



## Knowledge and Attitude regarding Weaning among Mothers of Infants in selected areas of Gurugram, Haryana, India

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### ABSTRACT

**Introduction:** The weaning period is a crucial time in an infant's life since it not only involves 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, adolescence as well as in adulthood. Weaning too early may cause baby at higher risk of developing digestive disorders and adverse reactions or allergies to certain foods. On the other hand, weaning too late may deprive adequate nutrition and can result in improper growth and development. **Objectives:** To assess the knowledge & attitude regarding weaning among the mothers of infants. To find out the correlation between knowledge and attitude regarding weaning among the mothers of infants. **Setting and participants:** The study was conducted among 100 mothers who are having 6-24 months children who are attending Primary Health Centre of Gurugram, Haryana. **Methodology:** A structured knowledge questionnaire, socio-demographic variable and attitude scale on weaning was used to collect data from 100 mothers. **Results:** Most of the mothers had heard about weaning practice, 70% of mothers of infants having average knowledge whereas 15% were having adequate knowledge and 15% were inadequate knowledge regarding weaning. 54% of mothers of infants were having favourable attitude, 40% were having moderate attitude and 6% were having unfavourable attitude. The mean knowledge score was 19. The mean attitude score was 53.73. The standard deviation of knowledge of mothers of infants was 4.1008. The standard deviation of attitude of mothers of infants was 15.598. The significant association between the level of knowledge and attitude of the mothers of infants. The correlation coefficients between knowledge and attitude of mothers of infants was 0.12. **Conclusion:** The study has found that still there are mothers who are unaware about the healthy weaning practices or techniques. Hence it is important to provide parental education regarding weaning in order to reduce the mortality and morbidity rate and to promote the infant nutritional status.

Keywords: Knowledge; attitude; mothers; infants; weaning.

### 1. INTRODUCTION

In the first year of life, infants undergo periods of rapid growth when good nutrition is crucial. In fact, nutrition in the early years of life is a major determinant of healthy growth and development throughout childhood and of good health in adulthood. Weaning refers to a systematic process of introduction of suitable foods at the age of 4-5 months addition to mother's milk in order to provide needed nutrients to the infants. Weaning could be a traumatic experience for the infants because they have to give up the oral gratification derived from sucking. Weaning should be started at a suitable time. It's easier to get babies accustomed to new foods earlier than when they grow older. However, weaning should definitely start around 3-4 months. The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of age, and complementary breastfeeding at least until the second year of age.[1]

According to the WHO, the introduction of complementary foods should be safe, well-timed and adequate; it should start when exclusive breastfeeding can no longer provide enough nutrients and energy for the infant's growth and development, and it should contain foods that offer these nutrients and energy. The term "to wean" comes from an ancient phrase that means "to accustom to". So weaning refers to the period during which an infant gradually becomes accustomed to food other than milk. Weaning means addition or introduction of semi-solid foods along with continuation of

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breast feeding as long as possible. The term „Weaning“ describes the process by which baby moves or shifts from having breast milk to consuming semi-solid or solid foods with a gradual reduction in the intake of breast milk and /or baby formula.[2]

The weaning period is a crucial time in an infant's life since it not only involves a great deal of rapid change for the child, but it is also associated with the development of food preferences, eating behaviours and body weight in childhood, adolescence as well as in adulthood. Babies are traditionally first introduced to solid foods using spoon-feeding of specially prepared thin purées. Later, following the infant's age and developmental progress, the foods offered gradually shift towards family foods.[3]

Weaning is often advantageous in reducing early infant mortality death. Although timing of weaning varies across societies, but is always determined by the mother's characteristics, knowledge and perceptions about a child's health or cultural beliefs related to feeding. Additionally, mothers hold the overall responsibilities for the infant's health and mothers' knowledge can be the barrier for weaning practice. Appropriate weaning practice depends on accurate information and skilled support from the family, community and health care system. Inadequate knowledge about appropriate foods and weaning practices is often a greater factor of malnutrition during infancy and early childhood. There is no right age when a baby should be weaned. Weaning too early may cause baby at higher risk of developing digestive disorders and adverse reactions or allergies to certain foods. On the other hand, weaning too late may deprive adequate nutrition and can result in improper growth and development. Indicative signs for weaning are: Can sit in an upright position for feeding, Shows interest in other foods, Keeps putting things in the mouth, Shows signs of hunger before the usual feeding times, and Keeps chewing on things.[4]

When baby is 6 months old, start offering them a wide range of foods so that they get accustomed to eating different flavours. Introduce only one food at a time as it will be easier to detect any allergic to particular food item. Foods that are given gradually for a baby are: Boiled and mashed vegetables; use vegetables like potatoes, cauliflower, carrots, and beans, etc; Starchy foods which are rich in carbohydrates like rice, potatoes, cereals, and oats; Ripe and mashed fruits; e.g; banana, apple; Diluted fruit juice (1 part fruit juice to 10 parts of water); Dairy products like cheese and yogurt.[5] Foods to avoid: Never add salt to baby's food. Avoid processed foods which contain high amounts of salt, Avoid too much sugar until baby is 1 year old as it may cause teething problems, Avoid cow's milk as a drink altogether for 1 year as it does not meet an infant's nutritional needs, Avoid honey till 1 year as they may cause infant botulism in rare case, Nuts or seeds should be avoided as they may cause choking. If there is any family history of nut allergy, do not give nuts to baby till they are 3 years old. Tea and coffee should not be given to baby, Cold drinks or any diet drinks should be avoided as they are not meant for children, Avoid citrus fruits (e.g.; orange) until baby is 6 months old, as it may cause painful diaper rash, Foods containing Gluten like rye, barley, and wheat based foods should not be offered till baby is 6 months old as Gluten can cause Celiac disease. Tips for successful weaning: Always sit near to the baby while feeding so that baby does not choke, Never force feed baby, Make sure that the food is in right temperature; do not make it too hot, If baby refuses to eat a particular type of food, consider backing off and offer it later on, Offer baby a wide range of foods so that they get used to different flavours, Introduce only one food at a time as it will be easier to detect if baby is allergic to any particular food, Encourage baby to feed himself.[6]

## 2. NEED OF THE STUDY

World Health Organization (WHO) recommends early initiation of breastfeeding, followed by exclusive breastfeeding for the first 6 months and introducing complementary feeding timely and adequate in amount, frequency, consistency, and variety to address the nutritional needs of the growing infant at 6 months of age with continuing breast feeding up to 2 years. This gradual replacement of milk with solid food as the main source of nutrition is known as weaning or complementary feeding. It is the provision of any nutrient containing foods or liquids other than breast milk. Data from a national infant feeding in the United Kingdom indicates that a greater proportion of infants aged 4-6 months were fed ready-made baby food than homemade baby food (38% compared to 28%). In addition, almost half (45%) of mothers of 8-10 month-old infants use commercially prepared foods. Similarly, in the United States (US), it has been reported that 95% of infants between 4-12 months consume commercially produced infant foods.[7] In several parts of the developing world, complementary feeding continues as a challenge to good nutrition for infants. In India, for instance, 54.5% of infants between the ages of 6 and 8 months had received complementary foods. The challenges during complementary feeding is context specific, but many are common across settings. They are often characterized by poor feeding practices and poor dietary quality of homemade complementary foods. Infants in India thrive on breast milk alone up to six months of life and their growth rate during this period is satisfactory. Breast milk alone is not able to provide sufficient amounts of all the nutrients needed to maintain growth after the first six months. Increasing need of calories and protein of growing children cannot be met by the diminishing output of mother's milk. Milk is also a poor source of vitamin C and supplementation with fruit juice is essential. Iron stores in liver of the infant would last only up to 4-6 months. Hence iron-rich foods should be given at least from six months onwards. Milk is also deficient in vitamin D. If the baby is to maintain the expected rate of growth and remain healthy and well nourished, supplementary feeding has to be resorted to round about the 6th month of life.[8]

## 3. REVIEW OF LITERATURE

A study was conducted to review the literature regarding myths, beliefs and practices relating to breastfeeding and complementary feeding in infants. Feeding practices of infants and children have been the prime concern in all countries. Myths and fallacies have existed ever since societies began. Misconceptions about current breast feeding, weaning and other health-related matters are commonly heard in the cultures of developing countries. The

pattern of feeding during the first two years of life is increasingly recognised as important determinants of malnutrition. Breastfed children have at least six times greater chance of survival in the early months than non-breast children. The benefits of breastfeeding depend upon the initiation of breastfeeding, its duration and the age at which the child is weaned. Various myths regarding breastfeeding are like colostrum should not be given to children, mother should not breastfeed if suffering from an infection, infants need water also apart from breast milk, etc. The National Family Health Survey III data released in India in 2005-06 has revealed that only 23.4% new-borns in India are given breast milk within first hour of birth.[9]

A study was conducted to determine the association between mothers' knowledge, attitudes, and practices regarding complementary feeding and malnutrition in children in Afghanistan. Data analysed were collected from 306 mothers and children at 6 randomly selected hospitals in Kabul Province. The results of logistic regression models indicated that mothers' knowledge, attitudes, and practices regarding complementary feeding were statistically significant predictors of stunting in children,  $\chi^2(9, N = 306) = 45.33, p < .001$ ;  $\chi^2(9, N = 306) = 26.71, p < .01$ ; and  $\chi^2(9, N = 306) = 56.97, p < .001$  respectively. The strongest predictor was mothers' practicing responsive feeding, where mothers who did not practice responsive feeding were 7.1 times more likely to have stunted children than mothers who practiced responsive feeding. Moreover, the results indicated that mothers' knowledge, attitudes, and practices of complementary feeding were statistically significant predictors of underweight in children,  $\chi^2(9, N = 306) = 37.49, p < .001$ ;  $\chi^2(9, N = 306) = 41.15, p < .001$ ; and  $\chi^2(9, N = 306) = 44.64, p < .001$ . The implications for positive social change include reviewing nutrition policies, investing in nutrition programs, and operationalizing nutrition education and behaviour change interventions for promoting appropriate complementary infant feeding practices in Afghanistan.[10]

A study was conducted to evaluate the effect of instructions for mothers regarding weaning on their infants' complaints. One group pre-post-test quasi-experimental design was utilized to fit the aim of the study. The study was conducted in Preventive Medicine Centre at Cairo University Specialized Hospital. A convenient sample of 100 mothers and their infants. Results revealed that, two fifth of mothers had challenges regarding family pressure during the weaning period, the majority of mothers in the study had higher mean scores and satisfactory level of knowledge after weaning instructions. There were statistically significant positive correlation between the mothers' place of residence and mothers' occupation with a total mean score of mothers' knowledge. Infants of the mothers had less weaning problems. This study concludes that the instructions were effective in improving mother's knowledge and preventing the incidence of the child's weaning complaints. The study was recommended integration of the instructions about weaning in every paediatric health care setting as well as well-baby clinics.[11]

#### 4. STATEMENT OF PROBLEM

**“A study to assess the knowledge and attitude regarding weaning among the mothers of infants in selected areas of Gurugram.”**

##### 4.1 Objectives

1. To assess the knowledge regarding weaning among the mothers of infants.
2. To assess the attitude regarding weaning among the mothers of infants.
3. To find the relationship between knowledge and attitude regarding weaning among the mothers of infants.
4. To find the association between knowledge and attitude regarding weaning among mothers of infant with their selected demographic variations.

##### 4.2 Operational definition

• **Knowledge:** - In this study knowledge refers to the level of understanding of the mothers of infants regarding weaning, which is measured by structured interview schedule and its scores.

• **Attitude:** - In this study expressed feeling of mothers of infants regarding weaning which is measured by five point Likert's Scale and its scores.

• **Weaning:** -The method by which a child is taken off the breast and made accustomed to solid foods.

• **Mothers of Infants:** mothers who has only one child whose age is less than one year.

• **Self Instructional module:** Self determined learning modules of instruction. In this study it is a printed material consist of pictorial diagrams and information's regarding weaning which gives more knowledge to the mothers of infants regarding weaning.

##### 4.3 Research methodology

Research Approach: Quantitative approach is planning to use for the present study.

Source Of Data: In this study, mothers were selected with children 6-24 months of age based on convenience attending for immunization or ill health in Primary Health Centre, Gurugram, Haryana in the year 2021.

Research Design: Non- experimental descriptive design is planning to adapt in this study.

Setting: Study will be conducted in selected Primary Health Centre of Gurugram.

**Population:** The target population in the study are mothers of children of 6-24 months who are attending the Primary Health Centre of Gurugram, Haryana. Accessible population is mothers of children 6-24 months who are attending Primary Health Centre of Gurugram, Haryana.

**Sample:** The sample for this study are mothers of children of 6-24 months of age who are attending Primary Health Centre of Gurugram, Haryana.

**Sample Size:** 100mothers who are having 6-24 months of children in Gurugram, Haryana.

**Sampling Technique:** Non-probability convenient sampling is planning to use in this study.

**Inclusion Criteria:** Mothers with children of age between 6 to 24 months.

**Exclusion Criteria:** Mothers with children of aged less than 6 months and more than24 months.

**Development Of Tools:** The tool developed for this study are socio- demographic variable, structured knowledge questionnaire and attitude scale on weaning.

**Method of Data Collection:** Data will be collected using a structured knowledge questionnaire, socio-demographic variable and attitude on weaning. Permission will be obtained from concern authorities and data will be collected from the mother of children of 6-24 months of age in selected Primary Health Centre of Gurugram.

**Plan for Data Analysis:** Descriptive and inferential statistics will be used to analyze the data.

## 5. RESULTS AND ANALYSIS

**TABLE: - 1**

Frequency and percentage distribution of mothers of infants based on knowledge regarding weaning. N=100

Level of knowledge	Range of score	Frequency	Percentage
Inadequate knowledge	0-10	10	15%
Average knowledge	11-20	40	70%
Adequate knowledge	21-30	50	15%

Data shows that 15% of mothers of infants having adequate knowledge whereas 70% were having in average knowledge and 15% were having inadequate knowledge regarding weaning.

**Table -2**

Mean knowledge score of mothers of infants. N-100

Variable	Maximum possible score	Maximum obtain score	Minimum obtain score	Mean	Median	Standard deviation
Knowledge	30	30	5	19	15.5	4.1008

The above table shows that the mean score of the knowledge of mothers of infants on weaning is 19, median is 15.5 and standard deviation is 4. 1008.The minimum score is 5 and maximum score is 30.the maximum possible score is 30.

**TABLE -4**

FINDING RELATED TO ATTITUDE OF MOTHERS OF INFANTS REGARDING WEANING. N=100

Level of attitude	Range of score	Frequency	Percentage
Unfavourable	0-35	10	6%
Moderate favourable	36-52	30	40%
Favourable	53-70	60	54%

Data shows that majority of mothers of infants 54% had favourable attitude ,40% were having moderate favourable attitude and 6% had unfavourable attitude.

**Table-5**

Mean, median, SD of attitude of mothers of infants regarding weaning.

Variable	Maximum possible score	Maximum obtain score	Minimum obtain score	Mean	Median	Standard deviation
Attitude	70	70	0	53.73	56	15.598

The above table shows that the mean score of the Attitude of mothers of infants on weaning is 53.73, median is 56 and standard deviation is 15.598. The minimum score is 0 and maximum score is 70. The maximum possible score is 70.

**TABLE-6**

Finding the Correlation Between Knowledge and Attitude of Mothers of Infants Regarding Weaning. N-100

Variable	Mean	Median	SD	Correlation coefficients
Knowledge	19	15.5	4.1008	0.127622
Attitude	53.73	56	15.598	

The above table represents the coefficient of correlation between knowledge and attitude of mothers of infants is 0.127622.

## 6. DISCUSSION

This chapter deals with summary of finding with study and includes its major findings, conclusion, Discussion and recommendation for future studies. The present study was conducted as an attempt to assess knowledge and attitude of the mothers of infants regarding weaning in selected area of Gurugram Haryana.

### MAJOR FINDING

#### FINDINGS RELATED TO SOCIO-DEMOGRAPHIC VARIABLES.

1. Majority of mothers of infants belongs to age group 26-30 i.e 50%
2. 80% mothers are Hindu.
3. 50% are having senior secondary education.
4. 50% of mothers are housewife.
5. 50% having monthly income above 15000.
6. 60% belongs to nuclear family.

#### FINDINGS RELATED TO 1ST OBJECTIVE KNOWLEDGE OF MOTHERS OF INFANTS REGARDING WEANING.

1. 70% of mothers of infants having average knowledge.
2. 15% of mothers of infants having inadequate knowledge.
3. 15% of mothers of infants having adequate knowledge.

#### FINDINGS RELATED TO 2ND OBJECTIVE ATTITUDE OF MOTHERS OF INFANTS REGARDING WEANING.

1. 54% of mothers of infants having favourable attitude.
2. 40% of mothers of infants having moderate favourable attitude.
3. 6% of mothers of infants having unfavourable attitude.

#### FINDING RELATED TO 3RD OBJECTIVE CORRELATION BETWEEN KNOWLEDGE AND ATTITUDE OF MOTHERS OF INFANTS REGARDING WEANING.

There is less positive correlation between knowledge and attitude of mothers of infants.

## 7. NURSING IMPLICATION

**Nursing education:**-The present study emphasizes on the enhancement of the knowledge and attitude of mothers of infants regarding weaning. In order to achieve this nurse as an educator should develop various channels through which they can teach mothers regarding weaning process.

**Nursing practice:** - nursing personnels can provide a better health framework to mothers of infants by having appropriate knowledge regarding weaning. Nurses can arrange some education sessions for family members of the mothers so that the knowledge of mothers can be improved.

**Nursing administration:** -Nursing administrator should develop guidelines protocols and standard operating procedure for the mothers of infants. The present study shows effectiveness and knowledge enhancement of mothers of infants with reference to weaning. So the nurse administrator can take initiative to provide facilities to conduct such research in the hospital and community area.

**Nursing research:**-The essence of research is to build a body of knowledge in nursing. The findings of the present study serve as the basis for the nurse

researchers to conduct further researches and changes can be made according to different type of weaning foods.

## 8. CONCLUSION

The high prevalence of illness in infants and malnutrition due to improper weaning will increase the mortality and morbidity rate. So it is important that proper interventions should be made to promote the proper weaning practices. This study was mainly done to assess the knowledge of mothers of infants regarding weaning. The study has found that still there are mothers who are unaware about the healthy weaning practices or techniques. Hence it is important to provide parental education regarding weaning in order to reduce the mortality and morbidity rate and to promote the infant nutritional status.

## 9. RECOMMENDATION

- A replication of present study can be done with large sample.
- A comparative study can be conducted between rural and urban mothers' knowledge and attitude regarding weaning.
- Mothers' knowledge and attitude can be assessed after giving self-instructional module or structured teaching program.

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