

Research Article

Knowledge of Recommended Maternal Nutritional Needs Among Pregnant Women and Their Partners Attending Antenatal Care in Abakaliki, Nigeria

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Abstract

Background: Adequate maternal nutrition is essential for maternal wellbeing, fetal development, and favourable pregnancy outcomes. Knowledge of recommended nutritional requirements is an important foundation for informed dietary decision-making, yet practical understanding may remain uneven among pregnant women and their partners. This study examined knowledge of recommended maternal nutritional needs among pregnant women and their intimate partners attending antenatal care in Abakaliki, Nigeria.

Methods: A descriptive cross-sectional survey was conducted at Azuiyio kwu Maternal and Child Health Centre, Abakaliki, Ebonyi State. A total of 171 respondents were recruited using systematic random sampling. Data were collected with an interviewer-administered questionnaire containing ten items assessing knowledge of maternal nutritional requirements. Responses were measured on a four-point Likert scale and analysed using frequencies, percentages, means, and standard deviations.

Results: Knowledge of maternal nutritional requirements was generally high, with mean scores ranging from 3.07 to 3.22 across the ten items. The highest mean score was recorded for awareness that pregnant women require more calories than non-pregnant women ($M = 3.22$, $SD = 0.80$), followed by awareness of the importance of nutrition during pregnancy ($M = 3.21$, $SD = 0.87$). Knowledge that nutritional requirements change during pregnancy was also relatively strong ($M = 3.15$, $SD = 0.85$). The lowest mean score concerned knowledge of the specific types of food recommended during pregnancy ($M = 3.07$, $SD = 0.93$), which also showed the greatest variability in responses. Knowledge of appropriate meal frequency was

similarly less strong ($M = 3.10$, $SD = 0.89$). More than four-fifths of respondents reported receiving maternal nutrition information from health workers.

Conclusion: Respondents demonstrated strong general awareness of maternal nutritional requirements, but practical knowledge concerning specific food choices and meal frequency was comparatively weaker. Antenatal nutrition education should therefore move beyond broad dietary messages towards practical, food-specific guidance that supports informed nutritional decision-making during pregnancy.

Keywords: Maternal nutrition; nutritional knowledge; pregnancy; antenatal care; intimate partners; Abakaliki; Nigeria.

INTRODUCTION

Maternal nutrition remains one of the most important determinants of maternal and neonatal health across low-income and middle-income countries. Adequate nutritional intake during pregnancy contributes to healthy fetal growth, reduces the risk of maternal complications, and supports positive birth outcomes. Nutritional deficiencies during pregnancy have been associated with anaemia, low birth weight, preterm birth, impaired foetal development, and increased risks of maternal and neonatal morbidity and mortality (World Health Organisation [WHO], 2023; UNICEF, 2024). Despite sustained global efforts to improve maternal health, nutritional challenges continue to affect millions of women, particularly in resource-constrained settings where poverty, food insecurity, limited health literacy, and unequal gender relations influence dietary practices during pregnancy.

Pregnancy represents a period of heightened nutritional demand. Physiological changes increase requirements for energy, protein, iron, folate, calcium, iodine, and several other micronutrients that are essential for foetal development and maternal wellbeing (WHO, 2023). Nutritional inadequacies during this period can have consequences that extend beyond pregnancy itself, influencing infant survival, childhood development, educational attainment, and long-term health trajectories. Current research increasingly recognises maternal nutrition as a life-course issue with implications that extend across generations (Kinshella et al., 2025).

Knowledge occupies a central position within maternal nutrition research because awareness and understanding of nutritional requirements frequently shape dietary choices and health-related behaviours. Women who possess accurate nutritional knowledge are generally more likely to adopt healthier eating patterns, utilise supplementation appropriately, and engage with antenatal nutrition services (Olloqui-Mundet et al., 2024). Nutrition counselling has consequently become a cornerstone of antenatal care programmes globally, with international guidelines emphasising the importance of providing evidence-based dietary education throughout pregnancy (WHO, 2023).

Although maternal knowledge has received considerable attention, growing evidence suggests that maternal nutrition should not be viewed solely as a woman's responsibility. Household food choices, financial decisions, healthcare utilisation, and dietary practices are often influenced by family dynamics and social structures. In many African societies, men play a dominant role in household decision-making, including decisions related to food purchasing, healthcare expenditure, and access to health services. Consequently, the knowledge possessed by male partners may exert a substantial influence on maternal nutritional outcomes (Fletcher et al., 2024; Muthiru & Bukachi, 2024).

Recent studies have demonstrated that partner support contributes positively to maternal and child health outcomes. Male involvement has been associated with improved antenatal care attendance, enhanced adherence to nutritional recommendations, greater uptake of supplementation, and increased utilisation of maternal health services (Fletcher et al., 2024). Men who understand the nutritional requirements of pregnancy are more likely to provide practical support, encourage healthy dietary behaviours, and facilitate access to healthcare resources. Conversely, limited knowledge among

partners may restrict women's ability to implement nutritional recommendations even when information is available through antenatal care services.

The relationship between knowledge and nutritional behaviour is particularly important in low-resource settings where economic constraints already limit dietary choices. Research conducted across several African countries indicates that nutritional knowledge remains unevenly distributed and is often shaped by educational attainment, socioeconomic status, cultural beliefs, and access to health information (Bayked et al., 2024). While many individuals recognise that good nutrition is important during pregnancy, detailed understanding of specific nutrient requirements, dietary diversity, supplementation needs, and meal frequency is often limited. Such gaps may contribute to the persistence of suboptimal dietary practices despite increasing availability of health information.

Health facilities remain a major source of maternal nutrition information. Antenatal clinics provide opportunities for health professionals to deliver nutrition counselling, identify misconceptions, and encourage healthy dietary behaviours. Evidence suggests that women who receive nutrition education during pregnancy demonstrate higher levels of nutritional awareness and improved dietary practices than those who do not receive such support (WHO, 2023). Nevertheless, the effectiveness of nutrition education may depend on how well information is understood, retained, and translated into everyday household decisions.

The importance of knowledge becomes even more pronounced in settings characterised by food insecurity and economic hardship. Nutritional decision-making is rarely determined by knowledge alone. Financial resources, cultural expectations, family structures, and social norms frequently shape whether nutritional recommendations can be implemented. Nevertheless, knowledge remains a necessary foundation for informed decision-making and often represents the first step towards behavioural change. Research synthesising evidence from multiple studies has demonstrated that pregnant women with good nutritional knowledge are substantially more likely to exhibit positive dietary practices than those with poor knowledge (Bayked et al., 2024).

Within Nigeria, maternal undernutrition continues to present a significant public health concern. Although improvements have been recorded in maternal healthcare utilisation, challenges relating to dietary diversity, micronutrient deficiencies, and household food security remain widespread. Regional disparities further complicate the situation, with many communities continuing to experience barriers related to poverty, limited health information, and restricted male involvement in maternal health matters. Existing research has often focused primarily on pregnant women, while the knowledge held by intimate partners has received comparatively less attention.

This gap is particularly relevant because effective maternal nutrition requires support beyond the clinic environment. Information provided during antenatal visits must ultimately be implemented within households where financial decisions, food purchasing, and meal preparation occur. Understanding the extent of nutritional knowledge among both pregnant women and their partners therefore offers valuable insight into the opportunities and challenges surrounding maternal nutrition promotion.

This research provides an opportunity to examine this issue within a semi-urban Nigerian setting. The study focuses specifically on knowledge of recommended nutritional needs during pregnancy among antenatal care attendees and their partners. Such evidence is important because it helps identify areas of strength and areas where targeted nutrition education may be required. Findings may also contribute to the development of family-centred antenatal interventions that recognise the influence of both women and their partners on maternal nutritional outcomes.

This paper therefore examines knowledge of recommended maternal nutritional needs among pregnant women and their partners attending antenatal care services in Abakaliki, Nigeria. Particular attention is given to awareness of nutritional requirements, understanding of dietary recommendations, recognition of the consequences of poor maternal nutrition, and exposure to nutrition information. Through this focus, the paper contributes to ongoing discussions regarding the role of knowledge in promoting healthier pregnancies and strengthening maternal nutrition interventions in resource-constrained settings.

METHODS

Study Design and Setting

A descriptive cross-sectional survey design was used to assess knowledge of recommended maternal nutritional needs among pregnant women and their intimate partners attending antenatal care at Azuiyokwu Maternal and Child Health Centre, Abakaliki, Ebonyi State, Nigeria. The cross-sectional approach permitted the collection of information from eligible participants at a defined point in time and was appropriate for describing prevailing levels of maternal nutrition knowledge within the study population.

Azuiyokwu Maternal and Child Health Centre is located in a semi-urban area of Abakaliki Local Government Area, Ebonyi State. The facility provides reproductive, maternal, neonatal, and child health services, including antenatal care, delivery services, immunisation, family planning, and nutritional counselling. The centre operates six days each week and serves pregnant women from Azuiyokwu and surrounding communities. Its consistent antenatal attendance and diverse client population provided an appropriate setting for examining knowledge of maternal nutritional requirements.

Study Population and Eligibility

The study population comprised pregnant women attending antenatal care at Azuiyokwu Maternal and Child Health Centre during the data collection period and their intimate partners. Pregnant women in any trimester were eligible to participate provided that they were attending antenatal care at the facility and were willing to provide informed consent. Husbands and cohabiting male partners of eligible pregnant women were also included where they were available and willing to participate.

Pregnant women with medical complications that made participation inadvisable, as determined by attending clinicians, were excluded. Individuals who were unable to provide informed consent were also excluded.

Sample Size Determination

The required sample size was determined using Yamane's formula for a finite population:

$$n = N / (1 + N * e^2)$$

where (n) represents the required sample size, (N) the estimated population size, and (e) the acceptable sampling error.

Clinic records indicated an average monthly antenatal attendance of approximately 300 pregnant women. Using a 5% margin of error, the calculation produced a minimum sample size of 171 respondents:

$$n = 300 / (1 + 300 \times 0.05^2) = 171$$

A total sample of 171 respondents was therefore targeted.

Sampling Procedure

Systematic random sampling was employed to recruit participants. The sampling interval was calculated by dividing the estimated antenatal population by the required sample size, producing an interval of approximately two. Consequently, every second eligible pregnant woman appearing on the antenatal attendance list was approached for recruitment until the required sample size was attained.

Selected women were encouraged to inform their intimate partners about the study and invite them to participate. Male partners who were present at the clinic during antenatal visits were approached directly and recruited after eligibility had been confirmed and informed consent obtained. Where partners were not present, arrangements were made for subsequent contact when feasible.

Data Collection Instrument

Data were collected using a semi-structured, interviewer-administered questionnaire developed to address the study objectives. The instrument contained sections covering socio-demographic characteristics, knowledge of recommended

maternal nutritional needs, attitudes towards maternal nutrition, nutritional practices, male participation in antenatal care, and factors facilitating or inhibiting recommended nutritional intake.

The present analysis focused specifically on the knowledge domain. This section consisted of ten items assessing awareness and understanding of maternal nutritional requirements during pregnancy. The items examined knowledge of the importance of maternal nutrition, recommended foods during pregnancy, changing nutritional requirements across pregnancy, consequences of inadequate nutrition, identification of iron-rich and folate-rich foods, effects of maternal malnutrition on the fetus, exposure to nutrition information from health workers, increased energy requirements during pregnancy, the role of vitamins and minerals, and appropriate meal frequency.

Responses were recorded on a four-point Likert scale comprising *strongly disagree*, *disagree*, *agree*, and *strongly agree*. Higher mean scores represented greater agreement with statements reflecting appropriate maternal nutrition knowledge.

Instrument Validity and Reliability

Content validity was assessed before data collection. The questionnaire was reviewed by three experts with backgrounds in public health nutrition, maternal health, and biostatistics. Their comments were used to refine the wording, clarity, relevance, and coverage of the questionnaire items.

Reliability was examined through a pre-test involving 20 pregnant women and their partners attending a different Maternal and Child Health facility in Abakaliki. The pilot site was not included in the main study. A test-retest procedure was used, with the questionnaire administered to the same participants on two occasions separated by a two-week interval. A reliability coefficient of 0.60 was obtained. The instrument was subsequently retained for use in the main data collection.

Data Collection Procedure

Data collection was undertaken over four weeks. Research assistants who were fluent in English and Igbo received training on the study objectives, ethical requirements, participant recruitment, confidentiality, and questionnaire administration before fieldwork commenced.

Eligible participants were approached after completing their routine antenatal consultations. The purpose and procedures of the research were explained before informed consent was obtained. Interviews were conducted in a private setting to protect confidentiality. Where participants experienced literacy difficulties, questionnaire items were read aloud and their responses recorded by the interviewer.

Male partners who were not present during antenatal visits were contacted through arrangements made with participating women. Where feasible, follow-up interviews were conducted during return visits or by telephone.

Data Management and Statistical Analysis

Completed questionnaires were checked, coded, and entered into IBM SPSS Statistics version 26 for analysis. Descriptive statistics were used to summarise participant characteristics and knowledge responses. Frequencies and percentages were calculated for categorical variables, while means and standard deviations were used to describe item-level knowledge scores.

The knowledge domain comprised ten questionnaire items. Responses to each item were examined separately to identify areas of stronger and weaker understanding of maternal nutrition. Mean scores were used to compare levels of agreement across the knowledge statements, while standard deviations were used to assess variability in responses.

The analysis reported in this paper was restricted to knowledge of recommended maternal nutritional needs. Attitudes, nutritional practices, male participation in antenatal care, and facilitators or inhibitors of nutritional intake were not included in the present analysis because they represent distinct outcome domains.

Ethical Considerations

Ethical clearance was obtained from the relevant health research ethics authority in Ebonyi State, and permission to conduct the research was obtained from the management of Azuiyokwu Maternal and Child Health Centre.

Participation was voluntary. Eligible respondents received information about the purpose of the research, procedures involved, confidentiality protections, potential benefits, and their right to withdraw at any stage without penalty. Informed consent was obtained before participation. Confidentiality was maintained throughout data collection and analysis, and information provided by respondents was used solely for research purposes.

RESULTS

Participant Characteristics

A total of 171 respondents participated in the study. Nearly half were aged 26–35 years (48.0%, $n = 82$), while 26.3% ($n = 45$) were aged 18–25 years. Respondents aged 36–45 years accounted for 18.7% ($n = 32$), and those aged 46 years or older represented 7.0% ($n = 12$).

Most respondents were married (80.1%, $n = 137$), while 19.9% ($n = 34$) were cohabiting. Educational attainment varied across the sample. Secondary education was the most frequently reported level of education (39.2%, $n = 67$), followed by tertiary education (34.5%, $n = 59$). A further 12.3% ($n = 21$) had completed primary education, while 14.0% ($n = 24$) reported no formal education.

Trading was the most common occupational category, accounting for 31.0% ($n = 53$) of respondents. Unemployed respondents represented 24.6% ($n = 42$), while civil servants accounted for 22.2% ($n = 38$). Farmers constituted 13.5% ($n = 23$), and 8.8% ($n = 15$) reported other occupations. Most respondents identified as Christian (70.2%, $n = 120$), followed by Islam (26.9%, $n = 46$) and traditional religion (2.9%, $n = 5$).

Table 1. Sociodemographic characteristics of respondents (N = 171)

Variable	Category	n	%
Age, years	18–25	45	26.3
	26–35	82	48.0
	36–45	32	18.7
	46+	12	7.0
Marital status	Married	137	80.1
	Cohabiting	34	19.9
Educational level	No formal education	24	14.0
	Primary education	21	12.3
	Secondary education	67	39.2
	Tertiary education	59	34.5
Occupation	Trader	53	31.0

	Unemployed	42	24.6
	Civil servant	38	22.2
	Farmer	23	13.5
	Other	15	8.8
Religion	Christianity	120	70.2
	Islam	46	26.9
	Traditional religion	5	2.9

Knowledge of Recommended Maternal Nutritional Needs

Knowledge of recommended maternal nutritional needs was assessed using ten items scored on a four-point response scale. Mean scores for all items exceeded 3.00, ranging from 3.07 to 3.22, indicating consistently high levels of agreement with statements reflecting appropriate maternal nutrition knowledge.

The highest mean score was recorded for the statement that pregnant women require more calories than non-pregnant women ($M = 3.22$, $SD = 0.80$). A total of 146 respondents either agreed ($n = 75$) or strongly agreed ($n = 71$) with this statement, representing 85.4% of the sample. Awareness of the general importance of nutrition during pregnancy was similarly high ($M = 3.21$, $SD = 0.87$), with 84.2% of respondents agreeing or strongly agreeing.

Knowledge that nutritional needs change during pregnancy also received a comparatively high mean score ($M = 3.15$, $SD = 0.85$). In total, 139 respondents agreed or strongly agreed with this statement, accounting for 81.3% of the sample. Exposure to information from health workers was also prominent. The statement indicating receipt of maternal nutrition information from health professionals recorded a mean score of 3.12 ($SD = 0.84$), with 81.9% of respondents reporting agreement or strong agreement.

Respondents also demonstrated awareness of specific micronutrient requirements. Knowledge of foods rich in iron and folic acid produced a mean score of 3.12 ($SD = 0.88$), with 138 respondents, representing 80.7%, selecting either agree or strongly agree. Understanding of the role of vitamins and minerals in pregnancy recorded the same mean score of 3.12 ($SD = 0.86$), with 80.1% expressing agreement or strong agreement.

Awareness of the consequences of poor maternal nutrition was also evident. The corresponding item produced a mean score of 3.11 ($SD = 0.81$), with 78 respondents agreeing and 60 strongly agreeing. This represented 80.7% of respondents. Knowledge that maternal malnutrition can affect the baby recorded a mean score of 3.10 ($SD = 0.90$), with 78.9% agreeing or strongly agreeing.

Knowledge regarding recommended meal frequency was slightly lower than several of the other knowledge indicators. The item assessing whether respondents knew how often a pregnant woman should eat per day produced a mean score of 3.10 ($SD = 0.89$). Although 134 respondents agreed or strongly agreed, 37 respondents disagreed or strongly disagreed, corresponding to 21.6% of the sample.

The lowest mean score was observed for knowledge of the specific types of food recommended during pregnancy ($M = 3.07$, $SD = 0.93$). Although 77.8% of respondents agreed or strongly agreed that they knew which foods were recommended, 22.2% disagreed or strongly disagreed. This item also recorded the largest standard deviation among the ten knowledge

measures, indicating greater variation in respondents' knowledge of specific recommended foods than in their knowledge of the broader principles of maternal nutrition.

Table 2. Knowledge of recommended maternal nutritional needs among respondents (N = 171)

Item	Strongly disagree, n	Disagree, n	Agree, n	Strongly agree, n	M	SD
I am aware of the importance of nutrition for pregnant women	12	15	70	74	3.21	0.87
I know the types of food recommended during pregnancy	18	20	65	68	3.07	0.93
I understand that the nutritional needs of pregnant women change over time	10	22	72	67	3.15	0.85
I am informed about the consequences of poor maternal nutrition	8	25	78	60	3.11	0.81
I can identify foods rich in iron and folic acid for pregnant women	15	18	70	68	3.12	0.88
I am aware that malnutrition during pregnancy can affect the baby	17	19	65	70	3.10	0.90
I have received information on maternal nutrition from health workers	11	20	77	63	3.12	0.84
I believe pregnant women need more calories than non-pregnant women	9	16	75	71	3.22	0.80
I understand the role of vitamins and minerals in pregnancy	13	21	69	68	3.12	0.86

I know how often a pregnant woman should eat per day	14	23	66	68	3.10	0.89
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Note. M = mean; SD = standard deviation. Responses were measured on a four-point Likert scale ranging from strongly disagree to strongly agree.

The distribution of mean scores shows a relatively narrow range across the ten knowledge indicators. General awareness was strongest in relation to increased energy requirements and the importance of maternal nutrition, whereas knowledge of specific recommended foods showed the lowest mean score and the greatest variability.

DISCUSSION

The findings indicate that respondents possessed a relatively strong level of knowledge regarding recommended maternal nutritional needs, with mean scores across all ten knowledge items ranging from 3.07 to 3.22 on a four-point scale. The strongest area of knowledge concerned increased energy requirements during pregnancy, while awareness of the specific types of food recommended during pregnancy recorded the lowest mean score. This pattern suggests that broad nutritional messages may be well understood, but practical knowledge concerning how those recommendations should be implemented remains less consistent (Rizk et al., 2024; Bayked et al., 2024).

The high level of agreement that pregnant women require greater energy intake than non-pregnant women is encouraging. Pregnancy increases physiological and nutritional demands, and current guidance emphasises adequate energy, protein, vitamins, and minerals through a varied diet appropriate to maternal needs (World Health Organization [WHO], 2023). The high score recorded for this item may therefore indicate successful exposure to general health education messages. However, recognising that nutritional requirements increase during pregnancy is not equivalent to understanding how these requirements should be met safely and appropriately. Education that focuses narrowly on increasing food intake without explaining dietary quality may leave important gaps in nutritional decision-making (Brouwer et al., 2021; Duncan et al., 2022; Rizk et al., 2024).

This distinction is particularly evident in the comparatively lower score for knowledge of specific foods recommended during pregnancy. Similar patterns have been identified elsewhere. Rizk et al. (2024) found that pregnant women could demonstrate reasonable knowledge in some areas while remaining substantially less informed about specific nutrient sources and critical micronutrients. Their findings showed marked differences between general dietary awareness and detailed knowledge of nutrients such as iodine, omega-3 fatty acids, and iron-rich foods. The findings from Abakaliki therefore reinforce the importance of distinguishing between general nutritional awareness and practical food literacy (Jafaru et al., 2025; Olukemitan et al., 2024).

Knowledge of iron-rich and folate-rich foods was relatively high, although approximately one-fifth of respondents did not agree that they could identify such foods. This is important because micronutrient knowledge is especially relevant during pregnancy. The practical challenge is not simply recognising that iron and folate are important, but knowing which locally available foods provide these nutrients and how dietary intake relates to supplementation. Evidence from recent maternal nutrition research indicates that gaps in nutrient-specific knowledge continue to occur even among women who otherwise demonstrate reasonable nutritional awareness (Rizk et al., 2024; Jafaru et al., 2025; Bayked et al., 2024). Community-based nutrition education and counselling have been shown to improve knowledge and attitudes towards iron-folic acid supplementation among pregnant women (Kamau et al., 2019; Abdisa et al., 2023; Reshid & Anato, 2024).

The finding that more than 80% of respondents reported receiving maternal nutrition information from health workers is also noteworthy. Antenatal care appears to provide an important route through which nutritional information reaches women and their families. WHO recommends nutrition counselling during pregnancy and specifically emphasises healthy eating through a varied diet containing adequate energy, protein, vitamins, and minerals (WHO, 2023). Recent meta-analytic evidence further indicates that pregnant women who receive nutrition information are more likely to demonstrate favourable dietary practices than those without such information (Bayked et al., 2024). Systematic reviews also support the

value of interactive nutrition counselling in improving maternal dietary behaviours and related outcomes in low- and middle-income settings (Martin et al., 2021; Dewidar et al., 2023; Boynito et al., 2025). This supports continued investment in antenatal nutrition counselling, particularly where counselling can be made practical rather than limited to general health messages.

The findings are also important because the sample included both pregnant women and intimate partners. Maternal nutrition decisions are frequently shaped within households, especially in settings where men influence expenditure and food purchasing. Recent qualitative research in Nairobi found that male involvement in maternal and child nutrition is affected by personal beliefs, social expectations, work demands, and the extent to which men are included in health and nutrition programmes (Muthiru & Bukachi, 2024). This suggests that nutrition knowledge should not be treated exclusively as an individual maternal attribute. Including partners in appropriately designed nutrition education may strengthen the household environment in which dietary decisions are made (Muthiru & Bukachi, 2024).

The findings can also be interpreted through the Health Belief Model and Theory of Planned Behaviour. Awareness of the consequences of poor maternal nutrition may strengthen perceived severity and perceived benefits, while knowledge of appropriate foods can contribute to behavioural control and confidence in implementing nutritional recommendations. Recent evidence supports the relevance of these pathways. Bayked et al. (2024) reported that women with good dietary knowledge were substantially more likely to demonstrate favourable dietary practices, while perceptions of the seriousness of malnutrition and the benefits of healthy dietary practices were also positively associated with behaviour. Nutrition education interventions integrating the Health Belief Model and Theory of Planned Behaviour have been shown to improve dietary diversity and related outcomes among pregnant women (Beressa et al., 2024). Knowledge therefore represents an important foundation for dietary action, although it should not be assumed to produce behavioural change automatically.

An important implication is that future antenatal nutrition education should move beyond broad messages such as "eat well" or "eat more". Greater emphasis is needed on practical meal planning, identification of affordable nutrient-rich foods, appropriate meal frequency, food combinations, and the changing nutritional demands of pregnancy. Such an approach would address the areas where knowledge was comparatively weaker while preserving the strong general awareness already evident among respondents (Rizk et al., 2024; Beressa et al., 2024; McGowan et al., 2025).

The findings should nevertheless be interpreted cautiously. The cross-sectional design does not permit causal conclusions, while the knowledge measure relied on self-reported agreement rather than objective dietary knowledge testing. The reliability coefficient of 0.60 also indicates that further refinement of the instrument would strengthen future applications. Even with these limitations, the findings provide useful evidence that maternal nutrition knowledge in this setting is broadly favourable but not uniformly detailed. The central challenge is therefore less one of complete informational absence and more one of strengthening practical, food-specific understanding that can support informed nutritional decisions during pregnancy (Bayked et al., 2024; Olukemitan et al., 2024).

IMPLICATIONS FOR PRACTICE

The findings have several practical implications for maternal and child health services.

First, antenatal nutrition education should place greater emphasis on practical dietary guidance rather than relying primarily on general health messages. Pregnant women and their partners would benefit from education that clearly identifies affordable local food sources of essential nutrients, appropriate meal frequency, recommended portion sizes, and dietary diversity during pregnancy.

Second, healthcare professionals providing antenatal services should continue to integrate structured nutrition counselling into routine clinic appointments. Consistent reinforcement of key nutritional messages throughout pregnancy may improve retention of information and encourage healthier dietary practices.

Third, educational materials should be designed to address the specific areas where knowledge was comparatively weaker. Simple visual guides, culturally appropriate meal plans, and demonstrations using commonly available local foods may improve understanding of recommended dietary practices.

Fourth, nutrition education should actively encourage the participation of intimate partners where appropriate. Household food purchasing and dietary decisions are frequently influenced by shared decision-making, particularly in many Nigerian communities. Involving partners in nutrition counselling may strengthen family support for recommended maternal dietary practices and improve implementation of nutritional advice within the home.

Finally, public health authorities should continue investing in community-based maternal nutrition education that complements facility-based antenatal counselling. Collaboration between primary healthcare centres, community health workers, and local leaders could improve the reach of evidence-based nutrition information, particularly among families with limited access to formal health education.

Future research should examine maternal nutrition knowledge across multiple healthcare facilities using validated measurement instruments and should evaluate whether enhanced practical nutrition education leads to measurable improvements in dietary practices and pregnancy outcomes. Longitudinal and intervention-based studies would provide stronger evidence regarding the relationship between nutritional knowledge, behavioural change, and maternal health.

CONCLUSION

This study examined knowledge of recommended maternal nutritional needs among pregnant women and their intimate partners attending antenatal care at Azuiyokwu Maternal and Child Health Centre, Abakaliki. The findings demonstrate that respondents generally possessed a high level of knowledge regarding key nutritional requirements during pregnancy. Most respondents recognised the importance of adequate maternal nutrition, understood that nutritional needs increase during pregnancy, and were aware of the importance of essential micronutrients such as iron and folic acid. Respondents also demonstrated substantial awareness of the consequences of inadequate maternal nutrition for both mother and child.

Despite these encouraging findings, knowledge was not uniformly distributed across all aspects of maternal nutrition. Lower scores were observed for knowledge relating to specific foods recommended during pregnancy and appropriate meal frequency. These findings indicate that while general nutritional awareness is relatively well established, practical dietary knowledge requires further strengthening. Knowledge that cannot be translated into everyday food choices may have limited influence on nutritional behaviour and pregnancy outcomes.

The findings highlight the continued importance of antenatal nutrition education in strengthening maternal nutritional knowledge. Improving practical understanding of food selection, meal planning, and locally available nutrient-rich foods may enhance the effectiveness of existing maternal nutrition programmes. Strengthening these areas of knowledge has the potential to support healthier dietary decisions throughout pregnancy and contribute to improved maternal and neonatal health outcomes.

AUTHOR CONTRIBUTION

All authors played a substantive role in shaping this study and developing the manuscript. D.U.O. and O.V.A. conceptualised the work and designed the overall study framework. Data analysis, interpretation of data and validation of findings were carried out collaboratively, with each author contributing to the discussions that informed the final results. F.N.I., G.M.Y., C.E.E. and K.O.O. prepared the initial manuscript draft, covering the introduction, methods, results and discussion. Co-authors strengthened the analysis, offered detailed revisions and enhanced the clarity and coherence of the final document. Every author reviewed the complete manuscript, approved the final version and accepted responsibility for the integrity of the work.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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