CHAPTER 1

INTRODUCTION
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"Prosperity or poverty, strength or weakness, of our nation depends on the care with which children, the future citizen are brought-up."

Dr. Radhakrishnan.

Development of personality of an individual is governed by variety of factors particularly in the initial stage of growth and development. Successful feeding of human infant has been accomplished for large so many years. This helps to explain the survival of the human species which is so versatile in its capability to utilise food of many kinds. It is in this context weaning has assumed greater significance in the proper growth and development of infant.

About 400 B.C. Hypocrates said, "The physician must know and must bear great pains to know what man is in relation to food, drink and habits generally and the relation of these to each individual." Human beings eat what they can find in their environments, generally following patterns set by their ancestors. These patterns of feeding are enmeshed in the culture where the infant was born and where his parents have lived. The cultural setting of infant feeding practices have a direct effect on the health status of the growing child.
Adequate nutrition is a critical determination of growth and well-being during man's entire life span but especially during the infancy period. Nutrition has been established as one of the important factors affecting the health (Bedi, 1970).

The development potential of the society depends upon the level of the physical and mental state of its children for which early childhood lays the foundation. The infant mortality rate in India is very high and deaths during the period of weaning are 10 to 15 times higher than in industrialized countries. Better infant feeding practices can make an important contribution to the reduction of mortality rates and in protection against the perilous infantile malnutrition during the formative years of human life.

Malnutrition in many regions may not be due to energy and protein deficiency alone. It may be a cumulative effect of many factors such as deficient diets, infections, large families, poverty, ignorance etc. The situation becomes more grim when their deep-rooted indiscriminate food beliefs, customs, tradition, and attitude influence their food intake. These fads and fallacies may imperil their health and lead to poor growth. Removal of these factors is of great importance for improving the nutritional status of the children (Schgal and Kapoor 1989).
Nutritional status of infant and young children depends largely on the availability of the food and child feeding practices in that culture. Child feeding practices are greatly influenced by the tradition. Most of the studies conducted earlier revealed that the growth rate of infants born to mothers belonging to low income group, is similar to growth rate observed in infants of well nourished mothers because they practice breast feeding invariably. The growth rate is seen satisfactory up to the age of 4 to 6 months. But, thereafter infants belonging to poor mothers shows lower rate of growth because nutrients supplied by mothers milk are not adequate for satisfactory growth rate. Supplementary foods are essential during this transitional period (Abdul Aziz et al. 1987).

One of the study conducted by ICMR reveals that breast feeding is the best form of the infant's feeding for all segments of population in all countries. Breast milk provides appropriate nutrients and other factors in adequate quantities to ensure optimum growth in early infancy. Presence of the anti infective factors in breast milk and the fact that breast milk reaches the infant without any contamination, ensures minimum morbidity, and it is also one of the most important fertility regulating measures especially among poorer segment of population in developing countries (Anon. 1977).
However, breast milk alone is inadequate to meet the nutrients need of growing infant after early infancy. Weaning food should be gradually introduced to the infants, so that a slow and smooth transition from breast milk to diet consisting essentially of adult foods can be achieved (Anon, 1988).

Weaning is the process by which a baby slowly gets used to eating of family or adult foods and rely less and less on breast milk. The process varies from culture to culture and is often regulated by the child individual needs. Healthy babies of weaning age grow and develop very fast, so great care has to be taken to see that they get enough of the right kind of food.

Weaning begins from the moment the supplementary food is started till the child is taken completely off the breast. Thus weaning is the complete process of accustoming the baby to varieties of food so that food habits are developed.

Weaning period can be dangerous time for babies. In many places babies of weaning age, do not grow well. They often fell ill and get more infected, especially with diarrhea than at any other time. Babies who are malnourished may get weak during the weaning period (Anon, 1988).

In different countries, there are variety of
successful weaning practices. This empirical observation leads immediately to the conclusion that there are range of practices - qualitative, quantitative and temporal- within which infants can thrive. The changing nutritional requirements of the growing and developing infant must be matched to the maturation of functions and capacities of the gastrointestinal tract (GI) adaptation (Schmitz and McNeish 1987).

Physical properties of weaning foods differ from those of milk. The time of its introduction into the diet will therefore depend on the development of new function such as chewing and the ability to swallow larger morsels. When the infant fails to receive solid at this stage of development these function may be difficult to acquire later on.

Jelliffe (1966) suggests that in all segments of population, solely breast fed infants as well as those who receives supplements up to 6 months of age grows well. It would therefore appear that breast milk alone may be sufficient to support growth of infants up to 6 months of age. For the babies of weaning age, it is best to use foods that are good for the baby, easily available to the family and not too expensive.

Specially ready mixed "Baby foods" from stores and pharmacies may be easy to prepare but they may be more costly and
less nourishing than foods prepared at home. Also if a mother cannot really afford these foods, she may try to make them last longer by giving too little food, or too few foods, to meet the baby's needs (Anon, 1988).

According to Ramachandran (1987), in India very few low income urban or rural women are able to prepare special foods daily. Available information also suggests that when these weaning foods are prepared and kept for a few hours at home, where environmental sanitation is poor, they become heavily contaminated with bacteria and might cause diarrhea if fed to infants.

It would therefore, appear that giving freshly cooked, mashed, unseasoned rice or wheat and pulses twice a day might be the most feasible method of introducing supplements to breast fed infants under the existing conditions in poor segments of population in India.

Apte (1987) stated that rapid demographic transition has been occurring in a number of low income countries. There has been a major shift of the rural poor towards the cities. There is agreement among the contributors that diets are more diversified in urban areas and that the purchasing power of the urban areas in particular of the urban poor needs to be increased in order to improve their nutrition.
The weaning practices carried out in rural and urban areas are different. Mothers' milk has been the main food of the infant up to one year of age in rural and urban areas. Supplementary milk is fed more by the women in urban areas than in rural areas. Adoption of weaning practices is prominent in the urban areas in comparison to rural areas.

Mostly the women in rural areas are not aware of the ready-made mixes but the women in urban areas have the full knowledge of the ready-made mixes.

There are number of factors associated with urban residents that have positive and negative nutritional consequences for the low income population. Factors with positive effects include diversity in available food, greater mobility, better opportunities for employment and education and lower expenditure of food energy. Factors with a negative impact includes a cash economy in which most foods have to be purchased, crowding, less extended family interaction, and a higher probability of social maledatment.

There is an agreement among the contributors that diets are more diversified in urban areas. Protein energy deficiency is less prevalent in urban than in rural areas, while the tendency to improve the quality of diet at the expense of
quantity makes the urban population more susceptible to undernutrition. The pattern of weaning is different in low socio-economic groups in rural areas and among the most of the low-income mother in urban localities, the child is introduced to adult foods between ages of 12 to 24 months, in order to reduce the number of breast feeding.

While comparing, Whitehead (1989) noted that weaning in developing countries has entirely different implications from those in the industrialised world since the conditions under which it is usually introduced are favourable and dangerous for the infants health. These dangers are closely linked to socio-economic conditions of poor urban and rural population.

In developing countries one could easily differentiate between the urban and rural population by the habits for introducing weaning foods into baby’s diet. Mothers in rural areas and less educated ones in urban areas depend very much on breast feeding as long as possible, sometimes as long as two years. Breast feeding by mothers is a cheap way of feeding infants, and mothers use it as a contraceptive measure. With more educated mothers in urban areas there is hurry to offer their babies mild formula, partly to be fashionable and partly because they are worried that their babies do not receive breast milk.
Weaning is the process in which an infant’s diet pattern is gradually changed from liquid food like breast milk and substitute milk preparation to cooked solid foods. Weaning should start however, from the 4th month because breast milk alone can not sustain the growth of the infants after this age. Infants at this age would be able to digest starchy food and soft cooked food stuff like cereal, grains and pulses that can be introduced into the infants diet to meet the increased demands for nutrients by the infants. Process of weaning also helps the child in getting introduced to different task and can be brought in line with dietary habits and taste pattern of the community.

One way to improve and ensure the well being of children is to improve mother’s knowledge and adoption of weaning practices in scientific manner along with nutrition and health and to modify their practices. In India there are many programmes that provide health and nutrition education but how far and to what extent information about these aspects have reached and to what extent ultimate users—mothers have adopted is a matter of concern and curiosity. With this particular objective in view and after careful consideration, present study was undertaken to understand knowledge about recommended weaning practices and their subsequent adoption by the mothers from rural and urban areas. Specific objectives of the study, however, are as under:
Objectives:

1. To study personal, social, economic and situational characteristics of the mother respondents under the study.

2. To quantify level of knowledge on the part of mother respondents about various aspects of weaning.

3. To study the extent of adoption of recommended weaning practices by the mother respondents.

4. To test the difference between the knowledge and adoption of weaning practices score of rural and urban mothers.

5. To enlist the constraints encountered by the mother respondents in the adoption of recommended weaning practices.

6. To invite suggestions from the respondents for effective adoption of weaning practices by them.

7. To establish relationship between knowledge and adoption of recommended weaning practices and selected characteristics of the respondents.

8. To highlight some of the selected relevant aspects of weaning practices.

9. To assess the nutritional status and health status of the infants under study.
10. To establish relationship if any between nutritional status and selected variables of infants and mother respondents.

Scope:

Scope of the present study is confined to six hundred mothers and their respective children selected from 10 villages located in two blocks of Akola district in Vidarbha region. Naturally, therefore, findings emerged out of the present investigation would be applicable to similar kind of situations prevailing in the study area.

Major focus in the present study was limited to two important attributes namely knowledge and adoption leaving aside other attributes such as skill and attitude. The knowledge and adoption attributes were selected on the strength of their importance and utility.

Generally adoption of recommended weaning practices are applicable to the infants of four months to three years, however, in the present study scope of the span was upto four to eighteen months only.

Weaning is an important component in the area of nutrition and encompasses varied range of aspects, however,
conduct of study was restricted to selected aspects.

Limitations:

Submission of this thesis is a complete requirement for the award of degree of Doctor of Philosophy and although time was not a limiting factor, yet there are other limitations. Some of the important limitations are listed below.

1. Author being a female, naturally had her own limitations for establishing rapport with even mother respondents for seeking requisite information.

2. Author had scarce resources placed at her disposal for reaching remote villages for collection of data.

3. Adoption of recommended weaning practices in its totality should have considered different attributes such as attitude, skill and behaviour besides knowledge and adoption. In the present study, however, attributes of adoption such as skill, attitude and behaviour could not be considered. This therefore, should be considered as limitation of the study.

4. Although planning and conduct of an enquiry at hand in general, selection of an attributes, dimensions therein under and coining of statements was based on common
logic, understanding and rationality.

5. Logically more or less an equal number of items under each dimension although not as a rule but for the sake of convenience in providing an equal opportunity to each and every dimensions to represent its own contribution is expected. This naturally was not possible because of the nature of the dimension. This may therefore, be considered as a limitation of the study.

6. It was expected to critically examine the different attributes of weaning as an innovation as perceived by the respondents however this also could not be done. And therefore it could be said that study suffers from this limitation.

7. The term Nutritional status in its totality encompasses three important methods to work out namely Anthropometry, clinical observation and diet survey including adequacy of food in terms of quality and quantity. In the present study however, in order to workout nutritional status of infants, author resorted to an Anthropometry, diet survey and types of foods given, ignoring other methods. This may therefore, be considered limitation of the study.
Organisation of the Thesis:

Entire script of the thesis has broadly been divided into six major chapters. Their organisation and content has been briefly discussed below.

Opening chapter is, "Introduction" which introduces the readers about the topic, its importance, need, utility and scope, besides limitations and objectives formulated for the study.

Introduction chapter has been followed by the second chapter in order of its sequence by "Review of Literature". For the sake of convenience it has been divided into different sections within the purview of the study. In this chapter an attempt has been made to present the trend of findings emerged out of the study carried out by the researchers in the past.

The third chapter is "Methodology" and has to do a lot in determining the quality of the study. Investigator employed and describes in great detail the method and procedure followed by the author in conducting the study, and has been divided broadly in two parts. Part 'A' deals with description about the preliminaries of the study and part 'B' is entirely devoted to describe construction and standardisation of scales for measuring
knowledge and adoption of weaning practices among rural and urban women besides nutritional and health status of infants under study.

The methodology chapter has been followed by "Results and Discussion" one of the most important and useful chapter in the thesis. In this chapter results emerged out of the investigation have been categorically and suitably presented. Findings obtained have been appropriately discussed for their appropriateness or otherwise as the case may be. Results for their identity or contradiction have been supported by the findings of the earlier researchers to provide strength for their acceptance. Corroborative evidences wherever necessary and available have been presented. In order to enhance the readability, data have been transformed into suitable graphs.

"Summary and Conclusions" chapter has been placed thereafter which summarises the entire account of the study carried out in general and findings emerged out of the investigation in particular briefly, based on the findings emerged, broad conclusions have been drawn.

"Implications" of the study is the last chapter very much in demand and has been divided into two sections firstly research implications and secondly action implications. Suitable suggestions have been offered for researchers and policy makers
as well and for those who are concerned with implementation part for their consideration.

At the end of the thesis, studies located investigations referred and references identified have been presented under the caption "Bibliography" alphabetically.

Details about the sample, methodological details made use of in the thesis and schedule used for collection of data have been presented under "Appendices".

Script ended with presentation of 'Vita' which includes the native, educational and professional background of the author.