International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

Prevalence of Depression and Intimate Partner Violence among Pregnant Women Attending Antenatal Care Sessions in Orolu Local Government, Osun State, Nigeria

I. A. Agboola
E. Bamgboye
Dr. T. A. Olowolafe
M. A. Amuda
Lead City University, Ibadan, Oyo State
agboolaislamiyat@gmail.com, dr_enip@yahoo.co.uk
olowolafe.tubosun@lcu.edu.ng, amudamariam4@gmail.com

ABSTRACT

This study determines the prevalence of depression among pregnant women who visit specific PHCs in the Orolu Local Government, as well as to evaluate the relationship between depression and IPV, the risk factors for AD, and the experience of violence. More than one in three women worldwide report being physically or sexually abused by intimate partners. Even though the most frequent mental illness during pregnancy is depression, the majority of research on maternal depression has concentrated on postpartum depression. This study employed a cross-sectional design using a three-stage sampling. Simple random sampling was used to pick one PHC from each of the ten stratified wards, and proportionate random sampling was used to pick respondents from each of the health facilities. All pregnant women who were present for antenatal care sessions at the time the study was carried out were recruited. An interviewer-administered questionnaire was used to obtain data from the respondents. Data obtained were analyzed using descriptive statistics and the Chi-square test at p=0.05. AD affected 56.0% of the population. 26 (8.0%) of the responders reported high levels of GBV exposure while pregnant. While parity and violent experiences were linked to depression, the socio-demographic features of the respondents were not linked to depression during pregnancy. There is a need to encourage investments in effective prevention, diagnosis, and treatment initiatives that are crucial for identifying pregnant women in need of intervention to safeguard the well-being of mother and baby. AD is frequently ignored and underdiagnosed, so prenatal care should not only focus on physical health but also on emotional health. It is advised to screen for depression and IPV during prenatal visits with referral to relevant care and services.

Keywords: *Depression, pregnant women, intimate partner violence, antenatal care, female victims, domestic violence*

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

INTRODUCTION

Depression is a prevalent mental illness. According to estimates, the condition affects 5% of adults worldwide. Consistent sorrow and a lack of interest in formerly fulfilling or joyful activities are its defining traits. Additionally, it may impair appetite and sleep. Concentration problems and fatigue are frequent. The largest cause of disability in the world today is depression, which also significantly increases the burden of sickness on the planet (World Health Organisation, 2015). It is now known that there are numerous complicated elements, such as environmental, social, biological, and psychological risk that interact to cause depression. The most common psychiatric condition during pregnancy, depression, is correlated with clinical and psychosocial obstetric variables (Dadi, Miller & Mwanri, 2020).

Prenatal or perinatal depression, often referred to as antenatal depression, is a type of clinical depression that can impact a woman while she is pregnant and, if left untreated, can be a precursor to postpartum depression. According to estimates, this illness affects between 7% and 20% of expectant mothers. Pregnancy-related stress and anxiety can contribute to antenatal depression, though to a greater extent. Unplanned pregnancies, trouble getting pregnant, a history of abuse, and financial or family circumstances are some other triggers (Bind, Biaggi, Bairead, Du Preez, Hazelgrove, Waites, Conroy, Dazzan, Osborne, Pawlby, Sethna, & Pariante, 2021). Traditional antenatal care prioritizes physical health over emotional well-being. As a result, prenatal depression is frequently underdiagnosed both locally and globally.

Studies of prenatal psychiatric illness have just become more widespread in the last ten years. Because of the hormonal changes that occur during pregnancy, particularly in the first trimester, a woman's psychology is more likely to be volatile, emotional, and melancholy. Clinical mania, sadness, or even hallucinations could manifest (Orpin, Papadopoulos & Puthussery, 2020). The increased frequency of depression during pregnancy is caused by a variety of factors. Pregnancy is often welcomed by women, but it is also a significant physiological and psychological event.

Pregnancy-related stress may be too much for women who are already managing other more persistent life pressures. Additionally, pregnancy entails particular requirements that different women may find challenging. For example, if a woman has experienced poor parenting herself or was sexually abused as a child, or if she is soon to become a mother (Ayano, Tesfaw & Shumet, 2019).

An estimated one in five women worldwide experience antenatal depression, which is more common in low- and middle-income nations than in high-income ones. WHO estimates that the prevalence of APD varies from 12 to 42% in LMICs, from 26.3% overall in Sub-Saharan Africa to 8.3 to 26.6% in Nigeria (Bind *et. al*, 2021). Depending on where in the world you are, antenatal depression is more or less common. Antenatal depression affects as many as 16% of pregnant women in the US, whereas it affects as many as 24% of pregnant women in South Asia (Gadanya, Abdulfathi & Ahmad, 2018). The prevalence

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

is rising as more medical research is being done. Before, antenatal depression was dismissed as being the natural stress of any pregnancy and was seen as a rather common condition (Aghajafari, Letourneau, Newsha, Nela & Giesbrecht, 2018). It can be brought on by a variety of things, most of which are related to the mother's personal life, including her family, financial situation, romantic relationships, etc. Additionally, it may be brought on by the physiological and hormonal changes related to pregnancy. Lack of social support, an unhappy marriage, hostile work situations, a history of domestic abuse, and unintended or unwanted pregnancies are additional risk factors.

A significant public health and human rights issue is IPV against women. Although violence can take many different forms and occur in a variety of places, such as the workplace, school, and community, violence at home by intimate partner violence is thought to be the most common type. Violence by an intimate partner can take the form of physical, sexual, or emotional abuse acts as well as controlling behaviors (Aboagye, Ahinkorah, Tengan, Salifu, Acheampong, Seidu, 2022). Slapping, kicking, pushing, and beating are all considered kinds of physical violence, as are forced sexual contact and other types of sexual coercion. Insults, demeaning, persistent humiliation, threats of violence, or controlling behaviors, such as cutting off a person from friends and family, watching their every move, and denying them access to money, jobs, education, or medical treatment, are all examples of psychological abuse. Due to its prevalence, detrimental health effects, and potential for intervention, attention has recently been drawn to intimate partner violence during pregnancy because this occurs everywhere in the world, including Europe, Asia, Australia, America and Africa, especially here in Nigeria, it warrants serious and critical consideration (Oche, Adamu, Abubakar, Aliyu & Dogondaji, 2020).

According to the World Health Organisation (WHO), IPV refers to "any behavior inside an intimate relationship that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse, and uncontrollable behaviors." The frequency of IPV against women may be as high as 61% in sub-Saharan African countries, where it is the most prevalent type of violence against women and has become a major public health concern (Oche, Adamu, Abubakar, Aliyu & Dogondaji, 2020). Approximately 38.7% of women reported experiencing physical violence, 30.7% emotional violence, and 14.8% sexual violence from intimate partners in their lifetimes, according to statistics from the W.H.O 2018 Demographic Health Survey (DHS). Negative outcomes are usually linked to IPV. Physical harm such as bruising, abrasions, lacerations, broken bones or teeth, and attempted strangling may be among them.

In addition, these women are more prone to experience mental health issues including anxiety and phobias, which can result in a variety of behavioral changes like smoking, excessive alcohol and recreational drug use, low self-esteem, post-traumatic stress disorder (PTSD), and risky sexual behavior. Depression, the biggest cause of disability worldwide, and IPV are frequently linked (Oche, Adamu, Abubakar, Aliyu & Dogondaji, 2020). According to a systematic assessment of data, mostly from Africa, the

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

prevalence of IPV among pregnant women ranged from 2% to 57%. Pun and colleagues found a 20% IPV during pregnancy in their large prospective cohort study, which included 2,004 pregnant women seeking antenatal care. Previous studies have demonstrated that exposure to IPV during pregnancy is linked to both fatal and non-fatal illnesses for both the mother and the unborn child. The most frequent form of violence against women is IPV, which does not respect cultural, socioeconomic, or religious boundaries and affects all ethnic groups.

In sub-Saharan Africa, 13–49% of women reported experiencing physical violence from an intimate relationship at some point in their lives, with 5-29% of those women reporting actual assault (Abama, 2019). The range of IPV prevalence in Nigeria is between 11 to 79%. This wide variation is thought to be the result of methodological variations in IPV estimation. 68.1% of married women reported verbal abuse, while 31.4% reported both verbal and physical abuse. Physical abuse was experienced by 7.3% of women, sexual abuse by 19.9%, and psychological abuse by 61.1% of women.

IPV rates varied from 28% in Madagascar, 57% in India, 74% in Ethiopia, and 87% in Jordan, according to studies done in sub-Saharan African and Asian countries. Domestic violence by an intimate partner alone had a rate of 15.5 to 70.9% in a multi-country study done in 10 different nations, while violence by non-partners ranged between 5.1 and 64.6% (Berhanie, Gebregziabher & Berihu, 2019). A study on the prevalence and risk factors for intimate partner violence exposure in Lagos, Southwest Nigeria, found that it occurs 29% of the time, with large percentages of victims reporting sexual (8%), physical (9%) and psychological (23%) abuse. Research in Oyo found that among women of reproductive age, wife beating was prevalent (31.1%). Studies among expectant women in Zaria and Jos, Northern Nigeria, revealed that 28% and 63.2% of respondents, respectively, had suffered some kind of maltreatment. One of the top causes of maternal mortality in certain industrialized nations, including the United States and the United Kingdom, is intimate partner violence during pregnancy. According to reports, pregnant women who have been exposed to pregnancy-related IPV have a higher risk of perinatal and neonatal mortality than pregnant women who have not been exposed.

While maternal effects of IPV during pregnancy may include abortions, miscarriages, and gestational diabetes, neonatal issues caused by IPV include intrauterine growth retardation, preterm delivery, low birth weight with extended intensive care and death. Although there are a lot less cases documented, IPV is extremely common among pregnant women in Nigeria. Given that most instances of violence against an intimate partner are not viewed as wrong, this is probably due to the influence of religion and culture, particularly in many African countries. In these regions, culture may permit couples to solve their problems through the use of violence. In Nigeria, which is largely patriarchal in nature, men are still seen as the "gods" of the home and are in charge of all. Therefore, incidents go unreported affairs, including women's right to procreation because doing so is seen as demeaning to the husband and disrespectful of family members and elders who play a role

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

in mediating such disputes. Because of this, the real scope of the issue is mostly unrecognized and unexplored. There are still many knowledge gaps, particularly in low- and middle-income countries like Nigeria, despite the fact that there is an increase in research on the prevalence and health impacts of IPV during pregnancy from many different nations throughout the world. Studies on domestic violence from all around the world were included in systematic reviews; however, the review did not include studies involving pregnant women. The data revealed that in comparison to North America and Europe, very few studies and publications came from Africa. Additionally, there are variations in the cultural and religious practices observed in the various regions of the nation; even in the northern region, there are variations in how IPV is perceived. (NDHS 2018).

According to a study done in Southwest Nigeria, the most common forms of physical abuse suffered by pregnant women were being hit (13.4%), kicked (14.4%), and slapped (27.2%). Due to their fear of getting a divorce or ending their marriage, the majority of pregnant women in Africa who are subject to violent relationships prefer to suffer in quiet[10]. A little over half (54%) of respondents in a different study on the disclosure of IPV among pregnant women performed in Lagos concurred that they would not discuss their violent experiences with anyone[7]. This is not surprising given that the NDHS 2018 data found that the rate of IPV in pregnancy is higher in southwest Nigeria, where the Yoruba tribe is the most numerous, than in northwest Nigeria, where the Hausa tribe is the most numerous. Intimate partner violence (IPV) against women is quite common and has a negative impact on health, including depression. Although the impact of IPV on women in low- and middle income countries (LMICs) is greater, it is unclear whether IPV raises the risk of depression in pregnant women and in settings where the disease is prevalent.

Abuse in an intimate relationship can cause severe mental, emotional, and spiritual pain. One's confidence can be damaged by repeated abuse and insults, which can lead to an endless cycle of guilt and humiliation and a sense that they are never good enough for anything. The victim's regular life may also be impacted by this trauma. It can cause significant changes in a person's outlook, such as lack of desire, absences from or subpar performance at work or school, excessive fear and anxiety in situations that would not ordinarily be distressing, and in extreme circumstances, it may even result in mortality. According to research, victims of depression frequently engage in substance misuse and drug addiction as a coping mechanism. An estimated 35-70% of female victims of domestic violence have a depressive diagnosis. More than one in three women worldwide report experiencing physical or sexual abuse at the hands of a romantic partner. Serious mental health consequences like depression and depressed symptoms are linked to living with IPV.

Statement of the Problem

Intimate partner violence and sexual violence are two of the most widespread types of violence against women, and they are a major public health and human rights concern. Although women can be violent in relationships with men, male intimate partners or ex-

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

partners are the more frequent offenders of violence against women. Most governments formerly regarded violence against women, especially "domestic" abuse committed by a husband or other close partner, as a relatively unimportant social issue.

Depression from IPV ultimately develops, necessitating careful attention to completely control it. Although IPV is extremely common in Nigeria, there are much less incidents that are recorded[9]. Over one in three women worldwide report experiencing physical or sexual abuse at the hands of their intimate partners, which is considered an important public health and human rights issue. Intimate partner violence (IPV) is characterized by physical, sexual or emotional abuse. Although there is a recognized link between depression and IPV, very few studies have looked at depression as a risk factor for IPV; hence, this needs to be taken seriously to stop or lessen additional future harm or occurrence. Additionally, post-natal depression has been the subject of the majority of studies on maternal depression; as a result, this is a significant research deficit.

The aim of this study is to assess the prevalence of both depression and IPV among pregnant women attending antenatal care sessions in Orolu Local Government, Osun State.

Research Questions

i. What is the prevalence level of IPV among pregnant women in Orolu Local Government, Osun-State?

ii. What is the prevalence level of depression among pregnant women attending antenatal care session in selected primary health care centers in Orolu Local Government, Osun State?

Significance of the Study

The findings of this study shall be of great importance to academics, individuals and general public as it will provide insight on the prevalence of IPV and risk factors associated with antenatal depression among pregnant women attending antenatal care sessions at selected primary health centers in Orolu Local Government (Ifon-Osun-state). This information shall be beneficial to the Ministry of Health and Non-governmental organisations interested in health issues of women of reproductive age and the entire population of women, in coming up with intervention measures to curb the problems that arise due to prevalence of antenatal depression.

The information generated from the study shall also help policy makers, planners and implementers of programmes to be able to approach the fight against morbidity and mortality as a result of antenatal depression in a more holistic way. Lastly the study will contribute to the field of knowledge in antenatal depression among pregnant women and act as a basis for future research in this area.

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

Literature Review

Depression has been recognized for thousands of years, with early accounts from Aretaeus of Cappadocia and Hippocrates, who termed it "melancholia." It is categorized as a mood disorder, impacting about 20% of individuals in their lifetime, with major depressive disorder affecting 8% of the population. Depression is a leading cause of disability, particularly among those aged 18 to 30, and affects approximately 3.8% of the global population, including 5.0% of those over 60 years old (World Health Organisation, 2021).

Depression can be classified as mild, moderate, or severe, affecting daily functioning and social interactions. Unipolar depression presents with persistent low mood and loss of interest, while bipolar disorder includes alternating manic and depressive episodes. Various factors contribute to depression, including biological predispositions, environmental stressors, and personal circumstances. Those with a family history of depression or a history of trauma are particularly vulnerable (American Psychiatric Association, 2013).

Pregnancy is often seen as a time of joy, yet many women experience significant psychological challenges, including antenatal depression. This condition can arise from hormonal changes, stress related to impending motherhood, and societal pressures. Estimates suggest that 12-20% of pregnant women experience depression, which can negatively impact maternal health and fetal development (Gavin et al., 2005). Symptoms of antenatal depression include fatigue, changes in appetite and sleep patterns, and feelings of hopelessness or guilt. Effective early detection is crucial for treatment; tools like the Patient Health Questionnaire (PHQ-9) and the Edinburgh Postnatal Depression Scale aid in identifying those at risk. Universal screening during prenatal visits is advocated by maternal health organisations to ensure timely intervention (American College of Obstetricians and Gynecologists, 2018).

Treating prenatal depression requires careful consideration due to potential effects on both mother and child. Non-pharmacological treatments such as psychotherapy, particularly Cognitive Behavioral Therapy, have shown efficacy in reducing symptoms. Support from family and structured mental health interventions can enhance recovery. However, the involvement of healthcare providers is essential to facilitate appropriate referrals and ongoing support (Murray et al., 2010). Exercise may alleviate symptoms of depression both during and after pregnancy, with activities such as yoga, stretching, walking, and aerobic exercise shown to be beneficial (Duncan et al., 2020; Loughnan et al., 2019). A meta-analysis clearly showed that exercise intervention had a significant overall effect on reducing antenatal depression symptoms (Duncombe et al., 2006). In terms of pharmacological treatment, it's crucial to discuss the risks and benefits of medications with healthcare providers when considering options for prenatal depression (Steiner et al., 2015). Commonly prescribed antidepressants during pregnancy include tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitors (SSRIs) (Einarson & Koren, 2014). While these medications are effective and generally lead to improvements in mood and maternal well-being within a few weeks, some studies have indicated potential risks for

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

infants, such as respiratory issues and lower Apgar scores, particularly when SSRIs are used during the later stages of pregnancy (Hernandez-Diaz et al., 2011).

Research indicates that women with prenatal depression are at increased risk for postpartum depression, as the conditions are often interconnected (O'Hara & Swain, 1996). In a meta-analysis including over one million perinatal women, women who experienced depression during pregnancy were about four times as likely to experience postpartum depression compared to women with no depression during pregnancy (Gavin et al., 2005). Factors influencing postpartum depression include socioeconomic status, planned versus unplanned pregnancies, and the quality of parental relationships prior to childbirth (Brockington et al., 2006). Higher levels of maternal depressive symptoms during the postpartum period have been linked to adverse health outcomes for infants, including emotional and behavioral issues, and cognitive deficits (Murray et al., 2010).

Depression during pregnancy can also heighten the risk of spontaneous abortion, with evidence suggesting that both acute and chronic stress may compromise immune function and contribute to pregnancy loss (Miller et al., 2001). A significant study from Denmark indicated that depressed women not exposed to SSRIs had higher rates of first-trimester miscarriages, suggesting that the psychological state of the mother may be a contributing factor rather than the medication itself (Nørgaard et al., 2010). Infants born to mothers with high levels of prenatal depression often face a range of health challenges, including lower birth weights and increased hospitalization rates (Lund et al., 2010).

The prevalence of antenatal depression varies globally, affecting approximately 15% to 65% of pregnant women (Woody et al., 2021). A systematic review and meta-analysis revealed that the pooled prevalence of any antenatal depression was 20.7% (Fisher et al., 2012). Factors contributing to antenatal depression include personal circumstances—such as family and financial stress—as well as physiological changes during pregnancy (Hobfoll et al., 2010). Women in low-income countries are particularly vulnerable due to limited access to healthcare and social support (Bhutta et al., 2013). Research has identified additional risk factors, including low vitamin D levels and a history of domestic abuse (Miller et al., 2013).

Addressing maternal mental health is crucial not only for the well-being of mothers but also for the positive development of their children (Field, 2011). Tools like the Edinburgh Postnatal Depression Scale (EPDS) can assist healthcare professionals in screening for and assessing the risk of depression in expectant mothers (Cox et al., 1987), ensuring that appropriate interventions are in place to support both maternal and infant health. It is important to note that the EPDS is a screening tool and not a diagnostic tool (O'Hara & Swain, 1996).

Factors that Influence Antenatal Depression

Antenatal depression typically results from a variety of causes. It is typically linked to the stress and anxiety of becoming pregnant. Life stress, a history of depression, a lack of social

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

support, unwanted pregnancies, domestic violence, lower income, lesser education, smoking, single status, teenage pregnancy, and first pregnancies are some of the most significant risk factors, according to the literature[22]. Social support is typically understood to be any activity or interaction that benefits a person in some way. There is some evidence to support the idea that many factors affect the availability of social assistance, including the potential support provider's assessment of the need and their capacity to do so. However, one of the most crucial aspects of social support is how the recipient feels about it; in contrast, a lack of social support is linked to anxiety and sadness.

Prenatal depression has some known risk factors. Negative attitudes toward pregnancy, unexpected or first pregnancies, physical pain (such as sickness), and previous stillbirth are the ones that are most frequently noted. As risk factors for depression during pregnancy, inadequate prenatal care, dysfunctional marriages, remarriage, and substance abuse/dependency have all been found. Depression during pregnancy is predisposed by several risk factors. Poor prenatal care, poor nutrition, stressful life events like financial hardship, gender-based violence, and polygamy are a few of them. Others include a prior history of psychiatric disorders, prior puerperal complications, and prior events during pregnancy like prior abortions, and prior instrumental or operative delivery methods. Age, marital status, gravidity, whether the pregnancy was intended or not, prior stillbirth history, prior lengthy labor history, and degree of social support are other considerations. Therefore, assessing depression during pregnancy is crucial for identifying pregnant women who require treatment to protect the health of both mother and child.

Antenatal depression can affect everyone, but some women may be more prone to the blues than others due to specific events. There is undoubtedly no specific group of women who are exempt from its effects. Women are more likely to experience depression during pregnancy if they struggle to conceive, have an unwanted pregnancy, worry about how they will handle having a child, receive inadequate support from their partner, family, and/or friends, have a history of depression, have low self-esteem, have been abused, or have had previous miscarriages or stillbirths, which can cause anxiety and depression.

Young age, low income, lower educational attainment, a history of depression, a history of miscarriages and pregnancy terminations, a history of childhood sexual abuse, concurrently high levels of anxiety during pregnancy, low levels of self-esteem, and low levels of social support are all risk factors. There seems to be little study on the relationship between significant life experiences, a negative cognitive attributional style, and prenatal depression. A previous traumatic labor or delivery, an unplanned pregnancy, problems during the pregnancy, such as hyperemesis (severe sickness), Symphysis Pubis Dysfunction (SPD), stressful major life events like a relationship breakup, job change or unemployment, moving houses, bereavement, a previous pregnancy loss, miscarriage, or stillbirth, are additional risk factors. Although less well researched than postpartum depression, depression during pregnancy is similarly linked to poor results for the unborn child. Women with antenatal depression are more likely to receive subpar prenatal care, use alcohol, and

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

gain less weight throughout pregnancy, all of which harm the unborn child. Pregnancy depression is linked to a higher frequency of newborn depression in adolescence, spontaneous preterm deliveries, slower foetal growth, and generally depressed infant behavior. Women who are depressed throughout pregnancy are more likely to experience depression after giving birth because antenatal depression is a powerful predictor of postnatal depression.

Because of a common notion that pregnancy somehow protects against mood disorders, depression in pregnant women is frequently disregarded. In actuality, about 25% of postpartum depression cases begin during pregnancy, and the condition may reach its height at that time. For both mother and fetus, it can be harmful to ignore depression throughout pregnancy. Women who are depressed typically neglect their own needs. Some research indicates that depression in pregnant women may have an immediate impact on the fetus. These women may smoke, drink excessively, or neglect proper nutrition. Their off-kilter infants frequently exhibit irritability and lethargy. These neonates could develop into infants who are emotionally immature, underweight, slow learners, and have behavioral issues, including aggressiveness. Governmental Organisations and other groups concerned with the health of women and girls in general will also find this information useful in developing intervention strategies to address concerns brought on by the incidence of prenatal depression.

METHOD

The study made use of a facility-based cross-sectional survey design. Cross-sectional study design was used for this study, the target population consisted of pregnant women within the age-group 15 and 49 years as categorized by the National Health Demographic Survey (NDHS, 2018), as the age fertility range. Orolu local government area is found in Osun state, the South-west geopolitical zone of Nigeria. The current estimated population of Orolu LGA is 109,741 inhabitants, with the area primarily populated by members of the Yoruba ethnic affiliation. A three-stage sampling procedure was used in this study, which was made up of three different Stages. All pregnant women in each of the primary health centers who came for antenatal care sessions during the period of 2nd and 20th September 2022 were recruited into the study until the allocated number of respondents was reached. A 10-item questionnaire called the Edinburgh Postnatal Depression Scale (EPDS) was created to help determine whether a woman had postpartum depression. The scale's items are related to a variety of clinical depression symptoms, including suicidal thoughts and behavior, fatigue, and feelings of guilt. The EPDS may be used up to eight weeks after delivery and may also be used to evaluate pregnant women for depression. The Edinburgh Postnatal Depression Scale is a commonly used depression screening instrument that has been translated and validated in a variety of languages, including English, Spanish, Arabic, Hindi, Turkish, Swedish, German, French, and Dutch[3]. Scottish health facilities in Edinburgh and

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

Livingston created the Edinburgh Postnatal Depression Scale. Initially, IPV during pregnancy was evaluated using the Abuse Assessment Screen (AAS) questionnaire. This scale is frequently used and has good validity and reliability to test for IPV in pregnant women. The mental, physical, and sexual components of domestic violence are all evaluated on the scale. Five separate components made up the questionnaires. The questionnaire's completed cycles were manually sorted out, cleaned, and coded; a coding guide will be created to be used to code each question before data submission. Statistical software SPSS version 20.0 was used for data entry and management

RESULTS AND DISCUSSION

A total of 330 respondents took part in the study (Table 4.1). All of the respondents who were contacted were expecting mothers. The respondents' ages ranged from 17 to 44 years old, with a mean age of28.23±5.86. The majority of respondents 182 (55.1%) were between the ages of 25 and 34; just 89 (26.9%) were between the ages of 15 and 24; and the remaining respondents were 35 years old. Among the respondents, 265 (80.2%) were of the Yoruba ethnic group, followed by 38 (11.5%) of the Hausa ethnic group, 22 (6.8%) of the Igbo ethnic group, and 1 (0.3%) each of the Efik, Edo, Fulani, 2 (0.6%), and Delta ethnic groups. Muslims made up the majority of responders (167; 50.5%), followed by Christians (162; 49.2%), and African traditionalists (1; 0.3%). Fewer respondents, 77(23.2%), had primary education as their highest level of education, followed by 73(22.3%) respondents with tertiary level education, and the fewest respondents, 8(2.5%), had no formal education.

The majority of respondents, 172(52.0%), had secondary education as their highest level of education. Some of the respondents, 154 (46.7%) were traders, 70 (21.1%) were artisans, 33 (9.9%) were housewives, 21 (6.5%) were either students or unemployed, and 16 (5.0%) were self-employed. The majority of the respondents, 255 (77.3%), were married; 71 (21.4%) were single; 2 (0.6%) were either separated from their spouses or divorced; and 2 (0.6%) were widowed. Table 4.1 displays the outcome.

Table 1: Relationship between the Number of Study Respondents and the Socio-Demographic Characteristics N=330

Variables	Frequency	Percent (%)
Age(years)		
15-24	89	26.9
25-34	182	55.1
35+	59	18.0
Ethnic group		
Yoruba	265	80.2
Hausa	38	11.5
Igbo	22	6.8
Others	5	1.5

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

Religion		
Christianity	162	49.2
Islam	167	50.5
African tradition	1	0.3
Highest Level of Education		
No formal education	8	2.5
Primary education	77	23.2
Secondary education	172	52.0
Tertiary education	73	22.3
Occupation		
Trading	154	46.7
Artisan	70	21.1
Housewife	33	9.9
Government/Private worker	36	10.8
Self-Employed	16	5.0
Student/Unemployed	21	6.5
Marital Status		
Married	255	77.4
Widowed	2	0.6
Separated/divorced	2	0.6
Single	71	21.7

Source: Researcher's Field Work (2025)

Out of the three hundred and thirty (330) respondents, the majority, 324 (98.1%), do not smoke, while only six (1.9%) do. Eleven (3.4%) of the respondents also consume alcohol, whereas the majority of pregnant women, 319 (96.6%), do not. The majority of the pregnant women, 219 (66.3%), were in their third trimester, followed by 101 (30.7%) and 10 (3.0%) who were in their second trimester. The outcome is displayed above.

Prevalence of Antenatal Depression

Responses of the pregnant women to the statement, "I have been able to laugh and see the funny sides of things," revealed that the majority, 184 (55.7%) of the respondents, had been able to do so "As much as they always could," while only 71 (21.4%) of the respondents said, "Not quite so much now," 41 (12.4%) answered, "Definitely not so much now," and 34 (10.5%) said, "not at all." The respondents' answers to the statement "I have unduly placed the blame when things went wrong" were as follows: 135 (40.9%) responded "Yes, sometimes," 86 (26.0%) stated "Yes, most of the time," 68 (20.7%) answered "No, never," and 41 (12.4%) checked the box "Not very frequently."

The following are the respondents' answers to the question, "I have been concerned or worried for no good reason." 102 respondents (31.0%) and 114 (34.4%) said "No, not at all."54 (16.4%) of the pregnant women chose "Hardly Ever," while 60 (18.3%) chose "Yes, very often." Pregnant women's responses to the statement "I have been terrified or panicky for no really good reason" were as follows: Few 114 (34.4%) said "No, not at all," while 98 (29.7%) chose "Yes, occasionally," 60 (18.3%) replied "Yes, quite a lot," and 58 (17.6%)

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

responded "No, not much." When pregnant women were asked to respond to the statement "Things have been getting on top of me," the responses were as follows: 121 (36.5%) said "No, I have been coping as well as ever," 81 (24.5%) chose "No, most of the time I have coped quite well," 68 (20.7%) said "Yes, sometimes I haven't been coping as well," and the remaining respondents (68%) chose "No, I have been coping as well as ever. Yes, most of the time I haven't been able to cope at all, said 60 respondents (18.3%).

These are the respondents' responses to the claim that "I have been so miserable that I have Difficulty sleeping"; A significant portion of respondents, 120 (36.5%), answered "No, not at all," followed by 73 (22.3%), "Yes, occasionally," 69 (21%) and "Yes, most of the time," and 68 (20.7%) of pregnant women. When asked to react to the statement, "I have felt sad or unpleasant," the majority of respondents, 126 (38.4%), said, "Not very frequently," whereas 80 (24.2%) of the respondents who were pregnant said, "Not very often." "No, not at all," "Yes, quite often," and "Yes, most of the time," respectively. The least number of respondents, 45 (13.6%), chose "No, not at all."

Most of the respondents stated "Yes, most of the time" in response to the statement "I have been so upset that I have been crying." However, some respondents said "No, never," "Only occasionally," and "Yes, most of the time." Yes, rather frequently was answered by 59 respondents (18.0%). When asked if the notion of killing oneself had ever crossed their minds, the majority of respondents 292 or 88.5% said "never." Eleven respondents or 3.4% of the total sample, said it had done so occasionally or scarcely ever, while 15 respondents or 4.6% said it had done so rather frequently. It was also noted that 38 out of 330 respondents (11.4%) reported having considered killing themselves in the previous week. Table 2 presents the findings.

Table 2: Responses of the Pregnant Women to Depression Statements

Variables	Frequency	Percent (%)
I have been able to laugh and see the funny side of things		
As much as I always could	184	55.7
Not quite so much now	71	21.4
Definitely not so much now	41	12.4
Not at all	l34	10.5
I have looked forward to enjoying things		
As much as I ever did	158	48.0
Rather less than I used to do	51	15.5
Definitely less than I used to do	75	22.6
Hardly at all	46	13.9
I blamed myself unnecessarily when things went wrong		
Yes most of the time	86	26.0
Yes, some of the time	135	40.9
Not very often	41	12.4
No, never	68	20.7

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

I **have been anxious or worried for no good reason**		
No, not at all	114	34.4
Hardly ever	54	16.4
Yes, sometimes	102	31.0
Yes, very often	60	18
I **have felt scared or panicky for no very good reason**		
Yes, quite a lot	60	18.3
Yes, sometimes	98	29.7
No, not much	58	17.6
No, not at all	114	34.4
Things have been getting on top of me		
Yes, most of the time I haven't been able to cope at all	60	18.3
Yes, sometimes I haven't been coping as well	68	20.7
No, most of the time I have coped quite well	81	24.5
No, I have been coping as well as ever	121	36.5
I have been so unhappy that I have difficulty sleeping		
Yes, most of the time	69	21.1
Yes, sometimes	73	22.3
Not very often	68	20.7
No, not at all	120	30.65
I have felt sad and miserable		
Yes, most of the time	45	13.6
Yes, quite often	79	23.8
Not very often	126	38.4
No, not at all	80	24.2
I have been so unhappy that I have been crying		
Yes, most of the time	67	20.4
Yes, quite often	59	18.0
Only occasionally	73	22.0
No, never	131	39.6
The thought of harming myself has occurred to me		
Yes, quite often	15	4.6
Sometimes	11	3.4
Hardly ever	11	3.4
Never	292	88.5

Source: Researcher's Field Work 2025

Categorization of Depression among Pregnant Women

The Edinburgh Postnatal Depression Scale was used to categorize 330 respondents as depressed or not depressed. Pregnant women with scores above 10 out of a possible 30 were considered depressed, while people with scores below 10 (0–10) were considered not depressed. It was clearly stated on the scale that any respondents who scored above 10

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

should be classified as depressed and below 10 should be classified as not depressed. However, a clinical test should be repeated to determine the severity of depression in those whose scores are above 10, as each question on the scale attracts a score of three, making a total score of 30. The outcome is displayed in the figure below:

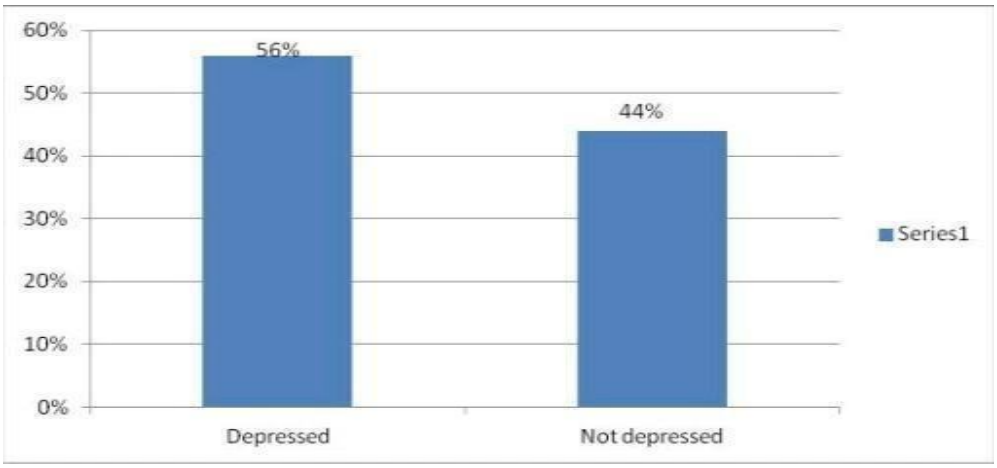

Figure 1: Categorization of Depression among Pregnant Women
Source: Researcher's Field Work 2022

Table 3: Experiences of Physical Violence

Statement Responses	**(Yes)** Frequency	**Percent (%)**
Ever been hit by a partner with his fists while pregnant?	26	8
Ever been hit by a partner with a sharp object or anything that could hurt while pregnant?	9	2.8
Ever been kicked by a partner while pregnant?	8	2.5
Ever been punched by a partner while pregnant?	20	6.2
Ever been slapped by a partner while pregnant?	25	7.7
Ever been beaten by a partner while pregnant?	13	4
Ever been dragged by a partner while pregnant?	78	23.5
Ever threatened by a partner with a knife?	15	4.6
Partner ever thrown things at you when angry while pregnant	15	4.6
Have your Partner's relations ever hit you while pregnant?	4	1.2

Source: Fieldwork (2022)

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

Experience of Psychological Violence

About half of the pregnant women 163 admitted that their partners had called them derogatory names while they were expecting, and more than half 182 felt interrupted by their partners. Of the respondents, 214 (65.0%) reported that their husbands had yelled at them while they were expecting. Few 113 respondents (34.1%) responded positively when asked if they feel their partners criticize them. A small percentage of respondents, 34 (10.2%), claimed that their partners prevent them from seeing their relatives and friends, although the majority of pregnant women, 296 (89.8%), claimed that their partners do not do this. Only 124 (37.5) of the respondents had experienced prenatal insecurity. Of the respondents, 186 (56.3%) said that their husband downplayed their contributions to the marriage.

Discussion of Findings

This study's findings on the causes of pregnant depression are consistent with those of Lancaster and his colleagues. Antenatal depression typically results from a variety of causes. It is typically linked to pregnancy-related anxiety and stress, as well as some of the most significant risk factors identified by the literature, such as a lack of social support, unwanted pregnancies, domestic abuse, low income, low education, smoking, and single status. Few respondents had health issues during their pregnancies, and few of the respondents relied on drugs, alcohol, or other substances to help them cope. Many respondents expressed anxiety about their ability to cope with the expected baby. "Depression in pregnancy may reduce one's capacity for self-care, including inadequate nutrition, drug or alcohol abuse, and poor attendance at antenatal clinics, all of which may compromise a woman's physical and mental health and may reduce optimal fetal monitoring or restrict the growth and development of the fetus.

Violence is another significant risk factor for depression during pregnancy yet only a small percentage of respondents reported experiencing any kind of violence while they were pregnant (physical, psychological, and emotional abuse). Less than half had their partners keep them away from their families and friends while they were pregnant, and few had their partners force them to have sex. The significant prevalence of depression among pregnant respondents among those who reported having experienced violence throughout their pregnancy could potentially be linked to this. Only 26 (8.0%) of the respondents reported being exposed to gender-based violence frequently while expecting. Many abused women experience constant fear. The results of this study are consistent with a survey by Helsie, which found that 10 to 58 percent of women had ever been physically abused by an intimate partner.

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

Summary of Findings

The respondents' ages varied from 17 to 44, which is consistent with the National Health Demographic Survey's (NDHS, 2008) classification of the women's reproductive age range (15-49years). Age was 28.23 5.86 on average. This finding is also consistent with the NDHS 2013 study, which found that the age-specific fertility rate pattern of women in urban settings shows a narrow pick at age 25-29 years. The majority of 182 (55.1%) of the respondents were between the ages of 25 and 34.The research location is located in the south-western region of the country, where the Yoruba ethnic group is the dominant ethnic group, which may account for the majority of respondents' ethnicity. With 167 (50.5%) Muslims and 162 (49.2%) Christians, the two most popular religious groups were virtually equally represented in this survey, which can also be attributed to the fact that the study location is made up of these two major religious groups. Given that pregnancy is expected in married partnerships in Nigerian society, the findings that the majority of respondents were married may be explained.

In Orolu local government, the study sought to identify the frequency of depression among pregnant women who visited specific primary health institutions (Osun State). It showed a prevalence of 56.0%, which is fairly high and significant for public health. The high prevalence supports research by Hobfall and colleagues, who found that low-income populations have prevalence rates of depression ranging from 25% to 50% when utilizing a variety of techniques. The high prevalence rate of depression was caused by the risk variable high frequencies, which were analyzed. More than half of all respondents do not receive assistance from their partners with household tasks or child care, and this lack of support is a significant risk factor for depression during pregnancy. Less than half of respondents indicated that the pregnancy was unintended, and few respondents report having had a miscarriage or stillbirth. Few respondents also reported having experienced miscarriages or stillbirths. These are the main prenatal risks that have been linked to the high prevalence of depression.

Less than half of pregnant women reported that they had not been able to laugh or see the funny side of things at all in the previous seven days. A small percentage of respondents reported that they have not been able to laugh or see the funny side of things as much as they used to. Furthermore, only a small percentage of respondents said they anticipate enjoyment of things significantly less than they did in the past. Meanwhile, 50 respondents (15.5%) said they anticipate enjoyment of things somewhat less than they did in the past, and 45 respondents (13.9%) said they barely enjoy anything. The World Health Organisation reports that for at least two weeks, many women experience low mood, a loss of interest and enjoyment, and impaired energy. Many persons who experience depression also experience anxiety symptoms, irregular eating and sleeping patterns, guilt or feelings of low self-worth, impaired attention, and even symptoms that are medically unexplained.

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

When things went wrong, around half of the respondents blamed themselves unnecessarily. In comparison to 86 respondents (26.0%), 135 respondents (40.9%) indicated they blame themselves most of the time. Less than a third of those surveyed indicated they occasionally feel anxious or disturbed for no apparent cause and fewer still said they do so frequently. This is consistent with what Fatoye and colleagues found, who stated that "Pregnancy has traditionally been a happy and fulfilling period for women. However, data suggests that throughout this time there is an increase in psychiatric morbidity, especially despair and anxiety.

In this study, less than half of the respondents claimed to have experienced fear or panic for no apparent reason in the previous seven days, but quite a few claimed to have had these feelings frequently. A small percentage of respondents admitted that they occasionally weren't dealing well because life had gotten in the way, but 60 pregnant women (or 18.3%) reported that this was the case the majority of the time. This is in line with research done by the organisation for perinatal and postpartum depression. "While hormonal ups and downs impact all pregnant women, some experience the fluctuations more profoundly. Pregnancy hormones may lead to symptoms of depression. However, a variety of additional factors may also play a role in the emergence of depression during pregnancy. A pregnant woman could feel hesitant about the pregnancy, thinking that the timing is off that long-term aspirations might need to be put on hold, or that there might be money issues. She might also be unsure of how she will handle labor and delivery as well as her new motherly responsibilities and worries about carrying the pregnancy. She can also feel bad about her discontent because everyone anticipates her to be joyful and blossoming (Post & Antenatal Depression Association., 2010). Contrary to popular assumption, pregnancy is not always marked by accomplishments and joy. These times in the life of many women are times of melancholy or concern. The physical, hormonal, psychological, and social changes that occur during pregnancy and the postpartum period (puerperium) in women can directly affect her mental health. This also applies to the study's findings, which showed that 79 (23.8%) pregnant women reported feeling depressed or gloomy rather frequently throughout the previous week. In the past week, 45 people (13.6%) reported feeling depressed or gloomy most of the time. Less than half of the respondents, or 73 (22.0%), reported experiencing occasional bouts of sadness that resulted in tears, while 67 (20.4%) reported experiencing bouts of sadness that resulted in tears rather frequently in the previous week.

Depression is distinct from common mood swings and fleeting emotional reactions to problems in daily life. Depression may develop into a significant medical illness, particularly if it lasts for a long time and is moderate to severe in intensity. The affected person may experience severe suffering and perform poorly at job, in school, and in the family. Suicide can result from depression at its worst. Every year, according to World Health Organisation, suicide is thought to be the cause of 1 million deaths (WHO, 2014). Eleven respondents (3.4%) stated they had either "sometimes" or "hardly ever" considered harming oneself, while 15 respondents (4.6%) indicated they did so rather frequently.

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

CONCLUSION

The lack of studies on depression during pregnancy and the dearth of information on the IPV linked to perinatal depression are major issues. Traditional antenatal care prioritizes physical health over emotional wellbeing. As a result, antenatal depression is frequently underdiagnosed both locally and internationally. It is also perceived by the general public and the medical community as a time of emotional health that is immune to mental disorder. To make it impossible to ignore intimate partner violence and depression in pregnancy as normal or merely symptoms of pregnancy, the first and ongoing effort is to become deeply involved in data collection and statistics. Orolu Local Government (Osun state) has a quite high prevalence of prenatal depression (56.0%). This demonstrates that the symptoms are simply disregarded. However, this study found that respondents in the 25-34 age range, the majority of whom are married, were most affected. Additionally, women who reported that their pregnancies were unintended were more depressed than those who reported that they were intended, proving that the desire to become pregnant is a significant risk factor for depression in pregnancy. Other significant risk factors include level of income, experience with financial difficulties, experience with stress, and experience with strep throat (married women were more depressed compared to single, other factors could be responsible for this such as lack of social support, abuse by partners).

An important cause of prenatal depression is having experienced violence while pregnant. One-fourth of the respondents said they had encountered some kind of violence while pregnant. Therefore, it is crucial to step up efforts to avoid violence during pregnancy. There has to be a shift in the way society views IPV; this will allow survivors to understand that it is not "normal," but rather wrong and illegal. It can be made more open by routinely screening for IPV during antenatal care, but this must be done in tandem with an action plan that includes access to pertinent agencies.

RECOMMENDATIONS

1. Raising awareness of the danger signs of depression in pregnancy in medical settings during antenatal care sessions.
2. Programs during antenatal care sessions should include health talks, including health education on the risk factors associated with depression in pregnancy.
3. Hiring and educating medical professionals in the proper evaluation and diagnosis of antenatal depression.
4. Setting up support groups in well-chosen locations to boost women's self-esteem and promote social and family support for expectant mothers.
5. Government policy in Nigeria should be changed to include initiatives for diagnosis and treatment that are crucial for identifying depression in pregnancy.

International Journal of Health and Medical Information
Volume 8, Number 3, December 2025
ISSN: 2350-2169(Print) 2795-3068(Online)
Published By
International Centre for Integrated Development Research, Nigeria
In collaboration with
Copperstone University, Luanshya, Zambia

REFERENCES

Aboagye, R. G., Ahinkorah, B. O., Tengan, C. L., Salifu, I., Acheampong, H. Y., & Seidu, A.-A. (2022). Partner alcohol consumption and intimate partner violence against women in sexual unions in sub-Saharan Africa. *PLOS ONE, 17*(12), e0278196. https://doi.org/10.1371/journal.pone.0278196

Aghajafari, F., Letourneau, N., Mahinpey, N., Cosic, N., & Giesbrecht, G. (2018). Vitamin D deficiency and antenatal and postpartum depression: A systematic review. *Nutrients, 10*(4), 478. https://doi.org/10.3390/nu10040478

Ayano, G., Tesfaw, G., & Shumet, S. (2019). Prevalence and determinants of antenatal depression in Ethiopia: A systematic review and meta-analysis. *PLOS ONE, 14*(2), e0211764. https://doi.org/10.1371/journal.pone.0211764

Berhanie, E., Gebregziabher, D., & Berihu, H. (2019). Intimate partner violence during pregnancy and adverse birth outcomes: A case-control study. *Reproductive Health, 16*, 22. https://doi.org/10.1186/s12978-019-0670-4

Bind, R. H., Biaggi, A., Bairead, A., Du Preez, A., Hazelgrove, K., Waites, F., Conroy, S., Dazzan, P., Osborne, S., Pawlby, S., Sethna, V., & Pariante, C. M. (2021). Mother–infant interaction in women with depression in pregnancy and in women with a history of depression: The Psychiatry Research and Motherhood—Depression (PRAM-D) study. *BJPsych Open, 7*, Article e100. https://doi.org/10.1192/bjo.2021.52

Fekadu Dadi, A., Miller, E. R., & Mwanri, L. (2020). Antenatal depression and its association with adverse birth outcomes in low and middle-income countries: A systematic review and meta-analysis. *PLOS ONE, 15*(1), e0227323. https://doi.org/10.1371/journal.pone.0227323

Gadanya, M., Abdulfathi, M., & Ahmad, M. (2018). Anxiety and depression in pregnancy: Prevalence and associated risk factors among pregnant women attending antenatal clinic in Aminu Kano Teaching Hospital, Nigeria. *Annals of African Medical Research, 1*(13), 12-5.

Oche, O. M., Adamu, H., Abubakar, A., Aliyu, M. S., & Dogondaji, A. S. (2020). Intimate partner violence in pregnancy: Knowledge and experiences of pregnant women and controlling behavior of male partners in Sokoto, Northwest Nigeria. *International Journal of Reproductive Medicine, 2020*, 7626741. https://doi.org/10.1155/2020/7626741

Orpin, J., Papadopoulos, C., & Puthussery, S. (2020). The prevalence of domestic violence among pregnant women in Nigeria: A systematic review. *Trauma, Violence, & Abuse, 21*(1), 3-15. https://doi.org/10.1177/1524838017731570

World Health Organization. (2015). *Understanding and addressing violence against women* (Publication No. WHO/RHR/12.36).