. The present result is not contrary to that of Deshmukh, Borkar and Khamgaonkar, (2013) who studied the prevalence of anxiety and depression symptoms during pregnancy. The sample of one hundred pregnant women was screened while waiting for their prenatal visit in obstetric clinic of FMH (Fatima Memorial Hospital). The T-test results showed significant difference between two groups regarding anxiety and depression. Pregnant women experience more anxiety and depression as compared to their closely matched counterparts and most of them are not being monitored during this time. More work is needed for detection, referral and

treatment of anxiety/ depression during pregnancy. Clinical studies for maternal mental health and fetal consequences are also needed.

In the same vein, Abraham, (2021) was to estimate the frequency of antepartum anxiety and/or depression among pregnant women. This was a cross-sectional study conducted in a tertiary care hospital among pregnant women. A total of 165 pregnant women were interviewed by a clinical psychologist using HADS for assessing anxiety and/or depression and also collected information regarding sociodemographic, obstetric, family relationships, and home environment. Out of the total of 165 pregnant women about 70 percent of them were either anxious and/or depressed. The study highlights that anxiety and/or depression is quite common among pregnant women. Therefore, there is a need to incorporate screening for anxiety and depression in the existing antenatal programs and development of strategies to provide practical support to those identified.

Hypothesis three stated that, there will be a significant joint influence of Emotional Stress and anxiety on depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State. The hypothesis was tested using Standard Multiple Regressions and result shows that stress and anxiety jointly predicted depression among pregnant women attending antenatal clinic in Makurdi

Local Government area of Benue State This result showed that emotional stress and anxiety jointly made a significant contribution in depression. Based on this result the hypothesis was therefore confirmed. Furthermore, the result indicated that independently, emotional stress ( $\beta = .773$   $P < .01$ ) made the highest contribution to depression while anxiety ( $\beta = .215$ ,  $P > .01$ ) contribution to the variance in depression. The result of the present study is in line with that of Abraham, (2021) who in his study the investigated aimed to assess the level of stress anxiety and depression among HIV/AIDS patients. Results of the study uncovered that female, and married patients have high level of anxiety, stress and depression than male and unmarried patients. To sum up, on the basis of his results he concludes that most of the AIDS patients have moderate and sever level of anxiety, stress and depression.

Again, Amsalu, et al (2023) investigated the factors influencing depression, anxiety, and stress in pregnancy and identify their associations with Sexual Distress (SD) and Genital Self-Image (GSI). This was a descriptive, correlational, cross-sectional study performed using the two-stage cluster sampling method. Their results shows that various factors contribute to the development of antenatal depression, anxiety, and stress. A positive correlation was found between SD and the severity of depression, anxiety, and stress, while a negative correlation was noted

between GSI and the severity of depression and anxiety.

### **Conclusion**

The conclusion presented here derives from the findings of this study. This study has provided justification to the aim and objectives for which it was instituted and provided answers to the stated research questions. The study established that, the independent variables of the study namely: stress and anxiety have significant independent and joint influences on the dependent variables, which is depression. Therefore, the study concluded that, both stress and anxiety independently and jointly, influence depression among pregnant women attending antenatal clinic in Makurdi Local Government area of Benue State.

### **Recommendations**

The following recommendations are made to help improving burnout of nurses

- i. Based on the results of the study, it was recommended that, health professionals in primary health sectors and families to manage stress to reduce depression among pregnant women attending antenatal clinic in Makurdi Local Government and beyond.
- ii. It is imperative that healthcare providers and policymakers develop and implement targeted interventions at healthcare facilities to mitigate stress and anxiety among pregnant women receiving antenatal care in

Makurdi and nationwide. This proactive approach can significantly reduce the incidence of depression among this vulnerable population.

- iii. Based on the study's findings, it is recommended that pregnant women take proactive steps to manage stress and anxiety. Specifically, they should strive to understand and avoid stressful activities and minimize worry about their condition.

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