Journal of Manmohan Memorial Institute of Health Sciences (JMMIHS) Vol 10 | Issue 2 | 2025

ORIGINAL ARTICLE

KNOWLEDGE ON COMPLEMENTARY FEEDING AMONG MOTHERS OF UNDER TWO YEARS CHILDREN IN SURKHET

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Received: 9 September 2025
Accepted: 11 October 2025
Published: 15 December 2025

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https://doi.org/10.3126/jmmihs.v10i2.86847

How to Cite

Chhetri, P. K., Basnet, S., & Thapa, S. Knowledge on Complementary Feeding Among Mothers of Under Two Years Children in a Hospital. Journal of Manmohan Memorial Institute of Health Sciences, 2025, 10(2), 33–35. https://doi.org/10.3126/jmmihs.v10i2.86847

ABSTRACT

Introduction: Complementary Feeding is important at the first two years of life because it is crucial for higher cognitive function development, language acquisition, the formation of sensory pathways for vision and hearing, and brain development. The aim of the study was to assess the level of knowledge on complementary feeding among mothers of under two years of children in a hospital.

Method: A Descriptive- Cross sectional study was conducted among 97 mothers of under two years children in a Karnali Province Hospital in a Surkhet using a non- probability purposive sampling technique. Ethical approval was taken from Institutional Review Committee (IRC) of MMIHS. Informed consent was obtained prior to data collection. Data was collected through face to face interview by using a self-developed structured interview schedule then analyzed and interpreted by descriptive and inferential statistics through SPSS version 23.

Result: More than half (52.6%) had adequate knowledge on complementary feeding. Almost all (96.6%) of the respondents answered correctly regarding meaning of complementary feeding. Almost all (92.8%) of the respondent answered breastfeeding continue up to 24 months. However inadequate knowledge present on frequency of feeding of 6 to 9 month age child (46.4%) and amount of feeding for 9-12 months age child (44.3%) and only (36.1%) of respondent answered seasonal fruits should be given once a day. There was a statistically significant association between level of knowledge on complementary feeding with ANC Visits of the respondents (p=0.002).

Conclusion: The findings of the study conclude that more than half of the respondents had an adequate knowledge on complementary feeding among mothers. Despite of this there is inadequate knowledge on amount and feeding of food according to age. This indicates need of awareness program.

Key words: **Knowledge; Complementary Feeding**

INTRODUCTION

Complementary feeding, is the process of providing foods in addition to milk when breast milk or milk formula alone are no longer adequate to meet nutritional requirements, generally starts at age 6 months and continues until 23 months of age.[1]

When infants reach 6 months of age, it is difficult to meet their nutritional requirements especially iron, energy and zinc. Breastfeeding during that period helps to reduce exposure to infectious diseases or foodborne illness. Low supply of breast milk can contribute to insufficient supply of nutrients and energy, leading to malnutrition.[2]

The study conducted in Egypt found that 80% of infants were introduced to solid foods before 4 months of age. Insufficient knowledge about proper timing of complementary feeding was the main reported factor for early initiation of complementary feeding. About 25.7% infants were wasted, 33.65 were stunted.[3]

The Study conducted in Ghana, showed that 48% mothers had inadequate knowledge. About 32% did not know the recommended duration of continued breastfeeding. Only 10.5% of children meet minimum diversity, 39.5% minimum meal frequency and 8.5% received minimum adequate diet. About 28% did not know when to start appropriate complementary Feeding.[4]

In Nepal 25% of children of under 5 are stunted, 8% are wasted and 19% are underweight with 4% severely under weight. Children age 0-23 months are 22% stunting and 16% are underweight. Children who are stunted is highest in karnali province (36%) and lowest in Bagmati province (18%). The prevalence of stunting (36%), wasting (10%) and underweight (30%) is higher among children born from illiterate mother. Children age 6-23 month had 66% anemic nationally and karnali province had 40% anemic who are under 5 childrens.[5]

The study conducted in south Arabia showed that about 33.8% had no knowledge about the type of food to introduce first, 37.8% had no knowledge about calorie-rich foods, 44% had no knowledge about iron-rich foods, 52.6% had knowledge about complementary food enriching with iodized salt.[6]

The study conducted in Pakistan among 120 children, 30.8% were mildly malnourished, 30% had moderate malnourished and 39.2% were severely malnourished. About 51.7% of children ages from 6-12 months, 48.3% children are ages 13-24 months. About 17.35% of the children had started the weaning before the age of 6 months and 14.29% of the children had started weaning between 12-18 months.[7]

The study conducted in India reveals that 58% of mother had inadequate knowledge regarding timing of complementary feeding. In the present study, 48.85% were underweight 46.05% were stunted and 33.10% were wasted in children who had started complementary feeding after 6 months.[8]

The study conducted in Bharatpur Hospital Chitwan, Nepal shows that 52.30% mothers had introduced complementary feeds within six months. The study found that 50% did not fed their children appropriate feeding. About 70.8% of the mother offered rice pudding as the first complementary feeding.[9] Early Introduction to complementary foods is associated with increased risk for gastrointestinal infection and increase later overweight and obesity.[10]

In the study of Kathmandu Medical College and Teaching Hospital, 39.6% mothers did not know initiation of breastfeeding soon after birth, 28.4% were not aware about exclusive breastfeeding for 6 months, 35.6% mothers did not

know the proper age of initiating complementary feeding, 30.4% mothers early initiation of complementary feeding was done and 9.6% delayed beyond 6 months. About 52% mothers hadn't knowledge about iron-rich foods.[11] Studies finding shows that inappropriate complementary feeding practices lead to different health problems.

METHODS

A Descriptive cross sectional study was conducted among 97 mothers of under two years children in a Karnali Province Hospital, Surkhet using a non- probability purposive sampling technique. A self-structured interview schedule was used including Socio-demographic data, obstetric related variables and knowledge on complementary feeding. The instrument consists of three parts:

PART I: Questions related to Socio- demographic characteristics which include age, occupation, Types of family, education, family income, number of children, residence. It contained a total of seven questions.

PART II: Questions related to obstetric related variables which include gravida and number of antenatal visits. It contained a total of two questions.

PART III: Questions related to complementary feeding was measured by self-developed structured questionnaire such as meaning, types, importance, appropriate age, continuation of breastfeeding, food contain and its sources, frequency, amount, health issues, sources of information. It contained a total of 21 questions.

Ethical Consideration:

To maintain ethical soundness of the study approval from the institutional review committee (IRC) of MMIHS and formal permission was taken from Karnali Province Hospital, Surkhet. Confidentiality was maintained throughout the study.

Data Collection and Analysis:

Data was collected from 2081/02/20 to 2081/02/32 through a structured interview schedule. The data was entered into Statistical Package for the Social Sciences (SPSS) for further analysis. Data was interpreted by using descriptive statistics (mean, standard deviation, frequency, and percentage) and inferential statistics (Chi-square test) was used to measure the association between levels of awareness among antenatal mothers with selected variables.

RESULTS

Socio-demographic characteristics of the respondents depicts that the median age of the respondent was 25± 4. More than half (58.8%) of the respondents belong to age group more than equals to 25 years. Additionally more than half (53.6%) of the respondents had secondary Education. Less than half (46.6%) of the respondents were from joint family. More than half (58.8%) of the respondents are from Urban Area. Less than half of the respondents (47.5%) had one child. Majority of the respondents (64.9%) were Housewife.

Table 1: Level of Knowledge regarding Complementary Feeding among Respondents

Level of Knowledge	Number	Percent
Inadequate knowledge (<31)	46	47.4
Adequate knowledge (≥31)	51	52.6
Total	97	100.0
Median ± IQR =31± 4.408		

Table 1, shows that the respondents knowledge were categorized on the basis of median score. Among 97 respondents, more than half (52.6%) of the respondents had adequate knowledge on Complementary Feeding.

Table 2: Association of Level of Knowledge Regarding Complementary Feeding with Obstetric related variables

Characteristics	Level of Knowledge		p-value
	Indequate	Adequate	
Gravida			
Primi	19(50.0)	19(50.0)	0.683
Multi	27(45.8)	32(54.2)	
ANC Visit			
<8 times	18(75.0)	6(25.0)	0.002
≥8 times	28(38.4)	45(61.6)	

Table 2, Illustrates that there is significant association between the level of knowledge on complementary feeding with obstetric related variable like ANC Visits (p=0.002).

DISCUSSION

In this study almost all (95.9%) of the respondents answered meaning of exclusive breastfeeding. The study conducted by Shrestha et al.,(2020) in Kathmandu Medical College showed that most of the mothers (71.6%) were knowledgeable regarding exclusive breastfeeding up to 6 months of age[11].

In this study presents that almost all (96.6%) of the respondents answered feeding soft, semisolid and solid food to baby along with breast milk at 6 months as the meaning of complementary feeding. The study conducted by Bhattarai, Bhusal and Shreesh (2020) in Nawalparasi, Nepal most of the (88.1%) respondents answered correctly about meaning of complementary feeding[12].

Regarding types of complementary feeding almost all (96.6%) of the respondents answered Grains used as types of complementary feeding. The study Conducted by Bhattarai, Bhusal and Shreesh (2020) in Nawalparasi, Nepal 100% of the respondent answered grains used as types of complementary feeding[12].

The Present study shows that most of the respondent (86.6%) answered appropriate age for initiation of complementary feeding is at 6 months. The study conducted by Mihretie (2018) in Jigjiga, Ehiopia majority (90%) of the responded answered that children should be introduced to complementary feeding at 6 months.

The present study shows that more than half (50.5%) of the respondents answered feeding time of 12 to 24 month is 3 times meal with 2 snacks including breastfeeding The study conducted by Bhattarai, Bhusal and Shreesh (2020) in Nawalparasi, Nepal, More than half (50.70%) of the respondents answered a child between 12-24 months should be fed three to four times with one to two time snacks[12].

The present study represents that almost all (99%) of the respondents answered children's food should contain vitamins. The study conducted by Bhujel at el.,(2021)[14]. In Tanahau, Nepal, showed that more than half (55.6%) of respondent answered children food should contain vitamins. The study represents that almost all (94.8%) of the respondents answered indigestion is the health issue of early feeding. The study conducted by Naznin, sarwar MT., (2021) in Bangladesh showed that only (35.8%) of the respondents answered indigestion is the health issue of early feeding.

The current study findings show that more than half (52.6%) of the respondents had adequate level of knowledge. The

study conducted by Bhujel et al.,(2021) in Tanahu, Nepal showed that majority (73.4%) of the respondent had adequate level of knowledge .

CONCLUSION

Based on the findings from this study, more than half of the respondents had an adequate level of knowledge on complementary feeding. Despite this baseline understanding, there remains inadequate knowledge about frequency and amount of complementary foods in different age child. Thus, there is a need to strengthen awareness program on complementary feeding.

RECOMMENDATION

Study can be conducted in more than one setting so the findings can generalized in other setting

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ACKNOWLEDGEMENT

Authors would like to acknowledge Professor Dr. Dharma Prasad Khanal and Prof. Mandira Onta. Thanks to MMIHS, administration of Karnali Province Hospital Surkhet for their cooperation and heartfelt thanks to participants.

AUTHOR CONTRIBUTIONS

Poonam Khadka Chhetri took the overall responsibility for the study, including conceptualization, methodology development, tool preparation, data analysis, and finalization of the manuscript. Sandhya Basnet contributed to methodology and tool preparation and Sangita Thapa contributed to methodology, tool preparation, data collection and analysis, and report preparation.

CONFLICTS OF INTEREST

The authors declare no competing interest.