CHAPTER I

INTRODUCTION

"Mother's milk, time tested for millions of years, is the best nutrient for babies because it is nature's perfect food". ~ Robert S. Mendelsohn

BACKGROUND OF THE STUDY

Good nutrition forms the basis for good health of a child. Nutrition is required for a child to grow, develop, stay active, and to reach adulthood as well,**Roy Sima;(2009).**

Complementary feeding has been defined as the period during which foods or liquids are provided along with continued breastfeeding and hence it is the term used to describe any nutrient-containing foods or liquids other than breast milk that are given to young children during the dietary transitional period marked by the period of complementary feeding,**Allen and Gillespie;(2001**).

The term 'complementary' is important - these first foods complement breast milk, not replace it. Continued breastfeeding for up to two years or beyond provides an essential source of energy and nutrients in child's diet. From six months of age, a baby needs breast milk and solid foods to promote health, support growth and enhance development. This is called complementary feeding. Complement means they go well together, each have a role to play,**Subha S;(2015)**

According to World Vision, the nutritional needs of an infant from age six months onwards can no longer be met with breast milk alone. To ensure adequate energy and nutrients an infant's diet must be gradually expandedto include complementary 'family foods'. After about two years of age, breast milk is replaced entirely by family foods. The nutrients in recommended complementary foods complement those in breast milk, hence the name,**(World Vision).**

It is commonly argued that delayed introduction of additional foods in an exclusively breastfed infant results in malnutrition. Semi-solid foods to complement breast milk should be introduced after 6 months of age. Breast milk still continues to remain an important component of infant's diet. Optimal feeding means exclusive breastfeeding from birth to six months followed by the introduction of complementary foods drawn from the local diet. In the second year, more and more family foods are given, yet breastfeeding continues, **Parathasarathy A;(2009).**

Complementary feeding should be timely, meaning that all infants should start receiving foods in addition to breast milk from 6 months onwards. It should be adequate, meaning that the nutritional value of complementary foods should parallel at least that of breast milk. Foods should be prepared and given in a safe manner, meaning that measures are taken to minimize the risk of contamination with pathogens. And they should be given in a way that is appropriate, meaning that foods are of appropriate texture and given in sufficient quantity.Feeding young infants requires active care and stimulation, where the caregiver is responsive to the child clues for hunger and also encourages the child to eat. This is also referred to as active or feeding,**WHO; (2001).**

Beginning at 'about six months', breastfeeding should be complemented with appropriate solid foods. Complementation and replacement of breastfeeding are two separate components of introducing complementary foods. It is important to avoid replacement of breast milk. The additional feed should not be so much that the breast milk production is reduced,**Greiner; (1995).**

Children under the age of 5 years are considered biologically vulnerable and needs special attention from the health workers. Almost one half of the total deaths in our country occur in this age group. Although the iron content of the breast milk is low, few exclusively breast fed infants become anaemic in the first 6 months of life. The high bioavailability of iron in breast milk and infant iron reserves help to meet the needs of these young babies. So start a source of iron supplement (1 mg/kg/day) or iron fortified infant cereal or meat at age 4 months. Recently, the World Health

Assembly and the American Academy of Pediatrics recommended that complementary foods or iron enriched solids must be given from the age of about 6 months,**Y. Yamashiro MD; (2000).**

Academic rationale of the study:

Children of today are citizens of tomorrow. Unless the nutritional needs of the children are adequately met, we cannot ensure healthy citizens of future.

The death rate is higher in the age group of 0-4 years. This is due to malnutrition and infection. About 21 % of total deaths are estimated to be in the age group of 0-1 year. On the basis of unit body weight, the infant as well as young children needs greater amount of nursing food than adults.

The Global Consultation on Complementary Feeding reported and recommended by WHO 2001 on appropriate feeding practices and guidance for infants and that they should 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 at 12-24 months with additional nutritious snacks offered 1-2 times per day as desired,**WHO;(2001).**

According to the Fifth Report on the World Nutrition Situation, in Indiaapproximately 60 million children are underweight. In 1998-99, 47% of children under 3 years were underweight or severely underweight, and 26% were mildly underweight. So, in total, underweight afflicted almost three quarters of Indian children. These prevalence figures are amongst the highest in the world. Failure to exclusively breastfeed children during the first 6 months of life along with delayed introduction of semi-solid foods is an important trigger of malnutrition in children. According to the source of the State of the World Children, 2008, of the 19 million infants in the developing world who have low birth weight (< 2,500 grams), 8.3 million are in India. This means that approximately 43% of all the world's infants who are born with a low birth weight are born in India. Malnutrition is an underlying cause

in up to 50% of all under-five deaths.About 55 million, or one-third, of the world's underweight children under age five live in India,**ACC/SCN;(2004).**

Aggarwal A, *et al.*; (2008) conducted a study on complementary feeding-reasons for inappropriateness in timing, quantity and consistency. The study result shows that among the 200 children studied, 32(16%) were not started on complementary feeding (CF) at all, and only 35 (17.5%) received CF from 6 months. Of the 168 who were started CF, mean age of starting feeds was 13.37 months. Knowledge regarding appropriate timing and consistency varied significantly with maternal education and paternal education (Chi-square $P< 0.05$). The study concluded that complementary feeding practices were inappropriate and knowledge inadequate in majority of the children studies.

UNICEF experts highlighted on nutrition and health status of children and women in North-East is far from satisfactory. For instance, anaemia levels in women are quite high and the infant mortality rates in many of the North Eastern states are rather high,**Government of Meghalaya and UNICEF;(2005).**

Thus, according to the studies it reveals that in India, due to delay introduction of complementary feeding to infants by mothers, it leads to malnutrition and growth retardation in children. Hence the investigator felt the need to assess the knowledge and attitude of mothers regarding complementary feeding. The problem of malnutrition can be solved to a large extent by educating the mothers on complementary foods and how to effectively utilize inexpensive locally available food which they can afford.

Statement of the problem:

Modules Focusing on Complementary Feeding: Effects on Knowledge and Attitude among Mothers in selected Village ofKohima district in Nagaland.

Objectives of the Study:

The following are the objectives of the present study:

1. To determine the mean pre-test knowledge, attitude and practice among mothers regarding complementary feeding.
2. To assess the effectiveness of Structured Teaching Programme between the mean pre-test and mean post-test among the mothers regarding complementary feeding.
3. To find the association of knowledge level among the mothers with the selected demographic variables i.e. age, education, occupation, number of children, family income and source of information.

Basic and initial Assumptions:

The assumptions underlying the study were:

1. The mothers will cooperate and willingly participate in the study.
2. The mothers may have inadequate knowledge and attitude on complementary feeding.
3. The selected demographic variables have an influence on mothers' knowledge and attitude related to complementary feeding.

Conceptual Framework:

The present study is focused to find out the knowledge and attitude of mothers regarding complementary feeding. The framework of the study is based on Calista Roy's Adaptation Model.

In Roy's adaptation Model (1980), human are bio-psychosocial adaptive systems who cope with environmental change through the process of adaptation within the human system. There are four subsystem- Physiological needs, self concept, role function and interdependence. These subsystems constitute adaptive modes that provide mechanisms for coping with environmental stimuli and change. A system is characterized by input, throughput, output and feedback process**George B Julia; (1990); Ruby L Wesky; (1994).**

The investigator provided Structured Teaching Modules to assess the knowledge and attitude of mothers regarding complementary feeding.

INPUT: The input process is identifying the mother's age, education, marital status, family income, type of family and number of children.

THROUGHPUT: In the throughput process, the investigator organizes the process of assessing the knowledge and attitude of mother regarding complementary feeding.

EFFECTORS: The investigator assesses the output of the intervention. Here, the output implies the response of mother after the intervention of the teaching modules.

OUTPUT: Output is the outcome of the intervention. Output is categorized as adaptive responses or ineffective responses. These responses or output provide feedback for the system.

FEEDBACK: Feedback emphasizes the effectiveness or ineffectiveness of the teaching modules.

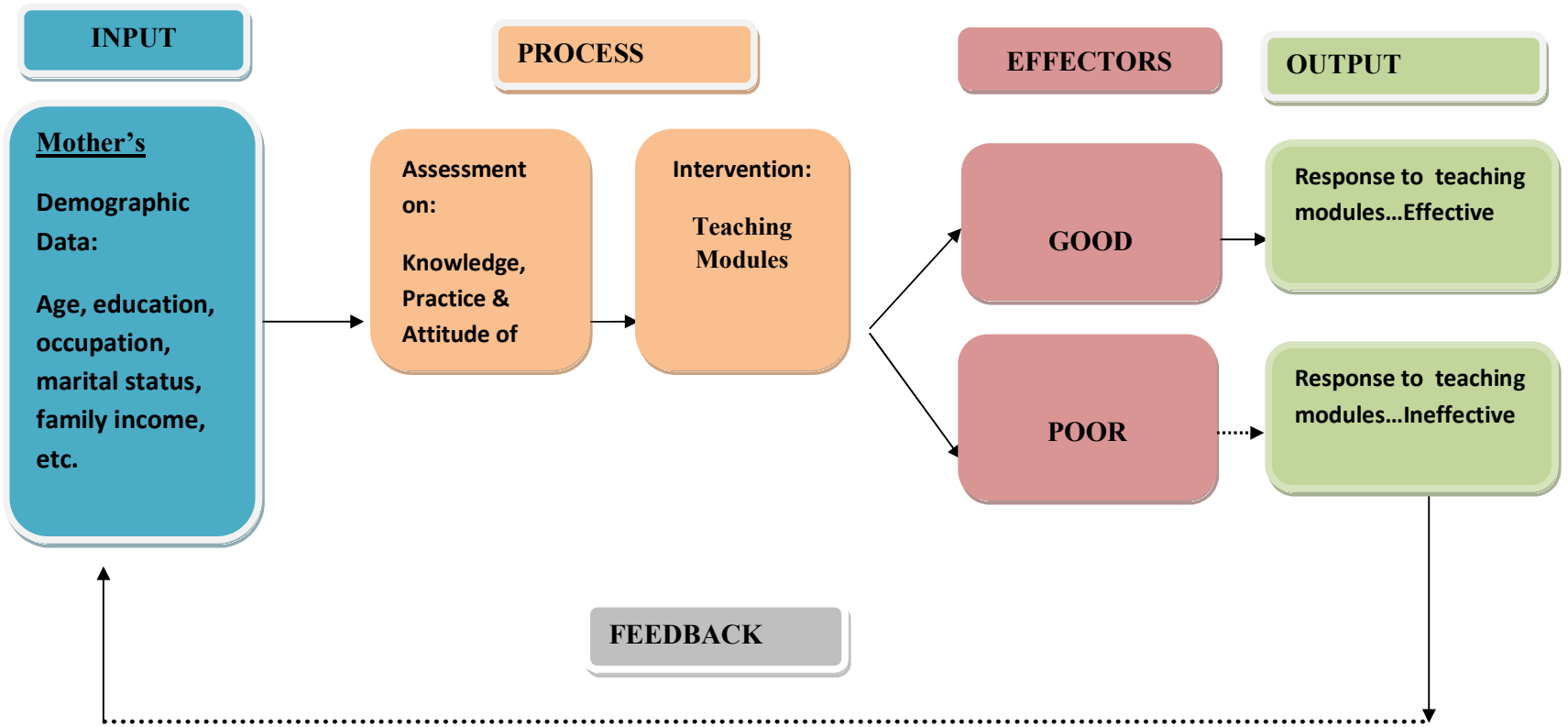

FIG 1: THE ROY'S ADAPTATION MODEL, (1980)

Operational Definition of Terms:

Complementary feeding:

It means giving other foods in addition to breast milk. Complementary foods are necessary because breast milk alone is not sufficient after the infant completes 6 months of age.

Knowledge:

Oxford English Dictionary says: Knowledge means information and awareness gained through experience or education.In this study, knowledge refers to mothers understanding ability and correct response to 10 questions on knowledge regarding complementary feeding.

Attitude:

Attitude is an expression of opinions, values and feelings regarding some matter.

In this study, attitude of mothers are assessed by correct response to 20 questions on complementary feeding.

Practice:

Complementary feeding itself is a practice.

In this study, the feeding practices of mothers' are assessed by correct response to 15 questions on complementary feeding practices.

Instructional modules:

According to Social Science Dictionaries an instructional module isa self contained instructional unit that includes one or more learning objectives, appropriate learning material and methods and associated criterion-reference measures.

In this study, the instructional module comprised of teaching materials like posters, charts and flip cards for teaching the mothers regarding complementary feeding.

Mother:

A female or woman having a baby is known as a mother.

This study comprise of a mother having 6 - 24 months old baby.

Baby:

A very young child or an infant of either sex is called a baby.

In this study baby comprises of 6 months - 24 months of age.

Hypotheses:

1. H_1: The mean post-test knowledge, attitude and practice scores among mothers regarding complementary feeding will be significantly higher than the mean pre-test knowledge, attitude and practice scores.

   $H_{O1:}$The mean post-test knowledge, attitude and practice among mothers regarding complementary feedings will be significantly lower than the mean pre-test knowledge, attitude and practice scores.
2. H_2: There will be significant association between the knowledge levels of mothers' regarding complementary feeding with the selected socio-demographic variables.

   H_{O2}: There will be no significant association between the knowledge level of mothers regarding complementary feeding with the selected socio demographic variables.

Summary:

This chapter dealt with the background of the study, statement of the problem, academic rationale of the study, objectives of the study, conceptual framework, operational definitions, assumptions and hypotheses.