SOCIO-ECONOMIC AND CULTURAL BARRIERS TO DIETARY DIVERSITY AMONG PREGNANT WOMEN IN   NIGERIA

by

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Abstract

This paper examines the socio-economic and cultural barriers to dietary diversity among pregnant women in Nigeria, a critical issue contributing to maternal malnutrition and adverse health outcomes. Despite numerous interventions, many pregnant women continue to lack access to nutrient-rich diets due to economic barriers, cultural food taboos, and food insecurity. Focusing on the interplay of low maternal education, household food insecurity and cultural food practices and preferences, the study aims to identify and analyze these barriers, assess their impacts on maternal health, and propose evidence-based interventions. An in-depth literature review was conducted, drawing from an extensive review of peer-reviewed literature, policy reports, and empirical studies. The paper uses conceptual analysis; defining key concepts and analyzing theoretical relationships between the concepts and content analysis; analyzing existing literature as its methodology. Using Social Cognitive Theory(SCT), the study highlights the role of observational learning, self-efficacy, and reinforcement in shaping dietary behaviours, with significant implications for maternal and neonatal health. The findings reveal that poverty and food insecurity remain a critical determinant of inadequate nutrition, as low-income households prioritize calorie-dense but nutrient-poor foods due to financial constraints. Cultural norms and food taboos further restrict the consumption of nutrient-rich foods, while gender roles and financial dependency hinder pregnant women's ability to make independent dietary choices. The study concludes that maternal nutrition in Nigeria is shaped by a complex interplay of economic, cultural, and gender-related barriers. It recommends multi-sectoral interventions including community-based nutrition education, access to healthcare, improved rural infrastructure, and male-inclusive nutrition programs. Empowering women financially and involving family decision-makers in maternal health education are key to enhancing dietary diversity. Addressing these systemic challenges is essential for improving maternal and neonatal health outcomes, reducing malnutrition, and promoting long-term public health and economic development in Nigeria.

Keywords: Food Insecurity, Maternal Education, Maternal Health, Maternal Nutrition, Public Health interventions

1. INTRODUCTION

All over the world, the importance of Socio-Economic and Cultural Barriers to Dietary Diversity Among Pregnant Women cannot be overemphasized due to the vulnerable state pregnant women often find themselves. Dietary diversity is defined as the ingestion of a wide variety of foods or food groups over a set period of time. It is regarded as a critical component in defining a person's or a family's diet access, utilization, and quality (Conradie et al., 2021). In pregnant women, dietary diversity can be used as a proxy indicator for nutritional adequacy. Dietary diversification is strongly recommended for pregnant women due to their higher nutrient requirements. Pregnant women, as a result, require a varied diet to suit their nutritional needs and thereby improve their nutritional status and which will benefit both the mother and child outcome (Zewude et al., 2024). Maternal nutrition is a cornerstone of health and development, profoundly influencing pregnancy outcomes and the well-being of future generations. Nutritional adequacy during pregnancy is essential for fetal growth, development, and overall maternal health (Brink et al., 2022). A diverse diet, rich in essential nutrients, is critical in meeting the needed nutritional requirements of pregnancy. Yet, for millions of pregnant women in Nigeria, achieving dietary diversity is a daunting challenge (United Nations Children's Fund, 2023). Despite efforts to enhance food security and improve maternal health, the persistent issues of poverty, food insecurity, low maternal education and cultural food norms continue to undermine access to adequate nutrition (Agbo et al., 2024). This has significant implications for public health, economic development, and social equity in a country already grappling with widespread poverty and malnutrition.

Dietary diversification is important during pregnancy to ensure an appropriate intake of vital nutrients. A varied diet helps to supply a variety of vitamins, minerals and other nutrients that are necessary for the proper growth of the fetus and the mother well-being. WHO (2021) emphasizes the need of dietary diversity before, during and after pregnancy and suggest eating a variety of foods to achieve nutritional requirement. The consequences of poor maternal nutrition extend beyond individual health. Maternal malnutrition contributes to a range of adverse pregnancy outcomes, including low birth weight, preterm birth, and stillbirth (Babah et al., 2024). These outcomes not only pose immediate health risks to mothers and their babies but also have long-term consequences for child development and economic productivity (Bilal et al., 2022; Marshall et al., 2022). Children born to malnourished mothers are more likely to experience stunted growth, cognitive impairments, and chronic health conditions, perpetuating a cycle of poverty and poor health.

Nigeria has introduced various policies and programs to improve maternal nutrition and food security. However, these initiatives often fail to address the specific needs of pregnant women, particularly those from low-income households (Agbo et al., 2024; Von Salmuth et al., 2021). Economic constraints and food accessibility challenges remain largely unaddressed, limiting the effectiveness of existing interventions. While agricultural subsidies and social safety nets have

been introduced, they have not significantly improved maternal dietary diversity due to a lack of targeted support for pregnant women (Mekonnen et al., 2023).

This paper employed an extensive literature review to explore the socio-economic and cultural barriers to dietary diversity among pregnant women in Nigeria. Peer-reviewed journal articles and empirical studies were reviewed, focusing on themes such as socio-economic barriers, food access, cultural beliefs, and gender dynamics. The Social Cognitive Theory (SCT) was applied to analyze behavioural influences. This approach enabled a comprehensive understanding of structural, social, and cultural factors affecting maternal nutrition and need for targeted interventions to address the multifaceted challenges posed by poverty, food insecurity, and cultural practices, with a focus on improving maternal and neonatal health outcomes.

Research Objectives

The objectives of this study include examining the impact of economic challenges on dietary diversity among pregnant women in Nigeria, assessing the role of food accessibility and affordability in shaping maternal nutrition choices, analyzing the influence of cultural norms and gender dynamics on maternal dietary habits, evaluating the effectiveness of existing policies and programs aimed at improving maternal dietary diversity, and proposing evidence-based strategies to address socioeconomic barriers to maternal nutrition. By achieving these objectives, this study seeks to inform targeted interventions that can enhance maternal nutrition and break the cycle of malnutrition in Nigeria.

Statement of Problem

In Nigeria, malnutrition among pregnant women remains a public health concern. The region is characterized by diverse food cultures, yet many pregnant women suffer from inadequate nutrition due to poor dietary choices and limited food availability (Onyeaka et al., 2024). The impact of these factors on the nutritional status and overall quality of life of pregnant women is significant but under-researched. In Nigeria, a growing body of research suggest that 1000-day period between a woman pregnancy and her child second birthday is foundational for promoting optimal growth, good health and neurological development that will benefit a child across her lifespan (Breakthrough RESEARCH, 2021). According to WHO ranking in 2023, Nigeria was ranked 11th out of 184 nations in the world with the highest level of Maternal Mortality Rate (MMR). In Nigeria, the MMR was also found to be 547 fatalities per 100,000 live birth. Nigeria as a country continue to struggle with nutrition related problems, which increases the prevalence of under-nutrition among expectant mothers (WHO,2019).

Nigeria has implemented various policies and programs aimed at improving maternal nutrition and food security. Initiatives such as National Policy on Food and Nutrition, Maternal, Newborn and Child Health(MNCH), Micronutrient Supplement Program aimed at have sought to address malnutrition at both individual and community levels (United Nations, 2018). However, these efforts often fail to account for the specific needs of pregnant women, particularly those in low-income households. Structural factors such as poverty and food insecurity are rarely addressed in a comprehensive manner, leaving a significant gap in policy implementation. For example, while agricultural subsidies and social safety nets have been introduced, their effectiveness in improving maternal dietary diversity remains limited (Brink et al., 2022). This is partly due to

the lack of targeted interventions that prioritize pregnant women and recognize the unique challenges they face. Furthermore, cultural norms and gender dynamics play a crucial role in shaping maternal nutrition in Nigeria (Costenbader et al., 2025; Ene-Obong et al., 2017). Traditional food taboos and misconceptions about pregnancy often limit women's dietary choices, particularly in rural areas (Godwin et al., 2022). For instance, certain foods, such as eggs and fish, may be avoided due to beliefs that they could harm the fetus or lead to complications during childbirth (Ezeh et al., 2021). These cultural practices, coupled with limited access to nutrition education, exacerbate the challenges posed by poverty and food insecurity. Additionally, patriarchal household structures often restrict women's autonomy in food purchasing and consumption decisions, further limiting their ability to achieve a diverse diet (Okafor et al., 2022).

Research on maternal nutrition in Nigeria has grown in recent years, significant gaps remain in understanding how these structural factors interact to influence dietary diversity. Most existing studies focus on general food security or child nutrition, with limited attention to the specific needs of pregnant women. This lack of targeted research hampers the development of effective interventions, leaving millions of women vulnerable to the adverse effects of malnutrition.

This paper seeks to address this critical gap by analyzing the socio-economic and cultural barriers to dietary diversity among pregnant women in Nigeria. By focusing on the interplay of poverty, cultural norms and food insecurity, the study aims to provide a detailed understanding of the challenges faced by low-income pregnant women in accessing adequate nutrition. It also explores the broader implications of these challenges for maternal and neonatal health, as well as for Nigeria's social and economic development. Through a comprehensive review of recent empirical studies, this paper highlights the urgent need for targeted policy interventions to address the structural factors that undermine maternal nutrition. The analysis presented in this paper is particularly timely given the ongoing economic and social challenges facing Nigeria. For pregnant women, these challenges have intensified the risks of malnutrition, underscoring the need for immediate action. By examining the root causes of poor maternal dietary diversity and proposing evidence-based solutions, this paper aims to contribute to the growing body of research on maternal health and nutrition in Nigeria.

2. LITERATURE REVIEW

This paper employed an extensive literature review to explore the socio-economic and cultural barriers to dietary diversity among pregnant women in Nigeria. Peer-reviewed journal articles and empirical studies were reviewed, focusing on themes such as socio-economic barriers, food access, cultural beliefs, and gender dynamics. The Social Cognitive Theory (SCT) was applied to analyze behavioural influences. This approach enabled a comprehensive understanding of structural, social and cultural factors affecting maternal nutrition and need for targeted interventions to address the multifaceted challenges posed by poverty, food insecurity, and cultural practices, with a focus on improving maternal and neonatal health outcomes.

Education and Maternal Nutrition in Nigeria
Education and awareness play a crucial role in improving maternal nutrition. Lack of nutrition knowledge among pregnant women, especially in rural and low-income communities (Godwin et

al., 2022), contributes to poor dietary diversity and associated health complications. Research has shown that inadequate nutrition education increases the risk of anaemia, preterm birth, and low birth weight (Jana, 2023). Despite the availability of maternal health programs in Nigeria, many pregnant women lack the necessary knowledge to make informed dietary choices (Adinma et al., 2017). This highlights the need for targeted nutrition education programs to address misconceptions, promote diverse diets, and ensure women understand their nutritional needs.

Many pregnant women, particularly in underserved communities, are unaware of the importance of consuming a variety of food groups during pregnancy (Godwin et al., 2022). A lack of awareness about micronutrient requirements leads to insufficient consumption of iron-rich foods, increasing the risk of iron-deficiency anaemia (Ezeabasili, 2024), a leading cause of maternal morbidity in Nigeria.

Formal education is a strong predictor of better dietary diversity among pregnant women. Studies indicate that women with higher levels of education tend to have more balanced diets, as they are more likely to understand the nutritional value of different food groups and incorporate them into their meals (Ogbuabor & Ogbuabor, 2022; Otekunrin & Otekunrin, 2021; Oyesanya et al., 2024). Educated women are also more likely to seek out health information, follow medical advice, and adopt healthy eating practices during pregnancy (Lu et al., 2022). Conversely, women with lower levels of education often rely on traditional knowledge or community advice, which may not align with modern nutritional recommendations. Some traditional beliefs discourage the consumption of nutrient-rich foods, such as eggs or fish, due to unfounded fears of birth defects or difficult labour (Costenbader et al., 2025). Education plays a transformative role in helping women differentiate between evidence-based nutritional guidance and cultural myths that hinder proper nutrition.

Okeke & Chiejina (2024) corroborated this that education empowers women to make independent dietary choices rather than being solely influenced by family members or societal expectations. In many Nigerian households, husbands and older relatives control food decisions, limiting a pregnant woman's ability to prioritize her nutritional needs. Educated women are better equipped to advocate for their dietary requirements, ensuring they consume the necessary nutrients for a healthy pregnancy.

Access to Healthcare and Nutritional Counselling
Healthcare facilities play a critical role in providing nutritional counselling and support to pregnant women, ensuring they receive proper guidance on maintaining a balanced diet for both maternal and fetal health (Okeke & Chiejina, 2024). However, many women in Nigeria, particularly in rural areas and low-income communities, face substantial barriers to accessing healthcare services, including antenatal care (Agbo et al., 2024). These challenges limit their exposure to essential nutrition education, increasing the risk of malnutrition-related complications such as anaemia, low birth weight, and preterm delivery (Oyewole Oyerinde et al., 2023).

Food Accessibility and Availability
The physical availability of nutrient-dense foods is a crucial determinant of dietary diversity among pregnant women. However, in many Nigerian regions, especially rural and semi-urban

areas, access to fresh produce, animal-based proteins, and fortified foods remains limited due to poor infrastructure, inadequate market supply, and seasonal variations (Agbo et al., 2024). These constraints contribute to a reliance on staple foods such as cassava, maize, and rice, which provide energy but lack essential micronutrients needed for maternal and fetal health.

Limited market access poses a major challenge for pregnant women in rural Nigeria. Many communities lack well-developed food markets, and local vendors primarily sell staple grains and tubers. Consequently, pregnant women in these areas struggle to incorporate essential food groups such as protein-rich foods (meat, fish, eggs, legumes), dairy, and fresh fruits and vegetables into their diets (Olatona et al., 2021). Furthermore, the availability of fresh produce and animal-based proteins is often dictated by seasonal variations. In many rural areas, food production relies on rain-fed agriculture, making certain nutrient-rich foods available only at specific times of the year (Mekonnen et al., 2023), (Oyesanya et al., 2024), (Leocádio et al., 2021).

Rising Food Prices, Dietary Choices and Health Outcomes

Numerous studies have documented the negative effects of food price increases on dietary choices and health outcomes. A key study by the United Nations Children's Fund (UNICEF) in 2023 highlights that rising food prices disproportionately affect poor households' access to nutritious foods. As food prices soar, poorer households are often forced to cut back on more expensive, nutrient-dense foods, leading to reduced dietary diversity and poorer nutrition. For pregnant women, this often means a lack of essential nutrients like folic acid, iron, and calcium, which are critical for preventing complications such as anemia, pre-eclampsia, and low birth weight (Ujah et al., 2023). Inadequate nutrition during pregnancy can have long-lasting consequences on both maternal and infant health, setting the stage for a lifetime of health challenges.

Social Norms and Gender Roles in Household Food Allocation

In many households, men and children are given priority in food consumption. The belief that men require more energy for labour-intensive work leads to women, especially housewives, receiving smaller food portions or less nutritious meals (Costenbader et al., 2025).

A key factor in household food allocation is the gender-based hierarchy in food distribution. In many Nigerian families, men are considered the primary providers and decision-makers, and their nutritional needs are prioritized over those of women and children (Udenigwe, 2023).

This preferential treatment extends to protein-rich foods such as meat, fish, and eggs, which are often reserved for men and male children (Costenbader et al., 2025). Women, on the other hand, may be left with less nutritious options, increasing their risk of dietary deficiencies (Babah et al., 2024). Iron deficiency anaemia, protein-energy malnutrition, and vitamin A deficiencies are common consequences of poor maternal diets resulting from unequal food distribution (Leocádio et al., 2021), (Obalola et al., 2024).

Cultural and Traditional Food Taboos during Pregnancy

Beyond economic constraints, cultural beliefs and traditional food taboos further restrict the diversity of foods that pregnant women consume (Berhe et al., 2021).

Across different Nigerian communities, various foods are prohibited during pregnancy due to deeply ingrained superstitions. For example, some ethnic groups discourage pregnant women from consuming eggs, fearing that doing so will make the child disobedient or cause birth

complications (Godwin et al., 2022). Similarly, snails are believed to cause excess salivating and certain fish species are avoided because of unfounded beliefs that they could cause excessive drooling in infants or lead to prolonged labour (Olajide et al., 2024).

These restrictive dietary practices deprive pregnant women of essential nutrients, particularly protein, iron, and omega-3 fatty acids, which are crucial for fetal development and maternal health. Iron deficiency anemia, a common consequence of inadequate protein and iron intake, increases the risk of maternal mortality, low birth weight, and developmental delays in infants. eases and mortality rate amongst mother and child caused by malnutrition.

The Key components of SCT are thus explained. Reciprocal Determinism emphasizes that human behaviour is influenced by the continuous interaction between personal factors (cognition, beliefs, attitudes, and emotions), behavioural patterns, and environmental influences. Observational learning maintains that people learn new behaviours by observing others in their environment and imitating their actions, a process known as vicarious learning. Self-efficacy explains that an individual's confidence in their ability to perform a task determines whether they will attempt and persist in behaviours. High self-efficacy increases motivation, effort, and resilience. Reinforcement describes that people regulate their own behaviour through self-reward (e.g., feeling a sense of achievement) or self-punishment (e.g., guilt for breaking a personal rule).

Social Cognitive Theory and Dietary Diversity Among Pregnant Women
Applying SCT to maternal nutrition in Nigeria helps explain how cultural norms, financial limitations, and household decision-making influence food choices and nutritional outcomes. Reciprocal determinism illustrates how personal beliefs, environmental influences, and past behaviours shape dietary habits. In Nigerian households, patriarchal traditions and economic constraints determine food access, often prioritizing men and children over pregnant women. A woman's personal beliefs, shaped by cultural norms, may prevent her from challenging these inequalities. If she lacks financial control, she may feel unable to demand nutrient-rich foods. Also, repeated exposure to food scarcity and cultural taboos reinforces poor eating habits, creating a cycle of nutritional deficiencies.

Observational learning plays a key role in shaping pregnant women's dietary behaviours. Women often model their eating habits after their mothers and grandmothers, who followed traditional food taboos, which limit their access to certain foods which are essential for pregnancy and feotal growth (Godwin et al., 2022). Since those who comply with these norms are often praised, pregnant women may fear criticism if they challenge these beliefs. As a result, they continue following food restrictions that limit their access to essential nutrients.

Self-efficacy refers to a person's belief in their ability to control their behaviours and make independent choices. In many Nigerian households, pregnant women have low self-efficacy regarding food decisions because they lack financial independence. Husbands and older family members, such as mothers-in-law, often dictate food purchases and meal preparation. Women with more education and exposure to health information tend to have higher self-efficacy and are more likely to advocate for better nutrition (Ibikunle et al., 2021). In other word, if a woman

observes other pregnant women making better dietary choices and experiencing positive health outcomes, she may gain confidence in making similar decisions.

Reinforcement also influences dietary behaviours. Negative reinforcement occurs when pregnant women who challenge food taboos face social stigma or criticism. Economic reinforcement is another factor, when families struggle financially, they prioritize cheaper, calorie-dense foods like cassava and rice over nutrient-rich options. If a woman attempts to improve her diet but faces resistance from family members, she may abandon her efforts, reinforcing poor dietary practices.

CONCLUSION & RECOMMENDATIONS
This study has examined the socio-economic and cultural barriers to dietary diversity among pregnant women in Nigeria, highlighting the critical roles of economic constraints, food accessibility, cultural norms, and gender dynamics. The findings underscore that poverty and inflation exacerbate food insecurity, making nutrient-rich foods unaffordable for many pregnant women, particularly in rural and low-income urban areas. The structural limitations in food markets and inadequate infrastructure further restrict access to diverse and nutritious diets. Cultural food taboos and deeply ingrained gender norms also limit pregnant women's agency in food decision-making, reinforcing dietary restrictions that contribute to malnutrition and adverse pregnancy outcomes. The persistence of these barriers demonstrates the urgent need for multi-faceted interventions that address economic, social, and policy-related challenges to improve maternal nutrition and overall health outcomes.

Addressing the economic and cultural challenges that hinder dietary diversity requires targeted policy measures aimed at reducing food insecurity and enhancing the purchasing power of low-income households. Integrating nutrition-sensitive social protection programs, such as food vouchers or direct food assistance, can provide immediate relief to vulnerable pregnant women, ensuring they receive adequate dietary support. Government policies should also focus on strengthening food supply chains and market accessibility. Investments in rural infrastructure, including road networks and market facilities and create income opportunities for women, empowering them to make independent nutritional choices.

Improving access to nutritious food requires comprehensive strategies that address both the availability and affordability of diverse food sources. Agricultural policies should prioritize the production of nutrient-rich foods such as fruits, vegetables, and proteins to ensure stable supply and affordability. Supporting smallholder farmers through subsidies, access to credit, and agricultural extension services that can enhance food production and distribution. In urban and peri-urban areas, expanding access to fresh food markets and promoting urban farming initiatives can help mitigate the impact of food deserts. Strengthening local food processing and storage facilities will also reduce post-harvest losses and ensure that nutrient-rich foods remain available year-round. Also, leveraging technology, such as mobile applications and digital marketplaces, can enhance food distribution by connecting small-scale producers directly with consumers, thereby reducing food costs and improving access to a variety of nutritious options.

Efforts to improve maternal dietary diversity must also confront cultural and gender-related barriers that limit pregnant women's nutritional autonomy. Community-based nutrition education programs should challenge harmful food taboos and traditional beliefs that restrict dietary choices. Such programs should incorporate culturally sensitive approaches by engaging community elders, religious leaders, and traditional birth attendants to promote scientifically backed nutritional guidelines.

Increasing male involvement in maternal nutrition decisions is crucial to shifting household power dynamics. Programs that educate men on the importance of maternal and fetal nutrition can encourage more equitable food allocation within households. Encouraging women's economic empowerment through skills development, microfinance initiatives, and women's

cooperatives will also increase their decision-making power and financial independence, allowing them greater control over their dietary choices.

Healthcare systems must play a more proactive role in addressing maternal nutrition by integrating dietary counselling into routine antenatal care. Training healthcare providers on culturally appropriate nutrition education and behaviour change communication can help pregnant women make informed dietary choices. Expanding community health services and outreach programs will ensure that even women in remote areas have access to essential nutritional guidance and supplements.

Furthermore, collaboration between the health sector and agricultural, social welfare, and education sectors is necessary to create a comprehensive approach to improving maternal nutrition. Multi-sectoral partnerships can enhance policy coordination, ensuring that interventions are sustainable and effectively address the diverse factors affecting dietary diversity. By addressing these systemic issues, Nigeria can make significant strides in reducing maternal malnutrition and fostering healthier pregnancies and future generations

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Citation
Adetunji, Olayinka Oluyemisi (2025) Socio-economic and cultural barriers to dietary diversity among pregnant women in   Nigeria. Nigerian Journal of Social Health 2 (2) 37 - 48