GIDAN MADI MULTI-DISCIPLINARY JOURNAL OF TEACHER EDUCATION (GMMJTE), 2 (2) JUNE, 2026
ISSN: 3092-8397; Journal home page: https://www.fcegmmdjte.org.ng

INFLUENCE OF MOTHERS' NUTRITIONAL KNOWLEDGE ON CHILD FEEDING PRACTICES AMONG WOMEN IN SOKOTO METROPOLIS

MUSA, FATIMA AHMAD AND STEPHEN, BALKISU MANGA

[1&2]*Department of Home Economics, School of Vocational and Technical Education, Federal College of Education, Gidan Madi, Sokoto State*

**Corresponding author: ahmadfatimamusa158@gmail.com*

ABSTRACT

The study examined the influence of mothers' nutritional knowledge on child feeding practices in Sokoto Metropolis, Nigeria. A descriptive cross-sectional survey design was adopted. The population comprised 42,824 mothers with children aged 0–5 years, from which 381 respondents were selected using a multistage sampling technique. Data were collected using a validated researcher-developed questionnaire with a test–retest reliability coefficient of 0.70. Mean and standard deviation were used to answer the research questions, while Pearson Product Moment Correlation tested the hypothesis at the 0.05 level of significance. The findings revealed that mothers had high nutritional knowledge (Grand Mean = 3.46, SD = 0.66) and high child feeding practices (Grand Mean = 3.30, SD = 0.70). A moderate positive and statistically significant relationship was found between mothers' nutritional knowledge and child feeding practices (r = 0.428, p < 0.05), indicating that improved nutritional knowledge is associated with better feeding practices. The study concluded that although mothers possess adequate nutritional knowledge, improving child feeding practices requires complementary socioeconomic and health interventions. It recommends strengthening community nutrition education, promoting dietary diversity, and integrating nutrition education with food security and poverty reduction programmes to improve child nutrition outcomes.

ARTICLE INFO

Article History
Received: 11.06.2026
Received in revised form: 15.06.2026
Accepted: 28.06.2026
Published online: 06.07.2026

KEYWORDS
Maternal nutritional knowledge, child-feeding practice, under-nutrition, sokoto

INTRODUCTION

Optimal nutrition during infancy and early childhood is important for child survival, growth, cognitive development, and long-term health. The first 1,000 days of life, from conception to a child's second birthday, is a critical period in which nutrition has a strong effect on physical growth, brain development, and immune function. Poor nutrition during this period can lead to permanent developmental problems and affect both individual and societal development. Because of this, improving maternal, infant, and young child nutrition is considered one of the most effective public health strategies for reducing child mortality and improving development outcomes (WHO, 2021; Prasetyo et al., 2023). Infant and Young Child Feeding (IYCF) practices are very important for good

nutritional outcomes. The World Health Organization recommends early initiation of breastfeeding, exclusive breastfeeding for six months, introduction of complementary foods at six months, and continued breastfeeding up to two years or beyond. These practices support healthy growth and reduce the risk of malnutrition, infections, and nutrient deficiencies. However, in many developing countries, these recommended practices are not fully followed, leading to poor child health outcomes (WHO, 2021).

In Nigeria, child malnutrition remains a serious public health problem. Rates of stunting, wasting, and micronutrient deficiencies are still high, while exclusive breastfeeding and proper complementary feeding remain low. The situation is worse in northern Nigeria, including Sokoto State, where poverty, low maternal education, food insecurity, and cultural practices affect feeding practices. Despite various interventions, child malnutrition remains a major challenge in the area. Maternal nutritional knowledge is an important factor that influences infant and young child feeding practices. Mothers who have good nutritional knowledge are more likely to breastfeed early, practice exclusive breastfeeding, introduce complementary foods at the right time, and provide a more balanced diet. However, knowledge alone is not always enough. Factors such as low income, cultural beliefs, lack of support, and limited access to health services can prevent mothers from applying what they know. Although studies have been carried out on child nutrition and feeding practices in Nigeria, there is still limited evidence on how maternal nutritional knowledge influences actual feeding practices in specific areas like Sokoto Metropolis. Findings from previous studies are also not consistent, suggesting that the relationship may vary depending on context. This makes it necessary to carry out more location-specific studies. Based on this, this study examines the influence of mothers' nutritional knowledge on child feeding practices in Sokoto Metropolis. It specifically looks at breastfeeding practices, complementary feeding, and dietary diversity. The findings are expected to provide useful information for nutrition education programmes, maternal and child health services, and policies aimed at improving child nutrition in the study area.

STATEMENT OF THE PROBLEM

Despite global and national efforts to improve maternal and child nutrition, inappropriate child feeding practices remain a major public health problem, especially in low-resource settings where childhood under nutrition continues to affect child survival, growth, and development. In Nigeria, the situation is more severe in the northern region, including Sokoto State, where high levels of under nutrition persist despite various nutrition policies and health programmes. Many children in the area still do not receive recommended breastfeeding and complementary feeding practices needed for healthy development. Maternal nutritional knowledge is considered an important factor in child feeding because mothers are mainly responsible for decisions on breastfeeding, complementary feeding, food selection, and dietary diversity during early childhood. It is expected that mothers with better nutritional knowledge will make better feeding decisions that improve child nutrition. However, evidence shows that good feeding practices are still not common in many settings, even where nutrition education programmes exist. This suggests that other factors such as income level, culture, and access to health services may also influence how knowledge is applied.

Previous studies in Nigeria have mostly focused on the level and effects of child malnutrition, with less attention given to how maternal nutritional knowledge affects actual feeding practices at the community level. In addition, findings from different studies are not always the same because feeding practices are influenced by different social and environmental conditions. This means that results from other areas may not fully represent the situation in Sokoto Metropolis. The lack of clear, location-specific evidence makes it difficult to design effective nutrition education and intervention programmes for mothers in the study area. Without proper understanding of how maternal nutritional knowledge influences feeding practices, interventions may not fully address the real challenges affecting child nutrition. Therefore, this study examines the influence of mothers' nutritional knowledge on child feeding practices in Sokoto Metropolis. The findings are expected to provide useful evidence for improving nutrition education, strengthening maternal and child health programmes, and supporting strategies aimed at reducing childhood under nutrition in the area.

OBJECTIVES OF THE STUDY

The following are the objectives of the study:

1. Assess the level of mothers' nutritional knowledge among women in Sokoto Metropolis;
2. Examine the child feeding practices adopted by mothers in Sokoto Metropolis;
3. Determine the relationship between mothers' nutritional knowledge and child feeding practices among women in Sokoto Metropolis.

RESEARCH QUESTIONS

The study sought to answer the following research questions:

1. What is the level of mothers' nutritional knowledge among women in Sokoto Metropolis?
2. What child-feeding practices are adopted by mothers in Sokoto Metropolis?
3. What is the relationship between mothers' nutritional knowledge and child-feeding practices among women in Sokoto Metropolis?

RESEARCH HYPOTHESES

The following null hypothesis was tested in the study at 0.05 level of significance:

1. There is no significant relationship between mothers' nutritional knowledge and child feeding practices among women in Sokoto Metropolis.

METHODOLOGY

Research Design

The study adopted a descriptive cross-sectional survey design, which was considered appropriate because it allows for the collection of data from respondents at a single point in time without manipulation of variables, thereby enabling the description of existing conditions and examination of relationships between maternal nutritional knowledge and child feeding practices in a natural setting.

Population and Sample

The population of the study comprised 42,824 mothers with children aged 0–5 years residing within Sokoto Metropolis, as reported by the Sokoto State Primary Healthcare Development Agency (2025). Sokoto Metropolis comprises Sokoto North Local Government Area, Sokoto South Local Government Area, parts of Kware Local Government Area, and parts of Dange/Shuni Local Government Area. This group was considered appropriate for the study because mothers are the primary caregivers responsible for making decisions regarding child feeding and nutrition. A sample size of 381 respondents was determined using the Research Advisors (2006) sample size determination table at a 95% confidence level and a 5% margin of error and was considered adequate to provide representative findings and support valid statistical inference.

A multistage sampling technique was employed to select the respondents. In the first stage, purposive sampling was used to select Sokoto Metropolis, comprising Sokoto North Local Government Area, Sokoto South Local Government Area, parts of Kware Local Government Area, and parts of Dange/Shuni Local Government Area, because these constitute the metropolitan area of the state. In the second stage, simple random sampling was used to select wards from each of the selected Local Government Areas. In the third stage, proportionate sampling was applied to distribute the sample of 381 respondents among the selected wards based on the estimated number of eligible mothers in each ward, ensuring proportional representation. Finally, within the selected wards, households with eligible respondents (mothers with children aged 0–5 years) were visited, and where more than one eligible mother was available in a household, simple random sampling (balloting) was used to select one respondent for participation in the study. This procedure ensured that the sample was representative of the target population and minimized sampling bias..

Instrumentation

Data were collected using a structured questionnaire titled *Maternal Nutritional Knowledge and Child Feeding Practices Questionnaire (MNKCFPQ)* developed by the researcher, which consisted of two sections: socio-demographic characteristics and items measuring maternal nutritional knowledge and child feeding practices on a four-point Likert scale. The instrument was validated through face and content validation by experts in Nutrition, Public Health, and Educational Research, who assessed its clarity, relevance, and alignment with the study objectives, and their suggestions were incorporated to improve the instrument. Reliability was established using the test–retest method administered to a

similar group of mothers outside the study area at two different intervals, and the responses were correlated using Pearson Product Moment Correlation, yielding a coefficient of 0.70, which was considered acceptable.

Collection and Analyses of Data

Data collection was carried out through direct administration of questionnaires with the assistance of trained research assistants to ensure clarity, improve response accuracy, and enhance retrieval rate, while completed instruments were collected immediately to minimise data loss. Data were analysed using descriptive statistics, including frequency counts, percentages, means, and standard deviations, to summarise respondents' characteristics and study variables, while Pearson Product Moment Correlation was used to test the relationship between maternal nutritional knowledge and child feeding practices at a 0.05 level of significance.

RESULTS

Research Question One

What is the level of mothers' nutritional knowledge among women in Sokoto Metropolis?

Table 1: Mean and Standard Deviation on Mothers' Nutritional Knowledge (N = 381)

S/N	Questionnaire Item	Mean	SD	Decision
1	I know that breastfeeding should begin within one hour after delivery.	3.61	0.56	Agree
2	I know that infants should be exclusively breastfed for the first six months of life.	3.58	0.63	Agree
3	I know that complementary feeding should begin at six months of age.	3.44	0.71	Agree
4	I know that children require a balanced diet containing different food groups.	3.39	0.69	Agree
5	I know that proper hand washing before feeding helps prevent childhood illnesses.	3.47	0.62	Agree
6	I know that continued breastfeeding should be maintained up to two years and beyond.	3.33	0.74	Agree
7	I know that children should receive fruits and vegetables regularly to support healthy growth.	3.42	0.68	Agree
	Grand Mean	**3.46**	**0.66**	**Agree**

Table 1 presents the descriptive statistics on mothers' nutritional knowledge. Using the criterion mean of 2.50, all the items recorded mean scores above the benchmark, ranging from 3.33 to 3.61, indicating that the respondents have high nutritional knowledge across all the measured areas. The grand mean of 3.46 (SD = 0.66), which is also above the criterion mean of 2.50, further indicates that mothers have high nutritional knowledge regarding recommended child nutrition and feeding practices.

Research Question Two

What child feeding practices are adopted by mothers in Sokoto Metropolis?

Table 2: Mean and Standard Deviation on Child Feeding Practices among Mothers in Sokoto Metropolis (N = 381)

S/N	Questionnaire Item	Mean	SD	Decision
8	I initiated breastfeeding within one hour after delivery.	3.38	0.68	Agree
9	I exclusively breastfed my child for the first six months of life.	3.26	0.74	Agree
10	I introduced complementary foods when my child reached six months of age.	3.31	0.71	Agree
11	I provide my child with meals containing a variety of food groups daily.	3.18	0.76	Agree
12	I wash my hands and my child's hands before feeding.	3.45	0.61	Agree
13	I continued breastfeeding my child after introducing complementary foods.	3.29	0.73	Agree
14	I feed my child fruits and vegetables regularly.	3.22	0.70	Agree
	Grand Mean	**3.30**	**0.70**	**Agree**

Table 2 presents the descriptive statistics on child feeding practices among mothers in Sokoto Metropolis. Using the criterion mean of 2.50, all the items recorded mean scores above the benchmark, ranging from 3.18 to 3.45, indicating that the respondents have high child feeding practices across all the measured indicators. The grand mean of 3.30 (SD = 0.70), which is also above the criterion mean of 2.50, further indicates that mothers have high child feeding practices in relation to recommended infant and young child feeding guidelines.

Table 3: Relationship between Mothers' Nutritional Knowledge and Child Feeding Practices in Sokoto

Variable	N	Mean	SD	r	p-value	Remark
Nutritional Knowledge	381	3.46	0.66			
				0.43	0.000	Significant
Child Feeding	381	3.71	0.77			

Table 3 presents the relationship between mothers' nutritional knowledge and child feeding practices in Sokoto Metropolis. The results show that mothers had a high nutritional knowledge (Mean = 3.46, SD = 0.66) and high child feeding practices (Mean = 3.81, SD = 0.77). The Pearson correlation coefficient ($r = 0.428$, $p < 0.05$) indicates a moderate positive and statistically significant relationship between mothers' nutritional knowledge and child feeding practices. Since the p-value is less than the 0.05 level of significance, the null hypothesis is rejected. This implies that higher nutritional knowledge among mothers is associated with better child feeding practices in Sokoto Metropolis.

DISCUSSIONS OF FINDINGS

The findings of the study indicate that mothers in Sokoto Metropolis possess high nutritional knowledge regarding infant and young child feeding practices. The respondents demonstrated adequate knowledge of early initiation of breastfeeding, exclusive breastfeeding for the first six months, timely introduction of complementary feeding, continued breastfeeding, dietary diversity, and proper hygiene during child feeding. This finding is consistent with the recommendations of the World Health Organization (2021), which identifies maternal nutrition education as a fundamental strategy for improving infant and young child feeding practices and child survival. The finding is further supported by Fadare et al. (2019), who found that higher maternal nutrition-related knowledge was significantly associated with improved child nutrition outcomes in Nigeria. Similarly, Edafioghor et al. (2023) reported that nutrition education significantly improved mothers' nutritional knowledge, perceptions, and intentions regarding infant and young child feeding practices in Nigeria. Collectively, these empirical studies support the present finding that mothers who possess adequate nutritional knowledge are better equipped to provide appropriate nutritional care for their children.

The study further revealed that mothers in Sokoto Metropolis demonstrate high child feeding practices, as evidenced by their adoption of recommended breastfeeding, complementary feeding, hygiene, and dietary practices. This finding agrees with Edafioghor et al. (2023), who reported that nutrition education significantly improved infant and young child feeding practices among participating mothers. Likewise, Fadare et al. (2019) observed that mothers with better nutritional knowledge were more likely to adopt appropriate feeding behaviours that promote child growth and nutritional well-being. However, the finding is only partially consistent with some empirical evidence. For instance, Fadare et al. (2019) also observed that despite adequate maternal nutritional knowledge, appropriate feeding practices may remain suboptimal where poverty, household food insecurity, and limited access to nutritious foods constrain mothers' ability to implement recommended feeding practices. This suggests that although mothers in the present study reported high feeding practices, socioeconomic and environmental factors may still influence the consistency and quality of these practices.

The correlation analysis revealed a statistically significant positive relationship between mothers' nutritional knowledge and child feeding practices, indicating that increased nutritional knowledge is associated with improved child feeding practices. This finding supports the position of the World Health Organization (2021) that improving maternal nutritional knowledge enhances adherence to recommended infant and young child feeding practices. It is also consistent with the findings of Fadare et al. (2019), who established a significant positive association between maternal nutrition-related knowledge and child nutrition outcomes, and Edafioghor et al. (2023), who demonstrated that improved maternal nutritional knowledge translated into better infant and young child feeding behaviours following nutrition education. However, these studies also acknowledge that nutritional knowledge

alone does not completely determine feeding behaviour, as household income, food availability, maternal education, and other socioeconomic factors may either facilitate or hinder the application of recommended feeding practices. Overall, the present findings indicate that while maternal nutritional knowledge is an important predictor of child feeding practices, improving child nutrition outcomes requires complementary interventions that address the broader socioeconomic conditions influencing mothers' feeding decisions.

CONCLUSION

The study examined the influence of mothers' nutritional knowledge on child feeding practices among women in Sokoto Metropolis, with particular emphasis on key infant and young child feeding (IYCF) indicators such as breastfeeding practices, complementary feeding, and dietary diversity. The findings provide empirical evidence on the knowledge–practice relationship within a context characterised by persistent child under-nutrition and diverse socioeconomic constraints. The study established that mothers in Sokoto Metropolis generally possess a relatively high level of nutritional knowledge regarding recommended IYCF practices, including early initiation of breastfeeding, exclusive breastfeeding for the first six months of life, timely introduction of complementary feeding, continued breastfeeding, and basic hygiene practices during child feeding. This indicates that awareness of optimal child feeding recommendations is fairly widespread among respondents, likely reflecting exposure to nutrition information through antenatal care services, health facilities, and community health education programmes. Despite this relatively high level of knowledge, the study revealed that actual child feeding practices are only moderately optimal. While breastfeeding-related behaviours and timely introduction of complementary foods are relatively well practiced, notable gaps persist in dietary diversity and consistent provision of fruits and vegetables. This indicates that although mothers are aware of recommended feeding guidelines, full implementation of optimal feeding practices remains constrained.

Inferential analysis further demonstrated a statistically significant moderate positive relationship between maternal nutritional knowledge and child feeding practices ($r = 0.428$, $p < 0.05$). This finding confirms that maternal knowledge is an important determinant of child feeding behaviour; however, it is not sufficient on its own to ensure optimal feeding practices. The moderate strength of the relationship suggests that other structural and contextual factors, such as household income, food availability, cultural beliefs, and access to health services, likely play a substantial role in shaping feeding behaviours. Therefore, the study demonstrates that improving maternal nutritional knowledge contributes positively to child feeding practices, but optimal child nutrition outcomes cannot be achieved through knowledge-based interventions alone. A comprehensive approach that combines nutrition education with socioeconomic support, food security interventions, and culturally sensitive behavioural

change strategies is essential to bridge the gap between knowledge and practice. Such integrated efforts are necessary to improve infant and young child nutrition outcomes and reduce the burden of malnutrition in Sokoto Metropolis and similar settings.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

1. Primary healthcare centres and community nutrition programmes should provide continuous nutrition education focusing on dietary diversity, sustained breastfeeding, appropriate complementary feeding, balanced diets, portion sizes, and the importance of fruits and vegetables. Nutrition messages should be reinforced during antenatal, postnatal, and immunisation visits.

2. Community-based interventions such as mother-to-mother support groups, health education sessions, and practical cooking demonstrations should be organized to encourage the use of affordable, locally available foods for diverse and nutritious child diets. Fathers and other family members should also be involved in nutrition education to support appropriate child feeding practices.

3. Government and non-governmental organizations should combine nutrition education with poverty reduction initiatives, food security programmes, and improved access to affordable nutritious foods. Health workers should provide culturally sensitive counselling that addresses household challenges and enables mothers to translate nutritional knowledge into appropriate child feeding practices.

REFERENCES

Abubakar, A & Usman, B. (2022) maternal knowledge and its effects on child feeding Practices in Northern Nigeria. *Nigerian journal of Nutrition research, 25*(2), 45-56

Adeyamo, et al. (2018). Knowledge, attitude and practice of good nutrition among Women of childbearing age. *PubMed central*. https//www.ncbinlm.nhi.gov.pmc/articles/pmc6057718/.

Demographic and Health Surveys Program, & National Population Commission. (2019). *Nigeria Demographic and Health Survey 2018. ICF*. https://dhsprogram.com/publications/publication-fr359-dhs-final-reports.cfm

Dhami, M. V., Ogbo, F. A., Osuagwu, U. L., et al. (2019). Prevalence and factors associated with

complementary feeding practices among children aged 6–23 months in Nigeria. *PLoS ONE, 14*(10), e0223317. https://doi.org/10.1371/journal.pone.0223317

Fadare, O, Amere, M, Mavirotes, G, Akerele, D, & Ogunniyi, A.(2019). *Mothers Nutrition-related knowledge and child nutrition outcomes.*

Ibrahim, S, G, Dandare, A, & Umar R.A. (2017). Nutritional status of women of Of reproductive age in Wamako Area of Sokoto State. *Journal of scientific Research and reports, 15*(2),1-10https//journaljssr.com/index.php/JSRR/article/View/796.

Kareem, T, Bello, M.& Ahmed, S.(2025) Maternal nutritional knowledge and its effects On child feeding practices. Evidence from Urban Nigeria. *Nutrition in practice Journal, 18* (1),34- 46.

Mohammad, A. U, &Jiya, F.B.(2024). Nutritional knowledge of in school adolescents in Sokoto, North-western Nigeria. *International Journal of scientific reports*. https://www..sci-rep.com/index.php/scirep/article/view/1363

National Population Commission, & ICF. (2019). Nigeria Demographic and Health Survey 2018. Abuja, Nigeria, and Rockville, MD: *NPC and ICF*.

Ogbo, F. A., Eastwood, J., Page, A., et al. (2017). Determinants of exclusive breastfeeding cessation in Nigeria. *BMC Pregnancy and Childbirth, 17*, 408. https://doi.org/10.1186/s12884-017-1598-7

Olayemi, A, &Musa, S.(2020) influence of maternal education on child nutrition in Sokoto state. *Journal of Public Health in Africa, 11*(3), 112-120.

Presetyo, I, Santoso, B,&Hidayat, A. (2023). Maternal nutrition knowledge and infant Infant feeding practices in developing countries,: a systematic review. *International journal of child care and education policy, 17*(2), 1-15.

United Nations Children's Fund. (2021). *The State of the World's Children 2021: On my mind—Promoting, protecting and caring for children's mental health*. UNICEF. https://www.unicef.org/reports/state-worlds-children-2021

United Nations Children's Fund. (2023). Improving young children's diets during the complementary feeding period. *UNICEF*. https://www.unicef.org/nutrition

World health organization. (2021). Infant and young child feeding: model chapter for textbooks. WHO

World Health Organization. (2021). *Infant and young child feeding*. https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding