

Anthropometric Status and Child Feeding Practices of Children (6-24 Months) in Umuahia North Local Area, Abia State

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ABSTRACT

Inadequate child feeding practices among children aged 6-24 months are a significant contributor to malnutrition in developing nations. The well-being of a child is intricately linked to their feeding routines, which are greatly influenced by the knowledge and behaviors of the mother. The initial year of a child's life plays a pivotal role in ensuring proper growth and development. Suboptimal feeding practices during this critical period can have both immediate and enduring repercussions. This research evaluated the anthropometry and child feeding practices of children aged 6-24 months in Umuahia North LGA, Abia State. A multi-stage sampling approach was employed to select the study participants. Four wards and their respective health centers out of the total 12 wards and health facilities in the L.G.A were included. Breastfeeding mothers were randomly chosen as respondents in each health center, totaling 340 participants. Structured and validated questionnaires were utilized for data collection. The information gathered encompassed the socio-demographic characteristics of mothers and infants, maternal nutritional knowledge, awareness of infant feeding practices, maternal breastfeeding habits, complementary feeding patterns, and the nutritional status of the children. The data obtained were analyzed using descriptive statistics, including frequencies, percentages. Statistical package for service solution (SPSS) version 22 was utilized for analysis. Anthropometric status of the children was obtained using WHO Anthro software. The findings of this study indicated that 44.1% of the respondents were cognizant that foods other than breast milk should be introduced at 6 months, while others believed this introduction should occur after 6 months. A majority of the respondents, 57.1%, were familiar with exclusive breastfeeding, with half, 50.1%, learning about it from healthcare professionals. The

nutritional assessment revealed that about one third of the Children were stunted, wasted and underweight. Among females, 12.2% exhibited severe stunting, underweight, or wasting, compared to 8.8% of males. A positive and robust correlation was observed between the average nutritional knowledge of mothers and the nutritional status of the children. Recommendations include raising awareness about exclusive breastfeeding and complementary feeding through television, radio, and other mass media channels.

INTRODUCTION

The health outcomes of a child are directly correlated with their feeding practices, which are, in turn, contingent on the knowledge and practices of the mother [1]. The initial year of a child's life is pivotal in ensuring appropriate growth and development [2] highlighted that inadequate feeding practices during the first year have both immediate and enduring repercussions. It is estimated that improper feeding contributes to approximately one-third of global malnutrition cases. Ensuring the health, growth, and development of children necessitates adequate nutrition during infancy and early childhood [3]. Thus, optimal feeding in the initial year presents an opportunity to prevent growth faltering and under-nutrition [3]. Inadequate feeding practices have also been associated with diminished reproductive capacity, complicated deliveries, and increased incidence of low-birth-weight infants in women who experienced malnutrition in childhood [4]. According to WHO [1], malnutrition during this period initiates a cascade of issues, starting with reduced weight for age and stunting, progressing to the inability to reach full height potential in adulthood, and diminished physical work capacity, ultimately impacting national development. Enhancing child feeding practices in children aged 6 to 24 months is crucial for improved nutritional status, growth, and development.

World Health Organization (WHO) has established specific indicators to effectively evaluate infant and young child feeding practices. These include early initiation of breastfeeding, exclusive breastfeeding under six months, continued breastfeeding at one year, and at two years. Lamberti LM, et al. [5] demonstrated the enduring benefits of breastfeeding, illustrating its influence on intelligence quotient (IQ) and the prevention of diseases such as hypertension, type two diabetes mellitus, and obesity-related issues. Furthermore, breastfeeding has been shown to decrease the risk of pneumonia mortality and morbidity in young children [6].

Child feeding stands as a critical domain for enhancing child survival and fostering healthy growth and development. The period from birth to the first year of life signifies a critical window for promoting optimal growth, health, and behavioral development [7]. Optimal child feeding practices encompass the initiation of breastfeeding within one hour of birth, exclusive breastfeeding for the initial six months, and the introduction of timely, appropriate, and adequate family foods for complementary feeding post six months alongside sustained breastfeeding [3]. The strategy advocates for early breastfeeding initiation within one hour of birth, exclusive breastfeeding for the first six months, and the incorporation of suitable, sufficient, and safe complementary foods while continuing breastfeeding up to two years and beyond. Enhancing child feeding practices is imperative to mitigate under-nutrition and its consequences [8].

To provide infants with additional nutrients, complementary foods (foods other than breast milk or infant formula) should be introduced to the child as they reach the age range of 6 to 23 months (with continued breastfeeding). This stage typically aligns with infants' general and neurological development, enabling them to consume foods beyond breast milk [9]. Complementary foods may consist of specially designed transitional foods tailored to meet infants' specific nutritional or physiological needs or general family foods aimed at bridging the gap between the child's daily energy and nutrient requirements and the amount obtained from breastfeeding [1]. The World Health Organization [1] has delineated specific indicators to effectively evaluate child feeding practices, including early initiation of breastfeeding, exclusive breastfeeding under six months, continued breastfeeding, and introduction of complementary foods [4].

MATERIALS AND METHODS

STUDY DESIGN

This study adopts a Cross-sectional design.

AREA OF STUDY

The research was conducted in Umuahia North Local Government Area in Abia State, Nigeria. Abia State was established on August 27, 1991, under the leadership of General Ibrahim Babangida, emerging from the division of Imo State. The name "Abia" is a composite of the initial letters of four regions: Aba, Bende, Isikwuato, and Afikpo, the latter now situated in Ebonyi State. Positioned east of Imo State, Abia

shares its western border with Imo State, while to the North-East, it is bordered by Anambra, Enugu, and Ebonyi States. To the East and South-East, it is flanked by Cross River and Akwa-Ibom States, with Rivers State marking its boundary where the Imo River separates the two states. Covering an expanse of 7,627.20 square meters, Abia State is lush with vegetation in the North.

Umuahia North Local Government Area is an urban district with a population of 223,134 as per the 2006 Nigerian Population Commission (NPC) census. It stands as a historic railway town and one of the oldest settlements in Abia State, centrally located and bordered by Bende to the East, Ihite Obowo Local Government Area of Imo State to the West, and Umuahia South Local Government Area to the South. The region features a fertile low-lying terrain conducive to agriculture, spanning 14,464.0 square kilometers. The populace consists predominantly of farmers, alongside civil servants, educators, entrepreneurs, and artisans, encompassing skilled and unskilled laborers, drivers, and technicians. An intricate network of streets and main roads interconnects Umuahia North with other parts of the State, comprising the Umuopara, Ibeku, and Olokoru clans.

POPULATION OF THE STUDY

The study population comprises infants aged 6-24 months residing in Umuahia North Local Government Area, Abia State.

SAMPLING AND SAMPLING TECHNIQUE

Sample size determination

The sample size was calculated using the formula

$$N = \frac{z^2 X p (100-p)}{X^2}$$

Where:

N= Sample size

Z= selected critical value of desired confidence level (1.96)

P= The estimated prevalence of malnutrition is 34% for stunting

q = 1-p

x= the desired level of precision.

For this work P (estimated proportion of an attribute) is

taken to be 34% (p =0.34) and 95% confidence level with 5% precision.

level (1.96) with 5% (0.05) precision.

X = margin error

100 - p = percentage of exclusive breastfed children

$$N = \frac{1.96^2 \times 34 (100-34)}{5^2}$$

$$N = \frac{3.84 \times 34 \times 66}{25}$$

$$N = \frac{3.84 \times 2244}{25}$$

$$N = \frac{7629.6}{25}$$

N = 305.19

To calculate for drop out (10% of 305):

$$10/100 \times 305.6/1$$

Therefore,

$$35.5 + 305 = 340$$

Therefore, the sample size was taken as 340.

SAMPLING PROCEDURE

A multi-stage sampling technique was employed to determine the study sample. Initially, Umuahia North was deliberately chosen as the focal point. The enumeration of all the wards and their corresponding health centers includes Afugiri, Ibeku East 1, Ibeku East 2, Ibeku West, Isingwu, Ndume, Nkoachara, Nkwoachara, Umuahia Urban 1, Umuahia Urban 1, Umuahia Urban 3, and Umuhu ward. Utilizing a random sampling technique through balloting without replacement facilitated the selection of health centers. Four wards and their respective health centers were selected from the total of 12 wards and health centers constituting the LGA. Children were chosen at random from each of the 4 selected health centers. Subsequently, the identification and quantification of breastfeeding mothers aged 6-24 months in each health center were undertaken. Breastfeeding mothers were randomly selected from the health centers, resulting in a total of 340 respondents.

Informed consent

Participants were briefed on the study's objectives and assured of the confidentiality of the information they provided. They were guaranteed that the data collected would be utilized for research purposes only and would not be disclosed to any third party. Verbal consent was acquired from the mothers before involving their children in the study.

Ethical Approval

Ethical approval was secured from the Umuahia North Local Government Area of Abia State, and authorization to carry out the research was granted by the Local Council in all the selected wards for the study.

DATA COLLECTION

Questionnaire administration

A pretested validated structured questionnaire was employed to gather information from the respondents. The questionnaire, segmented into various sections, aimed to acquire details on mothers (age, educational background, occupation, income level, household size, number of children, antenatal care facility), child's data (age, gender, birth order, birth weight), mothers' nutritional knowledge, knowledge of infant feeding practices, breastfeeding-related inquiries, and complementary feeding practices. Anthropometric measurements were taken to record weight, height, and mid-arm circumference.

Anthropometric measurement

Height: The recumbent length/height of the children was measured using a stadiometer with a vertical scale in meters and a sliding headpiece, accurate to 0.1 cm. **Weight:** Body weight was determined using an electronic baby scale. **Mid-Upper Arm Circumference (MUAC)** was measured using a flexible non-stretchable tape.

STATISTICAL ANALYSIS

Data from the questionnaire was coded and entered into the computer using statistical package for service solution

(SPSS), version 22.0. Anthropometric status of the children was obtained using WHO Anthro software. In grading the knowledge questions, a correct response was assigned a value of one, while a wrong response received zero. The knowledge score was calculated by summing the individual question scores, and the percentage knowledge score was derived by dividing the knowledge score by the number of knowledge items. Knowledge was categorized as follows: 0-39% as poor knowledge, 40-59% as average knowledge, and 60-100% as good knowledge. Descriptive statistics such as frequencies and percentages were utilized to analyze data on socioeconomic factors, mothers' nutritional knowledge, and breastfeeding practices.

RESULT AND DISCUSSIONS

Table 1 unveiled that 33.8% of the infants were aged 6-7 months, with a minority (12.7%) surpassing 12 months, while 32.9% fell within the 8-9 month age range. A significant majority (57.9%) of the infants were of the female gender, contrasting the findings of [10] which indicated a higher male gender ratio in Nigeria. This discrepancy may be attributed to the geographical context of this study. Regarding the birth order of the children, over half of the infants (52.1%) were firstborn, followed by 20% as second born, with a mere 5.3% as fifth born. Research by Rahman M [11] suggests a correlation between higher birth order and child malnutrition, positing that children of higher birth orders often receive less attention and care from parents. Therefore, reducing birth order and rates could potentially enhance child health outcomes. The data from this study reveals that the majority (32.9%) of infants had a birth weight ranging from 2.6 to 3.0 kg, while 47.1% fell within the 3.1-3.5 kg category, and 15.6% had a birth weight less than or equal to 2.5 kg. A small fraction (4.4%) were born with a weight exceeding 3.6 kg. Infants with low birth weight face an elevated risk of nutritional deficiencies and early childhood mortality. Kikelomo O, et al. [12] highlight the impact of low birth weight on early childhood development, underscoring the long-term repercussions that can vary in severity.

Table 1. Characteristics of the infants

Variables	Frequency	Percentage
Age Range (months)		
6-7	115	33.8
8-9	112	32.9
10-11	70	20.6
12 and above	43	12.7
Total	340	100
Sex		
Male	143	42.1
Female	197	57.9
Total	340	100
Birth Order		
1 st	177	52.1
2 nd	68	20
3 rd	49	14.4
4 th	28	8.2
5 th	18	5.3
Total	340	100
Birth Weight (kg)		
≤ 2.5	53	15.6
2.6-3.0	112	32.9
3.1-3.5	160	47.1
Above 3.6	15	4.4
Total	340	100

Table 2 illustrates that over half (51.5%) of the participants fell within the age bracket of 21-30 years, while a minority (7.4%) were aged between 41-50 years. Approximately 27.6% of the respondents were aged 20 years or below. As noted by Wemakor A, et al. [13], inadequate feeding practices and a higher incidence of undernutrition are frequently linked to children of younger mothers, possibly due to the psychological instability often found in younger maternal figures. Regarding household size, the majority (51.5%) of the sample had a household comprising less than 5 individuals, whereas a small fraction (9.7%) had a household size of 9 or more members. According to Ajao KO, et al. [14], household size impacts a child's nutritional well-being, with outcomes that can be either positive or negative. Children in larger families are more susceptible to malnutrition due to a decrease in per capita consumption. The data reveals that a significant portion (47.1%) of the respondents had three or more children, while a minority (19.79%) had only one child. The number of children in a family is a crucial determinant of nutritional status, as

highlighted by Nguyen NH, et al. [15]. A mother with multiple children is likely to allocate less time to childcare compared to a mother with two children or fewer. The majority (65.5%) of the participants received antenatal care at a government hospital, while a small proportion (5.3%) sought antenatal services at a private facility. Antenatal care has been shown to influence child feeding practices and nutritional outcomes. Research by Hamel C, et al. [16] demonstrated that children of women who attended at least four government antenatal visits were less prone to malnutrition. The findings indicate that 45.6% of the respondents were married, 27.6% were single, 16.8% were divorced, and 10% were widows. Maternal marital status can impact a child's nutritional status positively or negatively. According to Agung D, et al. [17], children residing with married mothers have a lower risk of malnutrition compared to those under the care of single mothers. This discrepancy may stem from the traditional roles where men primarily provide financially, leaving women responsible for domestic duties.

Table 2. Socio-demographic characteristics of the mothers

Variables	Frequency	Percentage
Age of mothers (years)		
≤ 20	94	27.6
21-30	175	51.5
31-40	46	13.5
41-50	25	7.4
Total	340	100
Household Size		
Less than 5	175	51.5
5-9	132	38.8
Greater than 9	33	9.7
Total	340	100
Number of Children		
1	67	19.7
2	113	33.2
Greater than or equal to 3	160	47.1
Total	340	100
Antenatal care facility		
Government hospital	224	65.9
Private hospital	18	5.3
Maternal home	70	20.6
TBA	28	8.2
Total	340	100
Marital Status		
Married	155	45.6
Single	94	27.6
Divorced	57	16.8
Widow	34	10
Total	340	100

Table 3 showed that the majority (63.2%) possessed knowledge regarding energy-dense foods, whereas 41% demonstrated understanding of the role of carbohydrates. The responses of the participants to this inquiry were influenced by their educational background and dietary habits. A profound comprehension of energy-rich foods empowers mothers to make informed choices to fulfill the energy needs of their infants [18]. Approximately 65.3% of the participants exhibited awareness of protein-rich foods, signifying a commendable level of nutritional knowledge as protein plays a pivotal role in the growth and development of children. As per [1], a sound understanding of high-protein foods aids mothers in selecting appropriate complementary foods. The majority of respondents (75.6%) were knowledgeable about foods abundant in vitamin A. Mothers well-versed in vitamin A-rich foods are more likely to ensure their children meet their daily vitamin A requirements [1]. Around 67.4% of the participants were aware of the optimal timing for fruit consumption. Adequate knowledge of the timing of fruit

consumption influences child feeding practices positively [1]. Fruits are rich in essential vitamins for children and should therefore be included in their diet. A mere 30.3% of the respondents were knowledgeable about foods rich in vitamin B6. Inadequate awareness of vitamin B6 adversely affects child feeding practices, as a deficiency in this vitamin is often linked to microcytic anemia [18]. Only 30% of the respondents were familiar with sources of iron. Iron is a vital nutrient that should be incorporated into complementary foods. Children with insufficient iron intake are more susceptible to iron deficiency anemia [1]. Overall, the majority (52.9%) exhibited moderate nutritional knowledge, with a small percentage demonstrating poor understanding (19.2%). This aligns with the findings of [19], who reported that most mothers possessed average nutritional knowledge. Understanding the feeding practices of infants and young children is paramount for their health and nutritional well-being [20]. Pries A, et al. [20] emphasized that children with mothers lacking in nutritional knowledge are at a higher risk of malnutrition.

Table 3. Responses of mother's nutritional knowledge

Variables	Responses F %	
Mother's nutritional knowledge		
Energy rich food	215	63.2
Function of carbohydrate	156	45.9
High sources of protein	222	65.3
Micro-nutrient is good for bone development	211	62.1
Proper time of fruit be consumption	229	67.4
Sources of iron	102	30.0
Rich sources of vitamin A	257	75.6
Rich sources of vitamin B6	103	30.3
Rich sources of vitamin C	197	57.9
Rich sources of vitamin D	173	50.9
Body building foods	180	52.9
Knowledge Grade		
Poor (0-39%)	65	19.2
Average (40-59%)	180	52.9
Good (60-100%)	95	27.9
Total	340	100

Table 4 showed that 44.1% of the participants were aware that foods besides breastfeeding should be introduced at 6 months, while others suggested introduction beyond 6 months, with a minority (9.7%) advocating for 3 months. This highlights a deficiency in knowledge regarding infant feeding practices compared to the research by Mutuku J, et al. [21], which documented that 79.2% of the respondents correctly identified the age for introducing complementary feeding. Accurate information on complementary feeding is pivotal for enhancing child feeding practices. As per Mutuku J, et al. [21], mothers equipped with knowledge on infant and young child feeding exhibit commendable child feeding behaviors.

In terms of the consistency of food offered to infants at 6 months and above, half of the respondents (50%) mentioned watery porridge, a small percentage (9.7%) preferred thick porridge, and 29.1% opted for light porridge. In a similar investigation by Yimer M [19], 36.4% of mothers recommended watery porridge for children at 6 months and above. Conversely, 63.6% suggested thick porridge or family pot meals starting from 1 year.

A significant portion of the respondents (44.1%) believed that children should be breastfed more frequently during illness, while a minority (5.4%) proposed reducing breastfeeding

frequency. Approximately 46.1% of the participants suggested providing an additional portion of each meal to a child recuperating from illness, while a small fraction (11.1%) favored decreasing breastfeeding frequency. In a study conducted by Mutuku J, et al. [21], 61.6% of mothers acknowledged the importance of increased feeding during a child's illness, while 36.3% lacked this knowledge. According to [22], inadequate feeding during illness and recovery heightens the risk of malnutrition in infants.

The findings indicated that over two-thirds (69.1%) of the respondents personally feed their children, while a minority (11.8%) rely on older siblings for feeding. WHO [22] emphasizes the significance of responsive feeding, where the mother directly feeds the child, fostering care and enhancing the mother-child bond.

The majority (90.6%) of infants are fed during illness, reflecting positive feeding practices. WHO [22] stresses the importance of adequate feeding during illness to mitigate the risk of malnutrition. According to Okolo SN, et al. [23], insufficient knowledge regarding appropriate foods and feeding practices often plays a more significant role in determining malnutrition than food scarcity.

Table 4. Knowledge of mothers on infant feeding practices

Variables	Frequency	Percentage
Age to introduce other foods apart from breastmilk		
At 3 months	33	9.7
At 5 months	59	17.4
At 6 months	150	44.1
Above 6 months	98	28.8
Total	340	100
Foods to be given to the infants at above 6 months		
Watery porridge	170	50
Light porridge	99	29.1
Thick porridge	33	9.7
Solid porridge	38	11.2
Total	340	100
How to feed a child during illness		
Reduce fluid intake	44	12.9
Increase fluid intake	128	37.6
Breast feed the child more frequently	150	44.1
Reduce frequency of breastfeeding	18	5.4
Total	340	100
Ways to feed child recovering from illness		
Give same amount of food as usual	58	17.1
Give extra portion of each meal	157	46.2
Add an extra or snacks each day	87	25.6
Reduce frequency of breastfeeding	38	11.1
Total	340	100
Person feeding the child		
The maid	65	19.1
I myself	235	69.1
The older ones	40	11.8
Others pls specify	0	0
Total	340	100
Feed child at illness		
Yes	308	90.6
No	32	9.4
Total	340	100

Table 5 illustrates that over half (57.1%) of the participants were knowledgeable about exclusive breastfeeding, while 42.9% were unaware of this practice. This outcome aligns with [24] findings. Conversely, [25] reported a lower awareness rate of 30% among mothers, possibly attributed to varying levels of nutritional education exposure. Regarding the sources of information, a majority (50%) obtained knowledge from healthcare professionals, while a smaller percentage (12.9%) relied on media sources. Approximately 37.1% acquired information from their families and friends. In a similar investigation by Dukuzumuremiyi J, et al. [26], 67.8% of mothers received information from healthcare institutions, emphasizing the importance of promoting antenatal visits for enhanced awareness. The study revealed that a significant portion (71.5%) of respondents did not adhere to exclusive breastfeeding, with only 28.5% practicing it. This rate contrasts with [26] study, where 55.9% of mothers exclusively breastfed

their infants. Exclusive breastfeeding has been linked to reduced childhood infections [22]. Among the reasons cited for not exclusively breastfeeding, 50% mentioned excessive infant crying, 34.2% cited insufficient breast milk, and 15.2% attributed it to job constraints. Previous research highlighted inadequate knowledge, misconceptions about breastfeeding, and time constraints due to employment as common barriers [27], underscoring the necessity to promote exclusive breastfeeding and support working mothers. A significant number (35.5%) introduced water to infants at 3-4 months, with a minority (7.6%) doing so immediately after birth. Early water introduction before six months can heighten the risk of diarrhea, leading to malnutrition [28]. Similarly, early introduction of complementary foods was prevalent, with 35.6% introducing them at 3-4 months, contrary to WHO's recommendation of waiting until six months to avoid malnutrition risks. In terms of initiating breastfeeding, only

a fraction (35.6%) initiated it immediately after birth, while 38.1% did so within an hour. Early initiation within the first hour is crucial for newborn health, as it offers protection against infections and reduces mortality [22]. Furthermore, findings indicated that 45.9% of respondents fed infants a combination of breast milk, water, and semisolid foods, while a minority

(2.9%) exclusively breastfed. Breast milk is the optimal initial nourishment for infants, providing all necessary nutrients for the first six months without the need for additional liquids or foods [18]. Subsequently, introducing complementary foods after six months becomes essential to meet the infant's evolving nutritional requirements [1].

Table 5. Breastfeeding practices by mothers

Variables	Frequency	Percentage
Awareness on exclusive breastfeeding		
Yes	194	57.1
No	146	42.9
Total	340	100
Sources of information		
Health workers	170	50
Friend/relations	126	37.1
Media	44	12.9
Others	0	-
Total	340	100
Baby exclusively breastfed		
Yes	97	28.5
No	243	71.5
Total	340	100
If no why		
Baby cries too much	123	50.6
Insufficient breast milk	83	34.2
My job	37	15.2
Total	243	100
Time water was introduced		
Immediately after birth	26	7.6
3-4 months	120	35.3
5-6 months	114	33.5
Above 6 months	80	23.6
Total	340	100
Time other foods were introduced		
Immediately after birth	11	3.2
3-4 months	103	30.3
5-6 months	121	35.6
Above 6 months	105	30.9
Total	340	100

Table 5. Cont'd

Myriad Pro	Frequency	Percentage
First thing given to the baby after birth		
Water	131	38.5
Glucose + water	78	22.9
Breast milk	105	30.9
Locally formulated mixture	26	7.7
Others pls specify	0	
Total	340	100
Initiation time of breast milk after birth		
Immediately after birth	121	35.6
1 hour after birth	130	38.1
2-3 hours	42	12.4
4-6 hours	22	6.5
7-10 hours	17	5
24 hours	8	2.4
Total	340	100
Ways baby is been fed now		
Breast milk and infant formula	106	31.2
Breast milk + water	68	20
Breast milk, water and semi-solid foods	156	45.9
Breast milk alone	10	2.9
Total	340	100

Table 6 illustrates the nutritional status of the children. The data reveals that 30.6% of the children were classified as stunted, with 10.6% falling under the category of severe stunting, while the majority, 58.8%, were considered normal. These figures surpass the results reported by [29], indicating that 17.8% of the children were stunted. Stunting is a consequence of prolonged undernourishment or insufficient food intake, which can result in compromised physical and cognitive development as highlighted by [30]. Approximately 30.6% of the children were identified as underweight, with 58.8% falling within the normal range and 10.6% categorized as severely underweight. A study conducted by Kikelomo O, et al. [12] reported a lower prevalence of underweight children at about 26%. WHO [30] emphasizes that underweight children may exhibit stunted growth, wasting, or a combination of both conditions. Moreover, the data indicates that 30.6%

of the children were classified as wasted, 10.6% as severely wasted, and 58.8% as normal. In comparison, a study by Kimwele A, et al. [31] found that 11.9% of the children were wasted, with 2.1% experiencing severe wasting. The current study demonstrates a higher prevalence of wasting within the studied population. WHO [30] explains that wasting can be attributed to inadequate food intake and infectious diseases, potentially leading to stunted growth, infections, and mortality. Furthermore, based on mid-upper arm circumference measurements, 27.4% of the children exhibited severe acute malnutrition, while the remaining 72.6% were considered normal. Notably, severe acute malnutrition was more prevalent among males (31.9%) than females (23.3%). A study by Dukhi N, et al. [32] reported a lower prevalence of severe acute malnutrition at 6%.

Table 6. Nutritional status of the children

Variables	Males		Females		Total	
		F %		F %		F %
Height-for-age						
Stunted <-2 (SD)	48	30.0	56	31.1	104	30.6
Severely stunted <-3 (SD)	14	8.8	22	12.2	36	10.6
Normal 0, -2 to +2 (SD)	98	61.2	102	56.7	200	58.8
Total	160	100	180	100	340	100
Weight-for-age						
Underweight <-2 (SD)	48	30.0	56	31.1	104	30.6
Severely underweight <-3 (SD)	14	8.8	22	12.2	36	10.6
Normal 0, -2 to +2 (SD)	98	61.2	102	56.7	200	58.8
Total	160	100	180	100	340	100
Weight-for-height						
Wasting <-2 (SD)	48	30.0	56	31.1	104	30.6
Severely wasting <-3 (SD)	14	8.8	22	12.2	36	10.6
Normal 0, -2 to +2 (SD)	98	61.2	102	56.7	200	58.8
Total	160	100	180	100	340	100
Mid-upper arm circumference						
Severe acute malnutrition <115mm	51	31.9	42	23.3	93	27.4
Normal 115-125mm	109	68.1	138	76.7	247	72.6
Total	160	100	180	100	340	100

CONCLUSION

This study examined the anthropometric measurements and nutrition practices of children ranging from 6 to 24 months in Umuahia North Local government area of Abia State. The findings of the study indicated that the majority of the mothers possessed moderate nutritional knowledge. It was observed that there was an early initiation of complementary feeding, falling short of the World Health Organization's [1] recommended age of six months for appropriate introduction of complementary foods. In terms of the children's nutritional status, one third of the children were identified as being stunted, wasted and underweight. There is need for enhancements in maternal nutritional knowledge to achieve improvements in the nutritional well-being of the children.

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