

# A Study to Assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Weaning among Mothers of Infants in a Selected Area of Rewa City

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## Abstract

**Background:** Weaning is vital for the growth and development of infants and children. If a baby is to maintain the expected rate of growth and remain healthy and well nourished, supplementary feeding has to be resorted from the 6<sup>th</sup> month of age onward to meet nutritional requirements.

**Aim:** The present study was aimed to evaluate the effect of planned teaching program on the knowledge regarding weaning among mothers of infants.

**Subjects and Methods:** Total sample size consisted of 60 mothers and non-probability purposive sampling technique was used to select mothers from an area in Rewa city, Madhya Pradesh. Data were collected using a self-structured questionnaire. The data were tabulated and using descriptive and inferential statistics.

**Results:** Of 60 mothers in pre-test, 27 (45%) had poor, 33 (55%) had average, and no one (0%) had good knowledge score. Post-test results revealed that no one (0%) had poor knowledge, 42 (70%) scored average knowledge, and 18 (30%) achieved good knowledge. The improvement in the knowledge was statistically significant ( $P = 0.0002$ ).

**Conclusion:** The main outcome of the study was that most of the mothers of infant was having poor to average essential knowledge regarding weaning diets. The planned teaching program utilized in the study had been found to be an effective tool for significantly improving the mother's knowledge.

**Keywords:** Mothers knowledge, planned teaching program, weaning diet

## INTRODUCTION

Children constitute the foundation of a nation. Healthy children evolve to become healthy adult and effectively participate in the national development. While each newborn baby's perceived as an addition to a family, it also brings with it new responsibilities. The World Health Organization (WHO) theme of 2003 is – "Shape the future of life, healthy environment to children."<sup>[1]</sup>

The term weaning describes the time period in which a progressive reduction of breastfeeding or the feeding of infant formula takes place while the infant is gradually introduced to solid foods. It is a crucial time in an infant's life as not only does it involve with a great deal of rapid change for the child but it is also associated with the development of food preferences, eating behaviors, and body weight in childhood and also in adolescence and adulthood. Therefore, how a child is weaned may have an influence later, on the individual's entire life. Babies are traditionally first introduced to solid foods using spoon feeding, in most countries.<sup>[2]</sup>

Over the past century, tradition has been to introduce infants to solid foods using spoon feeding of specially prepared infant foods.<sup>[3]</sup> At present, the WHO guidance recommends that infants are initially offered smoothly blended foods,

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progressing in texture as the infant until by 12 months, infants should be eating family foods. Finger foods, for example, whole foods, are recommended from 8 months, but alongside purees, rather than as the main diet.<sup>[4]</sup>

However, over the past 10–15 years, an alternative approach known as “baby-led weaning” has grown in popularity. Here, instead of blending special foods, infants are allowed to self-feed family foods in their whole form. The emphasis is on allowing infants to choose what, and how much, they eat and for the infant to be part of family mealtimes.<sup>[5]</sup> Although in reality, this approach is likely what mothers did for millennia before the introduction of specially prepared foods, baby-led weaning represents an alternative to the modern, industry-driven infant feeding culture.<sup>[5]</sup>

In India, to prevent and control malnutrition, the process of weaning must involve education about how to hygienically prepare weaning foods, clean infant feeding utensils, and sterilize them in a pressure cooker. More and more women in towns and rural areas (construction workers) are in need of infant energy-, protein-, and micronutrient-rich foods that are properly packed and at reasonable prices.

Knowledge of foods and practices is an important aspect of preventive and social pediatrics. During the childhood, the overall growth and development of the children totally depend on mother or parents. If the mother is not aware of the nutritional status, nutritional needs of her child according to his requirements the child may lead to nutritional deficiency disorders. Previously, it has been reported that mothers' knowledge regarding weaning in Indian regions is low, which can be increased with the use of corrective measures. Hence, the study was aimed to evaluate if planned teaching program is effective in increasing the knowledge of mothers about weaning.

## SUBJECTS AND METHODS

Sixty mothers of infants were selected through non-probability purposive sampling technique from an area of Rewa city in Madhya Pradesh after they agreed to participate in the study.

A tool was developed through extensive review of books, journals, published, and unpublished articles and expert suggestions. The tool was divided into two parts: Part I containing demographic data to obtain socioeconomic characteristics of mothers of infants and Part II containing structured knowledge questionnaires (30 multiple choice questions) to assess the knowledge of mothers of infants on weaning. Each correct response carried 1 mark and incorrect response carried 0 marks. The score range from a minimum of 0 to a maximum of 30.

Prepared structured questionnaire along with blueprint and the planned teaching was validated by 15 experts.

### Data Collection

Formal permission from the authorities and informed consent from the mother were obtained. Pre-test was

conducted using structured questionnaires followed by implementation of planned teaching program. Post-test was done after 7 days.

### Data Analysis

Data were presented as frequency and percentages. Distribution of subjects between pre- and post-test and association with knowledge score was calculated using Chi-square test.  $P < 0.05$  was considered statistically significant.

## RESULTS

### Demographic Characteristics

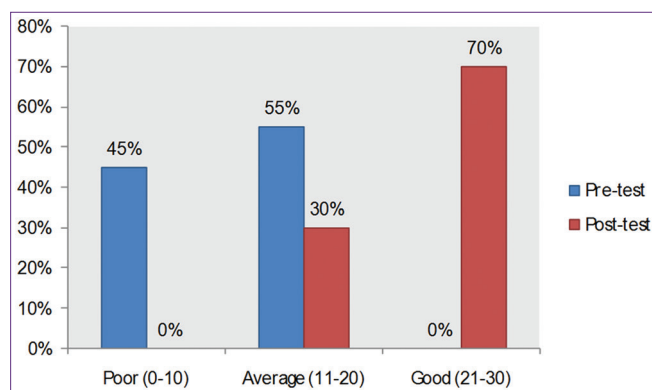
Demographic characteristics of the subjects have been shown in Table 1. We observed that majority of 36 (60%) subjects were in the age of 18–25 years, 18 (30%) were from 26 to 30 years, and 6 (10%) were from 31 to 35 years. In case of educational status, majority of 33 (55%) samples completed higher secondary education. Majority of mothers were housewives 40 (66%) and in case of monthly income, 33 (55%) mother's family monthly income was 5001–10,000/month. Majority of 36 (60%) mothers had two children and majority of 43 (72%) mothers were from joint family.

### Effectiveness of planned teaching program

We observed that none of the mothers before implementation of planned teaching program had good knowledge regarding weaning. After implementation of the program, 70% of the mothers have good score. We also observed that planned teaching program was significantly effective in improving the knowledge of mothers regarding weaning ( $P = 0.0002$ ) [Figure 1].

**Table 1:** Frequency and percentage distribution of demographic variables ( $n=60$ )

Characteristics	Frequency (%)
Age of mothers (years)	
18–25	36 (60)
26–30	18 (30)
31–35	6 (10)
Educational status of mothers	
Illiterate	0 (0)
Primary	4 (7)
High school	10 (16)
Higher secondary	33 (55)
Graduate	13 (22)
Occupation of mother	
Housewife	40 (66)
Business	1 (2)
Professional	17 (28)
Others	2 (4)
Family monthly income	
<2000/-	2 (4)
2000–5000/-	6 (10)
5001–10,000/-	33 (55)
>10,000/-	19 (31)
Family type	
Joint family	17 (28)
Nuclear family	43 (72)



**Figure 1:** Effectiveness of planned teaching program on improving the knowledge regarding weaning among mothers of under 2-year children. X-axis shows the percentage of mothers

### Association of risk factors

Our study observed that mothers' age, education, occupation, type of family, and income were significantly associated with knowledge of mothers of infants regarding weaning diet.

### DISCUSSION

Healthy children are full of energy and are active. The human milk alone, even in reasonable quantities, cannot provide all the energy and protein required for maintaining an adequate velocity of growth for the infant, after the age of 6 months. It is, therefore, necessary to introduce more concentrated energy-dense nutritional and iron supplements by this age. Adequate nutrition is essential to maintain optimum health of baby at the age of 6 months. Their growth and development are according to the expected norms and show no nutritional deficiency.

Nutritional deficiency and malnutrition are worldwide problems with the highest prevalence in developing countries. It is found especially among women of child-bearing age and during pregnancy, lactation due to improper weaning diet. Due to traditions and customs in society of rural areas, mothers are not giving weaning diet to infant properly.<sup>[6]</sup>

Our study observed that teaching program is effective to improve the knowledge of mothers regarding weaning. Ramchandra *et al.* observed that providing proper education may increase their knowledge level regarding weaning diet.<sup>[7]</sup> Out of 50 mothers of infant in their study, in pre-test 15 (30%) poor knowledge, 35 (70%) average knowledge, 0 (0%) good knowledge. Post-test showed 0% poor knowledge, 39 (78%) having average knowledge, and 11 (22%) having good knowledge. Kulkarni and Kulkarni also reported similar findings.<sup>[8]</sup> They concluded that planned teaching program on complementary feeding is scientific, logical, essential, and cost-effective strategy. We also observed that demographic variables were associated with knowledge of mothers which have been also reported previously.<sup>[8]</sup>

In general, mothers have very little knowledge about the nutritive value. It is the responsibility of health workers to provide appropriate information to the mothers in the community, hospital, and clinics, at various levels of child development. Parents should be made aware of their role in practicing healthy food habits. Demonstrations on the preparations of simple multipurpose food can create interest in the mothers.

### CONCLUSION

The high prevalence of nutritional illness in infants and malnutrition due to improper weaning will increase the mortality and morbidity rate. Hence, it is important to implement proper interventions to promote the proper weaning practices. The study found that still there are mothers who are unaware of the healthy weaning practices or techniques, which was improved on implementation of planned teaching program.

### RECOMMENDATION

- A similar study can be done on larger samples.
- A similar study can be done in rural settings.
- A comparative study can be done between urban and rural mothers of infants.

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