

FEEDING PROBLEMS IN INFANCY AND EARLY CHILDHOOD: PREVALENCE AND RELATED FACTORS

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Abstract: The objective of this study is to assess feeding problems among under-two children in Ibadan South-West local government area in Oyo state, Nigeria. **Method:** Two hundred and seventy mother-child pairs were recruited for the study from selected primary health-care centres in Ibadan South West local government Area. A semi-structured questionnaire was used to collect information on socio-economic characteristics, feeding patterns and feeding behavior of children and mothers' perception and coping feeding behavior. **Results:** The mean age of the children surveyed was 11.03 ± 4.21 months with 52.2% being males. The average age of mothers was 29 years (29.7 ± 5.77), 92% married, 54.1% had secondary education and 37.0% were traders. The most common feeding problems observed among the surveyed children were picky eating, food neophobia, intake of limited variety, food refusal, under-eating and over-eating. About 31.5% of the children had one or more feeding problems. Force-feeding and the use of rewards were the major coping strategies used by the mothers. **Conclusion:** There exists a spectrum of feeding problems among infant and children in this study population. There is a great need for early detection of feeding problems in children and provision of all round support to children with feeding problems and their mothers to be able to achieve success in feeding.

Keywords: Feeding problems, nutritional status, Picky eating, under-eating

I. INTRODUCTION

Good feeding practices are essential for the growth, development and survival of infants and young children. An inappropriate feeding practice may cause various diseases and may result in malnutrition [1]. Exclusive breastfeeding is essential for infants for the first six months of life, and thereafter given adequate complementary foods while breastfeeding continue up to two years.

Feeding problems in children could be defined as the inability or refusal of children to eat certain foods [2, 3]. Approximately 20-50% of normally developing children [4-10] and 70-89% of children with developmental disabilities, [11-13] are reported to experience some type of feeding problems. The consequences of an untreated feeding difficulty can include failure to thrive, nutritional deficiencies, impaired parent/child interactions and chronic aversion with socially stigmatizing mealtime behaviour [14]. The identification of feeding problems in infancy and early childhood is no simple task because there is no universally accepted definition or classification system [15], [16].

Feeding problems are heterogeneous in nature as illustrated by the following list of symptoms of young children with feeding problems: Picky eating behavior means unwillingness to try new foods; and maybe characterized by two attribute: consuming small amounts of food or having a limited variety of foods (limited variety); this could include unwillingness to try new foods (food neophobia) or total rejection of specific food groups such as fish, meat or vegetables (food rejection). Delays in self-feeding [2], tantrums, rumination [16], pica [16] and over eating are examples of behavioural feeding problems.

Very few literatures have reported on feeding problems among children in Nigeria. This study was therefore conducted to determine the prevalence of feeding problems, describe the spectrum of feeding problems identified among young children in Ibadan.

II. METHODOLOGY

A. Area of study

The study was a descriptive and cross-sectional survey carried out among mothers of infants and young children (age 6 to 24 months) attending Primary Health Care Centres in the selected local government area. The study was conducted in Ibadan, the capital city of Oyo state, located in the South -West region of Nigeria. Ibadan South west local government area (LGA); one of the five urban LGA was selected and four primary Health Centres were randomly selected for the study. The study sample consisted of all consenting 270 mothers from the immunization clinic days turnout at the various clinics for a period of time. Data collection was done using a semi- structured questionnaire to obtain information on their socioeconomic status, feeding pattern of children as reported by their mothers and maternal coping methods. The section of the questionnaire used to obtain information on child's feeding and to identify feeding problems was adapted from parental report-based assessment tools found in the literature [17], [18], [19], [20]. The questionnaire assessed picky eating, food neophobia, intake of limited variety, food refusal, under-eating, over-eating and mother's perception of their child's feeding behavior and coping strategy. Data was collected analyzed statistically and descriptive statistics such as means, frequency and percentages. Verbal informed consent was obtained from mothers for participation.

III. RESULTS

Two hundred and seventy mother-child pairs were recruited for the study. More than half of the children were males representing 52.2% of the total sample. Table 1 shows the mean age of the under two children surveyed was 11.03± 4.21months. The average age of mothers was 29 years of age (29.75± 5.77years), 92% were married, 54.1% had secondary education and 37.0% were traders.

Table 1: Personal Characteristics of Subjects (n=310)

Variables	Percentage
Child's characteristics	
Age (months) mean± standard deviation	11.1 ± 4.21
Sex	
Male	52.2
Female	47.8
Mother's characteristics	
Age (years), mean± standard deviation	29.7 ± 5.77
Marital status	
Divorced	5.2
Married	92.0
Widowed	2.8
Educational level	
None	0.4
Primary	3.0
Secondary	54.1
Tertiary	42.5
Mother's occupation	
Civil servant	14.6
Company worker	13.4
Trader	37.3
Artisan	34.7

Prevalence of feeding problems among the children

Table 2 shows that the most common feeding problem among the children was picky eating (40.3%), followed by food neophobia (31.9%) and intake of limited variety of foods (17.1%) while the least feeding problem were under eating and over eating . Only 59.8% of the children had one or more feeding problem as shown in figure 1.

Table 2: Prevalence of feeding problems among children

Feeding problem	Frequency (%)
Picky eating	40.3
Food neophobia	31.9
Intake of limited variety of foods	17.1
Food refusal	17.0
Under-eating during meal times	12.4
Over-eating during meal times	10.8

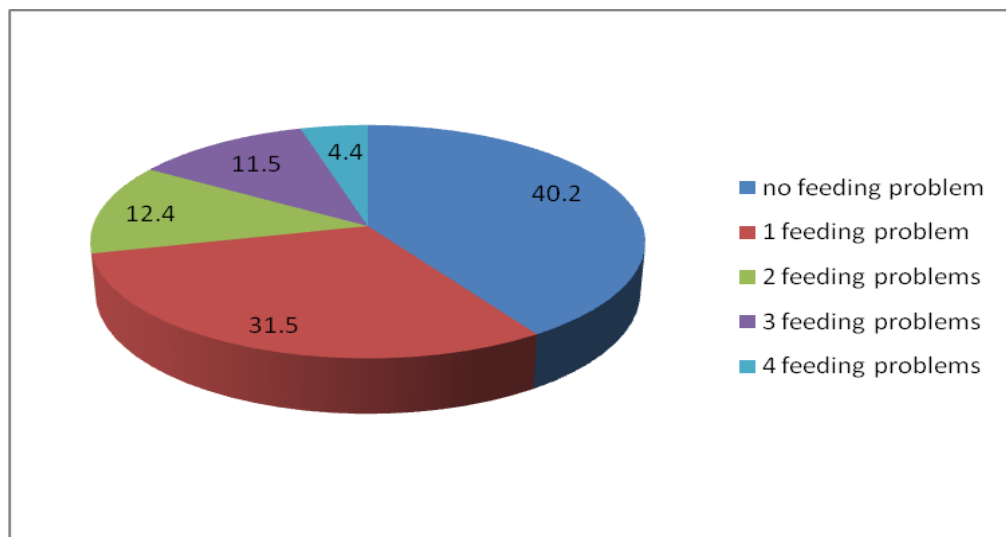


Figure 1: Spectrum of feeding problems among the children (%)

Mothers perception of Child’s Feeding Behaviour

The result showed that 15.2% of the mothers felt that their children never accepted food to their satisfaction, 21.5% that they had meal times with their child always stressful and 56.5% claimed to feel guilty whenever their child refuse to eat. While 13.3% of the mothers perceived that their child’s feeding behavior always affect their mother-child relationship negatively only 6.7% of the mothers felt that the child’s feeding always affected the rest of the family negatively during meal times.

Mothers coping strategies

Table 3 shows the different coping strategies used by mothers to ensure that the children eat to satisfaction. Some of the mothers said they force feed their children, others made use of distraction or follows child around before the child agrees to eat while others admitted they either use threats or reward to force the child to eat.

Table 3: Mother’s coping strategies for child feeding problems

Coping strategies	Often	Sometimes	Rarely	Never
If my child has refused to eat, I put the food in his/her mouth by force if necessary	8.9	12.6	3.7	74.8
I have to use distraction or follow my child around before he/she eats	2.6	7.4	0.4	89.6
I use threats to make my child eat	4.0	4.3	2.2	89.5.
I use rewards to make my child eat	3.0	10.4	1.1	85.5

IV. DISCUSSION

Most of the surveyed children aged 6-24 months were breastfed, though the rate decreased as the child increases in age. Complementary foods were either introduced too early or too late for most of the children. For those that were introduced too early was due to the fact that mothers had to return to work and for those that were introduced late was due to the fact that the babies did not accept the new food. This decrease in breast-feeding rate and complementary feeding is similar to the NDHS report 2013[21].

Feeding problems were commonly found among the children surveyed; this is similar to reports of previous authors [22][34]. Also, more than half of the children in the study were identified as having one or more feeding problems.

Picky eating was the most common feeding problem (40.3%), followed by food neophobia, these conditions were similar to the studies by some authors [22], [23], [24]. Intake of limited variety (17.1%) of food and food refusal (17.0%) were also common among the children which often make meal-time unpleasant for the mothers and children. The refusal of food by the children often leads to the mothers to force feed them as reported by Samuel et al, Gueron-sela et al. and Jegede et al. This act usually causes strained interactions between mothers and children as indicated by some authors [25], [26], [27].

The idea of force-feeding a child is a very risky practice that could not only affect the health and can also be a source of illness since the method involves the use of bare hands which could contaminate the food given to the child. It can also endanger the life of a child since it is done forcefully against the child's wish. The effects of force feeding include discomfort, pain, constipation, cough and respiratory tract infections and could lead to sudden death of the child [27], [22].

Feeding problems are common among children but the children should not be ignored at this critical period (between birth and two years). A child with feeding difficulties may choose to eat only foods from a particular food group of a particular taste; this selective behaviour may lead to the child receiving inadequate nutrient essential for growth, physical and brain development [1], [2] which often affects their future life and health [26]. Therefore, mothers should endeavour to get more information about the type of feeding problem their child is having. This could actually help them to how to properly manage the problem instead of the use of more negative and coercive verbalizations with their children during meals which often makes mealtimes more difficult and frustrating for mothers or caregivers [30].

Furthermore, parents of children with feeding problems are more likely to have negative feelings about their children [31], apparently because of the difficulty encountered during feeding. Such unpleasant experiences associated with persistent feeding difficulties have been hypothesized to affect children's psychosocial development and their subsequent interactions with others [31], [33].

Feeding problems in children could also be due to medical disorders that interfere with normal development of feeding skills [19]. Rommel and others have also reported that feeding problems are biopsychosocial in nature; which could be biological, psychological and sociological that interact and contribute to feeding problems [28],[29]. This study has some limitations in terms of being a descriptive study and assessment of the child's feeding behavior was done by the mother's observation which may not be totally accurate.

V. CONCLUSION

This study assessed the prevalence of feeding problems in infancy and childhood in the selected study population. Early recognition of feeding problems and seeking of help from the pediatrician is essential since it could prevent further complication of the feeding problem among the affected children. In addition, parents and infants with feeding problems should be given adequate social and emotional support to achieve more success in child feeding.

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