

Weaning Foods and Nutritional Status of Under-Five Children in Minna, Niger State, Nigeria

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Abstract-

Background: *This study investigates the weaning practices and nutritional status of under-five children in Minna, Niger State. The aim was to assess maternal knowledge and attitudes toward weaning, evaluate children's nutritional status, and identify the link between weaning practices and child health outcomes.*

Materials and Methods: *A descriptive cross-sectional design was employed. Structured questionnaires were administered to 220 mothers/caregivers in Minna Metropolis, collecting demographic data, weaning knowledge, and practices. Nutritional status was assessed using anthropometric measurements.*

Results: *The sample consisted of mothers/caregivers aged from under 20 years to over 40 years, with diverse educational and occupational backgrounds. Over half of the participants (57.27%) had poor knowledge of weaning, and 73.18% of children were underweight. Early weaning (before 6 months) was prevalent in 85% of cases, with poor weaning practices linked to malnutrition. The findings suggest a significant relationship between early weaning and underweight status in children.*

Conclusion: *The study highlights critical gaps in knowledge regarding weaning practices, pointing to the need for targeted educational interventions. Improving maternal knowledge and practices is essential for addressing malnutrition in under-five children in Minna Metropolis.*

Keywords: *Weaning practices, nutritional status, under-five children, Minna Metropolis, malnutrition, infant feeding.*

amount provided by breast milk alone. Nutritional deficiencies during this phase can lead to long-term developmental issues, including stunting, underweight, and cognitive impairments.

In Northern Nigeria, weaning practices are influenced by a combination of socio-economic, cultural, and educational factors, which result in variations in dietary diversity and nutritional status. In particular, certain traditional practices may limit the introduction of nutrient-rich foods, leading to malnutrition. The issue of malnutrition is particularly severe in rural and underserved urban areas like Bauchi, where under-five children face high rates of stunting, wasting, and underweight due to inadequate complementary feeding practices. Understanding how weaning practices affect child nutrition in these regions is crucial for designing effective interventions aimed at improving child health.

Statement of the Problem - Malnutrition among children under the age of five remains a significant public health issue in Nigeria, particularly in Niger State. Inadequate weaning practices contribute to undernutrition, which manifests in stunting, wasting, and underweight conditions. In Minna Metropolis, the transition from exclusive breastfeeding to complementary foods is often initiated too early or too late, and the foods introduced are sometimes nutritionally inadequate. This study aims to assess the relationship between weaning foods and the nutritional status of under-five children in Minna Metropolis, with the goal of identifying critical factors influencing malnutrition and proposing strategies for improvement.

Justification for the Study – Niger State experiences high rates of malnutrition among its under-five population, with insufficient complementary feeding practices playing a major role in poor child nutrition. Understanding the traditional weaning foods commonly used in the region and identifying the factors influencing nutritional status is critical. This study will provide valuable insights into the

I. INTRODUCTION

The first two years of life are critical for child development, and proper weaning practices during this period are essential for ensuring a healthy transition from breast milk to a more varied diet. Weaning is the process by which an infant gradually moves from exclusive breastfeeding to the introduction of complementary foods. According to the World Health Organization (WHO), weaning typically begins at around six months of age when the nutritional needs of the infant begin to exceed the

knowledge, attitudes, and practices related to weaning among mothers and caregivers in Minna Metropolis. By filling the knowledge gap, the findings will inform the development of targeted nutrition education programs and interventions to reduce malnutrition and improve child health outcomes.

Aim and Objectives - The aim of this study is to assess the weaning foods and nutritional status of under-five children in Minna Metropolis. The specific objectives of the study are:

1. To assess the knowledge of proper infant weaning among mothers/caregivers of under-five children in Minna Metropolis.
2. To ascertain the attitudes of mothers/caregivers towards proper infant weaning in Minna Metropolis.
3. To evaluate the nutritional status (including indicators such as stunting, underweight, and wasting) of under-five children in Minna Metropolis.
4. To determine the weaning practices among caregivers/mothers of children under five years of age in Minna Metropolis.
5. To examine the association between weaning practices and the nutritional status of under-five children in Minna Metropolis.

II. METHOD

A descriptive cross-sectional design was employed for this study, aiming to collect data from 220 mothers or caregivers of under-five children in Bauchi Metropolis. The study area, Minna Metropolis, located in Nigeria, presents a diverse socio-economic and cultural landscape that offers a representative setting for understanding weaning practices and child nutritional status in this region. The study population consisted of mothers and caregivers residing within Minna Metropolis and their under-five children, making them the focal

participants for this research. A multi-stage sampling approach was adopted, beginning with the random selection of four political wards within the metropolis, followed by the use of a systematic sampling method to select one mother/caregiver-child pair from each household. This approach ensured that a diverse sample of participants was included in the study.

Data collection was conducted through face-to-face interviews with the mothers or caregivers using structured questionnaires. Anthropometric measurements, such as weight and height, were also taken to assess the nutritional status of the children. Descriptive statistics were used to summarize the demographic data, while Chi-square tests were employed to analyze the relationship between weaning practices and the nutritional status of the children. This methodological approach allowed for a comprehensive analysis of the variables under study, providing valuable insights into the association between weaning practices and malnutrition among under-five children in Minna Metropolis.

III. RESULTS AND DISCUSSION

The study achieved a response rate of 95.91%, with 211 completed questionnaires returned out of 220 distributed, demonstrating a high level of participation and engagement from the respondents. **Demographic Characteristics** - The majority of the respondents were aged between 20 and 30 years (47.27%), with a significant proportion having tertiary education (45.44%). Occupationally, most respondents were engaged in farming (37.27%), followed by business/trading (33.63%). In terms of religious affiliation, Islam was the predominant religion, with 85% of the respondents identifying as Muslim. These demographic characteristics provide important context for understanding the study's sample population.

Table 1: Demographic Information of Respondents

Variables	Category	Frequency	Percentage
Age Group			
	< 20	59	26.81
	20 – 30	104	47.27
	31 – 40	41	18.63
	41 and above	16	7.27
Education Level			

	Tertiary	100	45.44
	Secondary	56	25.45
	Primary	54	24.54
	No formal education	10	4.54
Occupation			
	Civil Servant	21	9.54
	Artisan	43	19.54
	Business/Trading	74	33.63
	Farmer	82	37.27
Religion			
	Islam	187	85.00
	Christianity	33	15.00

Knowledge of Weaning

A significant portion of respondents (57.27%) demonstrated poor knowledge of proper infant weaning practices. Only 26.81% of respondents exhibited good knowledge, while the rest had an

average understanding. This suggests that a substantial gap exists in the comprehension of proper weaning practices among mothers/caregivers in the study area.

Table 2: Knowledge of Proper Infant Weaning Among Mothers/Caregivers

Knowledge	Frequency	Percentage
Good Knowledge	59	26.81
Average Knowledge	35	15.90
Poor Knowledge	126	57.27
Total	220	100

Attitudes Towards Weaning

Regarding attitudes towards weaning, 65% of mothers and caregivers had a positive attitude towards proper weaning practices. However, 20.45%

were indifferent, and 14.54% exhibited a poor attitude, indicating a mix of positive and indifferent responses to the importance of appropriate weaning practices.

Table 3: Attitude of Mothers/Caregivers Towards Proper Infant Weaning

Knowledge	Frequency	Percentage
Positive attitude	143	65.00
Indifferent	45	20.45
Poor Attitude	32	14.54
Total	220	100

Nutritional Status of Children

Among the under-five children studied, 73.18% were classified as underweight, 25.90% had a normal weight, and 3.18% were classified as obese. The nutritional status analysis revealed a concerning

prevalence of underweight children, which is linked to insufficient or inappropriate weaning practices. Early weaning (before six months) was prevalent in 85% of the sample, which correlated with a higher rate of underweight children.

Table 4: Nutritional Status of Under-Five Children

Weight	Frequency	Percentage
Underweight (BMI below the 5th percentile)	161	73.18
Normal weight (BMI between the 5th and 85th percentiles)	52	25.90

Obesity (BMI above the 95th percentile)	7	3.18
Total	220	100

Weaning Practices and Nutritional Status

A correlation between weaning practices and nutritional status was observed, with early weaning associated with a higher prevalence of underweight children. In contrast, late weaning (after six months)

showed a higher prevalence of normal weight children. This highlights the importance of adhering to recommended weaning timelines for better nutritional outcomes.

Table 5: Weaning Practices and Nutritional Status of Children

Practice	Frequency	Percentage
Early Weaning (Before 6 months)	187	85.00
Late Weaning (after 6 months)	33	15.00
Total	220	100

Hypothesis Testing

The Chi-square tests confirmed a significant relationship between poor weaning practices and increased prevalence of malnutrition in under-five

children ($p < 0.05$), reinforcing the hypothesis that improper weaning practices contribute significantly to malnutrition.

Table 6: Chi-Square Test Results for Weaning Practices and Malnutrition Prevalence

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	116.746 ^a	2	.000
Likelihood Ratio	110.957	2	.000
Linear-by-Linear Association	75.327	1	.000
N of Valid Cases	220		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 1.05.			

IV. CONCLUSION

The study concludes that inadequate weaning practices contribute to malnutrition in under-five children in Minna Metropolis. Improving maternal knowledge and attitudes towards weaning is critical to enhancing child nutrition.

V. RECOMMENDATIONS

1. Nutrition education campaigns targeting mothers and caregivers.
2. Awareness programs on the risks of early weaning.
3. Workshops on preparing nutritious weaning foods.
4. Collaborations with healthcare providers for weaning counseling.
5. Government and NGO support for improving food security in the region.

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