

Exploring the impact of cultural beliefs, gender roles and socioeconomic factors on child malnutrition in Nigeria: A systematic review

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Abstract

Background: Child malnutrition, encompassing stunting, wasting, and underweight conditions, remains a critical public health crisis in Nigeria, where 37% of children under five are stunted and 22% are underweight. Beyond biological and socioeconomic drivers, cultural norms and practices constitute a substantially underexplored determinant of nutritional outcomes.

Objectives: This review examines how cultural norms, beliefs, and practices influence child malnutrition in Nigeria; identifies culturally specific practices that aggravate malnutrition; evaluates their ramifications for existing public health interventions; and offers region-specific recommendations to improve child nutrition outcomes.

Methodology: A systematic extended literature review was conducted using PubMed, Embase, and Web of Science. Six qualitative studies published between 2019 and 2024, selected via PRISMA 2020 guidelines and appraised using the CASP tool, formed the evidence base. The PIO framework (Population, Interest, Outcome) guided the search strategy.

Results: Three thematic clusters emerged: (1) cultural beliefs; including colostrum rejection, pre-lacteal feeds, and food taboos, limit children's access to nutrient-rich foods; (2) patriarchal gender roles result in inequitable intrahousehold food distribution that disadvantages women and children; and (3) socioeconomic deprivation interacts with cultural norms to compound nutritional deficits. All six studies scored 20/20 on the CASP appraisal, confirming methodological rigour.

Discussion: Findings align with Social Cognitive Theory and the Social Determinants of Health framework, demonstrating that malnutrition in Nigeria is reproduced through community observational learning and structural inequities. Patriarchal decision-making, religious food restrictions, and inadequate male engagement in maternal and child health perpetuate the cycle of undernutrition.

Conclusion: Effective reduction of child malnutrition in Nigeria requires culturally attuned public health interventions that engage religious and traditional leaders, incorporate fathers into nutrition decision-making, and integrate cultural sensitivity into policy frameworks. Region-specific programming addressing both Northern and Southern Nigeria's distinct cultural landscapes is essential.

Keywords: Child Malnutrition; Cultural Beliefs; Nigeria; Breastfeeding; Food Taboos; Gender Roles; Public Health Intervention; Systematic Review

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1. Introduction

Child malnutrition is a complex, multi-dimensional global health crisis characterised by insufficient nutrient intake for growth and development. The World Health Organization (WHO) categorises undernutrition as wasting (low weight-for-height), stunting (low height-for-age), and underweight (low weight-for-age) (WHO, 2024). Globally, the UNICEF/WHO/World Bank Joint Estimates reported 149.2 million stunted children, 45.4 million wasted children, and 38.9 million overweight children under five in 2020 (WHO, 2021). While stunting is declining globally, sub-Saharan Africa, including Nigeria, is not on track to meet internationally agreed targets (Popkin et al., 2020).

Nigeria presents one of the world's most urgent child malnutrition challenges. The 2018 Nigeria Demographic and Health Survey (NDHS) documented 37% stunting, 7% wasting, and 22% underweight prevalence among under-fives (John et al., 2024). Striking regional disparities exist: stunting in the Northwest reaches 55% compared with approximately 18% in the Southeast (Ezeh et al., 2021). Malnutrition contributes directly or indirectly to approximately 45% of all deaths in children under five (UNICEF, 2015) and impairs cognitive development, educational attainment, and adult economic productivity (Soliman et al., 2021).

Although biological and socioeconomic drivers have been extensively studied, cultural factors remain underexplored in the Nigerian context (Agu et al., 2019; Islam et al., 2019). Cultural norms shape infant feeding practices, food taboos, and household food distribution patterns in ways that can either protect or undermine child nutrition. This review seeks to address that gap by systematically examining qualitative evidence on cultural influences on child malnutrition in Nigeria.

Research Question: How do cultural norms influence child malnutrition in Nigeria, and what culturally tailored interventions can be developed to address these influences effectively?

Aim: To explore qualitative research on the cultural factors influencing child malnutrition in Nigeria and to recommend a culturally sensitive public health approach.

2. Literature review

2.1. Prevalence and Trends

Stunting prevalence in Nigeria declined from 42.4% in 2003 to 36.8% in 2018, yet remains well above the WHO's 40% reduction target for 2025 (Adeyemi et al., 2022; Ezeh et al., 2021). Future projections suggest rates will persist or worsen without significant structural intervention, particularly given Nigeria's rapid population growth (Abubakar et al., 2022). Urban-rural disparities compound regional inequities: rural stunting prevalence (44.8–72.8%) markedly exceeds urban rates (26.8–30.6%) (John et al., 2024).

2.2. Existing Policies and Interventions

Nigeria's National Policy on Food and Nutrition (NPFN, 2016) and the National Strategic Plan of Action for Nutrition (NSPAN, 2014–2019) outline frameworks for food security, breastfeeding promotion, and micronutrient supplementation. International NGOs including UNICEF, Save the Children, and the International Rescue Committee have implemented community-based management of acute malnutrition programs (UNICEF, 2015). Legislative tools such as mandatory salt iodisation and food fortification initiatives target micronutrient deficits (WHO, 2022).

However, policy implementation gaps are substantial, and programmes frequently lack cultural sensitivity and regional contextualisation (Knittel et al., 2023; Joo & Liu, 2020). The persistence of harmful cultural practices despite these interventions underscores the need to address cultural determinants explicitly (Olonade et al., 2019; Scaglioni et al., 2018).

2.3. Cultural Determinants: Evidence Base

Previous systematic reviews have focused on biological determinants and treatment efficacy, rarely addressing cultural beliefs and practices in depth (Akombi et al., 2017; Ezeh et al., 2021). Studies that do engage cultural factors tend to treat them as confounders rather than primary exposures (Islam et al., 2019). Key gaps include insufficient exploration of father involvement in nutrition, region-specific cultural variations, and the intersection of religion with dietary practices (Agu et al., 2019; Abubakar et al., 2022). This review contributes a systematic, culturally focused synthesis to address these gaps.

3. Methodology

3.1. Review Design

An extended literature review using a systematic approach was conducted. This methodology surpasses a conventional narrative review through its methodological rigour: systematic database searching, explicit inclusion/exclusion criteria, and standardised quality appraisal minimise bias and enhance reproducibility (Hemsworth, 2023; Shaheen et al., 2023). Qualitative study designs were exclusively sought to capture the lived experiences, beliefs, and cultural contexts of Nigerian communities.

3.2. Search Strategy

The PIO framework (Population, Interest, Outcome) guided search term development (Teesside University, 2019). Searches were conducted in PubMed, Embase, and Web of Science. Boolean operators (AND/OR) and truncation techniques were applied. The search was restricted to English-language qualitative studies published within the last five years (2019–2024).

Table 1 PIO Framework and Search Terms

P – Population	I – Interest	O – Outcomes
Children (0–5 years)	Malnutrition / Undernutrition	Cultural practices
Nigeria	Stunting / Wasting	Beliefs / Traditions
Mothers / Caregivers	Underweight	Socioeconomic factors / Norms

Table 2 Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Studies focusing specifically on Nigeria	Systematic reviews (focus on primary data)
Qualitative primary research designs	Studies not conducted in Nigeria
Research addressing cultural factors and child malnutrition	Studies not addressing cultural aspects
Published in English, 2019–2024	Non-English publications

3.3. Quality Appraisal

The Critical Appraisal Skills Programme (CASP) Qualitative Checklist was used to assess all six included studies across ten criteria: research aims, qualitative methodology, research design, recruitment, data collection, researcher-participant relationships, ethical considerations, analytical rigour, clarity of findings, and research value (CASP, 2018). All six studies scored 20/20, confirming high methodological quality.

3.4. PRISMA Flowchart

The PRISMA 2020 flowchart (Figure 1) transparently documents the study selection process (Page et al., 2021).

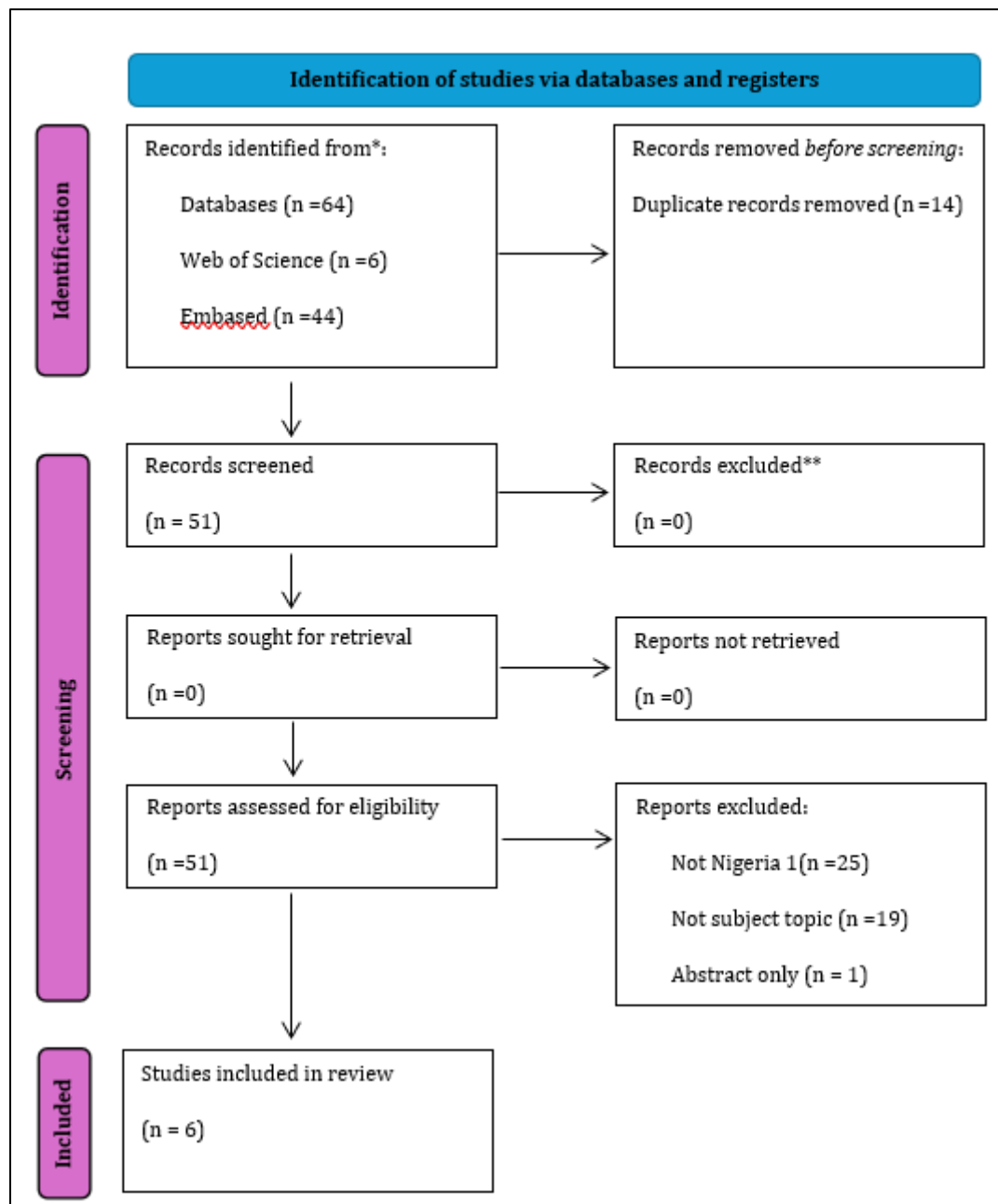


Figure 1 Prisma Flowchart

4. Results

4.1. Included Studies Overview

Six qualitative studies met all inclusion criteria. The studies spanned multiple Nigerian states (Kaduna, Katsina, Jigawa, Bauchi, Gombe, Osun, and Maiduguri) and collectively engaged 325 participants including mothers, fathers, adolescent girls, community leaders, and health workers. Table 3 summarises the key characteristics.

Table 3 Summary of Included Studies

Author (Year)	Location	Sample (n)	Method	Key Focus	Main Finding
Blum et al. (2022)	Kaduna State	n=67	IDIs, FGDs, key informant interviews	Intrahousehold food allocation; egg consumption	Socioeconomic status and gender roles shape children's access to nutrient-rich foods
Amat Camacho et al. (2023)	Maiduguri, NE Nigeria	n=32	IDIs, FGDs	Breastfeeding in emergency settings	Conflict and cultural norms hinder breastfeeding practices
Adeomi et al. (2022)	Gombe & Osun States	n=76	Focus group discussions	Mothers' perceptions of child weight	Cultural beliefs significantly skew maternal understanding of malnutrition
Sosanya et al. (2024)	Bauchi State	n=48	FGDs, free listing	Adolescent girls' dietary choices	Cultural norms and economic constraints drive poor dietary choices
Sharma et al. (2019)	Jigawa State	n=82	Event narratives, IDIs, FGDs	Male involvement in maternal/newborn health	Traditional gender roles limit men's engagement in maternal/child healthcare
Joseph & Earland (2019)	Katsina State	n=20	Semi-structured interviews, FGDs	Sociocultural determinants of exclusive breastfeeding	Family dynamics and traditional beliefs undermine exclusive breastfeeding

IDIs = In-depth interviews; FGDs = Focus group discussions

4.2. Theme 1 — Cultural Beliefs and Dietary Practices

Cultural beliefs constituted the most pervasive theme across all six studies. Blum et al. (2022) documented how food taboos in Kaduna State; notably the belief that egg consumption leads to theft or undesirable behaviour, restrict children's access to this protein-rich food, increasing stunting risk. Sosanya et al. (2024) similarly documented how indigenous customs in Bauchi State determine food acceptability, with certain nutrient-dense foods stigmatised on cultural or religious grounds.

Breastfeeding practices were profoundly shaped by cultural norms. Amat Camacho et al. (2023) found that pre-lacteal feeds (honey, herbal mixtures) remain widespread in Northeast Nigeria, delaying colostrum intake and increasing neonatal morbidity. Joseph and Earland (2019) confirmed that grandmothers and traditional birth attendants perpetuate the belief that colostrum is harmful, discouraging its use. Mothers who deviated from these community norms feared social backlash, reinforcing the intergenerational transmission of harmful practices.

4.3. Theme 2 — Gender Roles and Intrahousehold Food Distribution

Gender dynamics were identified as a key structural driver of nutritional inequity. Adeomi et al. (2022) demonstrated that in male-dominated household structures, men control financial resources, leading mothers to purchase cheaper, less nutritious alternatives. In several communities, high-quality foods were culturally reserved for adult males as economically productive household members, systematically disadvantaging women and children (Blum et al., 2022).

Sharma et al. (2019) highlighted that men's frequent absence from antenatal care and their framing of maternal health as "a woman's problem" perpetuates a cycle of disengagement that negatively affects both maternal nutrition and neonatal outcomes. Sosanya et al. (2024) found that adolescent girls internalised body image ideals that caused them to restrict protein-rich foods, reflecting gendered cultural pressures that predispose girls to anaemia and stunting.

4.4. Theme 3 — Socioeconomic and Educational Factors

Poverty interacted synergistically with cultural norms to compound malnutrition. Blum et al. (2022) and Sosanya et al. (2024) documented that lower-income households had reduced ability to access diverse, nutrient-rich foods,

reinforcing dependence on culturally entrenched dietary patterns. Adeomi et al. (2022) and Sharma et al. (2019) found positive correlations between higher parental education and better nutritional outcomes, as educated parents more readily integrated evidence-based dietary guidance.

5. Discussion

5.1. Cultural Beliefs and Breastfeeding

The findings confirm that cultural misperceptions about colostrum and early weaning are prevalent across Nigeria's diverse ethnic landscape. These beliefs, sustained through Social Cognitive Theory's mechanisms of observational learning and social reinforcement (Bandura, 1986), are perpetuated by authoritative community figures including grandmothers and traditional birth attendants. Culturally sensitive educational interventions that co-opt these same authority figures have demonstrated success in improving breastfeeding rates in comparable Sub-Saharan African settings (Amat Camacho et al., 2023; Amzat et al., 2024).

5.2. Food Taboos and Nutritional Deficiencies

Food taboos restricting eggs, meat, and specific vegetables impose measurable micronutrient deficits, particularly iron and vitamin A deficiencies critical for child development (Kiani, 2022). The Social Determinants of Health framework (WHO, 2024a) clarifies how these cultural restrictions interact with structural factors; limited food supply infrastructure, inadequate social welfare systems, and economic marginalization, to produce and sustain nutritional vulnerability. Global evidence indicates culturally congruent nutrition education can effectively erode harmful taboos (Rizvi, 2022; Chakona & Shackleton, 2019).

5.3. Gender Inequity and Resource Allocation

Patriarchal household structures restrict women's autonomous decision-making over food purchases, imposing nutritional costs on children (Adeomi et al., 2022). Engaging fathers in child nutrition through community-based programmes; analogous to India's "MenCare" initiative, has been shown to disrupt these norms and improve food distribution equity (Sharma et al., 2019). Addressing gender power dynamics requires long-term, multi-level strategies encompassing education, community engagement, and policy reform (Cislaghi & Heise, 2020; Backman-Levy & Greene, 2024).

5.4. Role of Religion and Ethnicity

Northern Nigeria's Islamic dietary laws add an additional layer of cultural complexity, particularly during Ramadan and through halal restrictions, which can amplify food taboos and limit dietary diversity (Abubakar et al., 2022; Roberts et al., 2009). With over 250 ethnic groups, Nigeria's cultural landscape necessitates region-specific, ethnically tailored interventions rather than uniform national policies (Adedini et al., 2014).

5.5. Implications for Public Health Policy

Programmes that engage local leaders; particularly religious and traditional authorities, have succeeded in contexts comparable to Nigeria. Tanzania's Stawisha Maisha nutrition programme achieved improvements in child feeding practices by aligning messaging with local cultural values (Stawisha Maisha, 2022). Ethiopia's use of religious leaders to challenge colostrum avoidance and food taboos offers a further model for Nigeria (Abinet et al., 2024). Brazil's Bolsa Família conditional cash transfer programme demonstrates the value of combining economic empowerment with nutritional education to address the twin drivers of poverty and culture (World Bank, 2023).

6. Conclusion

This systematic review demonstrates that cultural norms, beliefs, and practices constitute primary, independent drivers of child malnutrition in Nigeria; operating alongside and interacting with economic deprivation. Food taboos, colostrum rejection, early weaning, and patriarchal food allocation collectively reduce children's access to essential nutrients. These practices are sustained through intergenerational social learning, community authority structures, and gender power dynamics that public health programmes have not adequately engaged.

Culturally attuned public health initiatives are not merely preferable but essential for effectiveness and sustainability. Programmes that respect indigenous values while promoting evidence-based nutrition, engage fathers and community

leaders as change agents, and integrate economic empowerment with cultural sensitivity offer the most viable pathway to reducing child malnutrition in Nigeria.

Future research should investigate the longitudinal impact of culturally adapted interventions, the nutritional consequences of urbanisation on traditional dietary customs, and the comparative influence of religious food restrictions across Nigeria's major ethnic groups.

Recommendations

The following recommendations arise from the evidence synthesis:

Domain	Recommendation	Evidence Base
Community-based education	Develop culturally tailored nutrition campaigns co-designed with local and religious leaders to challenge harmful food taboos and colostrum avoidance practices	Abinet et al. (2024); Stawisha Maisha (2022)
Father engagement	Implement father-inclusive nutrition programmes (similar to MenCare) that integrate men into household food decision-making and antenatal care	Sharma et al. (2019); Chosid (2024)
Economic empowerment	Introduce conditional cash transfers linked to nutrition education attendance, modelled on Brazil's Bolsa Família programme, to mitigate poverty-driven dietary constraints	Abubakar et al. (2022); World Bank (2023)
Region-specific policy	Adopt differentiated policy frameworks that address the distinct cultural contexts of Northern (Islamic dietary norms, patriarchal structures) and Southern Nigeria (ethnic-specific taboos)	Adedini et al. (2014); Ezeh et al. (2021)
Breastfeeding support	Train and deploy community health workers to engage grandmothers and TBAs as informed advocates for exclusive breastfeeding and colostrum use	Joseph & Earland (2019); Amat Camacho et al. (2023)
Research agenda	Fund longitudinal studies evaluating culturally adapted interventions and urban-rural migration effects on dietary practices across Nigeria's ethnic groups	John et al. (2024); Abubakar et al. (2022)

TBAs = Traditional birth attendants

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