The Influence of Personality Traits on Anxiety Among Pregnant Women in Benue State

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Abstract

Pregnancy is one of the most sensitive periods and stressful life experiences in the lives of most women despite the joy, happiness and pleasure it brings to most homes. However, pregnancy for most women produces a mixed feeling of happiness and a lot of emotional unsteadiness which could lead to anxiety. The study assessed the personality traits and anxiety of 385 pregnant women receiving antenatal care from Federal Medical Centre Makurdi and Benue State Teaching Hospital Makurdi, using a cross-sectional survey design and purposive sampling technique. Data was collected using the big five 44- item inventory developed by John et al.(1991) and State-Trait Anxiety Inventory by Spielberger et al.(1983), and analyzed usingmultiple regression analysis.Result indicated that personality traits did not significantly influence anxiety,and all the dimensions of personality traits were not significant as well, except for extraversion which was confirmed. In conclusion, while some personality traits like extraversion may contribute to the experience of anxiety, their overall influence is limited within this population. It is recommended that future research explores other potential factors such as social support, economic conditions and previous mental history to better understand anxiety in pregnancy and all factors be considered while caring for pregnant women during antennal programs

Keywords: anxiety, personality traits, pregnant women, antenatal, hospital

Introduction

Pregnancy is one of the most sensitive periods and stressful life experiences in the lives of most women despite the joy, happiness and pleasure it brings to most homes. Pregnancy for most women, produces a mixed feeling of happiness and a lot of emotional unsteadiness which could lead to anxiety and many other psychological disturbances (López-Morales et al., 2021).This could be as a result of clusters of information they hear as they converse with other women and the general populace about pregnancy particularly for the first-time pregnant women who are anxious about motherhood, concerns about caring for baby, potential delivery complication and balancing motherhood with other responsibilities. If this is not managed properly, it may result to anxiety and or undesirable mental health challenges such as postpartum depression or anxiety to the mother and yet-to-be- born child. Anxiety during pregnancy is recognized globally as a significant mental health concern. Studies have shown that around 15–20% of pregnant women experience anxiety disorders, which can have profound effects on both maternal and foetal outcomes. Globally, anxiety during pregnancy has been linked to preterm birth, low birth weight, and developmental issues in children (WHO, 2023). In Africa,

maternal mental health is becoming an area of increased research and intervention. Cultural norms, socio-economic challenges, and limited access to healthcare amplify pregnancy-related anxiety. A significant proportion of pregnant women in sub-Saharan Africa facefinancial pressures, especially in low-income households, Stigma associated with mental health, making it harder for women to seek help, limited access to mental health services due to resource constraints or cultural beliefs, cultural expectations related to fertility, especially around having male children or multiple children which c*an create immense pressure Abayomi, et al., (2023).The studies in Africa have shown that pregnancy anxiety prevalence ranges from 22% to 47%, often higher than global rates. This discrepancy may be due to underreporting and less access to mental health care Services. In Nigeria, like in many African countries, anxiety during pregnancy is increasingly recognized as a public health concern. Research suggests that 30-50% of pregnant women may experience some form of anxiety during pregnancy, with contributing factors includingHigh maternal expectations from family members, especially in patriarchal settings, cultural beliefs and practices surrounding childbirth and fertility, such as pressure to deliver a male child or concerns over supernatural influences, socio-economic conditions such as poverty, unemployment, or lack of access to quality healthcare and fear of childbirth, given the relatively high maternal and infant mortality rates in some parts of the country(Ajibade, et al., 2022).A recent study from Lagos State University found that pregnant women with lower social support and poor economic conditions were more likely to experience higher levels of anxiety. The study also indicated that pregnant women in urban areas with more access to education and mental health resources exhibited lower anxiety levels compared to their rural counterparts (Maji et al., 2021).

Anxiety in early pregnancy, results in loss of foetus and in the second and the third trimester leads to a decrease in birth weight and increased activity of the Hypothalamus. It causes a change in steroid geneses, destruction of social behaviour and fertility rate in adulthood. Also, anxiety disorder during pregnancy is accompanied by emotional problems, hyperactivity disorder, decentralization and disturbance in cognitive development of children (Glover, 2014), If the crisis are not properly attended to, managed and controlled, it turns into a sustained crisis and may leave myriad undesirable consequences on mother and her baby (Shahhoseini, Abedian & Azim, 2008).

Nevertheless, a number of women experience anxiety due to some factors such as first time experience, yearning for sexes they do not have, bitter experiences in the past pregnancies, thinking about the health of the foetus, the delivery, loss of interest in sex, loss of attractiveness and some because of unpreparedness obstructing future plans (Grupe & Nitschke, 2013). This manifests clearly through several symptoms such as pregnancy craving that might be accompanied by vomiting, hate or strong desire for certain types of food or fruits. Therefore, the mental pressures can make pregnant woman live through difficult days instead of the excitement of expecting a newborn that should fill her life with joy and happiness.

Studies have shown different factors that can lead to anxiety in pregnant women. For example, studies by Fawcett et al. (2019) shows that previous mental history of anxiety or other mental issues before pregnancy are at higher risk of experiencing anxiety during pregnancy. Alderdice et al. (2013), posited that stressful life events such as financial difficulties, relationship problems, work related stress, or significant life changes can increase the risk of anxiety during pregnancy. In a similar vein lack of social support has also been proven to be a factor that leads to anxiety during pregnancy (Dunkel, 2011), yet they are still other factors that may lead to anxiety which may be understated and or neglected that may take a toll on the life of mothers which if identified, proper measures will be taken to combat or managed early to avoid unwanted discrepancies in mother and child. The present study however looked at Personality traits and anxiety among pregnant women in Benue State.

Literature Review

Prenatal Anxiety

Prenatal anxiety is defined as anxiety experienced during pregnancy that may involve fears about the health of the baby, the outcome of the pregnancy, or one's ability to cope with childbirth and parenting. This condition can manifest as generalized anxiety, panic attacks, or specific phobias (APA, 2023).

National Institute of Mental Health (NIMH, 2023) defines prenatal anxiety as a condition characterized by persistent and excessive worry about various aspects of pregnancy, including the health and development of the fetus, potential complications during childbirth, and future parenting responsibilities. Field (2017) defines prenatal anxiety as a significant mental health concern during pregnancy, marked by excessive worry, tension, and fear that can affect both maternal well-being and fetal outcomes. It is often associated with increased risks for preterm birth and postpartum depression. According to the World Health Organization (WHO), prenatal anxiety is an emotional state of heightened concern, apprehension, and fear occurring during pregnancy, which can have implications for maternal and infant health if not appropriately managed (WHO, 2022). While a certain amount of worry, stress and anxiety is normal when pregnant, if it gets to the point that it is causing someone to worry excessively on most days and significantly affect daily life, it is possible that a woman is experiencing an anxiety disorder.

Types of Anxiety conditions in pregnancy

There are a number of anxiety conditions, each of which has a different set or cluster of symptoms and they include:

Generalized Anxiety Disorder (GAD)

According to the American Psychological Association, (2013), Generalized Anxiety Disorder (GAD) is diagnosed when the following characteristics are present for at least 6 months: excessive worry, unrealistic view of problems, irritability, and the manifestation of physical symptoms (e.g., headaches, nausea, and tension). The prevalence of GAD in the non-pregnant population ranges from 5.1-11.9%, with females being twice as likely as males to be affected (Ali, 2018). Nevertheless, the current study seeks to assess solely anxiety

disorder among women receiving antenatal clinic in tertiary health institutions in Benue state.

Obsessive-Compulsive Disorder (OCD) is described by a chronic pattern of unwanted, intrusive thoughts and repetitive behaviour that increases anxiety, affecting productivity, which can develop or worsen during pregnancy (Russel et al.,2013) Women who have OCD prior to pregnancy report an escalation in compulsions during pregnancy that progresses and worsens in the post-partum period.Anxiety during pregnancy has been described as a normal experience in the anticipation of childbirth, and when anxiety is present at low levels, it may be beneficial in preparing one for parenthood (Harpel, 2008). However, regardless of the type of anxiety disorder a pregnant woman experiences, anxiety has the potential to become distressing and interfere with one's life (Wenzel, 2011). At more severe levels, anxiety is uncontrollable and results in negative behavioural outcomes, indicating the need for a more thorough psychological evaluation, to determine the presence of a potential anxiety disorder diagnosis. Care is therefore needed to mitigate the symptoms of anxiety to assist women to prepare adequately for parenthood. Knowing the exact factor that leads to anxiety in pregnant women will inform healthcare providers of the care needed, to assist the mother in her pregnancy journey and this is the reason for which this research is important.

The "Big Five Theory byMcCrae and Costa (1999) is the most popular and widely accepted trait theory of personality. The theory proposes that personality is made up of five broad personality dimensions. They include; Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism. The Big Five personality traits, also known as the Five-Factor Model (FFM), is a widely recognized framework for understanding human personality. The model identifies five broad dimensions of personality that capture the most significant variations in human behavior and traits. Here's a detailed overview of each trait:

Openness to Experience: This trait reflects a person's openness to new experiences, creativity, and curiosity. Individuals high in openness are often imaginative, curious, and open-minded, enjoying exploring new ideas, arts, and cultures. They tend to appreciate aesthetics, are sensitive to feelings, and are more willing to entertain unconventional ideas. Individuals with low openness tend to be more conventional, prefer routine, and may resist change. They are typically more pragmatic and focus on concrete facts. Facets include, Imagination, Artistic Interests, Emotionality, Adventurousness, Intellect, and Liberalism. Women high in openness may approach pregnancy with curiosity and a sense of adventure, which can reduce anxiety by making them more adaptable to the new experiences that pregnancy brings. However, if their openness leads them to explore and internalize a wide range of information (some of which may be conflicting or alarming), it could contribute to anxiety.

Conscientiousness: Conscientiousness is characterized by a person's degree of organization, dependability, and work ethic. High conscientiousness is associated with being disciplined, goal-oriented, and responsible. Such individuals tend to be

diligent, plan their actions carefully, and are often high achievers. Low Conscientiousness Individuals may be more spontaneous, disorganized, and less goal-directed. They may struggle with consistency and reliability. Facets include Self-Efficacy, Orderliness, Dutifulness, Achievement-Striving, Self-Discipline, and Cautiousness. A highly conscientious woman might stress about every detail of her pregnancy, from diet to exercise, and fear that any deviation from her plan could harm the baby (Gustavson et al., 2018).

Extraversion: Extraversion involves the extent to which individuals are outgoing, social, and energetic. Highly extraverted individuals are usually sociable, assertive, and enjoy being around others. They tend to be talkative, enthusiastic, and seek out social interactions. Low extraversion also referred to as introversion: Introverts are individuals who are more reserved, reflective, and prefer solitary activities. They may find social interactions draining and enjoy spending time alone or with a small group of close friends. Facets of extraversion include friendliness, gregariousness, assertiveness, activity level, excitement-seeking, and cheerfulness. Extraversion may help reduce anxiety during pregnancy by enabling women to seek out social support and maintain a positive outlook. Extraverted women are more likely to engage in social activities, share their feelings, and seek reassurance from others, which can be a protective factor against anxiety. However, if social interactions become overwhelming or if they face social stressors (e.g., negative comments from others), it could increase anxiety (Alati et al., 2005).

Agreeableness: Agreeableness measures a person's tendency to be compassionate, cooperative, and empathetic towards others. High agreeableness is associated with traits such as kindness, trust, and altruism. Agreeable individuals are often considerate, generous, and willing to compromise for the sake of social harmony. Low agreeable individuals with low agreeableness may be more competitive, skeptical, and less concerned with others' needs. They might be more focused on personal goals and less inclined to cooperate. Facets include Trust, Morality, Altruism, Cooperation, Modesty, and Sympathy. High agreeableness can contribute to lower anxiety levels, as agreeable women are more likely to be compassionate, cooperative, and supportive of themselves and others. They may find it easier to seek help when needed and to accept the support of friends and family, which can mitigate anxiety. However, if they are overly concerned with pleasing others or avoiding conflict, they may experience anxiety related to social pressures or expectations about motherhood (Van et al., 2010).

Neuroticism: Neuroticism refers to the tendency to experience negative emotions, such as anxiety, depression, and irritability. Individuals high in neuroticism are more prone to emotional instability, stress, and mood swings. They may worry more about various aspects of life and are more sensitive to perceived threats. Those low in neuroticism tend to be more emotionally stable, calm, and less reactive to stress. They are generally more resilient and better at managing negative emotions. Facets include, Anxiety, Anger, Depression, Self-Consciousness, Immoderation, and

Vulnerability. Neuroticism is the most directly related trait to anxiety. Pregnant women who score high on neuroticism are more prone to experience anxiety, stress, and emotional instability during pregnancy. They may be more sensitive to the physical and emotional changes that come with pregnancy, leading to heightened fears about childbirth, health, and parenting. The tendency to worry excessively and the difficulty in managing stress can exacerbate anxiety symptoms during this time (Tani et al., 2018).

Personality Traits and Anxiety among Pregnant Women

Previous studies have shown a relationship between personality traits and anxiety. Notably, from a study conducted on personality traits and depressive Disorders during pregnancy Bunevicius et al., (2013) sampled 230 pregnant women and found that high neuroticism was an independent predictor of antenatal depressive disorders throughout pregnancy. A survey in China also reported that both high psychoticism and neuroticism personality characteristics are risk factors for depressive symptoms among Chinese pregnant women, this present study wish to replicate the reviewed study but on pregnant women in Benue State.

Gunning et al. (2010) .In their research, Gunning and colleagues explored the relationship between personality factors and anxiety in pregnant women. The study found no strong association between specific personality traits (like neuroticism, extraversion, and openness) and anxiety levels, suggesting that factors beyond personality traits, such as social support or medical complications, might play a more

significant role in influencing anxiety, the present study replicates the same study to see if personality traits of women in Benue state influence their anxiety level. Huizink et al. (2004), studied the potential predictors of anxiety in pregnant women, focusing on both personality traits and situational factors. Their findings suggested that personality traits like neuroticism had limited influence compared to environmental factors, such as life events and social support, which were found to be more significant contributors to anxiety levels during pregnancy. Paciello et al. (2016), examined the role of personality traits in anxiety among pregnant women and found that while certain traits such as neuroticism were initially correlated with anxiety, once controlling for psychosocial factors (like social support, relationship satisfaction, and medical complications), the significance of personality traits diminished. This suggests that situational factors may play a larger role than personality in determining anxiety levels during pregnancy.

Furthermore, Romanet al. (2019), recently researched on postnatal women to test the potential mechanisms of the associations between personality characteristics and postnatal depression and found out that postnatal anxiety is an important mediator in the relationship between the personality characteristic of extraversion and postnatal depression. Such research efforts, however, remain scarce. As the personality characteristic of a person is relatively stable and difficult to adjust, the study of intermediate variables (such as mediating and moderating variables) on the relationship between personality and emotion in pregnant women is urgently required, so as to help alleviate personality-

related emotional distress through the development of interventions focused on the intermediate variables. Literature is however lacking in this very area of endeavor whether there is a correlation between personality traits of mothers and mental disorders in which they experience in Benue State which necessitated for the present study. Nouri et al. (2019) carried out a study on personality traits and depressive tendencies and anxiety on the COVID-19 pandemic and found out that individuals high in agreeableness are prone to positive emotions, and agreeableness was found to be a protective factor against anxiety induced by the COVID-19 pandemic. The present study looks at personality traits of women and anxiety level during pregnancy to see if personality traits of women can affect their anxiety level in pregnancy which is a joyful moment but otherwise stressful.Similarly, a study by Anglim et al. (2020) on personality traits on depressive and stress symptoms in pregnant women found that more conscientious women experienced fewer depressive and stress symptoms across the peripartum period. Possibly, more conscientious women are characterized by a higher sense of mastery and more effective self-regulation strategies and thus managed to adjust to their novel role as a (an expectant) mother more easily.

The major objective of the study is to assess personality traits and their influence on anxiety among pregnant women in Benue state. Specific objectives include to:

i. Ascertain if openness influence Anxiety among pregnant women in Benue State.

ii. Ascertain if conscientiousness influence Anxiety among pregnant women in Benue State

iii. Ascertain if Extraversion influence Anxiety among pregnant women in Benue State

iv. Determine if Agreeableness influence Anxiety among pregnant women in Benue State

v. Determine if Neuroticism influence anxiety among pregnant influence Anxiety among pregnant women in Benue State

Research Hypothesis

i. Personality Traits will significantly influence anxiety among pregnant women in Benue State

ii. The five dimensions of The Big-Five personality traits viz; Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism will significantly Openness will significantly influence Anxiety among pregnant women in Benue State.

Method

The study assessed personality traits and anxiety of 385 pregnant women receiving antenatal care from Federal Medical Centre Makurdi and Benue State Teaching Hospital Makurdi, using a cross-sectional survey design and purposive sampling technique. The Samples size was determined using Taro Yamane formula while purposive sampling was used to select 385 samples. Data for this study was acquired through direct contact. A letter of introduction was obtained from the

Department of Psychology and taken to Benue State Teaching Hospital and Federal Medical Centre, Makurdi. Questionnaires were used for data collection; the questionnaire was divided into sections. With section "A" seeking information about the demographic variables of the participants. Section B contained The State Trait Anxiety Inventory developed by psychologists Spielberger, R.L., Gorsuch, R.E. and Luhene (1983). The STAI tests two different types of anxiety, state and trait anxiety. This inventory is made up of 40 questions, and distinguishes between a person's state anxiety and their trait anxiety. Section C contain The Big Five 44-item inventory. The Big Five Inventory (BFI) was developed by John, Donahue, and Kentle (1991). The data of the current study were analyzed by SPSS Software, version 25. Means and standard deviations were determined for relevant variables.

Results

Table below presents the results of multiple regression analysis assessing the predictive influence of The Big- Five personality traits and anxiety levels among pregnant women in Benue State. This analysis explain the extent to which each trait contributes to variations in anxiety.

Table 1: Multiple Linear Regression showing the influence of The Big-Five Personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness) on anxiety among pregnant women in Benue State

Variable	R	R^2	F	p-value	B	T	p-value
Anxiety							
(Constant)					-	11.080	0.000
Extraversion					0.128	2.244	0.025
Agreeableness					-0.029	-0.487	0.626
Conscientiousness	0.158	0.025	1.938	0.087	-0.036	-0.617	0.538
Neuroticism					-0.010	-0.180	0.857
Openness					0.083	1.382	0.168

Source: 2024 fieldwork

Table 1 indicated that personality traits did not influence the experience of anxiety significantly. Specifically, the combined effect of extraversion, agreeableness, conscientiousness, neuroticism and openness did not predict the experience of anxiety (F (5,379) =1.938; p>0.05) with R= 0.158 and R^2=0.025. The result further showed that the five personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness) dimensions jointly accounted for 2.5% of the variance in experience of anxiety.

Specifically, extraversion significantly influenced experience of anxiety (β=0.128; t=2.244, p<0.05). It means that extraversion has an influence and accounted for 12.8% of the variance in anxiety. On the contrary however, agreeableness did not significantly influenced experience of anxiety (β=-0.029; t=-0.487, p>0.05). The results mean that agreeableness has negative contribution and accounted for 2.9% of the variance in experience of anxiety. The table also

indicated that conscientiousness did not significantly influence the experience of anxiety (β=-0.036; t=-0.617, p>0.05). Based on the result conscientiousness has negative contribution and accounted for 3.6% of the variance in experience of anxiety. Neuroticism did not influence experience of anxiety (β=-0.010; t=-0.180, p>0.05). The results imply that neuroticism has negative contribution and accounted for 1.0% of the variance in experience of anxiety. Even though openness did not significantly influence the experience of anxiety (β=0.083; t=1.382, p>0.05). Lastly, openness has positive contribution and accounted for 8.3% of the variance in the experience but did not significantly determine the level of anxiety.

Discussion

Research hypothesis was tested using the multiple standard regression analysis and it showed that personality traits did not significantly influence the experience of anxiety, meaning that the personality of a woman did not account for anxiety disorder, this means that irrespective of personality difference of someone, pregnancy with its uniqueness comes with a lot of issues; joyful and sad moments and women respond to it how it affects them; positively or negatively. Specifically, extraversion, agreeableness, conscientiousness, neuroticism and openness jointly did not predict experience of anxiety. The study agrees with the study by Gunning et al. (2010), in their research, Gunning and colleagues explored the relationship between personality factors and anxiety in pregnant women. The study found no strong association between specific personality traits (like neuroticism, extraversion, and openness) and anxiety levels, suggesting that factors beyond personality traits, such as social support or medical complications, might play a more significant role in influencing anxiety.

The study however, showed an independent influence of the five predictor variables, meaning that each of the personality trait had either a positive or negative influence on anxiety. Particularly, extraversion significantly influenced the experience of anxiety, it showed that extraversion has positive contribution and accounted for 12.8% of the variance in anxiety, This means that a woman may be extraverted and outgoing, energetic and have a sociable personality but pregnancy with its enormous challenges will cripple her making her unable to do what she previously would do and that would lead to excessive worry about the uncertainty of the outcome of the pregnancy, which will result to anxiety as the present study has shown.

Nonetheless, agreeableness did not significantly influence experience of anxiety. The results shows that agreeableness has negative contribution and accounted for 2.9% of the variance in experience of anxiety, This implies that a woman with an agreeable personality tends to have high levels of empathy and can consider others' perspectives and make decisions based on their own needs and make decisions to care for others, they are well-liked and follow the rules, give people space to share their opinions and ideas while also compassionately communicating why they will not align with or agree to the other person's perspective, during pregnancy, such women will listen to others' opinions about self-care; listening to the right people can

help such a personality develop coping skills; the findings of this hypothesis show that women with agreeable personalities have a negative influence on anxiety in that, they agree with positive experiences of others and learn ways to protect themselves and their unborn babies, and as such, they are less likely to be anxious about pregnancy.

The study also confirms Nouri et al. (2019), the negative correlations between agreeableness and anxiety and between agreeableness and depression which individuals high in agreeableness are prone to positive emotions, and agreeableness was found to be a protective factor against anxiety induced by the COVID-19 pandemic.

In the same vein, conscientiousness showed a negative contribution and accounted for 3.6% of the variance in experience of anxiety, meaning that women who are careful, diligent and self-disciplined will attend antenatal care from the beginning of their pregnancy and would learn from the health talks ,counsels and take their routine medication and would be less likely to have issues, those with issues can immediately report to the appropriate health care personnel for assistance and will less likely be anxious about negative pregnancy experience and as such will less likely develop anxiety, they may choose to endure short-term challenges to achieve long-term gains and prefer to have a clear and detailed plan. Consistent with the present study, is a study by Anglim et al. (2020), who found that more conscientious women experienced fewer depressive and stress symptoms across the peripartum period. Possibly, more conscientious women are characterized by a higher sense of mastery and more effective self-regulation strategies and thus managed

to adjust to their novel role as a (an expectant) mother more easily.

Furthermore, Neuroticism did not influence the experience of anxiety. The results implies that neuroticism has negative contribution and accounted for 1.0% of the variance in experience of anxiety, the present hypothesis therefore suggest that even though women with neuroticism personality tend to have negative or fear-based emotions always expressing negativism in all issues, having wandering thoughts, for pregnant women in Benue Stat, pregnancy may therefore serve as a joyful moment for them and instead of increasing anxiety, it will rather give them joy thereby reducing emotionality as the result shows that women with neuroticism showed a negative influence on anxiety, this contradicts with Kaplan et al. (2015), that social anxiety was positively correlated with neuroticism. Also the study agrees with Paciello et al. (2016) who examined the role of personality traits in anxiety among pregnant women and found that while certain traits such as neuroticism were initially correlated with anxiety, once controlling for psychosocial factors (like social support, relationship satisfaction, and medical complications), the significance of personality traits diminished. This suggests that situational factors may play a larger role than personality in determining anxiety levels during pregnancy.

Similarly, openness did not show a significant influence on the experience of anxiety. The result showed that openness accounted for 8.3% of the variance in the experience of anxiety, Openness to experience represents a willingness to try new things and the ability to engage in abstract and complex ideas, and open to

learn, women with this personality may be informed about pregnancy and curious and be willing to try new ways of coping with pregnancy and a such may likely not experience anxiety during pregnancy. Findings of this study disagrees with a study by Lahti et al. (2016) in their study on Maternal psychological distress during pregnancy, the study found that maternal psychological distress during pregnancy was associated with increased allostatic load in offspring. Openness to experience was one of the personality traits assessed in the mothers, and higher levels of openness were correlated with greater psychological distress during pregnancy.

The findings of the study is not in agreement with the hypothesis which stated that personality traits will significantly influence anxiety among pregnant women in Benue State apart from the result that shows that extraversion significantly showed a positive influence on the experience of anxiety. There was no significant influence of personality trait on the whole influencing the experience of anxiety, however it showed the individual significance of the various personality traits in which extraversion showed a positive influence on anxiety among pregnant women in Benue state while agreeableness, conscientiousness, openness and neuroticism showed a negative influence on the experience of anxiety.

Practical Implications and Research Implications:
The findings suggest that personality traits, in general, may not play a significant role in influencing anxiety levels among pregnant women in Benue State, with the exception of extraversion. The positive influence of

extraversion indicates that pregnant women who are more outgoing and socially engaged may experience heightened anxiety, possibly due to their increased interactions and exposure to external stressors. Conversely, traits such as agreeableness, conscientiousness, neuroticism, and openness showed a negative influence on anxiety, suggesting that women displaying these traits might cope better with the emotional demands of pregnancy. Health practitioners could adapt interventions to personality profiles, providing more personalized support for pregnant women, especially those exhibiting high levels of extraversion.

The results contribute to the growing body of knowledge on the psychological factors that impact maternal mental health, contribution new insights into the role of personality traits. The findings challenge the general assumption that personality traits universally predict anxiety levels in pregnancy, highlighting the complexity of psychological responses during pregnancy. Future research could explore whether these patterns are consistent across different cultural or geographical contexts or examine the moderating role of other factors such as social support, economic status, and previous mental health history.

Limitations and Future Research:
This study is subject to several limitations. First, the sample was limited to pregnant women in Benue State, which may not be representative of pregnant women in other regions or countries. Second, the study relied on self-reported data, which may be subject to biases such as social desirability or recall inaccuracies. Lastly, the study did not explore

potential moderating factors like socioeconomic status, which may also influence anxiety levels.

Future studies should aim to include a larger, more diverse sample across different regions to enhance the generalizability of the findings. Additionally, longitudinal studies could better capture changes in anxiety levels and personality traits over the course of pregnancy. Researchers should also consider incorporating moderating variables, such as social support systems, coping mechanisms, and previous mental health history, to gain a more comprehensive understanding of the factors that influence anxiety among pregnant women. Further research should be carried out to look into why Extraversion uniquely influences anxiety among pregnant women, understanding this, will lead to a more effective prevention and a focused intervention.

Conclusion and Recommendations

The objective of this study was to assess the influence of personality traits on pregnant women's anxiety. Based on the above findings, the study concludes that personality traits are likely to have a significant influence on anxiety, nevertheless, certain traits such as extraversion will most probably have a positive influence on anxiety. This implies that being extraverted does not inherently make one free from anxiety during pregnancy, because pregnancy with its unique experiences may prone one to have anxiety issues amidst a sociable personality. However, traits such as conscientiousness, agreeableness, and neuroticism had a negative impact on anxiety, implying that unstable emotions and agreeable tendencies may assist pregnant women avoid anxiety.

Therefore, this study recommends that a holistic approach to care be provided in antenatal care that considers both psychological, economic and personality factors to ensure the overall wellbeing of pregnant women.

References

Abayomi, O., Adeyemi, T., &Oladipo, A. (2023). Maternal Anxiety and Its Impacts on Pregnancy in Sub-Saharan Africa .*African Journal of Reproductive Health*, 27(2), 45-56.

Ajibade, A., Okeke, I., &Adetola, R. (2022). Mental Health and Pregnancy in Nigeria: The Hidden Crisis. *Nigerian Journal of Mental Health,* 15(3), 120-134.

Alati, R., Najman, J. M., Kinner, S. A., Mamun, A. A., Williams, G. M., & O'Callaghan, M. (2005)."Early Predictors of Adult Anxiety: A Prospective Study." *The British Journal of Psychiatry*, 186(6), 460-465.

Ali, N., Elbarazi, I., Alabboud, S., Al-Maskari, F., Loney, T., & Ahmed, L. A. (2018). Antenatal care initiation among pregnant women in the United Arab Emirates: the Mutaba'ah study. *Frontiers in public health*, *8*, 211.

American Psychological Association (2013). Diagnostic and statistical manual of mental disorders (DSM-5®). *American Psychiatric Publication.*

Anglim, J., Horwood, S., Smillie, L. D., Marrero, R. J., & Wood, J. K. (2020). Predicting psychological and subjective well-being from personality: *A meta-analysis. Psychological bulletin,* 146(4), 279–323.

Buneuicius, R., Velickience D., Prage A.J. (2013) Mood and anxiety disorder in women with treated hyperthyroidism.

Junior Doctors in Hospital Psychiatry. 27(2):133-9.

Costa, P. T. Jr. & McCrae, R. R. (1999). NEO PI-R. Professional manual. Odessa: Psychological Assessment Resources, Inc.

Donahue, E. M., & Kentle, R. L. (1991). The Big-Five Inventory-Version 4a and 54. Berkeley, CA: Berkeley Institute of Personality and Social Research, University of California.

Dunkel, S.C., Schafer, P., Lanzi, R. G., Clark-Kauffman, E., Raju, T. N. K., &Hillemeier, M. M. (2011). Shedding light on the mechanisms underlying health disparities through community participatory methods: The stress pathway. *Perspectives on Psychological Science*, 8(6), 613–633.

Fawcett, E.J., Fairbrother, N., Cox, M.L., White, I.R., & Fawcett, J.M. (2019). The prevalence of anxiety disorders during pregnancy and the postpartum period: A multivariate Bayesian meta-analysis. *Journal of Clinical Psychiatry,* 8(1). 12-27.

Field, T. (2017). Prenatal anxiety effects and interventions: A review. *Journal of Affective Disorders*, 209, 243-256. Doi:10.1016/j.jad.2016.11.017

Glover, V. (2014). Maternal depression, anxiety and stress during pregnancy and child outcome; what needs to be done. *Best practice & research. Clinical obstetrics & Gynaecology, 28 1*, 25-35.

Grupe, D. W., & Nitschke, J. B. (2013). "Uncertainty and anticipation in anxiety: An integrated neurobiological and psychological perspective." *Nature Reviews Neuroscience*, 14(7), 488-501. https://doi.org/10.1038/nrn3524

Gunning, M., Denison, F., Stockley, C., Ho, S. P., Sandhu, H., & Reynolds, R. M. (2010). Assessing maternal anxiety in pregnancy with the State-Trait Anxiety Inventory (STAI): issues of validity, location and participation. *Journal of Reproductive and Infant Psychology*, 28(3), 266-273.

Hapel, J. (2008). Burnout mediates the association between depression and patient safety perceptions: a cross-sectional study in hospital nurses. *Journal of Advanced Nursing* 73, 1667–1680. doi: 10.1111/jan.13251

Huizink, A. C., Robles de Medina, P. G., Mulder, E. J., Visser, G. H., & Buitelaar, J. K. (2004). Coping in normal pregnancy. *Annals of Behavioral Medicine*, 28(2), 111-118.

Kaplan, S., Berman, M. G., Kross, E., Krpan, K. M., Askren, M. K., Burson, A., Deldin, P. J., Sherdell, L., Gotlib, I. H., &Jonides, J. (2015). Interacting with nature improves cognition and affect for individuals with depression. *Journal of affective disorders*, *140*(3), 300–305. https://doi.org/10.1016/j.jad.2012.03.012

Lahti, M., Savolainen, K., Tuovinen, S., Pesonen, A. K., Lahti, J., Heinonen, K., Hämäläinen, E., Laivuori, H., Villa, P. M., Reynolds, R. M., Kajantie, E., & Räikkönen, K. (2016). Maternal depressive symptoms during and after pregnancy and psychiatric problems in children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56(1), 30–39.

López-Morales, H., del Valle, M. V., Canet-Juric, L., Andrés, M. L., Galli, J. I., Poo, F., & Urquijo, S. (2021). "Mental health of pregnant women during the COVID-19 pandemic: A longitudinal study." *Psychiatry Research,* 295,

113567.

Maji, A., Isah, A., & Muhammad, S. (2021). Addressing Maternal Anxiety in Low-Income Nigerian Communities. *West African Journal of Medicine*, 38(4), 305-315

Nouri, K., Ott, J., Stoegbauer, L., Pietrowski, D., Frantal, S., &Walch, K. (2013). Obstetric and perinatal outcomes in IVF versus ICSI-conceived pregnancies at a tertiary care center--a pilot study. *Reproductive biology and endocrinology: RB&E, 11*, 84.

Paciello, M., Fida, R., Tramontano, C., Lupinetti, C., &Caprara, G. V. (2016). Personality traits and pregnancy-related anxiety: The mediating role of social support. *Journal of Reproductive and Infant Psychology,* 34(2), 122-134.

Roman, M.W., Wilkinson, S.M. (2014). Vortioxetine (Brintellix®) and levomilnacipran (Fetzima®): the two newest additions to the antidepressant formulary. *Issues in Mental Health Nursing,* 35 (12):972-4.

Russel, M.J. (2013). Biased cognitive processing of uncertainty-inducing information in generalized anxiety disorder: Implications for treatment. Paper presented at the 36th annual

Russell, M., & Davey, G. C. L. (1993). The relationship between life event measures and anxiety and its cognitive correlates. *Personality and Individual Differences, 14*, 317–322.

Shahhosseni, Z., Abedian, K., & Azimi, H. (2007). Anxiety during pregnancy in preterm delivery. *ZanjanUniversity Medical Student Clinic for Immigrant*

Justice, 16 (63): 85-92. (Persian)

Spielberger, C. D. (1983). *State-Trait Anxiety Inventory: Bibliography* (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.

Tani, F., Castagna, V., Ponti, L., &Boncompagni, G. (2018). "Personality, Anxiety, and Well-being in Pregnant Women: The Role of Neuroticism." *International Journal of Environmental Research and Public Health*, 15(5), 1041.

Van Eijk, A. M., Bles, H. M., Odhiambo, F., Ayisi, J. G., Blokland, I. E., Rosen, D. H.,&Lindblade, K. A. (2010). Use of antenatal services and delivery care among women in rural western Kenya: a community based survey. *Reproductive health, 3*, 1-9.

Wenzel, A. (2011). Anxiety symptoms during pregnancy and the postpartum period. In A. Wenzel & S. Stuart (Collaborator), *Anxiety in childbearing women: Diagnosis and treatment* (pp. 21–35). American Psychological Association.

World Health Organization. (2023). Mental Health and Maternal Health in Africa: A Framework for Action. Geneva: WHO Press. Available at: https://www.who.int/publications/maternal-mental-health

World Health Organization (WHO). (2022). Mental health and psychosocial considerations during the COVID-19 outbreak. Retrieved from https://www.who.int