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ASSESSMENT OF INFANT AND YOUNG CHILD FEEDING PRACTICES OF CAREGIVERS IN IHIMA DISTRICT, OKEHI LOCAL GOVERNMENT AREA, KOGI STATE

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ABSTRACT

Optimal infant and young child feeding practices are crucial for improving health outcomes and reducing mortality rates among children under the age of two. However, inadequate nutrition during this critical period remains a leading cause of global malnutrition. This study assessed key indicators of infant and young child feeding practices in Ihima District, Okehi Local Government Area, Kogi State. A cross-sectional study was conducted among mothers and caregivers in Ihima District. Respondents were recruited using convenience sampling method. Data was collected on assessment of Infant and young child feeding practice using a validated semi-structured questionnaire. The interviewer-administered questionnaire obtained information on demographic characteristics, breastfeeding practices and complementary feeding practices based on WHO guidelines. Data was analyzed using descriptive statistics and Chi-square on SPSS version 21, the p-values <0.05 was considered statistically significant. Among the 116 children studied, 75% were breastfed within one hour of birth, 74.14% were exclusively breastfed, and 48.28% received pre lacteal feeding. Additionally, 32.61% of mothers of children aged 12–23 months continued breastfeeding until the child was two years old. Timely introduction of complementary foods was observed in 66.67% of children aged 6–8 months. Of the 83 children within the 6–23 months age group, 43.37% were fed from four or more food groups. Minimum meal frequency (MMF) was adequate in 57.83%, while the minimum acceptable diet (MAD) was met by 43.37% of children. This study reported good early initiation of breastfeeding and exclusive breastfeeding practices, however complementary feeding practice was sub-optimal.

Keywords: Infant and young child, Feeding practices, Breastfeeding, Complementary feeding, Pre lacteal feeding

INTRODUCTION

The first two years of a child's life are crucial for proper growth, health, nutritional status, behavioral and cognitive development, and survival (Bhutta *et al*., 2008; Sharma *et al*., 2024). Early childhood feeding practices play a major role in ensuring healthy growth, development, and survival (Berti & Socha, 2023). Therefore, optimal infant and young child feeding practices should be a global priority (Victora *et al*., 2010).

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) recognize the importance of adequate nutrition in early childhood and have developed a global strategy for optimal infant and young child feeding practices. This strategy includes initiating breastfeeding within one hour of birth, exclusive breastfeeding for the first six months, introducing nutritionally adequate and safe complementary foods from six months while continuing breastfeeding until at least two years of age, and ensuring minimum dietary diversity, minimum meal frequency, and consumption of iron-rich or iron-fortified foods (Sanghvi *et al*., 2013; Hollis *et al*., 2020; WHO, 2021).

Globally, approximately 45% of deaths among children under five are linked to undernutrition. About 1.4 million deaths in this age group are attributed to inadequate breastfeeding. Studies suggest that optimal breastfeeding and timely introduction of complementary feeding could prevent approximately 820,000 child deaths annually (Black *et al*., 2008; WHO, 2023). However, infant and young child feeding practices remain suboptimal in low-income countries (Wamani *et al*., 2005). In Nigeria, only 29% of infants are exclusively breastfed, while 43.9% meet the minimum meal frequency, 21.8% achieve minimum dietary diversity, and 10.8% satisfy the minimum acceptable diet criteria (NPC, 2019).

Improved infant and young child feeding (IYCF) practices are critical for enhancing child health and development, particularly in low-income communities (Hackett *et al*., 2015). Infant and young child feeding practices has not been well studied in Kogi state, particularly in the study area because there is little primary health care presence in the study area. Hence, there are gaps in the knowledge of IYCF practices in the study area. Against this background, this study aims to assess the knowledge, attitudes, and practices of mothers and caregivers regarding infant and young child feeding in Ihima District, Okehi Local Government Area, Kogi State.

MATERIALS AND METHODS

Study Design

A community-based cross-sectional study was conducted among mothers and caregivers of children aged 0–24 months at the time of the study.

Study Area

This study was conducted in Ihima District, Okehi Local Government Area, Kogi State, North-Central Nigeria. Ihima, the largest district in Okehi Local Government Area, has an estimated population of 150,000 and is divided into six political wards. The area is predominantly rural.

Sample Size and Sampling Technique

A total of 116 children aged 0–24 months whose parents or caregivers consented to participate were included in the study. Respondents were selected using a convenience sampling technique. Convenience sampling technique was adopted due

to the lack of cooperation by respondents and the request for incentives. Therefore, the sampling method helped to recruit mothers who demonstrated willingness participate in the study.

Data Collection Technique

Data was collected using a semi-structured, interviewer administered questionnaires which were administered with the help of trained research assistants. The questionnaire was designed based on the WHO standard questionnaire on IYCF practices. The questionnaire was divided into four sections: sociodemographic data of caregiver; sociodemographic data of child (0-23 months); infant and young child feeding practices using the WHO indicator; and minimum dietary diversity and meal frequency. Minimum dietary diversity is defined by the percentage of children 6–23 months of age who consumed foods and beverages from at least five out of eight defined food groups during the previous day. While minimum meal frequency is defined by percentage of children 6–23 months of age who consumed solid, semi-solid or soft foods (but also including milk feeds for non-breastfed children) at least the minimum number of times during the previous day. Complementary feeding was assessed based on timely initiation, while dietary frequency and diversity data were collected using a 24-hour recall method. Complementary feeding was considered optimal if all three indicators were met; otherwise, it was classified as suboptimal (WHO, 2010).

Ethical Considerations

Ethical approval for this study was obtained from the Kogi State Ministry of Health, Lokoja (MOH/PRS/465/V.1/009). Respondents were fully informed about the research objectives. Informed oral consent was obtained from mothers and caregivers, and confidentiality was assured.

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 21. Descriptive statistic was used to calculate frequencies and percentages. Results were presented in frequency tables. Association between variables was analysed using Chi-square of Fisher's exact test. The p-values <0.05 was considered statistically significant.

RESULTS AND DISCUSSION

Among the 116 sampled in this study, a majority (38.79%) were within the age range of 29-39 years, 27.59% were within the age group 21-29, 20.69% were above 40 years of age while 12.93 were below 20. 42.24% of the mothers had completed secondary school while 10.34% had a minimum primary school certificate. The study revealed that a majority of mothers were married (75.86%), 32.76% had at least 4 children and 33.62% were traders (Table 1).

Table 1: Sociodemographic characteristics of mothers

Variables	Frequency (n=116)	Percentage
Age of Mother (years)		
≤ 20	15	12.93
21-29	32	27.59
29-39	45	38.79
≥40	24	20.69
Educational Qualification		
No Formal Education	0	0
Primary	12	10.34
Junior Secondary	13	11.21
Senior Secondary	49	42.24
Tertiary	42	36.21
Marital Status		
Married	88	75.86
Divorced/Separated	9	7.76
Single	19	16.34
Number of Children		
1	20	17.24
2	22	18.97
3	36	31.03
≥4	38	32.76
Occupation		
House Wife	17	14.66
Skilled Worker	29	25.00
Civil Servant	16	13.79
Trader	39	33.62
Farmer	15	12.93

Table 2 shows the characteristics of children between the ages of 0-23 months. 43.97% of the children were female while 56.03% were male. Of the total 116 children studied, 33 children were below 6 months and 83 children belonged to 6-23 months age group.

Table 2: Sociodemographic characteristics of children (0-23 months)

Variable	Frequency	Percentage
Sex of Child		
Male	65	56.03
Female	51	43.97
Age Category		
0 - 6 months	33	28.45
6 - 11 months	37	31.89
12-23 months	46	39.66

As shown in Table 3, the indicator of IYCF revealed and average IYCF practices. Approximately 74.14% (86) of children in this study were exclusively breastfed for 6 months and 75% received breast milk within 1 hour of birth. However, 48.28% of children received prelacteal feeding in their first 6 months of life. Out of 46 mothers of children who belonged to the 12-23 months age group, 15 (32.61%) continued breast-feeding up to 2 years. The findings of this study revealed that 53.85% of the children within the age range of 6-8months started complementary feeding while of 63 children less than 12 months of age, 66.67% of them completed introduction to complementary food at 8 months. Seven food groups were used to estimate the minimum dietary diversity; out of 83 children belonging to the 6–23 months age group, 43.37% received food from at least four groups whereas 56.63 % received food from less than four groups. Minimum meal frequency was adequate in 57.83% while minimum acceptable diet was estimated in 43.37% of children between the age of 6-23 months.

Table 3: Status of IYCF Practices among children (0-23 months)

IYCF core indicators	Status	Frequency	Percentage
Ever Breastfed (0-23months) (n=116)	Yes	116	100
	No	0	0
Early initiation of breastfeeding (within 1 h of birth) among children <24 months	Yes	87	75.0
	No	29	25.0
Prelacteal feeding among children <24 months	Yes	56	48.28
	No	60	51.72
Exclusive breastfeeding for first six months among children completed six months	Yes	86	74.14
	No	30	25.86
Continuing breastfeeding among children (12-23 months) (n=46)	Yes	15	32.61
	No	31	67.39
Introduction of solid, semisolid or soft food among children 6-8 months (n=26)	Yes	14	53.85
	No	12	46.15
Introduction of solid, semisolid or soft food among children completed at 8 months (n=63)	Yes	42	66.67
	No	21	33.33
Minimum dietary diversity among children 6-23 months (n=83)	Adequate	36	43.37
	Not Adequate	47	56.63
Minimum meal frequency among children 6-23 months (n=83)	Adequate	48	57.83
	Not Adequate	35	42.17
Minimum acceptable diet among children 6-23 months (n=83)	Adequate	36	43.37
	Not Adequate	47	56.63

Table 4 shows the relationship between selected sociodemographic characteristics of caregivers and exclusive breastfeeding practices. There was no significant ($p<0.05$) association between exclusive breastfeeding practices and the ages, educational qualification and the parity of mothers. However, Table 5 shows an association between sociodemographic characteristic of mothers and complementary feeding practices

Table 4: Relationship between selected Sociodemographic characteristics of mothers and exclusive breastfeeding practices

Variables	Exclusive Breastfeeding Practices		χ^2-Test (*P*-value)
Age of Mother (years)	Yes	NO	
≤ 20	15	0	
21-29	22	10	0.07
29-39	34	6	
≥40	15	9	
Educational Qualification			
No Formal Education	0	0	
Primary	9	3	
Junior Secondary	9	4	0.08
Senior Secondary	39	10	
Tertiary	29	13	
Number of Children			
1	12	8	
2	15	7	0.06
3	29	7	
≥4	30	8	

p<0.05 is considered significant

Table 5: Relationship between selected Sociodemographic characteristics of mothers and exclusive breastfeeding practices

Variables	Complementary Feeding Practices		χ^2-Test (*P*-value)
	Adequate	**Inadequate**	
Age of Mother (years)	1	9	
≤ 20	10	21	
21-29	16	14	0.03*
29-39	9	3	
≥40			
Educational Qualification			
No Formal Education	0	0	
Primary	4	3	0.04*
Junior Secondary	9	4	
Senior Secondary	13	20	
Tertiary	10	20	
Number of Children			
1	3	12	
2	5	15	0.03*
3	10	13	
≥4	18	7	

p<0.05 is considered significant

Discussion

Breastfeeding is an effective way to ensure optimum health in children (Jones *et al.*, 2003). The present study showed that exclusive breastfeeding among the respondents was 74.4%. This is above the minimum of 60% as set by WHO and above 16.4% exclusive breastfeeding prevalence in Nigeria (UNICEF, 2017, NPC, 2019). When compared to reports from other region in Nigeria, the rate of exclusive breastfeeding in this study is higher than the 8.2% prevalence reported in Zaria (Abdullahi *et al*., 2022) and 27.3% reported in Ekiti (Omotoye *et al*., 2019). However, it was slightly lower than reports from Sokoto and Lagos (Okafor *et al*., 2014, Oche and Umar, 2008).

Studies have shown that early initiation of breastfeeding can reduce infection and mortality in neonates (Edmond *et al*., 2013). In this study, 75% of children were breastfed within 1 hour of birth. This is an improvement from 42.9% reported in Ekiti (Omotoye *et al*., 2019), 54.3% in Lagos and the national report (Okafor *et al*., 2014). Continued breastfeeding in children between 12-23 months was estimated to be 36.61%. This was low when compared to reports from Gujarat, India where 95% of mothers continued breastfeeding children between 12- 23 months of age (Chandwani *et al*., 2015).

Minimum dietary diversity gives an insight into the dietary patterns of children. It is an indicator of the proportion of children between 6-23months of age who had consumed food from four or more dietary groups (grains, root and tubers; pulses, nuts and seeds; dairy products; flesh foods; eggs; vitamin A rich fruits and vegetables and other vegetables) in the previous 24 hours (WHO, 2021). This indicator was observed in 43.37% of children within the age range of 6-23 months. Interestingly, studies have shown that one or more sociodemographic characteristics influences infant and young child feeding practices (Amadu *et al*., 2021, Jeyakumar *et al*., 2023). In this study, while there was no relationship between the sociodemographic factors and exclusive breastfeeding

practices, sociodemographic factors impacted complementary feeding practices.

Furthermore, minimum meal frequency was observed in 57.83% of children between 6-23 months of age. Minimum meal frequency is an indicator for the minimum number of times (6-8 months- 2 times; 9-23 months- 3 times and non-breastfed 9-23months- 4 times a day) children within the age group of 6-23months had solid, semi-solid or soft food within the previous 24 hours (WHO, 2021). Minimum acceptable diet (MAD) was found to be adequate in only 43.37% of children between 6-23 months of age. MAD is an indicator for children who have a sufficient minimum dietary diversity and meal frequency (WHO, 2021). Worldwide, only a small proportion (19%) of children between the age of 6-23 months met the criteria for minimum dietary diversity (UNICEF, 2019). Therefore, there is need for more strengthened policies on minimum dietary diversity.

CONCLUSION

Overall, the study revealed an average IYCF practice but a few indicators like minimum dietary diversity, meal frequency and minimum acceptable diet were suboptimal. Proper education on IYCF practices will help in reducing the burden of malnutrition. Due to limited resources available as incentives to the participants, the authors could study smaller sample size. Therefore, further studies are required to support the findings.

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