

Factors Affecting Complementary Feeding Practices of Nepali Mothers for 6 Months to 24 Months Children

Chapagain RH¹

¹Department of Paediatrics, Mahakali Zonal Hospital, Mahendranagar, Nepal.

ABSTRACT

Background: Exclusive breastfeeding for the first six months followed by complementary feeding along with breastfeeding is crucial for proper growth and development of a child. The aim of the study was to study the factors influencing the complementary feeding practices.

Methods: A hospital based cross-sectional study was conducted between June, 2010 to October, 2011, at Kanti Children's Hospital, Nepal, involving 1100 mothers of children 6 to 24 months of age attending outpatient department, applying systematic sampling technique and using semi-structured questionnaire.

Results: More than half (56.81%) mothers fed their children complementary food of appropriate consistency; 366 (33.27%) fed with recommended frequency and 834 (75.82%) with the appropriate amount. But only 174 (15.82%) among all were actually feeding their child appropriate complementary food in sufficient amount and with required frequency. Lack of knowledge regarding ideal feeding practice was found to be the most important factor associated. Whether or not mother received feeding advice during immunization of the child was found to be significantly associated with appropriate feeding practice. Education of mother, type of family, profession of father, whether mother is a housewife or job holder was other important associations.

Conclusions: Vast majority of Nepali mothers are not complementary feeding their child appropriately and they lack knowledge regarding ideal feeding practices. Emphasis should be given to educate mothers about complementary feeding practices and immunization clinics can be very useful for the purpose.

Keywords: associated factors; complementary feeding practice; nepali mothers.

INTRODUCTION

World Health Organization (WHO) recommends exclusive breast-feeding (BF) for the first six month of age, addition of complementary feeds (CF) at six months with continued BF till two years which if followed appropriately can decrease infant mortality by 19 percent and prevent malnutrition especially in developing countries like ours.¹⁻³

Infant and young child feeding (IYCF) practices recommend exclusive breastfeeding up to age of six months; timely initiation of feeding solid, semisolid foods from six months onwards.² Complementary feeds

bridge the energy, vitamin A and iron gaps which arise in breastfed infants at 6 month of age.^{1,3} Malnutrition continues to trap Nepalese children in a vicious circle, affecting their survival, growth and development. WHO has recommended further research in priority areas to broaden the range of effective interventions and programmatic approaches to improve complementary feeding.⁴ There is scarcity of studies on practices about CF and factor affecting for such practises.⁵⁻⁷ Knowledge of these factors will be helpful in planning interventions to improve feeding practices.^{6,7}

Correspondence: Dr. Ram Hari Chapagain, Mahakali Zonal Hospital, Mahendranagar, Nepal. Email: chapagainrh2007@gmail.com, Phone : 9841409080.

METHODS

A hospital based cross-sectional study was conducted between June 2010 to October 2011, at Kanti Children's Hospital, Nepal, involving mothers of children from 6 to 24 months of age who attended outpatient department of this hospital, applying systematic sampling technique and using semi-structured questionnaire after taking the ethical approval from ethical committee of National Academy of Medical Sciences (NAMS). During the study period, 1100 mothers were interviewed after taking written consent. Mothers of children with known anomalies, mothers whose children were very sick needing emergency care and those who failed to provide consent for any reason were also excluded from the study. Data was entered and analyzed using SPSS 19.0 software. Association of inappropriate feeding practices with socio-demographic characteristics was analyzed using chi-square test. Confidence interval (CI) for odds ratio was set as 95% and p value of <0.05 was taken as significant.

RESULTS

Mean age of participant mothers was 24.9 years and the age of their children was 12.84±5.52 months. Six hundred ninety-nine (63.5%) of the children were males and rest were females. Seven hundred and seven (64.3%) lived in Nuclear family and the rest in joint families. Two hundred eight (18.9%) of mothers never went to school while others had some level of formal education. Seven hundred eighty two (71.1%) were complete housewives while the rest were practicing some kind of profession. It was found that only 174 (15.82%) of mothers were actually feeding their child ideally meaning sufficient amount with appropriate consistency and appropriate frequency (Table 1).

It was found that mothers educational level, type of family and religion of the family were strongly associated with appropriate feeding. Educated mother had high rate of ideal feeding than the uneducated mother ($p=0.008$). Literacy of mother was found to have association with infant and young child feeding practices. Uneducated mothers were almost 2 times more likely to have inappropriate feeding practices (OR 1.962, CI 1.341-2.871) whereas father's education was not found to be a factor. Mothers from joint family had high chance of feeding their child appropriately than mother from nuclear family (OR 1.726, CI 1.199-2.485 $p=0.003$). Similarly, religion ($p=0.03$) also had significantly affected the ideal feeding (Table 2).

Similarly, the family income and the income sufficiency for their livelihood had no relation with the feeding practices. There was no association between sex and

feeding practices of the infant and young child. It was also found that the mothers who had received the feeding advice during immunization of her child had good feeding practice. Mothers who did not receive feeding advice in immunization clinic had 1.7 times more chance to have inappropriate feeding practices than the mothers who received advice in immunization clinic (OR 1.715 CI 1.239-2.375) (Table 3).

DISCUSSION

Eight hundred eighty four participants in this study were of age group of 21 to 30 years (80.36%) which is the most common reproductive age in our country. Even though literacy rate is low (60.9%) in our country and lower in the case of females (51.4%)⁸, 892 participants in our study (81.1%) had some level of education with majority of them ie 342 participants (31.1%) having education of secondary level. This may be due to the fact that educated mothers seek medical help more often than the uneducated mothers. The location of the hospital might also have played role for such participations.

Our study found that 366 (33.27%) of mothers were giving feeds as per WHO guidelines and 109 (9.90%) were giving more frequently. This finding is much less compared to the reports by NDHS 2006.⁹ This might be because of the different population of the study. Similar finding to our study was observed in India by Aggarwal et.al.¹⁰

This study showed that 560 (50.91%) mother fed the food of appropriate consistency. Consistency of CF is not mentioned in NDHS 2006, however, a study done in India showed that only 25.5% to 30.0% mothers knew and practised complementary feeding with food of appropriate consistency.¹⁴ Appropriate CF comprises of adequate frequency, appropriate quality, and sufficient quantity of the feed as per WHO recommendation. However, only 174 (15.82%) mothers were found be practicing ideal feeding in this study. Similar observation was made in a study done in India.^{7,14} Most of the studies have evaluated complementary feeding only in terms of frequency without considering the quality and quantity of feed.⁷⁻⁹

Immunization coverage is good in our country and immunization clinic can be a good platform for educating mothers or providing advising on complementary feeding. It was found in this study that only 446 (40.5%) of mothers received the feeding advice during immunization. It was found that mothers who received complementary feeding advice during immunization were more likely to feed their child appropriately (OR 1.715 CI 1.239-2.375, $P < 0.001$). Similar type of underutilization of immunization clinic as a platform for advising the mothers about complementary feeding

was reported in India where only 21.40% mothers received the complementary feeding advice during immunization.¹⁴ It seems that the advice on feeding practices are not being given in the immunization clinic in our part of the world. This might be because of the time constraints of the staff in immunization clinic. This finding highlights the importance of providing feeding advice during immunization visits. This will help to improve the appropriate feeding practices. Effort should be given to strengthen the immunization clinic and to use it as a platform for providing the feeding advices to mothers.

Mother's profession was found to be protective against inappropriate feeding practices (OR 0.805 CI 95%, 0.556-1.166). This finding might be due to adequate exposure of literate mothers to nutrition messages and health information. This study did not find any statistically significant association of the sex of child, education of father and family income with inappropriate feeding practices. Mothers in our study equally fed their child irrespective of gender not approving of the general suspicion that sex preference in our society exists in feeding too. Similarly, contrary to the common belief, low family income was not found to be associated with inappropriate feeding practices. Though, we could not find many studies co-relating economic variables with the ideal complementary feeding, many studies have been conducted to find the association of economic variables with under nutrition, wasting, stunting and breast feeding. As feeding practices affect the growth and development of child, it can be assumed that there is an association of economic indicators with complementary feeding. It is interesting to note in this study that mother's education was associated with inappropriate feeding practices where as father's education was not. Similar findings were also reported by other studies done in other rural and urban areas of Nepal.¹³ This supports the importance of women education. This finding also indicates that mothers are involved more in the care and rearing of the infant and young child than the fathers. Thus, the result of this study highlights the fact that ideal feeding practices are very comprehensive and complex processes influenced by social, economic, cultural and educational factors rather than economic factor alone.

CONCLUSIONS

Study brings up the fact that complementary feeding practices are by and large inappropriate in our society which seem to be strongly associated with the lack of proper knowledge among mothers regarding complementary feeding. Other associated variables are mother's education, type of family, religion, mothers profession, and whether or not feeding advice was received during immunization. However, father's

education, family income and sex of child were not associated with the inappropriate feeding practices. The findings highlight the importance of mother's education, profession and giving education in immunization clinic for the infant and young child feeding. Emphasis should be given to educate mothers about breast feeding and complementary feeding practices during immunization.

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