

Impact of Polygamy on the Nutritional Status of Children in Onna Local Government Area, Akwa Ibom State, Nigeria

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Abstract- Background: Family structure, particularly polygamy, remains a dominant socio-cultural feature in Sub-Saharan Africa. However, its influence on child nutrition and overall health outcomes in local settings like Onna Local Government Area (LGA) requires rigorous empirical evaluation. **Objectives:** To investigate the socio-economic status of polygamous parents, determine the impact of family size on child nutrition, and identify the health implications of malnutrition among children aged 0–18 years in Onna LGA. **Methods:** A descriptive cross-sectional survey was conducted using a multistage sampling technique to select 100 children (and their caregivers) across five administrative wards in Onna LGA. Data were collected using a structured, validated 15-item questionnaire, Impact of Polygamy on the Nutritional Status of Children Questionnaire (IPNSCQ), measured on a 4-point Likert scale (Test-retest reliability $r = 0.81$). Descriptive statistics using simple percentage analysis were employed to analyze the response patterns. **Results:** Of the 100 participants, 72% belonged to polygamous families. The socio-economic analysis revealed high rates of parental unemployment (36%) and self-employment/artisanal labor (54%). A significant majority of respondents agreed that low income in polygamous households hinders the provision of a balanced diet (81%) and leads to inter-sibling competition for food (88%). Large family size was strongly associated with inadequate feeding (81%) and routine meal-skipping (90%). Major health consequences identified included low immunity to infectious diseases (88%), emotional instability affecting academic focus (85%), higher risk of physical deformity (81%), and growth stunting (75%). **Conclusion:** Polygamous family structures compounded by low socio-economic status significantly impair child nutritional security and overall physical and cognitive health in Onna LGA. Targeted community health education, micro-economic policy support, and structural enforcement of family welfare frameworks are recommended.

Keywords: Polygamy, Child Malnutrition, Socio-Economic Status, Family Size, Onna LGA, Public Health.

I. INTRODUCTION

Background of the Study

In recent decades, social scientists and public health researchers have increasingly emphasized the profound influence of family structure on health outcomes, developmental trajectories, and survival rates of children. Children raised in non-traditional or socio-economically strained family structures often display poorer physical, mental, and nutritional outcomes compared to those raised in intact, monogamous households where parental resources are consolidated. Resource availability, comprising financial, emotional, educational, and nutritional capacity serves as the primary pathway linking family structure to child wellbeing. The presence of a single co-residing spouse typically optimizes the allocation

of essential household resources needed for child growth.

While family dynamics vary globally, polygamy, a socio-cultural practice or custom of having more than one spouse, currently remains prevalent across Sub-Saharan Africa. In West Africa, including Nigeria, polygamy accounts for 20% to 50% of all marital unions. Beneath the surface of these extended family systems lie subtle dynamics that influence household food security, resource distribution, and child development. When practiced within economically constrained settings, polygamy often exacerbates household strain, leading to domestic friction, food insecurity, and inadequate dietary intake among offspring.

Nutritional status is a sensitive indicator of quality of life, environmental efficiency, and general socio-

economic wellbeing. For primary school-age children (ages 6–12), a period characterized by rapid physical growth and dynamic mental development, optimal nutrition is critical. Sub-optimal nutrition during these formative years triggers irreversible health impairments, lower cognitive capacity, reduced school attendance, and heightened mortality from preventable childhood infections. The World Health Organization (WHO) emphasizes that childhood nutritional status reflects not only a family's socioeconomic standing but also the overall health environment of the community.

Statement of the Problem

The dual burden of polygamous family strain and child malnutrition remains a persistent public health challenge across developing nations. In rural and semi-urban communities of Akwa Ibom State, Nigeria, low-income polygamous families frequently face economic hardship, limiting their capacity to provide balanced, timely, and proportional meals to all children.

The physical, cognitive, and social consequences of this dynamic are increasingly apparent. Children raised in low-income, high-density polygamous households are particularly vulnerable to protein-energy malnutrition, micro-nutrient deficiencies, growth stunting, compromised immunity, and reduced educational performance. Despite widespread recognition of these risks, empirical research evaluating the localized socio-economic impact of polygamy on child health in Onna Local Government Area remains limited. This study addresses that gap.

Objectives of the Study

The primary objective of this study was to evaluate the impact of polygamy on the nutritional status of children in Onna Local Government Area, Akwa Ibom State. Specifically, the study sought to:

1. To determine how the socio-economic status of polygamous parents impacts the nutritional status of children in Onna LGA.
2. To identify the impact of family size on the nutritional status of children in Onna LGA.
3. To assess the health implications of child malnutrition in Onna LGA.

Research Questions

1. How does the socio-economic status of polygamous parents impact the nutritional status of children in Onna LGA?
2. What is the impact of family size on the nutritional status of children in Onna LGA?
3. What are the key health implications of malnutrition among children in Onna LGA?

Significance of the Study

This study provides empirical data on the relationship between marital structure, resource allocation, and child nutrition in rural West Africa. The findings offer actionable insights for public health planners, non-governmental organizations (NGOs), community leaders, and policy makers working to reduce childhood undernutrition and improve family health interventions. Furthermore, this research contributes to the regional literature on maternal and child health in Akwa Ibom State.

II. REVIEW OF RELATED LITERATURE

Conceptual Framework

Polygamy: A mating and marital system in which an individual maintains simultaneous marital relationships with multiple spouses. In the Sub-Saharan African context, polygyny (one husband with multiple wives) is the predominant form.

Nutritional Status: The physiological state of an individual resulting from the intake, absorption, and utilization of nutrients relative to body requirements. Good nutrition underpins immune competence, physical growth, and cognitive functioning.

Malnutrition: A physiological condition caused by a relative or absolute deficiency or excess of dietary energy and nutrients, leading to measurable adverse effects on tissue form, function, and clinical outcome.

Theoretical Framework

Micro-Economic Theory of the Household

This theory posits that household behavior represents a collective rational response to external market conditions and resource limitations. The household operates as both a production and

consumption unit, allocating finite resources (time, money, labor) to produce wellbeing, health, and nutrition. In polygamous families with high fertility rates and low income, household real income is diluted across multiple sub-units (co-wives and their respective children). As a result, the shadow cost of securing nutritional goods rises, often leading to reduced nutrient intake per child.

Nutritional Transition Theory

Developed in public health epidemiology, this theory describes how shifts in economic status, urban development, and demographic patterns influence dietary structures and disease profiles. Populations undergoing demographic transitions often experience shifts in nutritional quality, where low-income households rely heavily on low-cost, calorie-dense starch staples that lack essential micronutrients and proteins. This pattern directly contributes to stunting and micronutrient deficiencies in children.

Polygamy and Evolutionary Female Choice Theory

This model conceptualizes polygamous arrangements through social and resource availability lenses. While the theory suggests that women may choose polygamous unions based on a partner's economic stability, real-world constraints such as systemic poverty often diminish those expected economic benefits. Consequently, resource dilution across multiple co-wives frequently leads to household food insecurity and reduced child investments.

III. RESEARCH METHODOLOGY

Study Area

This study was conducted in Onna Local Government Area, located in the southern senatorial district of Akwa Ibom State, Nigeria. The name ONNA is an acronym derived from its four constituent traditional clans: Oniong, Nnung Ndem, Awa Afaha, and Awa. Bounded by Eket LGA to the east, Mkpat Enin LGA to the west, and Eastern Obolo LGA to the south, Onna has an estimated population of approximately 295,000 residents. Its geographical proximity to the Atlantic coast supports a local economy centered on

artisanal fishing, farming, petty trading, and informal commerce.

Design and Population of the Study

A descriptive cross-sectional survey design was used to examine the impact of polygamy on child nutritional status. The target population comprised children aged 0–18 years and their parents/caregivers across Onna LGA, drawn from an overall census population of 108,713.

Sample Size and Sampling Technique

A sample size of 100 households/respondents was selected using a multistage sampling approach:

Stage 1 (Ward Selection): Five (5) administrative wards were randomly selected from the 12 administrative wards comprising Onna LGA.

Stage 2 (Household Selection): Twenty (20) households with children aged 0–18 years were selected per ward via simple random sampling, yielding a total sample size of 100 participants.

Research Instrument & Data Analysis

Data were gathered using the Impact of Polygamy on the Nutritional Status of Children Questionnaire (IPNSCQ), developed by the researcher. The instrument consists of two main sections: Section A (Socio-demographic variables) and Section B (15 psychometric items formatted on a 4-point Likert scale). Face and content validity were established by expert review, while test-retest reliability yielded $r = 0.81$. Data were analyzed using descriptive percentage analysis.

IV. DATA PRESENTATION, ANALYSIS AND DISCUSSION

Socio-Demographic Profile

Table 1: Gender Distribution of Respondents

S/N	Gender Category	Frequency (n=100)
1	Male	45 (45.0%)
2	Female	55 (55.0%)
-	Total	100 (100.0%)

Table 2: Age Distribution of Children

S/N	Age Range (Years)	Frequency (n=100)
1	0 – 5 years	0 (0.0%)
2	6 – 10 years	11 (11.0%)
3	11 – 15 years	20 (20.0%)
4	16 – 18 years	69 (69.0%)
-	Total	100 (100.0%)

Table 3: Family Type Distribution

S/N	Family Structure	Frequency (n=100)
1	Monogamous Family	28 (28.0%)
2	Polygamous Family	72 (72.0%)
-	Total	100 (100.0%)

Table 4: Parental Employment Status

S/N	Employment Status	Frequency (n=100)
1	Unemployed Parents	36 (36.0%)
2	Employed (Formal Sector)	28 (28.0%)
3	Self-Employed / Informal	36 (36.0%)
-	Total	100 (100.0%)

Table 5: Parental Occupation Profile

S/N	Employment Status	Frequency (n=100)
1	Unemployed Parents	36 (36.0%)
2	Employed (Formal Sector)	28 (28.0%)
3	Self-Employed / Informal	36 (36.0%)
-	Total	100 (100.0%)

Analysis of Research Questions

Table 6: Impact of Parental Socio-Economic Status on Child Nutrition

S/N	Item Statement	Agreed (%)	Disagreed (%)
1	Polygamous parents with low income experience difficulty providing balanced diets.	81.0%	19.0%
2	Unsteady income in polygamous households creates chronic feeding difficulties.	89.0%	11.0%
3	Low parental education impairs nutritional planning for children.	64.0%	36.0%
4	Children of poor polygamous parents exhibit higher rates of malnutrition.	92.0%	8.0%
5	Low income forces children in polygamous homes to compete for scarce food.	88.0%	12.0%
-	Aggregate Percentage	82.8%	17.2%

Table 7: Impact of Family Size on Child Nutritional Status

S/N	Item Statement	Agreed (%)	Disagreed (%)
1	Children from large families are frequently inadequately fed.	81.0%	19.0%
2	Large family size restricts routine	83.0%	17.0%

	access to balanced diets.		
3	Children in large households show a higher tendency to skip meals.	90.0%	10.0%
4	Malnutrition is more prevalent in families with many children.	85.0%	15.0%
5	Low-income large families fail to meet child dietary needs on time.	90.0%	10.0%
-	Aggregate Percentage	85.8%	14.2%

Table 8: Health Implications of Malnutrition on Children

S/N	Item Statement	Agreed (%)	Disagreed (%)
1	Malnutrition causes growth stunting among children.	75.0%	25.0%
2	Malnutrition impairs cognitive and mental development.	63.0%	37.0%
3	Malnourished children suffer low immunity, increasing disease risk.	88.0%	12.0%
4	Malnutrition increases susceptibility to physical deformities/rickets.	81.0%	19.0%
5	Malnourished children display emotional instability that impacts schooling.	85.0%	15.0%
-	Aggregate Percentage	78.4%	21.6%

Discussion of Findings

The empirical findings of this study demonstrate a direct link between polygamous family structures, reduced household socioeconomic capacity, and adverse child nutritional outcomes in Onna LGA.

The finding that 82.8% of respondents agreed on the negative impact of low parental socio-economic status aligns with Micro-Economic Theory. In rural and semi-urban Nigerian settings, income levels often dictate dietary quality. When financial resources are distributed across multiple sub-households, spending on protein and micronutrient-rich food drops. Consequently, families rely heavily on low-cost, starch-heavy dietary staples. These findings align with earlier work by UNICEF, which noted that large, low-income polygamous families routinely experience strained food budgets.

Furthermore, the 85.8% agreement regarding the adverse effects of large family size illustrates the impact of resource dilution. High dependency ratios within low-income households directly correlate with meal skipping, reduced food intake, and localized food insecurity.

Finally, the health consequences identified in this sample, such as suppressed immunity (88%), physical stunting (75%), and emotional instability (85%), highlight the broader public health risks associated with chronic early childhood undernutrition. Undernourished children face elevated risks of infectious diseases (such as malaria, acute respiratory infections, and diarrheal illnesses) alongside long-term cognitive deficits that hinder educational attainment.

V. CONCLUSION AND RECOMMENDATIONS

Conclusion

This study demonstrates that polygamous family structures, when combined with low socio-economic status, significantly compromise child nutritional security and overall health in Onna LGA. Resource dilution in large polygamous households increases the likelihood of meal skipping, unbalanced diets, and inter-sibling competition for food. These factors

contribute to growth stunting, suppressed immunity, emotional vulnerability, and poor academic performance. Addressing child malnutrition in rural West Africa, therefore requires public health interventions that account for both economic constraints and socio-cultural family dynamics.

Public Health Recommendations

1. **Community Nutritional Education:** Local health authorities and primary healthcare centers should expand grassroots education campaigns focusing on low-cost balanced diets, infant feeding practices, and local food preparation methods.
2. **School-Based Feeding Interventions:** The Akwa Ibom State Government should expand state-supported elementary school feeding initiatives across rural local government areas like Onna to supplement child nutrient intake.
3. **Socio-Economic Empowerment Programs:** Targeted micro-finance schemes and agricultural support initiatives should be directed to rural women and caregivers to enhance household income and purchasing power.
4. **Family Planning and Counseling Services:** Primary health centers should offer culturally sensitive family planning counseling to help couples align family size with available economic resources.

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