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Knowledge, Attitude and Practice Regarding Complementary Feeding among Mothers of Infants in Urban and Rural Areas of Tirupati

M. Manjusha*, A. Padmaja**

Author Affiliation
*M.Sc. (Nursing), Department of Pediatric Nursing, **Professor & Head, Dept. of Child Health Nursing, College of Nursing, Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupathi -517507 Andhra Pradesh.

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M. Manjusha, M.Sc. (Nursing), Department of Pediatric Nursing, College of Nursing, Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupathi -517507 Andhra Pradesh.
E-mail: manjusha.manukonda@gmail.com

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Abstract

Objective: To compare the knowledge, attitude and practice regarding complementary feeding among mothers of infants in urban and rural areas of Tirupati. *Methodology:* The present study was descriptive study. The data was collected from NGO colony and Karakambadi areas of Tirupati, during Feb 2016 to Mar 2016. There were 100 participants including 50 urban mothers whilst for a comparative assessment a group of 50 rural mothers were also selected to meet the purpose of the study. Subjects age range was set between 18 -39 years. The study sample comprised of infant mothers. While inclusion criteria the mothers whose infants are in the age group 6 months to 12 months, were selected as samples. Sample was selected by convenient sampling technique. The data was collected by using Structured questionnaire and information booklet was given. The data was interpreted through SPSS-20. *Results:* The study findings showed a significant difference between urban and rural mothers of infants in knowledge, attitude and practice regarding complementary feeding. t- value for knowledge was 7.723, attitude 4.913 and practice 0.805. p- value for knowledge and attitude was 0.00 and practice 0.424. There was significant difference in level of knowledge between urban and rural mothers of infants in association with education of mother and occupation of mother were significant at $p<0.05$ level. Level of attitude was significantly different in association with education of mother, occupation of mother, occupation of father, income, type of family and source of information were significant at $p<0.05$ level. Differences were also identified in level of practice with age, education of mother, occupation of father, income, type of family, number of children and source of information were significant at $p<0.05$ level. *Conclusion:* In conclusion, the knowledge, attitude and practice of mothers of infants regarding complementary feeding in urban areas is more than the rural areas of Tirupati. This study was successful in presenting a better understanding of the issues associated with the early and delayed introduction of solid foods to infants.

Keywords: Mothers of Infants; Complementary Feeding; Malnutrition.

Introduction

Children constitute a major proportion of the global population today. They are truly the foundation of a Nation. "A healthy child is a sure future" is one of the themes of WHO [1]. India registers the highest number of child deaths across the globe. The high prevalence of malnutrition contributes to over 50 per cent of child deaths. Infants and young children are at an increased risk of malnutrition from six months of age onwards, when breast milk alone is no longer sufficient to meet all their nutritional requirements and complementary feeding should be started [2].

The World Health Organization (WHO) recommends exclusive breast feeding for the first six months of life, with the addition of complementary feeds at six months with continued breast feeds until

at least the age of two [3].

Breastfeeding should continue together with weaning food up to and beyond second year of life. However, infant feeding and weaning practices have cultural, social and economical roots making malnutrition more than a medical problem. It has been indicated in many studies all over the world that these practices are the subjects strongly influenced by customs, beliefs, superstitions, religion, cultural pattern, mother's education and socioeconomic status of the family [4].

The word 'Weaning' is derived from Anglo-Saxon word 'Wenian' means to be accustomed to something different. The concept of 'Weaning' has now changed to 'complementary feeding' for the simple reason that, with the introduction of other nutritious food, breast feeding needs to continue for a period of 2 years [5].

A critical period of child growth is in the first 2-3 years of life when growth faltering is common and exclusive breast feeding in the first 6months, and appropriate complementary feeding after 6 months, are essential to meet the nutritional needs of the growing child. In addition to lack of access due to limited availability and affordability of a diverse diet, traditional home-prepared complementary foods in many contexts are either too viscous or watered down, monotonous, and have low energy and micronutrient density and poor protein quality [6].

The level of child under nutrition remains unacceptable throughout the world, with 90% of the developing world's chronically undernourished children living in Asia and Africa [7].

Afghanistan has the highest rate of 91/1000 followed by Pakistan 81/1000. India is the third highest in child mortality rate among SAARC countries with 48 deaths per 1000 live births according to PTI [8].

As per the Infant and Young Child Feeding (IYCF) guidelines, in India around 40 per cent of children remain without any complementary source of feeding till they attain eight months of age. The commonest reason for delayed complementary feeding was the notion "the child will vomit everything." Another important reason was ignorance [9].

In India, a collected data shows that just over half of 6-9months old are breast fed along with complementary foods and only 39 per cent of 20-23 months old are continued with breast feeding. In India, IMR is 43.19 deaths/1000 live births. Of this, males comprise 41.9 deaths/1000 live births and females 44.63 deaths/1000 live births. In Andhra Pradesh, IMR among 4-12 months is 32.4 per cent, according to 2014 statistics [12].

The issue of underweight children is particularly serious in rural areas and among the poorest families, ethnic minorities and lower castes [13].

Globally, optimal breastfeeding could prevent 13 per cent of deaths of children aged less than five years while appropriate complementary feeding (CF) practices might result in an additional 6 per cent reduction in under-five mortality, especially in developing countries as ours [14].

Methodology

After ethical permission obtained from the institution the subjects were approached individually with permission of community authorities. The data was collected from 100 participants including 50 urban mothers and 50 rural mothers. The sample was selected by convenient sampling technique. After obtaining informed consent the data was collected and confidentiality of the subjects was maintained. In order to check the hypothesis appropriate statistical analysis was used by SPSS version 20.

Measures

Structured Questionnaire: Consists of two sections.

Section I: consists of socio-demographic data such as age of the mother, gender of the infant, education of the mother and father, occupation of the mother and father, family income per month, type of family, residence, type of diet and source of information on complementary foods for infants.

Section II: consists of three parts.

Part A: Consists of 15 multiple choice questions related to assess the knowledge of mothers of infants regarding complementary feeding.

Part B: Consists of 5 point attitude scale, which contains 5 questions related to attitude of mothers of infants regarding complementary feeding.

Part C: Consists of 10 dichotomous questions to assess the hygienic feeding practices of mothers.

Score Interpretation

Scoring key was prepared for section –I by coding the socio-demographic data.

In section II, part-A and part-C each correct answer has a score of '1' and wrong answer, a score of 'zero'. Thus a maximum score of 15 were allotted to knowledge of mothers on complementary feeding

and score of 10 were allotted to hygienic feeding practices of mothers. The scores were interpreted in the following manner: less than 50 per cent inadequate knowledge, 51-75 per cent moderately adequate knowledge and more than 75 per cent adequate knowledge.

Part B Attitude Scale

Total items in this tool were 5. A five point Likert Rating scale (5, 4, 3, 2, 1) was used and the responses were categorized as strongly agree, agree, undecided, disagree and strongly disagree. Questions 1-5 have positive scoring. The total score was 25. The total score reflects the level of positive attitude towards complementary feeding. The score was categorized as follows Low positive attitude less than 13, moderately positive attitude 14-20, highly positive attitude more than 20.

Results

Table 1 represents infant mothers' knowledge on complementary feeding practices between rural and urban. Out of 50 rural mothers 21 (42%) had inadequate knowledge, 27 (54%) had moderate knowledge and 2 (4%) had adequate knowledge. Out of 50 urban mothers 1 (2%) had inadequate knowledge, 22 (44%) had moderate knowledge and 27 (54%) had adequate knowledge.

Table 1: Distribution of knowledge scores among rural and urban mothers of infants regarding complementary feeding practices n=100

Variables	RURAL						URBAN					
	Inadequate		Mode rate		Ad equate		Inadequate		Mode rate		Ad equate	
	N	%	N	%	N	%	N	%	N	%	N	%
Knowledge	21	42	27	54	2	4	1	2	22	44	27	54

Table 2: Distribution of attitude scores among rural and urban mothers of infants regarding complementary feeding practices n=100

Variables	RURAL						URBAN					
	Low +VE		Moderately +VE		Highly +VE		Low +VE		Moderately +VE		Highly +VE	
	N	%	N	%	N	%	N	%	N	%	N	%
Attitude	1	2	8	16	41	82	0	0	3	6	47	94

Table 3: Distribution of practice scores among rural and urban mothers of infants regarding complementary feeding practices. n=100

Variables	RURAL						URBAN					
	Inadequate		Moderate		Adequate		Inadequate		Moderate		Adequate	
	N	%	N	%	N	%	N	%	N	%	N	%
Practice	2	4	11	22	39	78	0	0	10	20	40	80

Table 4: Comparison of knowledge, attitude and practice of mothers of infants regarding complementary feeding practices in rural and urban areas n=100

Score	RURAL			URBAN			t-value	p-value	Significance
	Mean	N	SD	Mean	N	SD			
Knowledge	7.72	50	2.627	11.54	50	2.032	7.723	0.00	**
Attitude	20.04	50	2.523	22.54	50	2.052	4.913	0.00	**
Practice	7.84	50	1.095	7.98	50	0.622	0.805	0.424	NS

*= $p<0.05$
**= $p<0.01$

Table 2 reveals that out of 50 rural mothers 1 (2%) had low positive attitude, 8 (16%) had moderate positive attitude and 41 (82%) had high positive attitude. Out of 50 urban mothers none had low positive attitude, 3(6%) had moderate positive attitude and 47 (94%) had high positive attitude.

Table 3 reveals that out of 50 rural mothers 2(4%) had inadequate knowledge on practices, 22 (11%) had moderate knowledge on practices and 39 (78%) had adequate knowledge on practices.

Out of 50 urban mothers none had inadequate knowledge on practices, 10 (20%) had moderate knowledge on practices and 40 (80%) had adequate knowledge on practices.

Table 4 explains that among rural infant mothers, mean of knowledge was 7.72 and standard deviation was 2.627; mean of attitude was 20.04 and standard deviation was 2.523 and mean of practice was 7.84

and standard deviation was 1.095. Among urban infant mothers, mean of knowledge was 11.54 and standard deviation was 2.032; mean of attitude was 22.54 and standard deviation was 2.052 and mean of practice was 7.98 and standard deviation was 0.622.

Discussion

Findings of the present study revealed that mothers of infants in selected urban area were having significantly high level of knowledge, attitude and practice when compared to mothers of infants in selected rural area.

In rural area, level of knowledge in association with demographic variables showed that education of mother and occupation of mother were significant at $p<0.05$ level and education of father and income were significant at $p< 0.01$ level.

In urban area, source of information was significant at $p<0.05$ level and education of mother, occupation of mother, number of children and religion were significant at $p< 0.01$level.

In rural area, level of attitude in association with demographic variables showed that education of mother, occupation of mother, occupation of father, income, type of family and source of information were significant at $p<0.05$ level and age was significant at $p<0.01$ level.

In urban area, age, gender, education of mother, education of father, occupation of mother, occupation of father, income, type of family, number of children and religion, source of information was significant at $p< 0.05$ level and type of diet was significant at $p< 0.01$level.

In rural area, level of practice in association with demographic variables showed education of mother, education of father, occupation of father, number of children, type of diet and religion were significant at $p<0.05$ level.

In urban area, age, education of mother, occupation of father, income, type of family, number of children and source of information were significant at $p<0.05$ level and gender and education of father were significant at $p< 0.01$level.

Limitations of the Study

The study is limited to mothers who are in selected rural and urban areas of Tirupati. The study is limited to the mothers who are having children of 6 to 12 months of age. Period of study is 4 weeks.

Implications

The study results would help the nurse to enlighten their knowledge and care for infants in community. Nurses can be instrumental in preventing nutritional related deaths and helping the mothers of infants by teaching about complementary feeding and hygienic practices. Provide anticipatory guidance to mothers regarding complementary feeding in Pediatric wards, outpatient departments, Well-baby clinics, PHC, Sub centers and Anganwadi centers. In the curriculum there should be more emphasize on complementary feeding. Nursing students should be encouraged in planning and implementing incidental and planned health education programmes regarding complementary feeding. Nurse administrator should take efforts to guide and provide competent information and AV aids to health professionals to conduct health education programme effectively and efficiently. Nurse administrator shall find out effective strategies for complementary feeding services. The study reveals that there is a need for extensive research to find out behaviour modifications after teaching programmes. Nursing research shall be pursued on newer method of teaching, focusing on interest, quality and cost effectiveness. College or university must make compulsory clause/clue/requirement of conduct for research study.

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