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STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE OF MOTHERS OF INFANTS REGARDING PREPARATION OF COMPLEMENTARY FEEDING IN URBAN COMMUNITY AREA OF BOILEAUGANJ AT SHIMLA (H.P).

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ABSTRACT

Background: Complementary feeding or weaning is the process of giving an infant other foods and liquids along with breast milk after the age of 6 months as breast milk alone is no longer sufficient to meet the nutritional requirements of growing baby. It is the process by which the infant gradually becomes accustomed to adult diet.

Aim:A pre-experimental study was conducted in urban community area named Boileauganj at Shimla, Himachal Pradesh with the objective to assess the effectiveness of Structured Teaching Program on knowledge of mothers of infants regarding Complementary Feeding.

Methodology: A pre-experimental research design approach was used to conduct the present study. Convenience sampling technique was used to select the sample size of 60 mothers of infants. Knowledge of study sample regarding introduction, quantity according to the age, preparation, storage, benefits and risk of early and late initiation of complementary feeding were assessed through self-structured knowledge questionnaire.

Results: The major findings of present study reveals that in pre-test majority of study subjects 75% had Average knowledge score and 25% had poor knowledge score. In post-test after intervention (Structured teaching program) majority of study subjects 66.7% had good knowledge score, whereas 33.3% had average knowledge score.

Conclusion: Since the study showed that maximum mothers of infants had average knowledge regarding preparation of complementary feeding. The findings shows that there is increase in level of knowledge of mothers of infants in post test after intervention. So there is

need to educate the people through public awareness programme to improve the health status of children and reduce the morbidity and mortality rate due to malnutrition.

Keywords: Structured Teaching Program, Mothers of infants, Complementary Feeding.

INTRODUCTION

World Health Organization (WHO)/United Nations Children's Fund (UNICEF) emphasizes that optimum nutrition is a must for children especially during the first 1000 days of life (270 days in-utero and 2 years after birth) as maximal growth and development occurs during this period and suboptimal nutrition during this period can cause significant growth and development retardation.[1]

Nutrition's importance as a foundation for healthy development is often underestimated. Poor nutrition leads to ill-health and ill-health contributes to further deterioration in nutritional status.[2]

A proper nutrition during the first two years of life is critical to reach the full potential of every human being. To the present day, this period is recognized as a critical window for promoting optimal growth, development, and good health.[3]

When breast milk is no longer enough to meet the nutritional needs of the infant, complementary foods should be added to the diet of the child. The transition from exclusive breastfeeding to family foods, referred to as complementary feeding, typically covers the period from 6 to 18-24 months of age, and is a very vulnerable period. It is the time when malnutrition starts in many infants, contributing significantly to the high prevalence of malnutrition in children under five years of age world-wide. WHO estimates that 2 out of 5 children are stunted in low-income countries.[4]

WHO recommends that infants start receiving complementary foods at 6 months of age in addition to breast milk, initially 2-3 times a day between 6-8 months, increasing to 3-4 times daily between 9-11 months and 12-24 months with additional nutritious snacks offered 1-2 times per day, as desired. [4]

Improved feeding of children under two years of age is particularly important because they experience rapid growth and development, are vulnerable to illness and there is evidence that feeding practices are poor in most developing countries. From 6-12 months,

breastfeeding , if implemented optimally , should continue to provide half or more of the child's nutritional needs, and from 12-24 months, at least one-third of their nutritional needs.[5]

Globally, more than 10 million children under the age of two die each year, 41% of these deaths occur in sub-Saharan Africa and other 34% in south Asia. A major cause of death is inadequate breastfeeding practice in combination with high levels of diseases. Worldwide, nearly one third of child deaths could be prevented by optimal complementary breastfeeding practice. Approximately 50% of all childhood mortality were related to malnutrition and the first two years represent a critical window of vulnerability.[6]

A study conducted in 400 mothers visiting a hospital in Dhaka, Bangladesh it was found that 51.3% mother initiated CF early, type of 1st CF was inappropriate in 72.9% mother and 43.8% had inappropriate frequency of CF . In another study, it was found that only 11.3% mothers washed hands and utensils properly before cooking CF where 76% only washed hands properly and another 5.6% only washed utensils properly indicating inadequate knowledge regarding hygiene for preparing CF in mothers.[5]

A study in South Asian country of Nepal, about half mothers fed CF of appropriate consistency where as 60% fed the correct amounts of CF to their infants, 33.27% used appropriate frequency to feed CF whereas 9.9% offered CF to infants more frequently that recommended. In a hospital based study from Sri Lanka, similar results were obtained with 48% mothers giving satisfactory CF, 17% mothers giving satisfactory frequency but unsatisfactory quality of CF, 9% mothers giving satisfactory quality but unsatisfactory frequency of CF and 26% giving unsatisfactory CF.[5]

Appropriate complementary feeding promotes growth and prevents stunting among children 6–24 months**.**The period of complementary feeding is when other foods or liquids are provided along with breastmilk. Rates of malnutrition usually peak at this time with consequences that persist throughout life.[9]There is lack of knowledge among mothers regarding introduction of complementary feeding or what food they have to introduce according to the age. This further leads to increase in number of cases of malnutrition or under-nutrition among children in our society, therefore mothers need to educate regarding complementary feeding is effective to enhance their knowledge. So this study aims to assess

the knowledge of mothers of infants regarding preparation of complementary feeding and to provide structured teaching program to enhance their knowledge.

OBJECTIVES

1. To assess Knowledge of mothers of infants regarding Preparation of Complementary Feeding in urban community area of Boileauganj at Shimla (H.P)
2. To develop and administer Structured Teaching Program regarding Preparation of Complementary Feeding in urban community area of Boileauganj at Shimla (H.P) .
3. To assess the effectiveness of Structured Teaching Program among mothers of infants regarding Preparation of Complementary Feeding in urban community area of Boileauganj at Shimla (H.P)
4. To find out association of level of Knowledge with selected demographic variables regarding Preparation of Complementary Feeding in urban community area of Boileauganj at Shimla (H.P).

METHODOLOGY

In this study pre-experimental research design was used to collect the data from the sample size of 60 mothers of infants. The study was conducted in the selected urban community area of Boileauganj, Shimla, Himachal Pradesh.

Convenience sampling technique was used to select the study sample and self structured knowledge questionnaire was used to collect the data from mothers of infants. The questionnaire comprised of two sections; section first had questions related to demographic variables (which includes baseline information such as age, occupation of head of family, qualification of mother, qualification of father, total monthly income of family, socio-economic class, type of family, number of children, previous knowledge and source of information related to complementary feeding).while section two consisted of questions about knowledge regarding preparation of complementary feeding classified under various areas like introduction, amount, consistency, preparation, storage, benefits and risk of late and early initiation of complementary feeding.

To ensure the content validity of the tool (structured questionnaire), it was submitted to ten experts. Reliability of the tool was computed by using Karl-pearson formula. The

reliability of structured knowledge questionnaire was found to be 0.86. Since the normal range is 0.6- 0.9 so the tool was found to be reliable.

Ethical approval was taken from the councillor of urban community to conduct the study. Written informed Consent was taken from the study sample regarding their willingness to participate in the research study and the purpose for carrying out research study was explained to the participants. Confidentiality of the information of the sample was maintained.

Data was analyzed by descriptive and inferential statistics i.e. frequency and percentage distribution, mean percentage, median, paired-t test and chi square to determine the association between knowledge with selected variables.

RESULT

Frequency and percentage distribution of adults according to their personal variables revealed that most 34 (56.7%) were between the age group of 25 and above. 30 (50%) of head of the family were unemployed. Majority of study subjects 20 (33.3%) were graduate. 27 (45.0%) of fathers were graduate. More than half of family 36 (60.0%) monthly income were between 6,327-18,949.Half of families 30 (50.0%) were from lower middle class. 31 (51.7%) were from joint family. More than half 35 (58.3%) of mothers having one children. 49 (81.7%) of study subjects had previous knowledge about complementary feeding. Most of 33 (55.0%) of study subjects had source of information from family members/friends.

TABLE 1
Findings Related to Pre-test Knowledge Score of Mothers of Infants Regarding Preparation of Complementary Feeding.

N=60

CRITERIA MEASURE OF PRE-TEST KNOWLEDGE SCORE	
Score Level (N= 60)	**PRE-TEST (f %)**
Poor.(0-10)	15(25%)
Average.(11-20)	45(75%)
Good.(21-30)	-
Maximum Score=30	**Minimum Score=0**

Table 1 depicts that in pre-test knowledge score of mothers of infants regarding preparation of complementary feeding, study subjects 15 (25%) had poor knowledge score, and majority of study subjects 45 (75%) had average knowledge score and no study subjects had good knowledge score.

TABLE 2

Findings Related to Post-test Knowledge Score of Mothers of Infants Regarding Preparation of Complementary Feeding.

N=60

CRITERIA MEASURE OF POSTTEST KNOWLEDGE SCORE	
Score Level (N= 60)	**POST-TEST (f %)**
Poor.(0-10)	-
Average.(11-20)	20(33.3%)
Good.(21-30)	40(66.7%)
Maximum Score=30	**Minimum Score=0**

Table 2 Shows that in post-test knowledge score of mothers of infants regarding preparation of complementary feeding, no study subjects had poor knowledge, 20 (33.3%) of study subjects had average knowledge score and majority 40 (66.7%) of study subjects had good knowledge score.

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TABLE 3

Findings on Effectiveness of Structured Teaching Program (STP) Regarding Preparation of Complementary Feeding.

N=60

Knowledge score	Mean±S.D	Mean%	Range	Mean Diff.	Paired t- Test	Table Value at 0.05	p value
Pre-test	12.5±2.574	41.70	7-20	9.600	39.566	2.001	<0.001*
Post-test	22.1±2.113	73.70	18-26		Sig		

Maximum score=30 **Minimum score=0**

***Significant at<0.05 level of significance**

Table 4.6depicts that the pre-test range was 7-20, mean 12.5 and standard deviation was 2.574,mean percentage was 41.70% and in the post test range 18-26, mean 22.1 and standard deviation was 2.113 and mean percentage was 73.70.

Above table shows that the mean post-test knowledge score (22.1) was higher than the mean pre-test knowledge score (12.5). The calculated't' value (39.566) was greater than the table value (t = 2.001) at 0.05 level of significance. Hypothesis H_1 was accepted hence it can be inferred that the Structured Teaching Programme was effective in increasing the knowledge of mothers of infants regarding preparation of complementary feeding.

Association of knowledge score of mothers of infants with selected demographic variables was computed by using inferential statistics i.e. Chi square which revealed that there is no significant association of knowledge score with selected demographic variable except one demographic variable i.e. Numbers of children in post test knowledge score.

CONCLUSION

Complementary foods as the gradually transition from a diet centered on breast milk or formula.Appropriate complementary feeding promotes growth and prevents stunting among children 6–24 months. Therefore people should be made aware about the complementary

feeding. 75% had Average knowledge score and 25% had poor knowledge score. In post-test after intervention (Structured teaching program) majority of study subjects 66.7% had good knowledge score, whereas 33.3% had average knowledge score. There was significant difference 32.0% present in pre-test and post-test knowledge of mothers of infants after providing structured teaching programme. These findings indicate that there was need to further increase the knowledge regarding preparation of complementary feeding that can be increased by ongoing educational programmes to mothers of infants.

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