

Original Research Article

The correlation between level of knowledge and knowledge on practices regarding infant feeding among mothers of rural community: a correlation study

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ABSTRACT

Background: The infant feeding practices during first 2 years of life determine the overall health and survival during childhood and beyond. Aim was to find the correlation between knowledge on infant feeding and knowledge on infant feeding practices among mothers of rural community.

Methods: A correlation study was conducted on 200 mothers of rural community at primary health centers of Chitradurga district, Karnataka. Gathered data by using knowledge and knowledge practice questionnaires on infant feeding through interview method.

Results: The study results reveals that majority of mothers were having inadequate knowledge and as well as inadequate knowledge on practices of infant feeding. There was a significant correlation found between knowledge and knowledge on practices related to infant feeding practices among mothers.

Conclusions: Knowledge regarding infant feeding was inadequate and knowledge of infant feeding practices was found too in adequate. There was a significant correlation between knowledge and knowledge on practices. There is an ongoing need for individual and community awareness programmes regarding importance of infant feeding.

Keywords: Infant feeding, Knowledge, Mothers, Rural community

INTRODUCTION

Breastfeeding benefits to for both infants and mothers its globally recognized and it was proved that it is an ideal source of nourishment till six months.¹

Children, especially new born babies, are in high danger of malnutrition during the first six months of life when breast milk alone is necessary to meet all nutritious supplies and breastfeeding needs to continue during this time.²

Good practice of EBF can prevent 13.8% and 11.6% of all deaths among infants aged <2 years and those under 5 years, respectively.³

Feeding practices of children during infancy and early childhood in the first 2 years of life, determine their overall health status and long-term well-being.^{4,5}

When scientific community made efforts to adopt six months as the duration of the exclusive breastfeeding, the commercial influence from the West was resisting this move at the international level namely Codex Committee

on World Health Assembly. With the persistent efforts of the women and child development department and the cooperation of health department, an important decision was taken in the World Health Assembly in May 2001 and resolution 54.2 made a global recommendation to promote exclusive breast feeding for first 6 months, introducing weaning food and continued breast feeding up to the age of 2 years and beyond. Further new resolution on infant and young child nutrition was adopted by the 55th World Health Assembly in May 2002. The 55th World Health Assembly recognized that inappropriate feeding practices are major obstacles to socio-economic development and reduction of poverty.

Inadequate exclusive breastfeeding practice also increases the risk of infant death. According to UNICEF, an exclusively breastfed infant has a 14-fold lower risk of death than a non-breastfed infant. Globally, only 47% of mothers were exclusively breastfeeding their offspring until 6 months of age in 2018. But in reality, this rate varies from continent to continent.⁶

The reasons given to explain this situation are varied, including the socio-economic conditions of the populations, harmful socio-cultural beliefs fostered by ignorance, insufficient monitoring of young infants and the availability of food.⁷

Demographic health surveys (DHS) from 49 low- and middle-income countries show that dietary quality is systematically lower in rural than urban environments. Community and societal conditions also differ between rural and urban areas. Traditional diet patterns with low dietary diversity have been linked to poor growth. Factors that impair a mother's ability to follow recommendations include the patriarchal system and misinformation about child-care and feeding among family members, traditional birth attendants, and health workers.⁸⁻¹¹

Moreover, to bring a significant change in breastfeeding practices, local data regarding knowledge, attitude and practices needs to be collected and addressed. Therefore, this study aimed to identify the correlation between knowledge and practices of women regarding infant feeding.

METHODS

The present correlation study was adapted correlation research design with objective to identify the relationship between the level of knowledge and knowledge on practices of women regarding infant feeding. A sample size was arbitrarily decided to 200, keeping in mind the availability of subjects based monthly average of mothers visiting to primary health centers for seeking medical facilities. 200 mothers were selected for the study by using purposive sampling technique from rural community from primary health centers of Chitradurga District, Karnataka based on inclusive criteria like mothers who were having children age between 0 to 1

year, available during the data collection and who gave consent for the study.

Based on the objectives of the study, a structured interview schedule was prepared in order to assess the knowledge and knowledge on practice of infant feeding among mothers. Data was collected with the help of structured interview schedule of knowledge and knowledge on practice for two months on November 2019 and December 2019 from the selected primary health centers of Chitradurga District, Karnataka, India. Approximately 5-10 were interviewed per day. The investigator obtained the informed consent from each sample and explained purpose of the study.

The tools use for collecting data was in three parts, part I: consisted of socio demographic data of mothers, which includes age, religion, educational status, occupation, income, number of living children and place of delivery. Part II: consists of items about knowledge of mothers on infant feeding. There were 24 questions related to knowledge of mothers on infant feeding. These questions in the interview schedule were related to pre-lacteal feed, initiation of breast feeding, colostrum, frequency of breast feeding, burping, exclusive breast feeding, ideal duration of breast feeding, artificial feeding, weaning and beneficiary effect of breast feeding on mothers and baby. Part III: structured interview schedule to collect the data related to knowledge on practice of infant feeding among mothers. These questions in the schedule were related to colostrum, initiation of breast feeding, burping, exclusive breast feeding, weaning and cleaning of breast. There were 10 questions related to knowledge on practice of mothers on infant feeding practice. Content validity of the instrument was established by experts. The reliability and validity of the tool was established by using split half technique and Spearman's brown prophecy formula. The reliability coefficient of correlation of the tool was found reliable and feasible. The data was collected by interviewing the mothers at one-to-one basis. Data entry and statistical analysis were performed using the Microsoft Excel and SPSS windows version 14.0 software.

RESULTS

Socio-demographic information:

As illustrated in the Table 1, total 200 participants were included in the study, the majority 50.00% mothers were aged between 25-30 years, 20.00% were belongs to 21-24 years, 15.50% were 31-35 years, 8.50% were aged 15-20 years and 6.00% were above 36 years of age. Majority were 67.50% belongs to Hindu religion, 19.50% were Muslim, and 13.00% were belonging to Christianity. 63.50% mothers residing in nuclear family and 36.50% were in joint family. 34.50% of mothers were educated up to secondary level, 25.00% were studied primary level, 16% were educated PUC/Diploma level, only 6.00% were studied up-to graduate and above, remaining 18.50%

were not underwent any formal education. 43.00% mothers were house makers, 33.00% were working as a cooly or laboures, 11.00% were doing government job, 8.00% were working in private sector, and 5.00% were self-employed. 30.00% were having income range from Rs. 5001 to 7000 per month, 25% were having Rs. 7001 to 9000 per month, 25% were having Rs. <5000 per month and 20% were having above Rs. 9000 per month income. 45.50% were had two children, 29.50% were had three and more children, 25% were had one child. Majority 75% mothers underwent their delivery in the hospital, 25% had delivery at home.

Table 1: Socio-demographic characteristics of mothers (n=200).

Socio-demographic characteristics	Total	Percentage
Age (years)	15-20	8.50
	21-25	20.00
	26-30	50.00
	31-35	15.50
	36 and above	6.00
Religion	Hindu	67.50
	Muslim	19.50
	Christian	13.00
Type of family	Nuclear	63.50
	Joint	36.50
Educational status	No formal education	18.50
	Primary level	25.00
	Secondary level	34.50
	PUC and diploma	16.00
	Graduate and above	6.00
Occupation	House wives	43.00
	Laboures/cooly	33.00
	Government service	11.00
	Private service	8.00
	Self employee	5.00
Income per month	<5000	25.00
	5001-7000	30.00
	7001-9000	25.00
	>9000	20.00
Number of children	One	25.00
	Two	45.50
	Three and more	29.50
Place of delivery	Home	25.00
	Hospital	75.00

Knowledge level on infant feeding

Majority 92.00% of mothers' knowledge on infant feeding was inadequate, only 8.00% of mothers were found moderate level of knowledge on infant feeding,

none of the mothers were found adequate level of knowledge on infant feeding (Table 2).

Table 2: Level of knowledge on infant feeding.

Level of knowledge on Infant feeding	Frequency	Percentage
Inadequate	184	92.00
Moderate	16	8.00
Adequate	0	0

Knowledge on infant feeding practices

The results show that regarding mean knowledge on practices of infant feeding identified that, found majority (76%) were identified inadequate in their knowledge on infant feeding practices, (24%) having moderate level of knowledge on practices of infant feeding and none of the mothers found adequate knowledge on infant feeding practices (Table 3).

Table 3: Level of knowledge on practices of infant feeding.

Level of knowledge on practices of infant feeding	Frequency	Percentage
Inadequate	167	83.50
Moderate	24	12.00
Adequate	9	4.50

Correlation between knowledge and knowledge of practices on infant feeding

The findings of the study revealed that the correlation between knowledge and knowledge on practice scores were [(mean=45.11, SD=16.43) and (mean=43.74, SD=5.64)] and $r=0.4252$ at $p=0.00001$ was found be significant at 0.05 level (Table 4).

Table 4: Correlation between knowledge and knowledge of practices on infant feeding.

Variables	Mean±SD	r-value	P value
Knowledge on infant feeding	45.11±6.43	0.4252	0.0001*
Knowledge of practice on infant feeding	43.74±5.63		

*Significant at the level of 0.05.

DISCUSSION

Optimizing nutrition early in life including the 1000 days from conception to 24 months ensures the best possible start in life, with long-term benefits. Especially, breastfeeding is one of the most effective ways to ensure child health and it could prevent 13 % of deaths occurring in children less than 5 years of age globally, while appropriate complementary feeding practices would result in an additional 6% reduction in under-five mortality.

However, according to the current who report, nearly 2 out of 3 infants are not exclusively breastfed for the recommended 6 months a rate that has not improved in 2 decades.¹² India, a low-middle income and a developing country is combating with a triple burden of malnutrition with a very cost-effective measure, infant and young child feeding practices. But there are a lot of challenges in its implementation which need to be catered. The objective of the present correlation study was to assess the relation between level of knowledge and knowledge on practices infant feeding among mothers of children aged 0 to 1 year in a rural area of Karnataka. The findings of the study revealed that the correlation between knowledge and knowledge on practice scores were [(mean=45.11, SD=16.43) and (mean=43.74, SD=5.64) and $r=0.4252$ at $p=0.00001$ found be significant at 0.05 level. The study results were supported with previous study results, shows that mothers who have good knowledge of IYCF recommendations were more likely to have better feeding practices than mothers who have poor knowledge.^{13,14}

The findings of the present study are in conformity with the findings of the following studies. Knowledge regarding colostrum feeding was inadequate and improper breastfeeding practices were found in both urban and rural area. Urban area mothers had more knowledge and better feeding practices compared to mothers of rural area.¹⁵ Evident from this study that the factors such as maternal education, nutritional counselling, food security, child numbers, maternal health services, decision-making power were identified as key factors associated with feeding practices and these factors should be carefully considered when designing strategies and interventions.¹⁶

The findings of the present study strongly recommends that there is an increased need for creating awareness on infant feeding in the mothers of rural community.

The study was limited to the selected PHCs Pandrahalli, Yelegodu, Turuvanur and Chikkagondanahalli which belonged to Chitradurga district, Karnataka state, India. The study was limited to mothers who have infant of 0-1-year age in selected PHCs areas of Chitradurga District, Karnataka state. The study was limited to mothers who were interested to participate in the study.

CONCLUSION

This study results reported that the relation between level knowledge and knowledge of practice on infant feeding practices showed significant correlation. Hence, there is a need for enhance the knowledge on infant feeding among mothers so, that automatically their knowledge of infant feeding practices improves.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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