



## Assessing Knowledge, Attitude and Practices of Exclusive Breastfeeding between Primiparous and Multiparous Mothers Attending State Hospital Ijaye, Abeokuta, Ogun State

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### Abstract

Exclusive breastfeeding (EBF) is a cornerstone of optimal infant nutrition, yet variations in knowledge, attitude, and practice (KAP) exist between primiparous and multiparous mothers. This study assessed and compared the KAP of EBF among 350 mothers attending State Hospital, Abeokuta, Ogun State, Nigeria, using a structured questionnaire, anthropometric assessments instrument and a cross-sectional design. Data were analysed using SPSS version 27.0. Results showed that 63.1% of primiparous mothers had good knowledge of EBF, but a majority exhibited neutral attitudes (81.7%) and inappropriate practices (51.3%). Multiparous mothers on the other hand demonstrated lower knowledge level with 53.5% having good knowledge, 22.5% average, and 24% poor. Despite this, only 50.7% practiced EBF appropriately. Nutritional assessments revealed significant levels of malnutrition. Among infants of primiparous mothers, 24.2% were stunted (16.8% mildly, 5.6% moderately, 1.8% severely), while for multiparous mothers, 29.5% were stunted (16.9% mildly, 7% moderately, 5.6% severely). Underweight affected 16.5% of primiparous infants (11.1% mildly, 5% moderately, 0.4% severely) and 19.3% of multiparous (14.1%, 4.2%, 1% respectively). Regarding overweight and obesity, 22.2% and 22.2% of infants of primiparous mothers were overweight and obese respectively (based on WHZ), while 32.4% and 14.1% of infants of multiparous mothers were overweight and obese, respectively. The study concludes that while knowledge of exclusive breastfeeding is relatively high among both primiparous and multiparous mothers, practices remain suboptimal, and infant malnutrition - including both undernutrition and overweight coexist at concerning levels.

**Keywords:** Exclusive breastfeeding, infant nutrition, maternal knowledge, primiparous and multiparous mothers.

### INTRODUCTION

Exclusive breastfeeding (EBF), defined as feeding infants only breast milk for the first six months of life without the addition of any other food or drink - not even water, is a cornerstone of child survival and development strategies globally (World Health Organization [WHO], 2023). It plays a vital role in protecting infants against common childhood illnesses such as diarrhea and pneumonia and promotes sensory and cognitive development (Gedefaw & Berhe, 2015). Despite these well-documented benefits, global adherence to EBF remains suboptimal. As of 2023, only about 48% of infants below six months of age worldwide are exclusively breastfed, with the target of 70% by 2030 still far from reach (UNICEF, 2023). In Nigeria, although the rate of exclusive breastfeeding has improved slightly over the past decade, it remains low at 29% as reported in the 2023-24 Nigeria Demographic and Health Survey (Federal Ministry of Health and Social Welfare, National Population Commission, & ICF, 2024). Factors such as cultural misconceptions, poor

maternal education, and lack of institutional support contribute to these persistently low rates (Adeola, Mojisola, & Jamila, 2023).

Maternal parity - whether a woman is primiparous (first-time mother) or multiparous (having given birth more than once), is an important determinant of EBF behaviours. Primiparous mothers usually lack prior experience and are likely to face challenges such as low breastfeeding confidence and poor social support. However, they are more likely to attend antenatal classes and receive up-to-date information on breastfeeding (Ihudiabue-Splendor et al., 2019; Adeola et al., 2023). Although multiparous mothers are more experienced, but they may be influenced by previous practices or socio-cultural norms that is not consistent with recommended EBF guidelines (Apara et al., 2024). Studies have shown that even though knowledge on EBF may be higher among primiparous women, this knowledge does not always translate into practice due to attitudinal and structural barriers (Olufunlayo, Adebisi, & Olatona, 2023).



In addition, a consistent gap exists between knowledge and actual EBF practices. In some communities, breastfeeding is interrupted by prelacteal feeding, early introduction of water, or perceptions that colostrum is harmful - all practices that undermine EBF (Adeola et al., 2023; Apará et al., 2024). These practices are often influenced by family, traditional beliefs, and misinterpretation of infant cues. Therefore, improving EBF outcomes requires not only educating mothers but also addressing socio-cultural and behavioural factors that influence their practices.

Assessing and comparing the knowledge, attitudes, and practices (KAP) of EBF between primiparous and multiparous mothers will provide a valuable insight into targeted interventions. It allows policymakers and programme designers to identify which group need more focused support and how health education can be tailored.

Therefore, this study aims to assess the knowledge, attitude, and practices of exclusive breastfeeding among primiparous and multiparous mothers attending selected health facilities in Abeokuta, Ogun State, Nigeria.

## **METHODOLOGY**

### **Area of study**

Abeokuta is the capital city of Ogun State, Nigeria. It is situated in the south-western region of Nigeria. The city is known for its rich history, being home to the Egba people, and it is marked by significant socio-economic activities that influence health behaviours, including maternal and child health practices.

Agriculture serves as the major backbone of Ogun State's economy, with the cultivation of staple crops such as rice, maize, cassava, yams, plantains, and bananas. The state produces cash crops including cocoa, kola nuts, rubber, palm oil and kernels, tobacco, cotton, and timber. Abeokuta, the state capital, is home to the Aro granite quarries, which supply construction materials to many parts of southern Nigeria. The state is endowed with mineral deposits like limestone, chalk, phosphates, and clay. Its industrial sector is diverse, encompassing the production of cement, canned goods, foam products, paint, tires, carpets,

aluminum items, and plastics. Abeokuta functions as a major commercial hub and serves as a terminal point for major roads and railway lines connecting it to Lagos and other regions. The city also boasts notable tourist sites, including Olumo Rock - historically believed to have sheltered early Egba settlers - the Ake Palace, residence of the Alake of Egbaland, built in 1854 and renowned for its artifacts, and the Centenary Hall.

Abeokuta presents a relevant setting to assess exclusive breastfeeding knowledge, attitudes, and practices among mothers. The presence of State Hospitals and Federal Medical Centre, where a wide cross-section of mothers from both urban and semi-urban areas seeks maternal and child health services, provide opportunities to explore the variations between primiparous (first-time) and multiparous (experienced) mothers. The city's healthcare infrastructures plays a pivotal role in shaping maternal health knowledge and practices, though access to information and health education varies across different socio-economic groups.

### **Research design**

The study employed a cross-sectional analytical and comparative design to investigate the disparities between primiparous and multiparous mothers' knowledge, attitude and practice of exclusive breastfeeding.

### **Population of the study**

The population comprised primiparous and multiparous mothers with infants (0-6 months of age) attending State Hospital Abeokuta, Ogun State during the period of the study.

### **Inclusion criteria**

The inclusion criteria included primiparous (first time) and multiparous (experienced) mothers and their infants (0-6 months) visiting State Hospital Abeokuta, Ogun State during the study period. In addition, the mothers had to give informed consent to participate in the study.

### **Exclusion criteria**

Mothers who had medical conditions or were on medications that contraindicated breastfeeding were excluded from the study. Additionally, infants with severe congenital abnormalities that made



breastfeeding impractical or medically inadvisable were not included. Verification of these conditions was carried out by healthcare professionals through a review of maternal and child health records at the hospital.

### Sample size determination

Sample size was determined using Cochran formula:

$$n_0 = \frac{Z^2 \times P \times (1 - P)}{e^2}$$

Where:

$n_0$  = desired sample size

$p$  = prevalence of non-exclusive breastfeeding (71%) (FMOHSW, NPC, & ICF, 2024)

$Z$  = Z-score corresponding to the desired confidence level (1.96 for 95% confidence)

$e$  = desired level of precision (margin of error at 0.05)

$$n_0 = \frac{(1.96)^2 \times 0.71 \times (1 - 0.71)}{0.05^2}$$

$$n_0 = \frac{3.8416 \times 0.71 \times 0.29}{0.0025}$$

$$n_0 = \frac{0.79098544}{0.0025}$$

$$n_0 = \sim 316$$

To adjust for possible non-responses or incomplete questionnaires, the sample size was increased by 10% to get 347 and rounded up to 350.

### Sampling techniques

A consecutive sampling technique was employed for this study. All eligible respondents who meet the inclusion criteria and were available during the period of data collection were recruited, until the desired sample size of 350 was achieved. Mothers were recruited from the infants' welfare clinics during post-natal and immunization clinics at State Hospital, Abeokuta. All nursing mothers with

infants aged 0–6 months who visited the clinic during the data collection period and gave informed consent were approached and screened for eligibility.

Eligible mothers were categorized into two groups - Primiparous mothers (first-time mothers) and Multiparous mothers (those who have given birth more than once).

### Method of data collection

An interviewer administered semi-structured questionnaire and anthropometry was employed to collect data. The questionnaire elicited information on socio-demographic and economic characteristics, knowledge, attitude, and practices of exclusive breastfeeding of primiparous and multiparous mothers.

The Knowledge, Attitude and Practice (KAP) questionnaire by FAO (2014) and WHO/UNICEF (2021) indicators was adapted to assess mothers' knowledge, attitude and practices of exclusive breastfeeding.

The Knowledge was assessed using a questionnaire that contained 12 questions. Correct response was assigned a score of 1, while incorrect responses a score of 0. The knowledge level was then categorized based on the total score: **Poor** for a total score less than 5 ( $\leq 50\%$ ), **Average** for a score between 6 and 8 (51%–69%), and **Good** for a score greater than 8 ( $\geq 70\%$ ) (Alreshidi, Gadora, Habeeb, & Alrashidi, 2023).

The attitude of the mothers was assessed using a eight items. Responses were rated on a 5-point Likert scale with the following options: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree, and (5) Strongly agree. The Mean scores were computed to interpret the results, with the scale categorized as follows: 1.0–2.4 indicating a negative attitude, 2.5–3.4 representing a neutral attitude, and 3.5–5.0 reflecting a positive attitude (Wanjohi et al., 2021). The WHO/UNICEF (2021) indicator for assessing infant and young child feeding practices was adapted and 8 questions were generated. The questions were scored and transformed into percentage. Below 75% was considered



inappropriate while 75% above appropriate practice.

The infants were weighed using a special child weighing scale (SECA 725). The scale was balanced to zero. The child was undressed with the help of the mother/caregiver. The child was laid safely in the centre of the weighing scale. The reading was taken to the nearest 0.1kg and recorded.

A crown-heel length board was used to measure the recumbent length. The baby’s shoes, stockings, and caps were taken off. The baby was placed flat on his/her back on the measuring board, with his/her eyes facing upward, and the head located at the end with fixed head piece. The child's legs and trunk were aligned. To achieve complete extension, one hand was placed on each knee of each leg. The foot piece was brought firmly against the child’s heels, pointing the toes upwards. The reading was taken to the nearest 0.1cm and recorded immediately.

To measure the mid upper arm circumference, the child was undressed sitting on mother’s lap. The left hand was removed and hanged freely. A MUAC tape (shakir’s stripe) was placed around the left arm midway between the acromion process of the scapula and the olecranon process of the ulna. The reading was taken to the nearest 0.1cm and recorded.

**Data and statistical analysis**

WHO Anthro (version 3.2) was used to analyse anthropometric data and was categorized according to WHO standards. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were utilised to summarise the data and

for inferential analysis, a chi-square test was conducted to assess associations between categorical variables using Statistical Products and Service Solutions (SPSS version 27.0).

**RESULTS AND DISCUSSION**

**Results**

The socio-demographic and economic characteristics of the mothers are presented in table 1. The age distribution showed that 61.3% of primiparous mothers and 57.7% of multiparous mothers were within the age range of 25–34 years. Marital status differed significantly ( $p < 0.05$ ), with 94.3% of primiparous mothers being married compared to 74.6% of multiparous mothers. The result of the family structure showed that 78.5% of primiparous mothers were in monogamous families versus 64.8% of multiparous mothers ( $p = 0.02$ ). Educational attainment showed marked disparities: 32.6% of primiparous mothers had SSCE and 29.1% had NCE/OND, compared to 44.9% of multiparous mothers with only primary education. Spousal education also showed significant differences: 32.3% of primiparous mothers' spouses had SSCE compared to 31.0% in multiparous, but with higher levels of tertiary education among the former (HND/BSc: 24.2% vs. 16.9%). Household income showed disparities as well, with 26.5% of primiparous households earning ₦31,000–70,000 monthly versus 26.8% among multiparous households ( $p = 0.04$ ).

**Table 1: Socio-demographic and economic characteristics of the respondents**

Variables	Primiparous		Multiparous		p-value
	Frequency	percentage	Frequency	percentage	
<b>Age</b>					
15-34	32	11.5	11	15.5	0.75
25-34	171	61.3	41	57.7	
35-44	74	26.5	18	25.4	
45-54	2	0.7	1	1.4	
<b>Marital status</b>					
Single	13	4.7	9	12.7	0.00*
Married	262	94.3	53	74.6	
Divorced	3	1.1	7	9.9	



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Widowed	0	0.0	2	2.8	
<b>Ethnic group</b>					
Yoruba	214	76.7	49	69	
Igbo	59	21.1	18	25.4	0.22
Hausa	5	1.8	4	5.6	
Tiv	1	0.4	0	0.0	
<b>Religion</b>					
Christian	184	65.9	40	56.3	
Muslim	91	32.6	28	39.4	0.150
Traditional	4	1.4	3	4.2	
<b>Family structure</b>					
Monogamy	219	78.5	46	64.8	
Polygamy	60	21.5	25	35.2	0.02*
<b>Present educational level</b>					
No education	8	2.9	6	8.5	
Primary education	27	9.7	31	44.9	0.00*
SSCE	91	32.6	12	16.9	
NCE/OND	81	29.1	16	22.5	
HND/BSc	59	21.1	12	16.9	
M.Sc./PhD	13	4.7	3	4.2	
<b>Present educational level of spouse</b>					
No education	9	3.2	15	21.1	
Primary education	13	4.7	3	4.2	0.00*
SSCE	90	32.3	22	31.0	
NCE/OND	68	24.2	18	25.4	
HND/BSc	68	24.2	12	16.9	
M.Sc./PhD	31	11.1	1	1.4	
<b>Occupation</b>					
Retired	1	0.4	0	0.0	
Self employed	152	54.5	37	52.1	0.97
Civil servant	39	14.0	10	14.1	
Employee of private organization	22	7.9	7	9.9	
Farming	13	4.7	3	4.2	
Petty trading	52	18.6	14	19.7	
<b>Occupation of spouse</b>					
Retired					
Self employed	1		3	4.2	
Civil servant	155	0.4	36	50.7	0.00*
Employee of private organization	90	55.6	13	18.3	
Farming	15	32.3	1	1.4	
Petty trading	10	3.6	9	12.7	
	8	2.9	9	12.7	
<b>Estimated monthly income</b>					
₦10,000-30,000	22	7.9	14	19.7	
₦31,000-70,000	74	26.5	19	26.8	0.04*

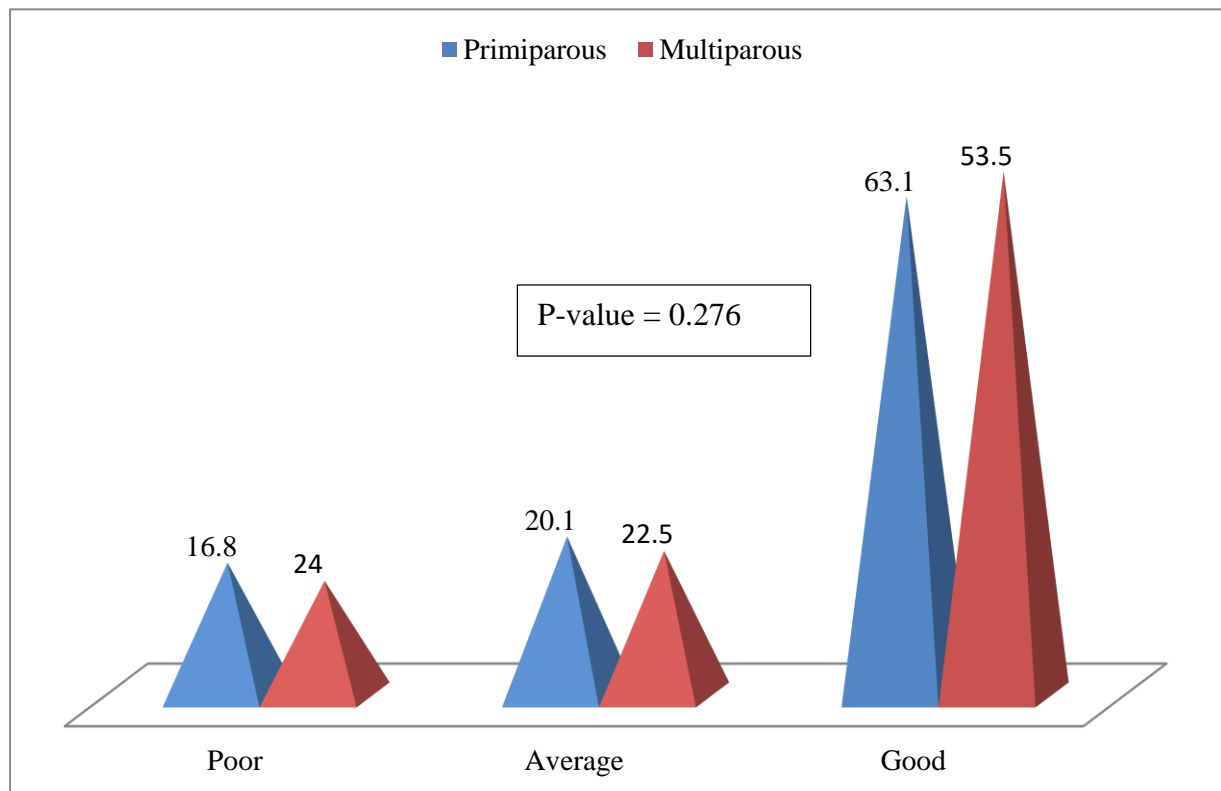


₦71,000-100,000	68	24.4	14	19.7	
₦101,000-150,000	43	15.4	12	16.9	
₦151,000 and above	72	25.8	12	16.9	
<b>Estimated monthly income of spouse</b>					
₦10,000-30,000	42(15.1)	15.1	17	23.9	
₦31,000-70,000	75(26.9)	26.9	15	21.1	0.28
₦71,000-100,000	75(26.9)	19.7	14	19.7	
₦101,000-150,000	44(15.8)	19.7	14	19.7	
₦151,000 and above	43(15.4)	15.4	11	15.5	

(\*significantly different ( $p < 0.05$ ))

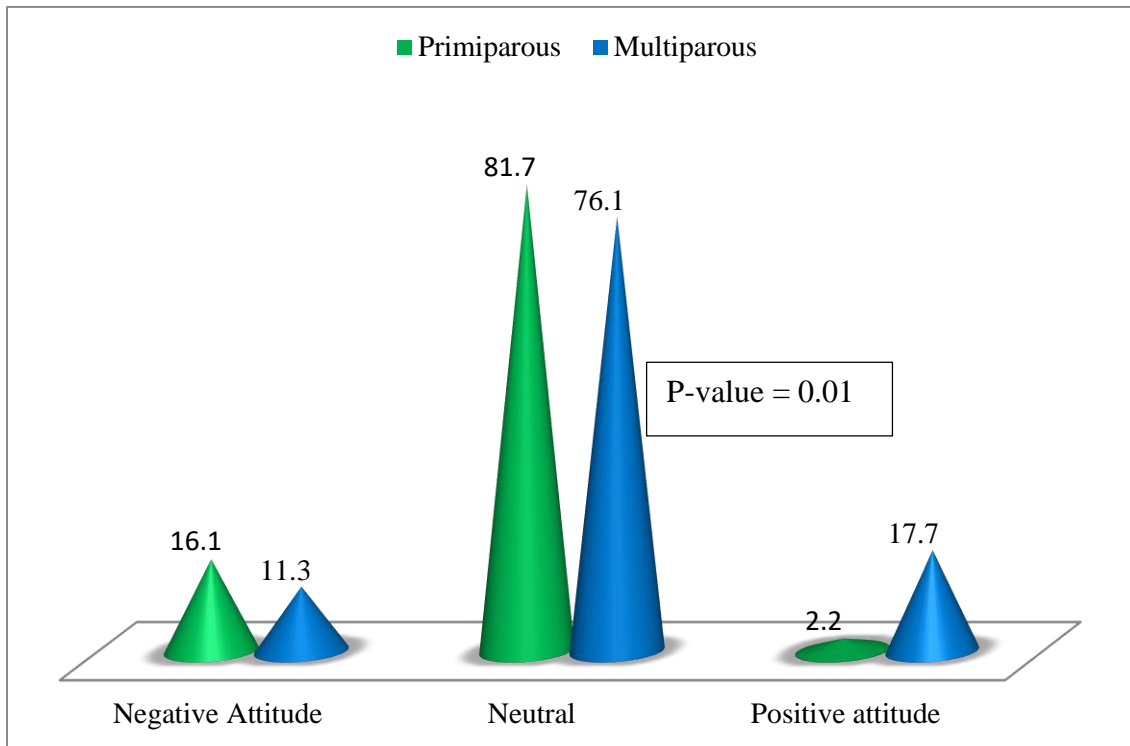
Figure 1 below showed that 63.1% of primiparous mothers had good knowledge of EBF, compared to 53.5% of multiparous mothers. However, 23.9% of

primiparous mothers had poor knowledge versus 16.8% of primiparous mothers



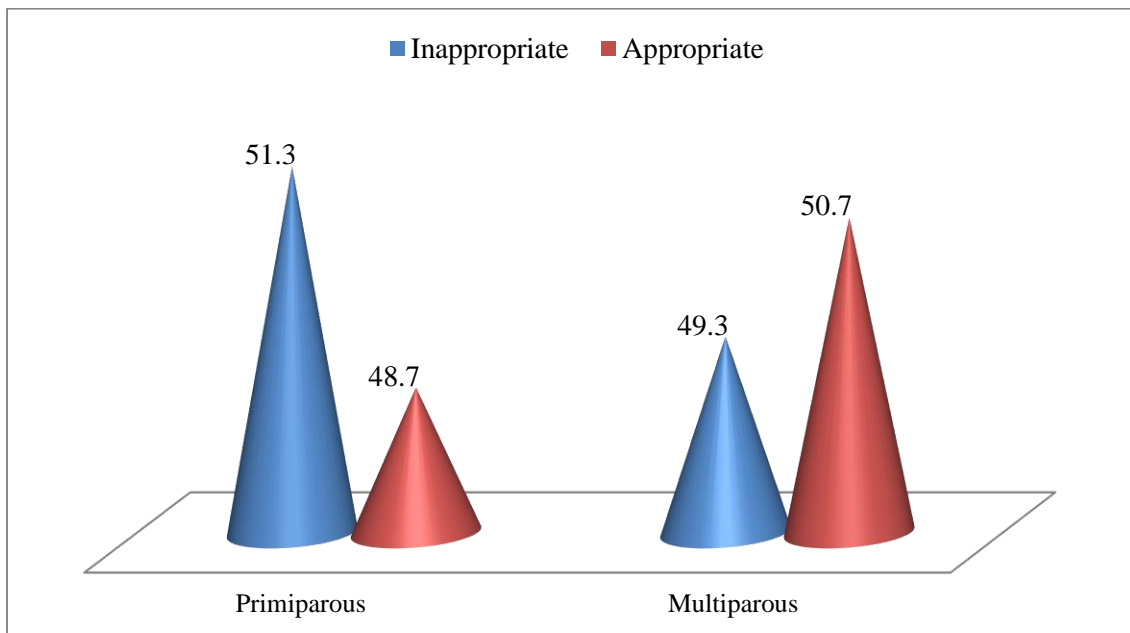
**Figure 1:** Nutritional knowledge of exclusive breastfeeding

Figure 2 showed that 81.7% of primiparous and 85.9% of multiparous mothers had a neutral attitude toward EBF, while only 12.3% and 11.3% had a positive attitude respectively.



**Figure 2: Attitude of mothers towards exclusive breastfeeding**

Figure 3 revealed that only 48.7% of primiparous and 50.7% of multiparous mothers practiced EBF appropriately.



**Figure 3: Exclusive breastfeeding practices of the mothers**



According to weight-for-height (WHZ), 22.2% of infants of primiparous mothers were overweight, and another 22.2% were obese, compared to 32.4% and 14.1%, respectively, among infants of multiparous mothers. Normal weight-for-height was observed in 42.2% of primiparous and 38% of multiparous infants.

For height-for-age (HAZ), 24.2% of infants of primiparous mothers were stunted (mild: 16.8%, moderate: 5.6%, severe: 1.8%), while stunting among infants of multiparous mothers was 29.5% (mild: 16.9%, moderate: 7%, severe: 5.6%).

Underweight prevalence (WAZ) among infants of primiparous mothers was 16.5% (mild: 11.1%,

moderate: 5%, severe: 0.4%), and 19.3% among infants of multiparous mothers (mild: 14.1%, moderate: 4.2%, severe: 1%). Body Mass Index for Age (BAZ) showed 43.9% of infants of primiparous mothers had normal weight, with 21.2% overweight and 19.2% obese. Among multiparous mothers' infants, 46.5% had normal BAZ, 26.8% were overweight, and 11.3% obese.

Mid Upper Arm Circumference (MUAC) revealed 31.5% of infants of primiparous mothers had mild acute malnutrition, 20.4% moderate, and 8.2% severe. Among infants of multiparous mothers, 29.6% had mild, 31% moderate, and 4.2% severe acute malnutrition

**Table 2: Nutritional status of the infants**

Variables	Primiparous		Multiparous		p-value
	Frequency	Percentage	Frequency	Percentage	
<b>Weight-for-height</b>					
Severely wasted	20	0.7	0	0	0.41
Normal	115	42.2	27	38	
Overweight	62	22.2	23	32.4	
Obese	62	22.2	19	14.1	
<b>Height-for-age</b>					
Mildly stunted	47	16.8	12	16.9	0.16
Moderately stunted	26	5.6	5	7	
Severely stunted	5	1.8	4	5.6	
Normal	153	54.8	30	42.32	
Tall	58	20.8	20	28.2	
<b>Weight-for-age</b>					
Mildly underweight	31	11.1	10	14.1	0.86
Moderately underweight	14	5	3	4.2	
Severely underweight	1	0.4	1	1	
Normal	144	51.6	53	53	
Overweight	58	20.8	13	13	
Obese	31	11.1	9	9	
<b>BAZ</b>					
Mildly thin	27	9.7	6	8.5	0.59
Moderately thin	15	5.4	5	7	
Severely thin	2	0.7	0	0	
Normal	122	43.9	33	46.5	
Overweight	59	21.2	19	26.8	
Obese	53	19.2	8	11.3	
<b>MUAC</b>					
Mild acute malnutrition	88	31.5	21	29.6	



Moderate acute malnutrition	57	20.4	22	31	0.34
Severe acute malnutrition	23	8.2	3	4.2	
Normal	98	35.1	24	33.8	
Overweight	1	0.4	0	1	

(\*significantly different ( $p < 0.05$ ))

## DISCUSSION

This study explored the differences in knowledge, attitude, and practices of exclusive breastfeeding (EBF) between primiparous and multiparous mothers and assessed the nutritional status of their infants. Primiparous mothers showed a higher level of good knowledge (63.1%) than multiparous mothers (53.5%). This is in agreement with studies by Ihudiebube-Splendor et al. (2019), who noted that first-time mothers were more likely to attend antenatal sessions and access up-to-date breastfeeding information. The eagerness and willingness to learn and comply with medical guidelines among first-time mothers may explain their better performance. However, it is concerning that a significant proportion of multiparous mothers had poor knowledge despite having previous experience. Similar findings by Ugwoke et al. (2019) suggest that knowledge from earlier births may become out-dated or was never rooted in evidence-based practices

Furthermore, attitude plays a crucial role in the implementation of health behaviours. In this study, both primiparous and multiparous mothers demonstrated largely neutral attitudes toward EBF - 81.7% and 85.9%, respectively. Neutral attitudes suggest uncertainty or lack of motivation, which may reflect the influence of cultural myths, conflicting advice, or insufficient conviction about the benefits of EBF (Wanjohi et al., 2017). According to Okonkwo et al. (2022), such attitudes may also result from previous unsuccessful breastfeeding experiences or societal norms that contradict health advice. These findings highlight the need for emotional and social support in addition to education.

Despite differences in knowledge, EBF practice was similarly low in both groups - only 48.7% of primiparous and 50.7% of multiparous mothers practiced EBF appropriately. This supports findings by Ugwoke et al. (2019), who noted that high knowledge alone does not guarantee

appropriate practice. Barriers such as return to work, lack of maternity support, misconceptions about breast milk sufficiency, and influence from elders have been frequently cited as reasons for early introduction of water or complementary foods (Wanjohi et al., 2017). A recent study among academic women in South-South Nigeria found that while 92.2% had knowledge of exclusive breastfeeding, only 61.5% practiced it, with return to work being a significant barrier (Osaro et al., 2024)

Notably, multiparous mothers showed slightly better EBF practices despite lower knowledge. This may suggest that experience contributes to confidence and practical strategies for managing breastfeeding challenges, as also indicated in studies by Ihudiebube-Splendor et al. (2019). However, the overall suboptimal practice across both groups indicates that experience alone is insufficient to achieve desirable outcomes, especially in environments lacking support systems.

The anthropometric results revealed a concerning coexistence of undernutrition and overnutrition. Among infants of primiparous mothers, 24.2% were stunted, 22.2% overweight, and 22.2% obese. Among infants of multiparous mothers, 29.5% were stunted, 32.4% overweight, and 14.1% obese. These findings highlight a double burden of malnutrition, consistent with patterns reported by Okonkwo et al. (2022) in urban Nigeria. The high rates of stunting and underweight indicate inadequate feeding practices, while the overweight and obesity figures may result from overfeeding, inappropriate early complementary feeding, or poor diet quality.

The nutrition transition observed in many low - and middle-income countries (LMICs) has contributed to this dual burden, where traditional undernutrition persists alongside rising childhood overweight (Victora et al., 2016). This pattern calls for context-specific nutrition interventions that



promote balanced feeding, portion control, and delayed introduction of non-breast milk foods.

### Conclusion

This study concludes that while knowledge of exclusive breastfeeding is relatively high among mothers attending State Hospital Ijaye, Abeokuta, its practice remains suboptimal. Multiparous mothers demonstrated slightly better practices despite lower knowledge scores, likely due to experience. The coexistence of undernutrition and overweight among infants highlights the urgent need for balanced nutrition messaging and monitoring.

### Recommendations

There is need for Promotion of workplace breastfeeding-friendly policies, such as lactation rooms and flexible work schedules.

Family members, especially spouses and grandmothers should be engaged in breastfeeding counselling sessions.

Health workers should receive frequent training on behaviour change communication strategies that address both knowledge and attitude gaps.

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