Effectiveness of Structured Teaching Programme on Knowledge Regarding Weaning among Mothers of Infants

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ABSTRACT

Weaning is essential during transitional phase of child life for their adequate growth and development. WHO and UNICEF have recommended weaning after 6 months of exclusive breast feeding. It was found that Malnutrition in children is widely prevalent in India and about 5.7 million children are underweight and more than 50 percent of deaths in 0-4 years are associated with malnutrition. Effective weaning in the child requires proper knowledge and good technique skills in the mother. **Objectives**- To evaluate the effectiveness of Structured Teaching Programme on Knowledge regarding weaning among Mothers of Infants. **Methodology-** Quasi experimental one group pre-test post-test design was adopted to study conveniently selected 60 mothers of infants at selected rural area under Sarojininagar, Lucknow. **Result-** In pre-test majority of mothers of infants i.e., 75% had inadequate knowledge and 25% had moderate knowledge regarding Weaning. In post-test majority of mothers of infants i.e., 70% had adequate knowledge and 30% had moderate Knowledge. Pre intervention mean knowledge score of study population was 12.12±3.17 after Structured Teaching Programme it was increased to 23.72±3.33 (p<0.001). **Conclusion-** The study suggests that structured teaching programme regrading weaning can enhance the knowledge of mothers of infants significantly. Measures should be taken to teach mothers of infants to facilitate adequate growth and development of children.

KEYWORDS: Structured Teaching Programme, Weaning, Knowledge

INTRODUCTION

Weaning is essential during transitional phase of child life as it is important for their growth and development.[1] Weaning is derived from the Anglo-Saxon word which means, "To being accustomed to something different". WHO and UNICEF have recommended weaning after 6 months of exclusive breast feeding and the reason behind this is as by 6-8 months teeth eruption begin, digestive system become mature enough to digest starch, protein, fat in non-milk diet and they are able to hold food in their mouth.[2]

Some practice observed in Indian culture too as "annaprashana ceremony". This tradition is followed in many parts of India with different name and slight variation in rituals but the basic concept is same. In Bengal it is known as "Mukhe bhaat" and in the Garhwal Hills, it is called the "Bhaatkhulai Rasm" and malyali refers to it as Choroonu".[3] The term weaning and complementary feeding is used synonymously Every organization and different books has given their own definition of weaning. According to UNICEF, it is the systematic process of introduction of suitable food at the right time in addition to mother's milk in order to provide needed nutrients to the baby.[4] In Cambridge English dictionary it is stated as "Weaning is a process of causing a baby to stop feeding on its mother's milk and to start eating other food".[5]

The American academy of pediatrics and the World Health Organization recommend weaning after 6 months to introduce baby food. However, many baby food companies market their "Stage 1" foods to children between 4 and 6 months old with the precaution that the food is meant to be consumed in addition to breast milk or formula and is just for practice. These practice foods are generally soft and

runny examples include mashed fruit and mashed vegetables. The United Kingdom's NHS recommends withholding foods including those "that contain gluten, nuts, peanuts product, seeds, liver, egg, fish, shellfish, cow's milk and unpasteurized cheese", as they may cause food allergies and make the baby ill.[2]

NEED OF THE STUDY
Knowledge of food and practices is an important aspect of preventive and social paediatrics. Knowledge is a power it enables man to take rational decision to facilitate progress in life. It ensures success in improving the health status of people. Though we have adequate health facility, it becomes increasingly evident that existing health care facilities cannot be gained unless the people get knowledge regarding available health care facilities in specific fields. During the childhood the overall growth and the development of the children totally depends upon mother or primary care giver. If it is promoted, we can have a happy contented life with healthy future generation.

The greatest problems India confronting today is malnutrition. In the developing nation, malnourishment is a burden of considerable percentage of population. The youngest vulnerable being the group of the society, about two-third of the under five children in our country are malnourished. Among them 5-8% are severely malnourished. Malnutrition makes a child susceptible to infection and delays recovery thus increasing mortality and morbidity rate.[13]

According to WHO criteria, 22.7% of the infants were anaemic at 8 months and 18.1% at 12 months. More breast than formula fed infants were anaemic at 8 and 12 months. Cow's milk as the main drink was associated with increased anaemia at 12 months and low ferritin at 8 and 12 months.[14]

In Karnataka, the infant mortality rate is 58 per 1000 live births, as proportion ranged 70 per 1000 live births in rural areas and 25 per 1000 live births in urban areas. The major cause of Infant mortality rate is weaning which mainly starts from poor weaning.[15]

POPULATION AND SAMPLE
The population for the present study comprises mothers of infants.

➢ **Target Population**- In this study target population was the mothers of infants at selected rural area under Sarojininagar, Lucknow.

➢ **Accessible Population**- In this study accessible population was the mothers of infants at selected rural area under Sarojininagar, Lucknow, who met the inclusion criteria.

➢ The sample for the present study comprises mothers of infants at selected rural area under Sarojininagar, Lucknow.

Tools for Data Collection
1. Screening Sheet.
2. Subject data sheet.
3. Structured knowledge interview schedule (To assess the knowledge regarding weaning).

Description of tool
1. Screening Sheet
Based on the objectives of the study screening sheet was prepared to identify the subjects (mothers of Infants) for the inclusion/exclusion criteria. (Annexure- X)

2. Subject data sheet
To collect information about socio-demographic characteristics of subjects, Subject data sheet was constructed. Extensive review of literature, guide's and expert's opinion provided foundation for the construction of tool. In subject data sheet one structured interview schedule was prepared for mothers of infants having 7 items related to socio demographic data (Annexure- XII).

3. Structured knowledge interview schedule (To assess the knowledge regarding weaning)
Structured Knowledge interview questionnaire was used to assess the knowledge level of mothers of infants regarding weaning. The tool was developed by the researcher after doing extensive review of literature, guide's and expert's opinion.

Conceptual and Theoretical Framework
J.W. Kenny's open system model
J.W. Kenny's open system model is applicable to this study as well. The concept of J.W. Kenny's Open System Model are input, throughput, output and feedback. Input refers to matter and information that is continuously processed through system and released as output. After processing the input, the system returns the output to the environment in an altered state it may be effective or ineffective that affecting the environment for information to guide operations.

Open system and Environment-
Here mothers of infants act as a system and they are continuously interacting with the environment. It can be external environment or internal environment. Anything changes in the environment will be processed by the system and bring changes in the system.

Input-:
"Input" refers to any form of matter, energy and information that enters in the system. The socio-demographic variables will act as input.

Throughput-:

"Throughput" is the action needed to accomplish the desired task to achieve the desired output.

Preparation of content related to structured teaching programme and structured knowledge interview schedule regarding weaning. Content validity and reliability of tools. Conducting pre-test using structured interview schedule before administration of structured teaching programme. Conducting post-test using same structured knowledge interview schedule. Analysis and interpretation of data.

Output-:

"Output" is change in knowledge level of mothers of infants due to structured teaching programme regarding weaning and to recognize the changes in knowledge post test was conducted.

Feedback-:

According to J.W. Kenny's "feedback" are the environment responses to the system output.

RESULT AND DISCUSSION

SECTION A-Assessment of the Existing level of knowledge regarding Weaning among Mothers of Infants.

Table 1: Pre-existing level of knowledge regarding Weaning among Mothers of Infants.

(n=60)

S. No	Level of Knowledge	Frequency	Percentage
1.	Inadequate (<50%)	45	75%
2.	Moderate (50-73%)	15	25%
3.	Adequate (>73%)	00	00%

Table 5 reveals that in pre-test majority of mothers of infants i.e., 45(75%) had inadequate knowledge, 15(25%) had moderate knowledge and none of them had adequate knowledge regarding weaning.

SECTION B- Effectiveness of Structured Teaching Programme regarding Weaning among Mothers of Infants.

Table 2: Comparison of the pre-test and post-test knowledge scores of mothers of infants.

(n=60)

	Inadequate		Moderate		Adequate		Mean±SD	Mean Difference	"t" value	"p" value
	N	%	N	%	N	%				
Pre- test	45	75	15	25	0	0	12.12±3.17	11.60	19.628	*<0.001
Post- test	0	0	18	30	42	70	23.72±3.33			

reveals that in pre-test majority of Mothers of infants i.e., 45(75%) had inadequate knowledge, 15(25%) had moderate knowledge and no one had adequate knowledge regarding weaning and after giving structured teaching programme the knowledge level had been improved from inadequate and moderate knowledge to moderate 18(30%) and adequate 42(70%) knowledge. Pre intervention mean knowledge score of study population was 12.12±3.17 which was increased to 23.72±3.33 after post-test. The mean difference of knowledge score was 11.60. The calculated "t" value is 19.628 is more than the table value i.e., 3.232 was Statistically highly significant at (p<0.001) level which supports the **acceptance of the research hypothesis (H$_1$).**

Section C: Association Between the Pre-Test Knowledge Scores with their Selected Demographic Variables

Table 3: Association between selected demographic variables and pre-test knowledge scores of mothers of infants. (Age in years, Education status and Occupation).

(n=60)

Socio- Demographic Variables		Pre test				χ2 value	df	p-value
		Inadequate		Moderate				
		N	%	N	%			
AGE IN YEARS	18-21 years	8	17.80%	2	13.30%	6.987	3	0.072 NS
	22-25 years	26	57.80%	8	53.30%			
	26-29 years	4	8.90%	5	33.30%			
	30 years and above	7	15.60%	0	0.00%			

EDUCATION STATUS	No formal Education	8	17.80%	4	26.70%	2.555	3	0.466 NS
	Primary School	19	42.20%	4	26.70%			
	Secondary School	12	26.70%	3	20.00%			
	Graduation and above	6	13.30%	4	26.70%			
OCCUPATION	House wife	31	68.90%	11	73.30%	0.106	1	0.745 NS
	Self employed	14	31.10%	4	26.70%			
	Government employee	0	0.00%	0	0.00%			
	Private employee	0	0.00%	0	0.00%			

* NS indicates as non-significant

The data given in Table 7 shows that the Chi-square test was used to find out the association between pre-test knowledge scores with their selected socio demographic variables. Here, the p-value in each case was more than 0.05 level of significance. The findings shows that there was no association between pre-test knowledge scores with their specific demographic variables i.e., Age in years, Education status and Occupation.

Table 4: Association between selected demographic variables and pre-test knowledge scores of mothers of infants. (Family income per month, Type of family, no of children in family and Source of pre-existing knowledge)

(n=60)

Socio- Demographic Variables		Pre test				χ2 value	df	p-value
		Inadequate		Moderate				
		N	%	N	%			
FAMILY INCOME PER MONTH	≤ Rs.5000	23	51.10%	3	20.00%	7.166	3	0.067 NS
	Rs. 5001-Rs. 10,000	16	35.60%	6	40.00%			
	Rs. 10001- Rs. 15,000	5	11.10%	4	26.70%			
	Rs. 15,001 and above	1	2.20%	2	13.30%			
TYPE OF FAMILY	Nuclear	27	60.00%	5	33.30%	3.214	1	0.073 NS
	Joint	18	40.00%	10	66.70%			
	Extended	0	0.00%	0	0.00%			
	Others	0	0.00%	0	0.00%			
NO OF CHILDREN IN FAMILY	One	21	46.70%	11	73.30%	3.485	2	0.175 NS
	Two	16	35.60%	2	13.30%			
	Three	8	17.80%	2	13.30%			
	More than three	0	0.00%	0	0.00%			
SOURCE OF PRE- EXISTIG KNOWLEDGE	Mass media	0	0.00%	0	0.00%	0.091	1	0.764 NS
	Health Care Worker	26	57.8%	8	53.3%			
	Family, Friends and Relatives	19	42.20%	7	46.70%			

The data given in Table 8 shows that the Chi-square test was used to find out the association between pre-test knowledge scores with their selected socio demographic variables. Here, the p-value in each case was more than 0.05 level of significance. The findings shows that there was no association between pre-test knowledge scores with their specific demographic variables like i.e., Family income per month, no of children in family and Source of pre-existing knowledge.

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