

## Impact of Gravida and Level of Psycho-Education on Antenatal Anxiety

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### Abstract

The study investigated the relationship between psycho-education, and gravida on antenatal anxiety among three hundred and fifty (350) pregnant women recruited from fifteen public and private clinics in different Local Government Area, Anambra State Nigeria. The participants were selected within a six months data collection exercise. The ages of the participants ranged from 19 to 42 years with the mean age of 30 and standard deviation of 0.67. Data for study was collected with the Stirling Antenatal Anxiety Scale, modified Stirling Antenatal scale for the measurement of psycho-education and data on gravida was elicited from respondents by asking them their number of pregnancies carried. The correlational survey design and Pearson Moment Correlation Coefficient statistics was utilized for data analyses. The results showed that Psycho-education significantly and negatively correlated with antenatal anxiety  $r = -.332, P < .01$ . Gravida did not correlate significantly with antenatal anxiety  $r = .058, P < .05$ . Based on the findings, the researcher recommended that psycho-education should start before conception to prevent antenatal anxiety.

**Keywords:** impact, psycho-education, gravida, antenatal, anxiety

### Introduction

Pregnancy is a significant event in the life of a woman and her family (Priya et al, 2018). It is a period of mixed feelings in which some pregnant women experience great happiness, satisfaction, and fulfillment, while others may report great stress, frustration, and anxiety when dealing with its demands (Yuksel et al. 2014). The emotional state (stress or wellbeing) of a pregnant woman may depend on numerous factors, namely, expectations, number of times of pregnancy (gravidity), information disposal to the pregnant woman, marital status, psychopathology history, social support, and work schedule, among others (Westerneng et al., 2014). The emotional state of a pregnant woman seems to have a far-reaching effect on her antenatal experience (stress or wellbeing), delivery, postpartum state, the fetus, family members, and significant others in her life. Given the numerous factors identified that seem to relate to antenatal anxiety, gravidity (number of times of pregnancy) and psycho-education are the focus of the present study.

Although pregnancy is a time of joy and mental wellbeing, it predisposes some pregnant women to different mental health crises such as anxiety, frustration, and depression (Priya et al., 2018). It has been reported that a significant number of pregnant women manifest mental health crises (Priya et al., 2018). Anxiety occurs in approximately one in five pregnancies and has been found to occur more often in the prenatal period than in the postpartum period. It is estimated that anxiety occupies one quarter of pregnancy duration (Westerneng et al., 2014). Antenatal anxiety is fear, worry, and a disrupting sense of peace related to the health of the woman, the baby, the pregnancy, and the delivery (Guardino & Schetter, 2014). It is a psychological stress or during pregnancy relatively distinctive from general anxiety (Anderson et al., 2019). The anxiety and stress experience may negatively impact the physical, psychological, and socio-emotional health of the mother-to-be.

Also, antenatal anxiety symptoms are worries, concerns, and fears about pregnancy, childbirth, fetus well-being, and anticipated parenting responsibilities (Westerneng et al., 2014). An antenatal anxiety symptom differs from general anxiety experience because it is specifically rooted in concerns amongst pregnant women in the context of their pregnancies. While general anxiety experience poses a challenge to the individual and the society, antenatal anxiety is dangerous because the fetus, mother, and the larger society are at risk (Biaggi et al., 2016). Given the delicate nature of the prenatal period, anti-anxiety medication cannot be administered to the pregnant woman. This is because drug administration during pregnancy may compromise the formation and development of the fetus, as well as the post-delivery functioning of the infant (Ashaba et al., 2015; Ugwu, 2024). Thus, it complicates the situation of a pregnant woman manifesting acute antenatal anxiety. Regrettably, it may continue after delivery and cause postpartum mental health crises.

There are numerous factors that may be responsible for antenatal anxiety, namely, maternal age, education, employment status, income and ethnicity, lack of support, unwanted pregnancy, psychiatric history, and social conflict. Poor adherence to medical advice, improper nutrition, and resource loss also influenced the prenatal anxiousness (Schetter & Tanner 2012). Another study stated that anemia and hypertension during pregnancy caused antenatal anxiety (Kang et al. 2016). Many predictive factors of antenatal anxiety, such as the educational status of the women, pregnancy complications, social

support, intimate partner violence, and partner factors, can be identified during routine prenatal care (Ezeme et al., 2018). So, having a good understanding of the prevalence and factors associated with antenatal anxiety aids in elaborating preventive antenatal care to prevent it in simple and modified ways like awareness creation, partner counseling, and support.

Consequently, high levels of untreated antenatal anxiety may have a negative impact on the health and well-being of the pregnant woman and the developing fetus. The high levels of antenatal anxiety have been associated with shorter gestation and birth duration, miscarriage, and preeclampsia (Huizink et al., 2016). Additionally, high levels of antenatal anxiety have also been associated with preterm birth and low birth weight, negative emotions, attention-deficit hyperactivity disorder, and developmental delays (Dadi et al., 2020). When a pregnant woman manifests anxiety, the effect cuts across different persons, namely, the fetus, partner, children, and significant others (Ashaba et al., 2015). Therefore, detecting high levels of prenatal anxiety symptoms among pregnant women attending antenatal clinics is very important for prevention, early intervention, and management.

Based on the focus of the present study, the nexus between gravidity and antenatal anxiety was explored. Gravidity refers to the number of times a woman has been pregnant, regardless of the number of infants delivered at full term (Huang et al., 2021). The number of times a woman has been pregnant may contribute to her physical strength and exhaustion, experience, and resilience. The classification of the number of times of pregnancy is as follows: first-time pregnancy refers to primigravida; second-time pregnancy refers to secundigravida; and three-time pregnancies and above refers to multigravida (Huang et al., 2021). Most pregnant women complain some degree of minor discomforts, and there seems to be a difference in anxiety level among primigravida pregnant women and multigravida pregnant women. The lack of knowledge concerning minor discomfort and worries about childbirth and health of the fetus, quality of care during labor, and the level of support from relatives and friends.

Specifically, primigravidas tend to struggle with a lot of things; for instance, purchases of items in preparation for delivery and the number of items needed create stress and anxiety

for them (Huang et al., 2021). As the dates for delivery are also known as the due date, pregnant women seem to be preoccupied with the thoughts of the requirements for delivery, which often consist of whether they would deliver safely. Who would be there for them during labor and delivery? After delivery, what would be next? Who would help them in bathing their baby, especially the primigravidas?. However, secundigravidas and multigrada may not be worried about the factors listed above because they have acquired some experiences in their previous pregnancies (Ciochon et al., 2022). For example, secundigravidas and multigravidas know how to bathe the new baby without complication, unlike primigravidas, who tend to pay others to help them bathe their new baby to avoid complication in the absence of significant social support that will do it for free.

Also, bizarre cravings that tend to occur during pregnancy seem to be another factor that creates worry for them. This is because psychological and medical advice tends to remind pregnant women of the need to stay away from teratogens, which are capable of compromising the development and functionality of the fetus (Ugwu, 2024). Such information sometimes elicits contradiction with the prenatal cravings and exposes them to stress and anxiety (Festinger, 1954). For instance, some pregnant women, especially in the first trimester, use to have different cravings, such as the urge to drink alcohol, eat clay soil, stay in the sun, or inhale offensive odors, among others. The anxiety may be higher in primigravida because they may not really understand what is responsible for the weird cravings (Huang et al., 2021).

In the same vein, psycho-education refers to a therapeutic procedure aimed at improving the functioning and wellbeing of individuals and family members. It is the process of equipping an individual with health-related information necessary for stability (Sarkhel et al., 2020). While providing the health information, some vital domains are targeted, especially areas related to making an individual feel, think, relate, and behave in an accepted fashion. In a case of antenatal anxiety, the pregnant woman, husband, and other significant persons in her life participate in obtaining psycho-education. In Nigeria, psycho-education training for pregnant women is provided during antenatal sessions. It helps pregnant women and other participants to understand the changes, appropriate response

pattern, and tolerance during pregnancy. It enhances the self-awareness of parents and creates rational expectations (Nwabueze et al., 2023). The level of education of an individual will also affect the process and ability to think so as to be able to capture new information easily (Huang et al., 2021).

One of the best ways of reducing anxiety in pregnant women and sometimes even their families is attending antenatal training classes and group counseling and talking about their concerns with peer groups. Pregnancy education, especially in high-risk populations and subgroups of pregnant mothers, is one of the most important factors effective on the prevention of mortality and reduction of the effects of prenatal complications and anxiety, anxiety, and subsequent problems (Yousefzadeh, 2016). Prenatal training classes provide a great opportunity for mothers to correct their misconceptions and misinformation about pregnancy, delivery, and postpartum issues that cause anxiety among them and decrease mental tension among women by increasing their understanding of the pregnancy process. In fact, these classes help pregnant mothers to meet other mothers in the same conditions to experience less anxiety and more confidence through familiarization with the resources available in their community (Bazrafshan & Ghorbani, 2010).

It is plausible to assert that the behavioral responses to manifestations of antenatal anxiety are dependent on thought, belief, and attitude. This line of thought is in tandem with social cognitive theory (Bandura, 1999). Theoretically, this study could be explained using cognitive behavior theory (Bandura, 1999). The theory postulated that human thoughts, beliefs, and attitudes are influenced by the environment. It further proposed that cognitive processes shape human behavior, and the environmental factors influence the cognitive processes. Behavioral changes result from the environmental influences and the cognitive processes. Given that the slang “school is a scam” is a prevailing language in our environment and social interaction, it would likely influence how people think about, handle, and react to school-related information. As people continue to use the phrase, their attitudes toward school will continue to change and they are likely to become indifferent about school over time. The effect of the usage could encompass the users and non-users of the slogan.

The receipt and utilization of psycho-education in the form of antenatal training and counseling provided to the pregnant women are dependent on the cognition, belief, and attitude towards psycho-education (Harrison et al., 2022). For instance, if a pregnant woman manifesting antenatal anxiety does not value antenatal training, its efficacy at relieving her antenatal anxiety is likely to be minimal or nonexistent (Bandura, 1997). Similarly, the belief of the significant others in the life of a pregnant woman about the effectiveness or otherwise of psycho-education in changing a negative condition (antenatal anxiety) would determine if they would participate in the psycho-education training sessions as well as encourage the pregnant woman. Hence justifies the description of the approach as a behavioral reciprocal model (Bandura, 1999).

Additionally, the health theory of coping is adopted to explain the study. The theory was developed by Stallman et al. (2018). The theory perceived coping as cognitive and behavioral reactions to reduce unpleasant emotions. The unpleasant emotions may emanate from any source and may be of different degrees. Because the theory believed that sources of unpleasant emotions or stress cut across multiple facets, it is of the view that coping would be effective when a bio-psychosocial model of health and well-being is adopted. One of the core tenets of this theory is its focus on reducing unpleasant emotions or distress rather than how to address problems that trigger distress. This approach is effective in relieving individuals facing stress of different magnitudes. This line of thought is reasonable because an individual facing stress should be saved first before the cause of the stress is traced. For example, a child experiencing school stress needs intervention to be properly adjusted in school before assessing whether it is separation anxiety or an inability to meet up with social expectations that may be causing the stress.

The health theory of coping recognizes two broad dimensions of coping: effective and ineffective coping. It may be described as the systematic manner an individual utilizes to resolve immediate or perceived distress. While some may engage in world health-recommended mechanisms, others may utilize self-prescribed measures. For example, effective coping mechanisms include positive talk, relaxation, social support, professional

support, or health seeking. On the other hand, ineffective coping includes rumination, social withdrawal, and suppression. There are harmful activities that result from ineffective coping, such as emotional eating, substance abuse, aggression, self-harm, and suicidality. From the foregoing, the present study explored the following hypotheses:

### **Hypotheses**

1. Gravidity (number of pregnancies) will significantly and positively correlate with antenatal anxiety among pregnant women in Southern Nigeria.
2. Psychoeducation will significantly and positively correlate with antenatal anxiety among pregnant women.

### **Participants**

A total of three hundred and fifty pregnant women were recruited from fifteen public and private clinics in different local government areas, Anambra State. The participants were selected within a six-month data collection exercise. The ages of the participants ranged from 19 to 42 years, with a mean age of 30 and a standard deviation of 0.67. One hundred and sixty-five of the participants were housewives, one hundred and five were petty traders, and eighty were civil servants. The duration to respond to the questionnaire was 6 minutes. A multistage sampling technique was utilized for participants' selection.

### **Instruments**

Three instruments were used for data collection, namely,

**The Stirling Antenatal Anxiety Scale** (Sinesi et al., 2022). It contains ten (10) items that assess pregnant women's emotional and cognitive state. It has a 5-point response format: 0 = never, 1 = rarely, 2 = sometimes, 3 = often, and 4 = always. The developer of the scale established a Cronbach Alpha coefficient of  $\alpha = .88$ . In the present study, the research found a Cronbach Alpha coefficient of  $\alpha = .86$ . Some items of the scale include, My anxiety stopped me from doing things. I felt panicky for no good reasons. I worry that something may be wrong with my baby.

**The psychoeducation scale was adapted from the Stirling antenatal anxiety scale.** The adapted measure assesses whether pregnant women have received training in any of the items of the scale. The response pattern is yes = 1, and no = 0. The Cronbach Alpha coefficient of  $\alpha = .89$  was established in the present study.

**Data on gravida** was collected by asking the respondents to indicate the number of pregnancies they have experienced.

### Procedure

The researcher obtained ethical approval to conduct the study from the Humanities and Social Science ethical committee of Nnamdi Azikiwe University, Awka, Anambra State. Also, a letter of introduction was obtained from the Department of Psychology, which was presented to all the selected clinics for permission to carry on the study in their facilities. Two local government areas in each of the three senatorial zones in Anambra State were selected. In Anambra Central senatorial zone, Awka South and Njikoka local government areas were randomly selected. In the Anambra North zone, Onitsha North and Onitsha South were selected. In Anambra South senatorial zone, Aguata and Nnewi North local government areas were selected. Pregnant women attending antenatal clinics were selected after the purpose of the study was explained to them. There was no coercion to fill out the questionnaire. The total of three hundred and fifty copies of the questionnaires were distributed and retrieved accurately. The accurate retrieval of the questionnaires may be due to the pattern of visiting the clinics for data collection on antenatal visiting days by the pregnant women.

### Design and Statistics

The Correlational survey design was adopted and Pearson Moment Correlation Coefficient statistics was used.

### Results

<i>S/NO</i>	<i>Factors</i>	<i>Mean</i>	<i>Standard</i>	<i>1</i>	<i>2</i>	<i>3</i>
			<i>Deviation</i>			
1	Gravida	2.1875	1.33242	1		
2	Psycho-education	5.5804	4.72036	.014	1	
3	Antenatal Anxiety	8.5179	5.89546	.058	-.332**	1



The results showed that Psycho-education significantly and negatively correlated with antenatal anxiety  $r = -.332$ ,  $P < .01$ . Gravida did not correlate significantly with antenatal anxiety.

### **Discussion of findings**

The main purpose of the study was to explore correlations among gravida, psycho-education, and antenatal anxiety among pregnant women in Anambra State. Given the importance of maternal health during pregnancy, understanding related factors was considered germane. Generally, gravid did not significantly correlate with antenatal anxiety, but psycho-education did show a significant correlation. Specifically, psycho-education significantly and negatively correlated with antenatal anxiety ( $r = -.332$ ,  $P.01$ ). The finding is heartwarming because it has further strengthened social cultural theory (Vygotsky, 1978) and social cognitive theory (Bandura, 1999). The result demonstrates the efficacy of psycho-education in mental health wellness.

Contrarily, gravida did not show any statistically significant relationship with antenatal anxiety among pregnant women in Anambra State. The finding is expected given that the participants were selected from antenatal clinics, where resilience, general health information, and coping mechanisms are taught. As noted earlier, antenatal anxiety seems higher among women without social support. As reported by Harrison et al. (2022), the benefits of antenatal medical training are enormous, but most importantly are the psychosocial supports and health information obtained from there. The information obtained from the antenatal clinic visitations suggests that the anxiety that tends to arouse may have been contained.

### **Implications of the Study**

The present results showed a significant partial relationship among the factors of study. The findings have short, medium, and long-term implications as well as practical and theoretical relevance on antenatal anxiety and general maternal wellbeing.

Theoretically, some previous studies explored related factors in antenatal anxiety (Abegaz et al., 2022; Huizink et al., 2016; Takacs et al., 2021; Zyrek et al., 2024) and reported negative consequences of antenatal anxiety. Specifically, Ciochon et al. (2022) compared the antenatal anxiety between primigravida and multigravida pregnant women and found higher antenatal anxiety in primigravida. Also, a review of related empirical literature showed that psychoeducation, which was described in some literature as psychosocial support, was a critical factor in reducing antenatal anxiety. Importantly, the present study has yielded empirical support for the efficacy of psychoeducation in reducing antenatal anxiety. It has provided another understanding of the no impact of the number of pregnancies on antenatal anxiety.

Practically, the findings are important for stable prenatal development, maternal wellbeing, and postpartum stability and functioning. Given the delicate nature of the antenatal period, understanding factors that constitute stress will be helpful in proffering solutions. The study has laid to rest the assumptions that the number of pregnancies a woman has carried contributes to her stress experience. Psychoeducation, which is provided to pregnant women, has been shown to be a useful instrument for improving wellbeing. Thus, one of the containment approaches to antenatal anxiety is to improve the application of psychoeducation.

## **Recommendations**

Based on the general importance of the study and the results of the present finding, the following recommendations are made:

1. Other researchers should utilize longitudinal research to enable them to gather information throughout the nine-month pregnancy period. It will enable the researchers to know whether there is a time anxiety occurs and specific related factors at the time.
2. Given the importance of the present study, generalization of findings is needed; hence, there should be an increased number of participants. Greater numbers of apprentices should be selected for the study to be able to obtain a robust research

finding. The higher the number of participants, the higher the chances of a better result. The participants should be drawn from different ethnic groups to help in attaining generalizable findings.

## Conclusion

The present study is timely and important given the recorded evidence of increasing maternal and child mortality, which may be resulting from antenatal anxiety. Maternal anxiety during pregnancy is dangerous and necessary actions that could curtail the consequences. Maternal anxiety has been reported to have multiplier effects on wellbeing. The study has provided useful information for enhancing a stable experience during pregnancy. Additionally, psychoeducation has shown to be very important in functioning among the pregnant women.

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