Creating Awareness Among Mothers of Anganwadi Children on Health Practices

BY

Sivajyothi Kondraju

A THESIS SUBMITTED TO THE AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN (DEEMED UNIVERSITY) COIMBATORE - 641 043

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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Certified as Bonafide research work

Signature of the Head of the Department	Signature of the Dean of Faculty	Signature of the Guide
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Contents

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

LIST OF APPENDICES

APPENDIX

Introduction

I INTRODUCTION

Health is an essential input to Human resource development culminating in behavioural transformation that influences the quality of life and status of child (Gupta, 1994). Health is precious asset for everyone, the greatest of all possessions, and a priceless treasure. It encompases all aspects of life, fit together in a way that is comfortable, so that one enjoys a vibrant life (Subramanian, 1990). As defined by the World Health Organization (1991) health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity.

India's populatioin is generally termed as "young". According to 1991 census India's child population comprises about 14 per cent of all the children in the world (Mahenti, 1993). Nearly 40 per cent of the population in India are children, with 16 per cent below six 6 years of age (United Nations Children Fund, 1992).

In the view of Trivedi (1992), every child has the undeniable right to the best possible conditio n for its healthy growth and development. While addressing in one of the Women's Conferences, Devadas (1994) also stresses that every single child in the world has a right to adequate education, nutrition, health care and

social services. They are undoubtedly the most important national assets and they are the potential human resource.

Healthy children are the most important possessions a community can enjoy. It is a matter of serious concern that infant mortality rate stood at as high as 80 per 1000 live births in India (1994) and a large number of children either suffer from illnesses or die due to inadequate care (Surikanthi, 1991). Morbidity rate of children is a crucial indicator in determining the quality of life of children and is linked with their health status. The morbidity profile reveals that about 17.2 per cent of all deaths and about 20.8 per cent of all illnesses are due to communicable diseases. The major problems continue to be malaria, diarrhoeal diseases and malnutrition (Park, 1994). These problems have adversely affected the quality of life of our children and thereby national development, despite the Government's determined policy and good efforts to seek solutions (Ram, 1994 ; Park, 1994 ; India, 1994).

Mothers have the highest responsibility in bringing up their children and motivating them. They are the backbone of the family (Mahler, 1989). But due to ignorance, illiteracy and lack of knowledge, women are still, underachievers as caretakers of the health of our children (Bhutto, 1994 ; Gupta, 1994).

In the present scenario, education is a crucial factor. Educational programme encourages the women to be aware of the facts regarding health and nutrition (Huissan, 1994). A large number of programmes in the field of health, food and nutrition education were launched by the Government for the welfare of children (Tandon, 1990).

At this juncture, the Anganwadi is one of the focal points for delivery of the package of services to children and mothers right at their door step. Anganwadies are the part of Integrated Child Development Service projects. The Anganwadi caters to the needs of children under six years of age. But mothers of Anganwadi children were unaware of services given by the Government.

An integrated and holistic approach to the mothers of these children, is essential for the creation of a new environment in which they can be valued and nurtured, and stressed for a well planned, need-based,health and nutrition education strategy which will help to remove the sufferings inflicted on these sects of population (Devadas, 1992).

It is high time that mothers are educated on health related messages through Anganwadies to improve the health profile of young children. With this

backdrop, the investigator framed the following objectives to

1. study the existing knowledge of mothers of Anganwadi children regarding Anganwadi services.
2. educate mothers of Anganwadi children about health practices
3. study the effect of the educational programmes to mothers.

Review of Literature

II REVIEW OF LITERATURE

The literature pertaining to this study has been reviewed under the following headings:

A. Health Status of Children below Six Years

B. Significance of Health Practices for Young Children

C. Influence of Health Education on Mothers

D. Role of Anganwadis in Educating its Mothers

A. Health Status of Children Below Six Years:

Our children represent the richest resource of the country. They are the nation in making investment towards improving their standards of health, is essentially a necessary investment for the future of a nation (Mani, 1989).

"Dharmartha Kama Moksham Aryogyam Moolam Uttamam" which means for artisitc, ethical, economical and spiritual development of women, the pre-requisite in arogya or health (Gandhi, 1984).

Young children are more vulnerable to disease and injury their health with many threats (Kalyaperumal, 1988). In our country, the health status of children is adversely affected by several factors like environment, malnutrition, and lack of health services. Hence improvement in their living and health condition is necessary (Starnbouli, 1990).

Good health plays an important role in full exploitation of genetic potential for physical, and intellectual capacities in children (Nandi, 1991).

Singh (1992) stresses that good health is not only a physical condition of the human being but recognised the inter-dependence of the physical, mental and spiritual development. An educated housewife, and an enlightened mother can significantly assist in reducing the incidence of illiteracy, poverty, ignorance and ill-health of the future generation (Sharma, 1988 and Rajan, 1991).

Though women are the managers of the environment and manage the resources at their disposal, their health and skills in this context need to be improved through appropriate training and enhancing their access to resources (Sadiq, 1990). Thus the mother is a central figure in the child's environment (Nanda,1991).

Child forms the base of the population pyramid, and progress for children should be a goal for an overall national development. Early childhood constitutes the foundation of adult productivity where health is a major determinant of the quality and strength of the foundation (United Nations Children

Fund, 1991 ; National Institute of Public Corporation and Development, 1991).

The health and nutritional status of children is receiving serious attention in the states planning efforts in recent times (Government of India, 1992). Despite the progress achieved since independence, the quality of life of most of the children remains sadly below the standards envisaged by the national policy makers. This is reflected in key indicators like high infant mortality, high incidence of malnutrition and nutrition related diseases (Marsood, 1982, United Nations Children Fund, 1984).

Rayanna (1993) states that the urban poor child is prone to diseases contributing to highest rate of child morbidity. Inadequate nutrition and related illness, affect the growth, learning ability and health of a child (Nandi, 1991).

Kannan (1991) indicates that in India, maternal mortality rate is still high because of inadequate health care and malnutrition is endemic among pregnant women. All deaths are due to lack of knowledge regarding health care. A majority of women in India are malnourished, as measured by the incidence of anaemia which increases women's susceptibility to illness. Pregnancy complications and maternal death also

contributes to higher death rates. About, 3,000 children die due to infectious diseases, many of which are preventable by immunization.

World Health Organisation (1991) states that children are the primary victims of malnutrition. About 150 million children under 5 years of age are underweight and more than 20 million children suffer from severe malnutrition. According to the Ministry of Welfare (1985) 44 per cent of pre-school children have mild protein energy malnutrition in Tamil Nadu. In Coimbatore District severe forms of malnutrition are found to be more in the age group of 2-3 years (Geetha, 1986). Udani's study (1991) proves nearly 130 million children under 5 years are suffering from some degree of general malnutrition.

According to World Health Organisation (1988) the childhood diarrhoea is the greater killer in India. Eighty five per cent of children with diarrhoea are malnourished (Rama Rao, 1988).

Chandra (1994) also stresses that more than 35 per cent of all deaths of children, occur in the age group below 5 years and reasoned the causes as maternal malnutrition, foetal underdevelopment, inadequate natal care, and improper infant feeding practices. Narayana (1993) exhorts that low birth weight of the child

continues to be a major problem due to improper antinatal care and the improper intake of food.

Prasad (1994) states that the infant mortality rate is very high in India, morbidity is another important problem affecting the child in urban areas due to unhygienic conditions, and infectious diseases. Singh (1993) opines that the children are disabled for life as a result of complications arising out of variety of illness such as diptheria, tetanus, tuberculosis and typhoid fever.

Sivagnanam (1994) feels that inadequacy in the availability of safe drinking, improper disposal of human excreta, solid and liquid wastes leading to unfavourable environmental conditions and lack of personal hygiene have been one of the major causes of diseases among children.

In a survey conducted by Suriakanthi (1989) on child rearing practices, concluded that the mothers are not following the proper health practices. Butte (1993) views that proper sanitatiion, inappropriate infant feeding practices accounts for much of the morbidity associated with weaning.

Park (1994) stresses that nearly 40 per cent of the total deaths are found among children, and half of them take place in the first years of life. Epidemic diseases such as cholera, small pox and plague and

certain other diseases like fevers, dysentry and diarrhoea also take away a large toll.

According to Jyothipusha (1994) enjoying a good health status is the right of every individual child. It is the responsibility of the mothers and all the members of the family to involve in all aspects of child care and health and contribute to good quality of life of the child. In this context, it is important for mothers to educate themselves, become self-confident and promote the well-being of the family.

The health of a nation is a logical pre-requisite to all economic development and social progress, because this greatly affects the quality and quantity of productivity, eventually the well-being of population.

B. Significance of Health Practices for Young Children

The welfare of the entire community depends on the health and welfare of its children in every nation. The importance of practising health lies not only with the immediate health and security but also with the fact that the personality of a human is built up in the formative years of the child (Mahenti, 1991). Sunisha (1991) states that a life saved in the pre-school period usually means another adult for the nation. Jain (1990) also viewed that early childhood

care lays the foundation for healthy personality and overall development.

According to Gessal (1981), in every home where parents pledge is made and kept, children will have a greater opportunity to grow into healthy, intelligent, useful member of society. Hence health practices is one of the basic needs of a human being. All children need special care as they are future citizens.

The constitution of the World Health Organisation (1992) says, "enjoyment of the highest standard of health is one of the fundamental rights of every human being". For this, it is essential, the mother should help the child for healthy living (Parthasarathy, 1992).

Kalkemark (1982) views that the mothers are caretakers of the health in the family members, especially children. She should know the significance of health practice to protect their children in future life. One of the goal of child survival and development revolution (1992) is that all women should be enabled to practise exclusive breast feeding and all infants should be fed exclusively on breast milk from birth to 4 to 6 months of age. Thereafter, children should continue to be breastfed, while receiving appropriate and adequate supplementary foods, upto 2 years of age.

Dogramari (1991) feels that is most imperative that the parents and especially the mother who is the main care giver, should know the rudiments of hygiene, nutrition and preventive and curative care of their children. The mother should also know how to care for herself, with the knowledge of nutrition and other health practices.

Raja (1993) conducted a research with sample consisting of 100 respondents, including 76 mothers and 24 fathers. Only 42 per cent of the parents had access to essential health information. 36 per cent expressed need for definite information regarding child care practices.

The World Health Organisation and United Nations Children Fund (1990) had a meeting on "infant and young child health practices", and it affirms the need for active participation of the mothers on the significance of health practices, child survival in the elimination of malnutrition and the promotion of health.

Sharma (1989) acknowledge that improvement and increase in the health practices and nutritional knowledge of the community are effective strategies to deal with the problem of malnutrition.

Dave (1989) conducted survey on 100 mothers of the selected villages of the panchayat samitis namely, Girwa and Salumbar of Udaipur district,

Rajasthan. The main purpose of the survey was to find out their knowledge, opinion and practices regarding the cooking methods, infant feeding and child rearing. They found that the mother's have insufficient or negligible knowledge regarding methods of cooking, prevention of loss of nutrients, child rearing and weaning practices. United Nations Children Fund (1990) reveals that babies fed on breastmilk have fewer illnesses than babies who are fed on other foods.

Singer (1985) revealed that in the rural areas, giving supplementary feeding is delayed for a long time and stressed for an early introduction of supplementary foods preferably from the fourth month.

United Nations Children Fund (1991) and Pande (1990) states that to protect the children from life-threatening and nutritionally damaging diarrhoeal disease, parents need to know the essentials of both prevention and treatment. All the families, especially the mother should know that diarrhoeal disease can be prevented. Mothers should be aware of all health practices, breastfeeding, immunization, keeping food and water clean, and washing hands before eating food.

In a survey of health practices of rural mothers, Suriakanthi (1991) feels that all mothers are not following the ideal child rearing practices. Some of their practices are harmful to child's development. Such

practices which are harmful to child's development must be identified and discouraged among the mothers.

Regional Conference (1989), Bangalore, recognised that women should play a significant role in knowing the importance of health practices, as providers of health care in the organised sector as well as in the frame work of family health.

Thus the co-operation of the mother is important to prevent deaths associated with diseases. She is the one who is looking after the child. Lack of information regarding health practices on part of the mother can put the life of the child at risk (Suriakanthi, 1989).

The family setting is therefore the natural framework for matters concerning health of child. The family role is important in keeping its members healthy and protecting the children from diseases. (Binda, 1993). Further it is said that the mother should know the significance of health practices which is important for the development of child (Jayalakshmi, 1991).

C. Influence of Education on Mothers

"Education draws out the best from child and man's mind and spirit" - Gandhi. Education is an essential critical ingredient in primary health (Hussian and Rao, 1988). Health education is acknowledged as the most important factor in influencing human resource

D. Role of Anganwadi in Educating its Mothers:

The Integrated Child Development Services Programme launched in 1975 is a comprehensive scheme to promote integrated development of the child. Integrated Child Development Service is a preventive and a developmental effort, it provides a holistic approach for the mothers and children with a package of services, including periodic health check-ups, referral and medical services, monitoring of growth, immunization, supplementary feeding, non-formal pre-school education and nutrition and health education (Figure 1).

'Anganwadi' is the focal point for delivery of package of services to children and mothers in covering a population of 1000 in rural and urban areas and 700 in the tribal areas. In smaller villages there may be an Anganwadi for each village or cluster of hamlets having a population of at least 300. Normally 100 Anganwadis constitute one Integrated Child Development Service Project (Department of Women and Child Development, 1986). The services are provided at the "Anganwadi" - a focal point for delivery of services at the community level (Swaminathan, 1990).

Supplementary Nutrition:

Supplementary food is provided to the children under 6 years and also to pregnant and nursing

ICDS: Services And Beneficiaries

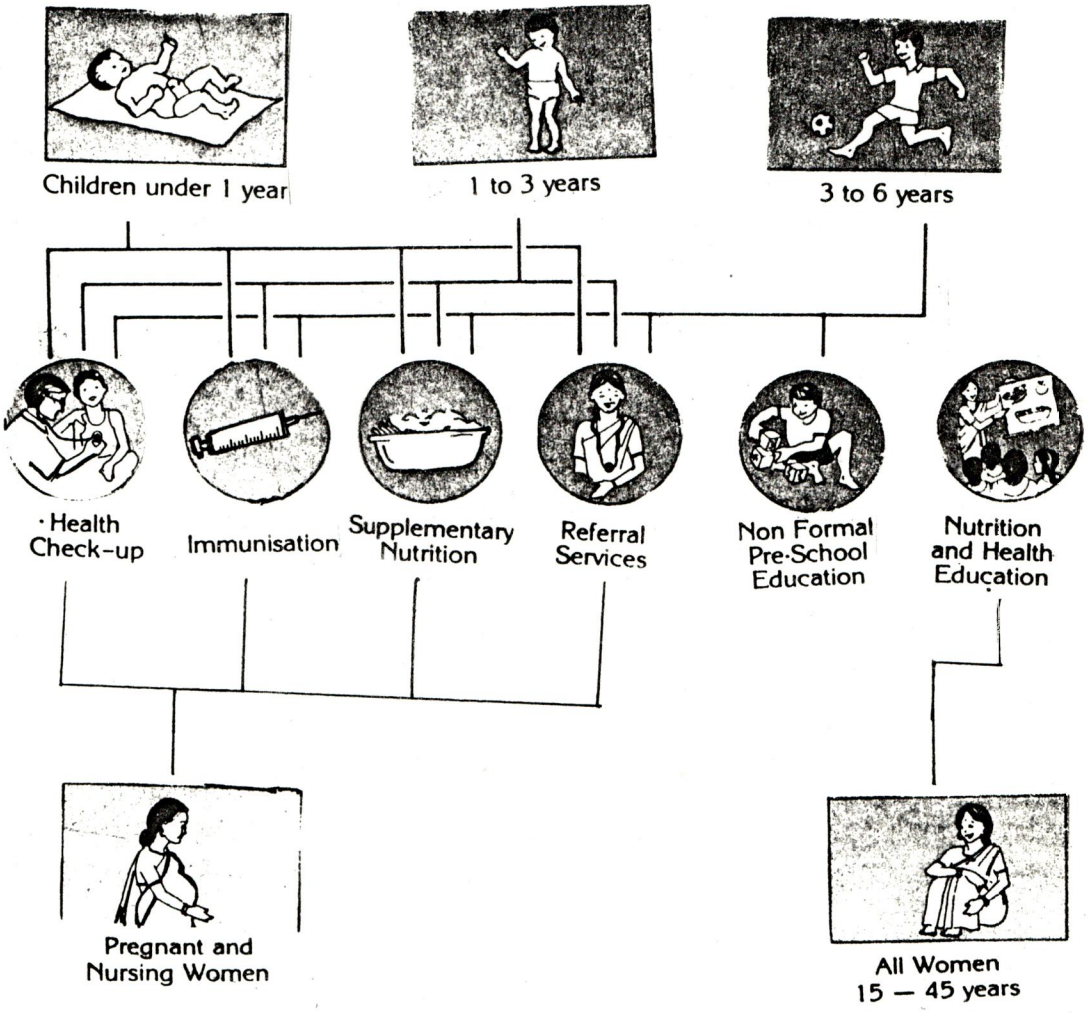


Figure.1

mothers from the low income families. This is given 300 days in a year at the rate of 300 calories with 10 - 12 grams of protein for children, and 500 calories, and 20 - 25 grams of protein for mothers. Integrated Child Development Service has played a significant role in improving the immunisation status of children, pregnant women and nursing mothers (Mahajan, 1989 ; Masood, 1989 and Thakur, 1989).

Health check-ups:

Research evidences of Gupta (1989) shows that, due to the antinatal care to pregnant women and postnatal care to nursing mothers, the health status of children in Integrated Child Development Service groups was better when compared to non-Integrated Child Development Service groups resulting in the decline of infant mortality rate. Infant mortality rate was 74.1 per cent in Integrated Child Development Service area and 111.1 per cent in non-integrated child development service area.

Referral services:

Referral services are provided to both mothers and children and high risk cases.

Nutrition and Health Education:

Non-formal education in nutrition and health is organised at the Anganwadi for the women between 15

and 45 years and special care is taken to ensure attendance of pregnant and nursing mothers and mothers of children who suffer from repeated illnesses or malnutrition. Research studies indicate that the post nutrition and health education programme scores of the experimental groups of mothers attending programmes of Integrated Child Development Service increased more significantly than that of the control groups (Seshadri and Gopaldas, 1989 and Mushtai and Malathi, 1990).

Non-formal Nutrition and Health Education:

The main objective of the pre-school education in Integrated Child Development Service is to stimulate and satisfy the curiosity of the child, rather than follow any rigid learning curriculum. Research studies reveal that 70 per cent children who had received pre-school education in the Anganwadi were enrolled in the primary school (Sundarpal and Neati, 1989).

The intellectual status of the children in Integrated Child Development Service villages was definitely better than that of the children residing in the Non-Integrated Child Development Service villages. The children from the rural Integrated Child Development Service block showed better progress in school than their counterparts in the Non-Integrated Child

Development Service areas (Adish et al., Paranjpe, 1989).

Kumar and Prakash (1989) found that people from Katharee rural Integrated Child Development Service block were convinced of the advantages of pre-school education in Anganwadi for acquiring good, healthy habits and moral values.

Anganwadi is an extension of home and family and it should establish links with the parents. So that the children move from the Anganwadi to the next stage with the necessary emotional and mental preparation. An important component of pre-school activities is parent education. Parents are to be helped by the Anganwadi workers to understand the crucial role they play in the growth and development of their children.

The objectives of Anganwadi are to

a. improve the nutritional and health status of children in the age group of 0-6 years.

b. lay the foundation for proper psychological, physical and social development of children.

c. reduce the incidence of mortality, morbidity, malnutrition and school dropouts.

d. achieve effective co-ordination of policy and implementation, amongst the various departments to promote child development.

e. enhance the capacity of the mothers to look after the normal health and nutritional needs of the child through proper nutrition and health education (Pane, 1984).

According to United Nations Children Fund (1993) the Anganwadi provides health education to mothers and non-formal pre-school education to children as a part of their activities under the Integrated Child Development Service Project. Anganwadies are to enhance the capability of the mothers to look after the normal health and nutritional needs of their children and themselves (National Institute of Public Co-operation and Development, 1989).

Lingan (1993) states that Anganwadi can play an useful role in promoting immunisation programme at the district level and can spread the message of immunisation very effectively. Raju (1993) opines that it is essential to educate the parents who send their children to Anganwadi by feeding relevant information on each of the activity, the services provided by the centres for appreciation and participation with simple audio-visual aids, by the Anganwadi teacher.

American Dietetic Association (1990) recommended that Anganwadi workers should develop and implement a nutrition education plan, that will help the parents, children, families and in the case of mothers, make informal decisions affecting their children's health and well-being.

A survey was undertaken by Begum et al., (1989) to assess the knowledge, attitudes and practices of mothers who had received training in health and nutrition education from Anganwadi workers and compared it with those who had not undergone any training. The sample comprised of 80 mothers from urban Integrated Child Development Services block, Anekal district, Bangalore, and found the significant difference in the knowledge of the trained and untrained mothers in aspects like hygiene, sanitation, deficiency diseases, dietary habits of the family and infant feeding practices. Dhar (1989)done a participatory approach and revealed that mothers are ignorant of good child rearing practices.

An evaluation study conducted on a sample of 150 Anganwadi worker's drawn from six states indicated that the children attending anganwadi's were perceived to be better in general behaviour, adjustment in school, neatness and cleanliness, regularity and punctuality in

attending school, rate of learning and achievement in reading and writing (Gopal et al., 1989).

Bharadha and Jothimani (1994) have reported that the nutrition and health education imparted in the Anganwadi had a desirable impact on mothers. They had a uniform, appropriate idea of introducing weaning foods, duration of breast feeding and frequency of breast feeding, which may be a reflection of the health and nutrition education input. All the mothers had better knowledge about immunisation for both children and a pregnant mothers. Seventy six per cent of them were able to mention the importance of cleanliness.

In contrast, National Institute of Public Co-operation and Development (1989) conducted a study with the parents of Anganwadi children in Delhi and Bangalore and the major findings were shockening to note that the food was the main reason for motivating parents to send their children to Anganwadi. The same study conducted in Gawhati reported that,

1. enrolment in Anganwadi was poor probably because the centres are not centrally located.

2. the Anganwadi workers and helpers often come late and send the children back immediately after the distribution of food and

3. the Anganwadi workers do not conduct home visits regularly. As a result the parents are not aware of the Anganwadi services.

A study conducted by Co-operative for American Relief Everywhere (1989) revealed that the mothers of Anganwadi children were educated on health aspects successfully in creating the awareness and adoption of novel practice in the management of diarrhoea. It is imperative that they use correct quantity of ingredients in the salt sugar solution.

Women should play a significant role in knowing the importance of health practices, as providers of health care in the organised sector as well as in the frame work of family health.

Thus there is a vital connection between health and human development. Advances in science and technology must no longer remain symbols and instruments of dominance (Shankaranand, 1981). To bring about a balance in human development which is at the most crucial juncture, there is need to launch a global health movement through creating awareness as the first concrete venture especially for women.

Methodology

III METHODOLOGY

The study on "Creating awareness among mothers of Anganwadi children on Health Practices", was carried out on the following lines:

A. Selection of Area

B. Selection of Sample

C. Selection and Development of Interview Schedule

D. Pre-testing the Tool

E. Collection of Data and Conducting the Study

F. Assessing the Health Eduction Programme Given to Selected Mothers

A. Selection of Area;

For the present study, the residents of the urban, slum area of GanapathiKamarajapuram in Coimbatore district was selected. This area was one of the centres adapted by Avinashilingam Deemed University for Mass Literacy Programme having two Anganwadies within its radius. Ample co-operation extended by the households for the conduct of the study in the centre was the major reason for selecting the area.

B. Selection of Sample:

According to Gupta (1992) a sample is that part of the universe selected for the purpose of

investigation. Two Anganwadi`s consisting of 110 children in the age group of 2-6 years were selected for the study. One hundred mothers of Anganwadi children were selected for the study randomly and among this only fifty mothers were selected by simple random sampling method to conduct of health education programme.

C. Selection and Development of Interview Schedule:

As the investigator has to collect information from both literates and illiterates, an interview schedule was selected. Care was taken to prepare the questions clear enough for securing the essential information. The items were arranged in categories to ensure easy and ready responses avoiding ambiguity. The questions were objective type in order to enable the respondents to reason out in a sequential order proceeding from general to specific and from simple to complex items. Interview schedule formulated elicited information on the following aspects.

- Socio-economic background
- Knowledge regarding Anganwadi services
- Awareness on health practices like - importance of nutrition for mother and children - knowledge on malnutrition - breast feeding and bottle feeding practices - Diarrhoea and its management - childhood diseases and minor

Lesson	Topic	Contents	Teaching aids used	No.of hrs needed
5.	Childhood diseases and minor accidents and injuries	Various childhood diseases - causative agent - symptoms - preventive measures Minor accidents - Introductin - Minor accidents and injuries - causes - preventive measures - importance of first aid kit.	Charts, posters, videoshow (Appendix II), Discussion with health officer (PlateVIII) Lecture on first aid kit (Plate IX).	4
6.	Immunisation	Introduction - Importance - Immunization schedule - Immunization of expectant mothers	Flash cards, charts, posters (Plate X) Investigator's participation while imparting oral drops (Plate XI)(Appendix IV, Fig.4)	3
7.	Safe water supply and its purification, hygiene and sanitation	Introduction - importance of different sources of water - purification of water good hygiene and sanitation	Charts and pamphlets (Appendix IV, Fig.5)	2
8.	Methods of cooking and prevention of loss of nutrients	Introduction - Methods of cooking using water as a medium - using fat as a medium	Charts, posters demonstration of various cooking methods put up an exhibition on Good health practice activities (Plate XIIa, XIIIb, XIVd). (Appendix IV.Fig.6).	4 5

PLATE I

Role play need of nutrition for mother and children

PLATE II & III

Aids used for Malnutrition - posters and vedio show

PLATE IV

Demonstsration of weaning foods

PLATE V

Demonstration of Oral Rehydration Solution

PLATE VI

Aids on Diarrhoea

Charts and Flash cards

PLATE VII

Lecture given by Health Officer

PLATE VIII

Childhood diseases

A discussion with Health Officer

PLATE IX

Lecture on first-aid kit

PLATE X

Education on Immunization, Using flash cards

PLATE XI

Investigators participation while imparting oral drops

PLATE XII

Exhibiting items on good health practices

G. Assessing the Health Education Programme Given to Selected Mothers:

After conducting the health education programme, the effect of health education was assessed by using the same interview schedule with slight modification. The data obtained through the schedule was informative and exhaustive. Great skill was required to consolidate, tabulate, simplify and quantify the data, using the following statistical treatments (Appendix III)

1. Paired 't' test
2. Chi-square test

Scoring Analysis:

Scores were used in the analysis of data regarding the mothers knowledge on Anganwadi services, and awareness on health practices. Every positive answer was given two scores, and every negative answer was given one score. The maximum scores for questions regarding knowledge of Anganwadi services are 20, and the minimum scores of 9. The maximum scores for the aspects on the awareness of health practices are 130 and the minimum scores of 40.

Results and Discussion

IV RESULTS AND DISCUSSION

The findings of the study entitled "Creating Awareness Among Mothers of Anganwadi Children on Health Practices" are discussed under the following headings.

I. A Profile of the Selected Respondents

II. Awareness of Health Practices Among Anganwadi Mothers

III. Effect of Health Education on Mothers Regarding Health Practices

IV. Awareness of Health Practices in Relation to Selected Variables

I. A Profile of the Selected Respondents:

The profile of the selected respondents in terms of type of family, age, educational status and income level are presented in the Table II.

TABLE - II

PROFILE OF THE SELECTED RESPONDENTS

S.No.	Particulars	Percentage n = 100
1.	Type of family	
	Joint	50
	Large	40
	Nuclear	10
2.	Age in years	
	16 - 18	50
	19 - 22	20
	23 - 25	30
3.	Educational status	
	Preprimary	20
	Upper primary	10
	Secondary	30
	Illiterate	40
4.	Income	
	200 - 400	50
	500 - 700	20
	800 - 1000	30

From the above table it is clear that the majority of the respondents were from joint family (50 per cent), followed by large family (40 per cent) and only 10 per cent of the respondents were from the small family. Among the selected samples 50 per cent of the respondents were between the age group of 16-18 years, 30 per cent of the respondents were in the age range of 23-25 years. The rest of the respondents were in the

age range of 19-22 years. Regarding the literacy level, it is shocking to know that 40 per cent of the selected respondents were illiterates, 30 per cent of respondents had secondary education, 20 per cent of respondent studied upto preprimary education and 10 per cent of respondents had only upper primary education. This poor academic rate might be due to the depressed economic status of the families besides lack of interest in education. As far as the income level is concerned, 50 per cent of respondents earned between Rs.200-400, 30 per cent of them belonged to the income range of Rs.800-1000 and only 20 per cent of respondents had income between Rs.500-700. It is evident that all the mothers belonged to low income group.

II Awareness of Health Practices Among Women:

Mothers awareness on health practices of Anganwadi consists of the particulars of their children attending Anganwadi, their reasons, adoption of healthy practices and their awareness on health services available in the Anganwadi.

A. Particulars of children attending anganwadi:

The particulars of children attending Anganwadi was collected. It was noted that 65 per cent of selected respondents were sent their children to Anganwadi for the past three years, 10 per cent for

the past one year and the remaining respondents only this year.

Reasons for sending their children to Anganwadi:

The respondents were asked to list out the reasons of sending their children to Anganwadi and the same are given in Table III.

TABLE - III

REASONS FOR SENDING CHILDREN TO ANGANWADI

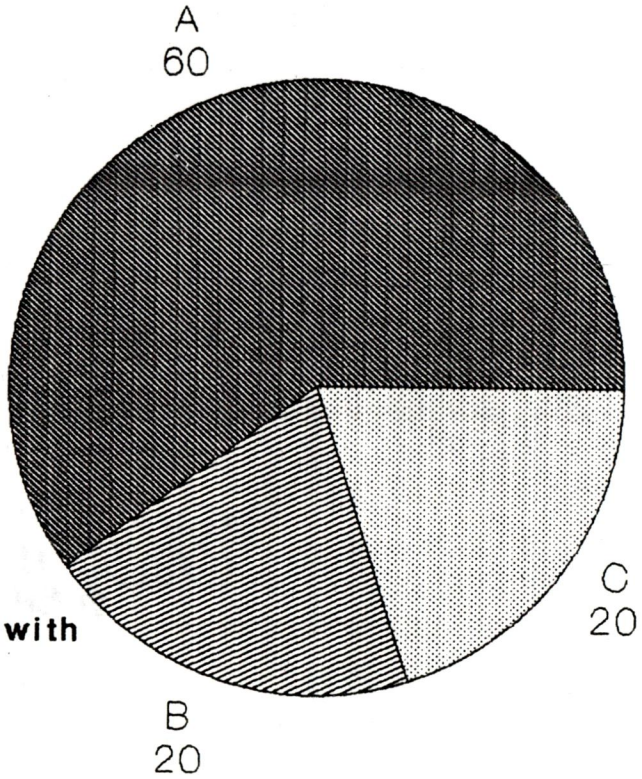
S.No.	Reasons	Number of respondents n = 100
1.	To develop good food habits with good health	60
2.	To change their behaviour	20
3.	To study well and learn good discipline	20

Majority of respondents sent their children to Anganwadi to develop good food habits and good health (60 per cent); others sent their children to change their behaviour (20 per cent), and to study well and learn good discipline (20 per cent) (Fig.2).

B. Adoption of healthy practices among mothers:

The respondents were asked to give whether they are adopting healthy practices or checking children's personal cleanliness. The following Table IV expresses the healthy practices of the same.

REASONS FOR SENDING CHILDREN TO ANGANWADI



A - To Develop good food with good health

B - To change of their Behaviour

C - To Study well and learn good discipline

Fig - 2

TABLE IV

ADOPTION OF HEALTHY PRACTICES BY ANGANWADI MOTHERS

S.No.	Particulars	n = 100
1.	Healthy practices of children	
	1. Brushing the teeth	62
	2. Providing toilet training	55
	3. Using oil for hair	52
	4. Use of clean drinking water	50
	5. Cutting of nails	45
	6. Cleaning the clothes daily	42
	7. Washing their hands before and after eating	40
	8. Using mats for sitting	12

From the table IV, it is evident that only half of the mothers following the healthy practices such as brushing their teeth (62), providing toilet training (55), using oil for hair (52) and use of clean drinking water (50). The range of 45-40 mothers adopting the hygienic practices like cutting the nails, cleaning the clothes daily, washing their hands before and after eating and twelve of them using the mats for sitting purposes while eating.

C. Awareness of health services available in the Anganwadi:

The respondents' awareness on Anganwadi services were tested and the findings are shown in the Table - V.

TABLE - V

AWARENESS OF ANGANWADI SERVICES

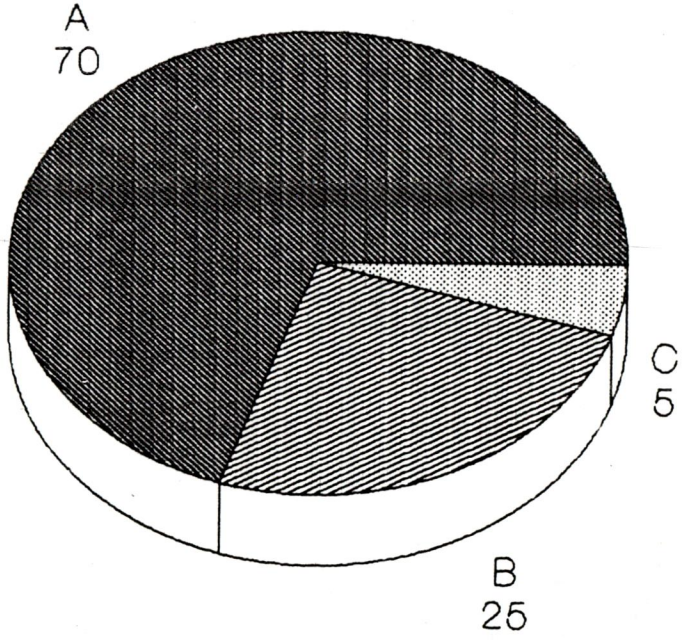
S.No.	Anganwadi services	Number of respondents n = 100
1.	No response	70
2.	Immunisation and health check up	25
3.	Supplementary nutrition	5

It is extremely regretable that 70 of the selected respondents were unaware of services given by Anganwadi, and 25 only knew about a few services like immunisation and health check up. Only five of them were aware of supplementary nutrition given by Anganwadi (Fig.3).

Conducting health education classes in the Anganwadi:

The investigator found out that the Anganwadi worker used to conduct health education classes once in three months, depending on mothers' time and interest, but without audio-visual aids.

RESPONDENTS AWARENESS OF ANGANWADI SERVICES



A - No response

B - Immunisation and health Checkup

C - Supplementary Nutritions

Fig - 3

III Effect of Health Education on Mothers Regarding Health Practices:

The educational programme consisted of the following aspects of health practices such as awareness of knowledge on nutrition and diet, knowledge on malnutrition, feeding practices, management of diarrhoea, minor ailments and injuries, diseases, knowledge on immunization, cleanliness and safe drinking water.

a. Awareness of nutritients and diet for children:

Awareness of nutritients and diet included factors such as mothers' understanding of the term adequate diet, importance of foods, additional foods taken during special conditions and her knowledge on foods rich in nutrients were assessed before and after the educational programme and the scores were quantified. The mean scores of the respondents were calculated to test the educational programme's significance. The results obtained are presented in the following Table VI.

TABLE - VI

AWARENESS OF MOTHERS ON NUTRIENTS AND DIET

S.No.	Particulars	Mean of scores	Standard error of mean difference	't' value
1.	Before education	5.26		
			0.048	24.45*
2.	After education	13.48		

* Significant at 1% level

From the above table, it is clear that the mean score for the awareness on nutritients and diet before and after education was 5.26 and 13.48 respectively, with a meagre standard error of mean difference (0.048). The 't' statistic was 24.45 which was highly significant at one per cent level. The table values lead to the inference that the scores after education have been significantly higher than the scores before education, establishing without any doubt that the educational programme has been remarkably, effective in creating an awareness on nutritients for children among the selected respondents.

b. Awareness of malnutrition:

Ghosal (1982) is of the view that nutrition education of the people about prevailing malnutrition and controlling is one of the essential components of primary health. In this study the respondents'awareness

on malnutrition included their concept of malnutrition, awareness of various deficiency diseases, their symptoms and preventive measures. The representation of the data collected from the respondents on awareness of malnutrition is depicted in the following Table VII.

TABLE - VII

AWARENESS OF MALNUTRITION

S.No.	Particulars	Mean scores	Standard error of mean difference	't' value
1.	Before education	4.12		
			0.3040	32.32*
2.	After education	14.62		

* Significant at 1% level

It is pleasing to note from the table that education raised the level of awareness of the respondents. This revealed by an extreme increase in the mean of scores to 14.62 after education, from an initial mean score of 4.12 with a standard error of mean difference of 0.3040; the 't' statistic stood at 32.32, which is highly signficant at one per cent level. It is heartening to note that the educational programme raised the respondents' level of awareness on malnutrition, deficiency diseases, its causes and preventive measures.

c. Awareness of feeding practices.

The respondents' awareness regarding feeding practices included importance of breast feeding the precautions undertaken while bottle feeding, appropriate age for weaning and preparation of weaning foods. A study was conducted by Pant and Chothia (1988), improved maternal knowledge regarding breast feeding and weaning practices after nutrition education was observed. The respondents' awareness of the feeding practices increased markedly after education as disclosed by a higher mean score (21.32) from an initial mean of 5.26 as presented in the Table VIII below.

TABLE - VIII

AWARENESS OF FEEDING PRACTICES

S.No.	Particulars	Mean score	Standard error of mean difference	't' value
1.	Before education	5.26		
			0.09	46.16*
2.	After education	21.32		

* Significant at 1% level

A remarkable increase was observed in the scores after education with 0.09 as the standard error of mean difference and 46.16 as the 't' statistic, being highly significant at one per cent level. It thereby reinforces the fact that the respondents have benefitted

immensely from the educational programme in acquiring knowledge on the importance of breast feeding, its advantages, precautions taken during breast feeding, preparation of different types of weaning foods to be given for children. It also coincides with Banerjee's (1994) view that spreading awareness about the advantages of breast feeding for both mother and child is a task that needs special attention.

d. Awareness of management of diarrhoea:

The study revealed that the respondents awareness about diarrhoea, its symptoms, causes, foods to be given for a dehydrated child, preparation of Oral Rehydration Solution, and the precautionary measures to be taken to prevent diarrhoea, increased markedly after education by a higher mean score (10.09) from an intital mean (6.24) as presented in the Table IX.

TABLE - IX

AWARENESS OF MANAGEMENT OF DIARRHOEA

S.No.	Particulars	Mean score	Standard error of mean difference	't 'value
1.	Before education	6.24		
			0.179	4.75*
2.	After education	10.09		

* Significant at 1% level

From the above table it can be seen that there wa a remarkable increase in the scores after education with 0.179 as the mean difference, and 4.75 as the 't' statistic, which was highly significant at on per cent level. This reinforces the fact that the respondents have benefitted immensely from the educational programme about the diarrhoea and its management. They also came to know the symptoms, causes and prevention of diarrhoea in children.

e. i. Awareness of minor ailments and injuries

Awareness of the respondents on the basic minor ailments, and injuries was assessed before and after the educational programme, and the scores were quantified. The mean scores of the respondents were calculated to test its significance. The values obtained are depicted in the following Table X.

TABLE - X

AWARENESS OF MINOR AILMENTS AND INJURIES

S.No.	Particulars	Mean of scores	Standard error of mean difference	't' value
1.	Before education	7.68		
			0.1398	42.58*
2.	After education	25.52		

* Significant at 1 % level

The health education given to the mothers brought excellent changes in practice. The mean score for the respondents awareness on minor ailments, and injuries before and after education were 7.69 and 25.52 respectively, with standard error of mean difference (0.1398), when the 't' statistic was 42.58 being highly significant at one per cent level. From the results obtained it is clear that the educational programme had been remarkably effective in creating awareness on common ailments, their causes and preventive measures, the importance of first aid kit, and the treatment for minor injuries and accidents.

ii) Awareness of other diseases:

The following table XI represents respondents' awareness on the other diseases.

TABLE XI

AWARENESS OF OTHER DISEASES

S.No.	Particulars	Before education N = 50	After education N = 50
1.	Aids	2	45
2.	Plague	0	42
3.	Syphilis	0	38
4.	Other venereal diseases	2	35

difference of 0.154, the 't' statistic being 16.0, which is highly significant at one per cent level. The respondents came to know about the methods of purification of water, importance of boiling water and cleanliness of the individual and surroundings.

h. Awareness of methods of cooking:

Mothers' awareness on methods of cooking and prevention of loss of nutrients were tested and the details are glimpsed in the following table XIV.

TABLE- XIV

AWARENESS OF COOKING METHODS

S.No.	Particulars	Mean scores	Standard error of mean difference	't' value
1.	Before education	10.08		
			0.09	33.61*
2.	After education	21.32		

* Significant at 1% level

Evaluation before dispensing education revealed that a majority of the respondents were unaware of adopting best methods to be used in daily life and the points to be considered while cooking to prevent loss of nutrients. This was remedied during the educational programme as revealed by a creditable increase in the mean of post evaluation scores to 21.32

from initial socre of 10.08 with a standard error of mean difference of 0.09, the 't' statistic stood at 33.61, which is highly significant at one per cent level. It is credit of the educational programme that majority of the mother became aware of the best cooking methods and prevention of loss of nutrients after attending the educational programme.

i. Suggestions given by the Respondents to Improve the Health Practices in their Locality:

The following table XV expresses the respondents suggestions to improve the health practices.

TABLE XV

SUGGESTIONS GIVEN BY THE RESPONDENTS TO IMPROVE HEALTH PRACTICES

S.No.	Suggestions given	N=50	Percentage
1.	Knowledge of Anganwadi services	45	90
2.	Demonstration of weaning foods	40	80
3.	Nutrition gardening	40	80
4.	Health education classes by the health officers	30	60
5.	Treatment for childhood diseases	30	60
6.	Film show and slides on health of children	30	60

An overwhelming majority of the respondents (90 per cent) felt that knowledge about the services of

RESPONDENT'S SUGGESTIONS TO IMPROVE THE HEALTH PRACTICES IN THEIR LOCALITY

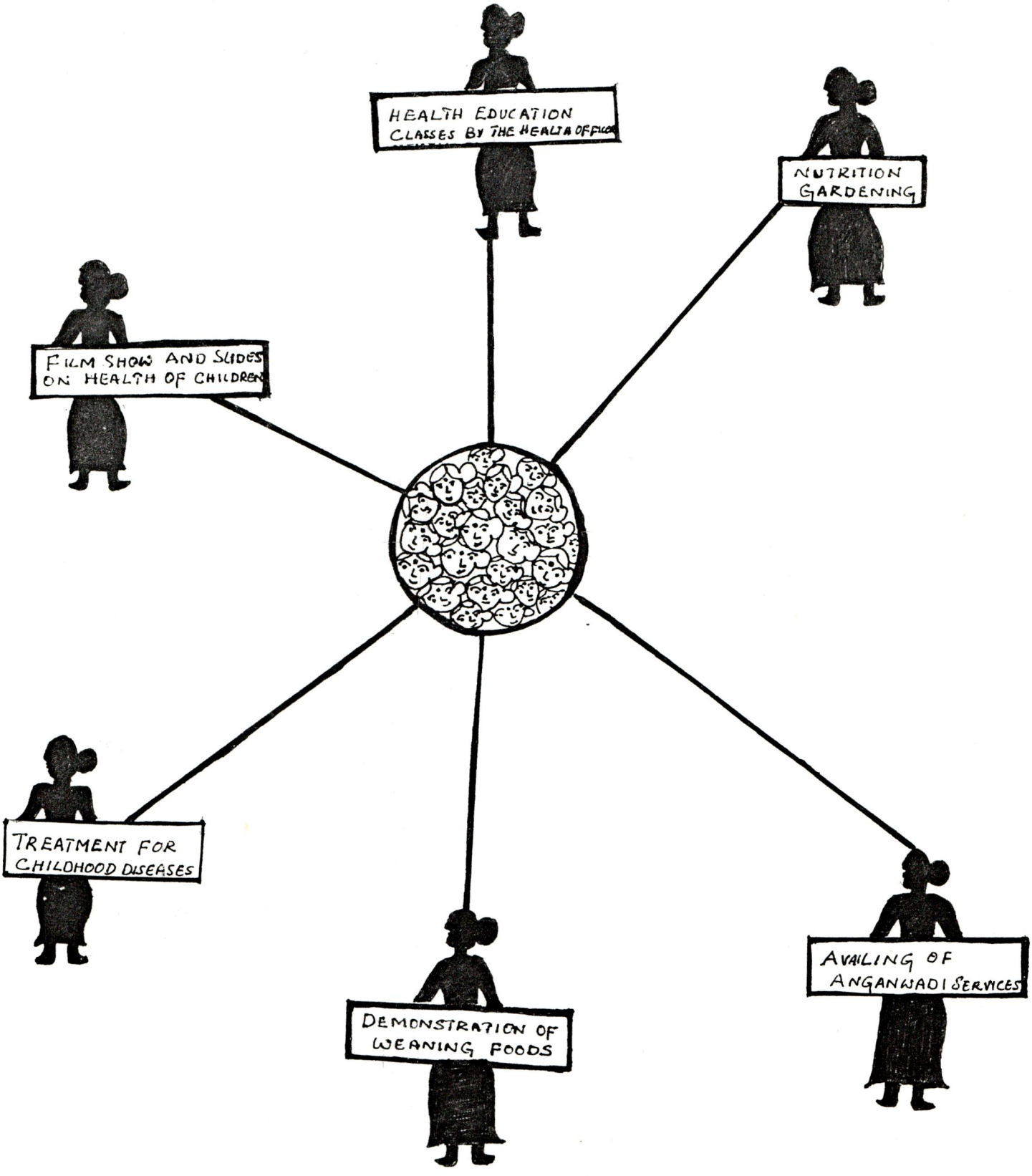


Figure.6

educational status and the degree of awareness through the chi-square test of significance. The chi-square value has been significant indicating the fact the eductional level and the degree of awareness are really associated; which proves the early statement that education will play an important role in determining the health practices in children. The co-efficient of association has also been significant indicating further the real and remarkable association between the educational level and the degree of awareness of health practices of children by their mothers.

Summary and Conclusion

V SUMMARY AND CONCLUSION

The present study on "Creating Awareness among Mothers of Anganwadi Children on Health Practices" was an endeavour to impart health education to the selected respondents. Hundred mothers were selected randomly to test their knowledge and awareness regarding health practices. Among the respondents only 50 were selected randomly to participate in the educatinal programme. It consisted of nine aspects of health practices with a duration of 32 hours. An interview schedule was designed and adopted to collect the required information from the respondents before and after imparting education.

The major findings of the study have been summarised in the following paragraphs.

1. Among the respondents 50 and 40 per cent of them were from the joint and large families respectively and only 10 per cent were from the small family. As far as the age is concerned, half of them (50 per cent) were in the age group of 16-18 years, 30 per cent in the age range of 23-25 years and 20 per cent in the age range of 19-22 years. It is shocking to study that nearly half of the respondents were illiterates (40 per cent) and the rest of them studied upto secondary education (30

per cent),primary education (20 per cent) and upper primary education (10 per cent). Regarding the income level of the respondents only 30 per cent of them were earning Rs.800-1000, 20 per cent Rs.500-700 and 50 per cent between Rs.200-400.

2. The mothers' awareness on services of Anganwadi was studied and it was found that 65 per cent of selected respondents sent their children to the Anganwadi for the past 3 years, 10 per cent for the past two years and the remaining 25 per cent sent their children for the past one year.
3. The respondents sent their children to Anganwadis to develop good food habits and thereby to acquire good health (60 per cent), to change their behaviour (20 per cent) and to learn well (20 per cent).
4. Fifty per cent of the mothers helped their children in brushing the teeth, providing toilet training, using oil for hair and use of clean drinking water. Fourty per cent of them helped in cutting the nails, cleaning the clothes daily, washing their hands before and after eating and only few of the mothers were used mats for their children sit while eating.

5. Majority of the respondents (75 per cent) were unaware of the Anganwadi services and only one fourth (25 per cent) were aware of the Anganwadi services like immunization and health check-up (15 per cent), and supplementary nutrition (5 per cent).

With this background, the investigator decided to educate the mothers about health practices to be adopted in daily life. The findings of the education programmes were as follows.

1. The educational programme offered, raised the level of women awareness on adequate diet, importance of foods, reasons for additional foods to be taken during special conditions, such as pregnancy and lactation and foods rich in nutrients. Hence educational programme paved the way for a storage of knowledge based on the minds of the young mothers.

2. Majority of mothers were unaware of the facts about nutrition and its importance to health. The educational programme disclosed the information on the concept of malnutrition, its deficiency diseases, symptoms of the diseases and preventive measures for the same. It is encouraging

that educational programme raised the respondents level of awareness on malnutrition among children.

3. The mothers learned the health aspects such as importance of breast feeding, precautions to be undertaken in bottle feeding, age for weaning, preparation of different types of weaning foods, which was shown by a remarkable increase in the scores of respondents, who attended health education classes.

4. The educational programme disseminated information on the facts about diarrhoea, its symptoms, causes, foods to be given for a dehydrated child, preparation of Oral- Rehydration Solution. It is pleasant to note that health education programmes enlightened the respondents awareness on the management of diarrhoea.

5. The health education brought excellent changes in health practices with mean scores of 7.69 and 25.52 before and after education which is highly significant. The educational programme has been remarkably effective in creating awareness on the facts such as common ailments, its causes and preventive measures, importance of first aid kit and the treatment for minor accidents and injuries.

6. Significant improvement was noticed among the selected mothers with regard to the knowledge gained on diseases like plague, aids, syphilis, other venereal diseases, the causes and preventive measures to be taken, after attending the educational classes on health.

7. The educational programme has been remarkable and effective in creating awareness on the importance of immunisation, the schedule of immunization both for mother and the child. It is extremely praiseworthy for the mothers to understand the importance of immunization.

8. The health educational programme improved their awareness on purification of water, importance of boiling and also cleanliness of the individual and their surroundings. Their post evaluation mean was 7.44 from initial mean score of 4.1, which is highly significant at one per cent level.

9. Evaluation before dispensing education revealed that a majority of the respondents were unaware of adopting better methods of cooking and thereby preventing the loss of nutrients. This was remedied during the educational programme as revealed by a creditable increase in the mean of post evaluation

score to 21.32 from initial score of 10.08 which is highly significant at one per cent level.

10. The Anganwadi mothers after education suggested availing Anganwadi services (90 per cent), demonstration of weaning (80 per cent), nutrition gardening (80 per cent), health education classes by the health officers (60 per cent), treatment for childhood diseases and film show and slides on health of the children (60 per cent).

In conclusion it can be said that the educational programme emerged as the most effective method of creating awareness about the aspects of health practices.

Thus health education given to mothers, was of immense help in bringing spectacular changes in their family, and thereby society as a whole.

Recommendations:

The following are the recommendations made:

1. The health education should be imparted for a longer period of time by health officials. Appropriate messages and materials are to be designed with the help of the target audience and suitable channels of communication are to be selected for imparting education. The use of

different audio-visual aids and methods must be encouraged.

2. A follow up study could be conducted to assess the sustenance of the attitudinal changes and a channel should be created for a continuous reinforcement of the knowledge so as to produce permanently irreversible health practice among the mothers.

3. Health officers, health educators, social workers, programme officers and other personnel are to be encouraged in educating the mothers on health practices.

More such educational programmes and follow-up research should be organised and conducted to achieve health for all children by 2000 A.D.

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Appendices

APPENDIX I

INTERVIEW SCHEDULE TO ELICIT INFORMATION ON THE AWARENESS OF MOTHERS OF ANGANWADI CHILDREN ON HEALTH PRACTICES

Name of the Respondent :

Type of family : : Small / /

Large

Joint

Place of Residence :

Address:

Details about the family:

S. No	Name of family members	Relation ship to the family	Age in to years	Sex M/F	Educational qualification	Occupation	Income/ month	Other sources of income

I Information Regarding Services of Anganwadi

1. Since what age your child has been attending Anganwadi?

No. of years

2. Can you give the reasons for sending your child to the Anganwadi?

1. 2. 3

Do you adopt or strict in following the health practices for your children? Yes No

If yes, tick in the following

1. Washing their hands before and after eating

2. Cleaning clothes daily

3. Providing toilet training

4. Brushing the teeth regularly

5. Using oil for hair

6. Providing toilet training

7. Cutting their nails

8. Use of clean drinking water

1. Do you know the services of ICDS?

Yes No

2. If yes can you list the services of ICDS

1 2 3 4 5 6

II Awareness of Health Practices:

1. Knowledge on Nutrition:

1. What do you understand by an adequate diet?

2. Name of the important foods to be taken during special conditions? Yes No

If yes,

Special conditions	Food
Pregnancy	
Lactations	

3. Did you include additional foods during special conditions? Yes No

If yes, Give the following

Special conditions	Additional Foods
Pregnancy	
Lactation	

4. Mention the foods rich in the following nutrients

S.No.	Nutrients	Food stuff	Reasons for inclusion
1.	Proteins		
2.	Vitamin C		
3.	Vitamin B		
4.	Vitamin A		

5. Do you know the nutrients present in the foods listed below?

S.No.	Foods	Nutrients
1.	Papaya	
2.	Ragi	
3.	Bittergourd	
4.	Groundnut	
5.	Drumstick	
6.	Drumstick leaves	

III Awareness of Feeding Practices:

1. Do you know breastmilk is best for infant?

Yes No

If yes,

2. What are the advantages of breast feeding?

Natural food

Good for child's health

Warm

Protect from infection

Contains all nutrients

Pure milk

Inexpensive

Any other

3. What are the precautions you should undertaken in bottle feeding?

Sterilization

Cleanliness

Immediate utlisation

Others (specify)

4. What is the appropriate age for weaning the child?

Age in months

5. Mention the weaning foods to be given for the following age

S.No.	Age	Foods given
1.	2 - 4 months	
2.	5 - 7 months	
3.	7 - 9 months	

6. Are you aware of different weaning foods?

Yes No

If yes do you know to prepare the following

1. Kulanthai Amudhu
2. Balahar
3. Hyderabad mixed food
4. Indian multipurpose food
5. Kerala indeginous mixed food

IV Awareness of Cooking Methods:

1. What are the cooking methods you adopt?

S.No.	Methods	Yes	No
1.	Boiling		
2.	Pressure cooking		
3.	Simmering		
4.	Steaming		
5.	Braising		
6.	Poaching		
7.	Stewing		

2. Do you know which is the best method of cooking?

Yes No

If yes, mention the method

Method Reason

3. What are the points to be adopted while cooking to prevent loss of nutrients?

V. Awareness of Knowledge on Malnutrition:

1. What do you understand by malnutrition?

2. Are you aware of deficiency diseases

Yes No

If yes, give your answers in the following table

S.No.	Deficiency diseases	Reasons	How to overcome

3. What are the symptoms of the following?

S.No.	Disease	Symptoms
1.	Night blindness	
2.	Angular stomatitis	
3.	Anaemia	
4.	Marasmus	
5.	Delayed wound healing	

4. Mention the specific nutrients needed to prevent the deficiency diseases listed below

S.No.	Diseases	Nutrients to overcome
1.	Night blindness	
2.	Angular Stomatitis	
3.	Anaemea	
4.	Marasmus	
5.	Delayed wound healing	

VI Awareness of Minor ailments and Injuries:

1. Can you list the childhood diseases?
2. What can be the causes of various communicable diseases?

Diseases	Causes
Malaria	
Whoophing cough	
Small pox	
Chicken pox	
Cold	
Mumps	
Measels	
Diphtheria	
Tetanus	
Typhoid	
Cholera	

3. Have you heard of Aids? Yes: No:

4. What do you mean by plague?

5. Are you aware of syphilis disease and other veneral diseases Yes : No:

   If yes Do you know the causes, preventive measures and treatment of the above diseases.

6. Do you know the precautionary measures to be taken for childhood diseases? Yes No

   If yes, what could be the precautionary measures

7. What are the minor accidents that your child is likely to face?

8. What are the precautions you will take for preventing accidents?

Accidents	Precaution
Burns	
Falls	
Cuts& Laeuations	
Bites	
Street accidents	

6. Are you aware of treatment given for minor accidents at home?

Accidents	Treatment
Falls	
Cuts	
Burns	

7. Do you have a first aid kit in your home?

Yes No

8. Do you think it is necessary in your home?

Yes No

If yes, Reason:

VII Awareness of Diarrhoea and its Management

1. What is a diarrhoea?

2. Do you know the symptoms of diarrhoea?

Yes No

If yes, what will be the symptoms

1. 2. 3.

4.

3. Do you think what are the causes of diarrhoea?

Yes No

If yes, what can be the causes

1. 2. 3.

4.

4. List the foods to be given for a dehydrated child?

1. 2. 3.

4.

5. Are you aware of Oral Rehydration Solution?

Yes No

If yes, what are the constituents needed?

6. What are the precautionary measures to be taken to prevent diarrhoea?

VIII Awareness of immunizations:

1. Do you know it is important to immunise your child?

Yes No

If yes, Reason:

2. Are you aware of immunization schedule Yes: No:

If yes, write the timings at what age the child and mother should be immunized.

IX Safe water supplyand its purification:

1. Do you need to give boiled water for your child daily?

Yes: No:

If yes, Reason:

2. Are you adopt any method to purify water? Yes: No

If yes, what method you are adopting?

3. Are you aware of waterborn diseases? Yes: No

If yes, How you will prevent them?

1.
2.
3.
4.

Give your suggestions to improve the health practices in your locality?

1.
2.
3.
4.
5.

Do you have any suggestions to improve the health activities in your locality? Yes: No:

If yes, give your suggestions

1.
2.
3.
4.
5.

APPENDIX - II

VIDEO SHOW

The cassettes for video show was taken from district health office Coimbatore district, Tamil Nadu where the theme was awareness regarding weaning and feeding practices its importance, immunization for children and mothers, the childhood diseases, their prevention, who provides all necessary information along with explanations given by experts. The video includes various interviews with mothers of children below 6 years, with all suggestions given by doctors to mothers respectively.

APPENDIX - III

ROLE PLAY (HEALTHY FRIENDSHIP)

Role playing involves presenting small spontaneous play which describe possible real life situations. In role playing we take on some one else's character. This is less intimidating than having to express our own ideas and emotions. A situation or problem is given to the group and they taken on the roles of the people involved. The action involves as the play goes along.

Suma and Kanti were two close friends. They lived in a viallge and group together. Suma got married to a city dweller where as Kanti settled in the village. Since she married her own uncle's son who was a resident of the same village.

Eventually Suma delivered a healthy baby and Kanti also delivered a baby boy who was a malnourished child. After the year again Kanti conceived and she informed her friend Suma who was should seeing her first child. Then Suma took care of Kanti and she admitted her in a good hospital where she got her tests alone. Suma adviced Kanti to consume healthy foods like Vitamin, protein, iron and calcium rich foods, and gave her all the necessary help required. Kanti grow healthier and gave birth to a baby girl who was healthy, Kanti

thanked Suma for having helped her and for having imparted the knowledge on importance of healthy foods and healthy children.

APPENDIX-IV

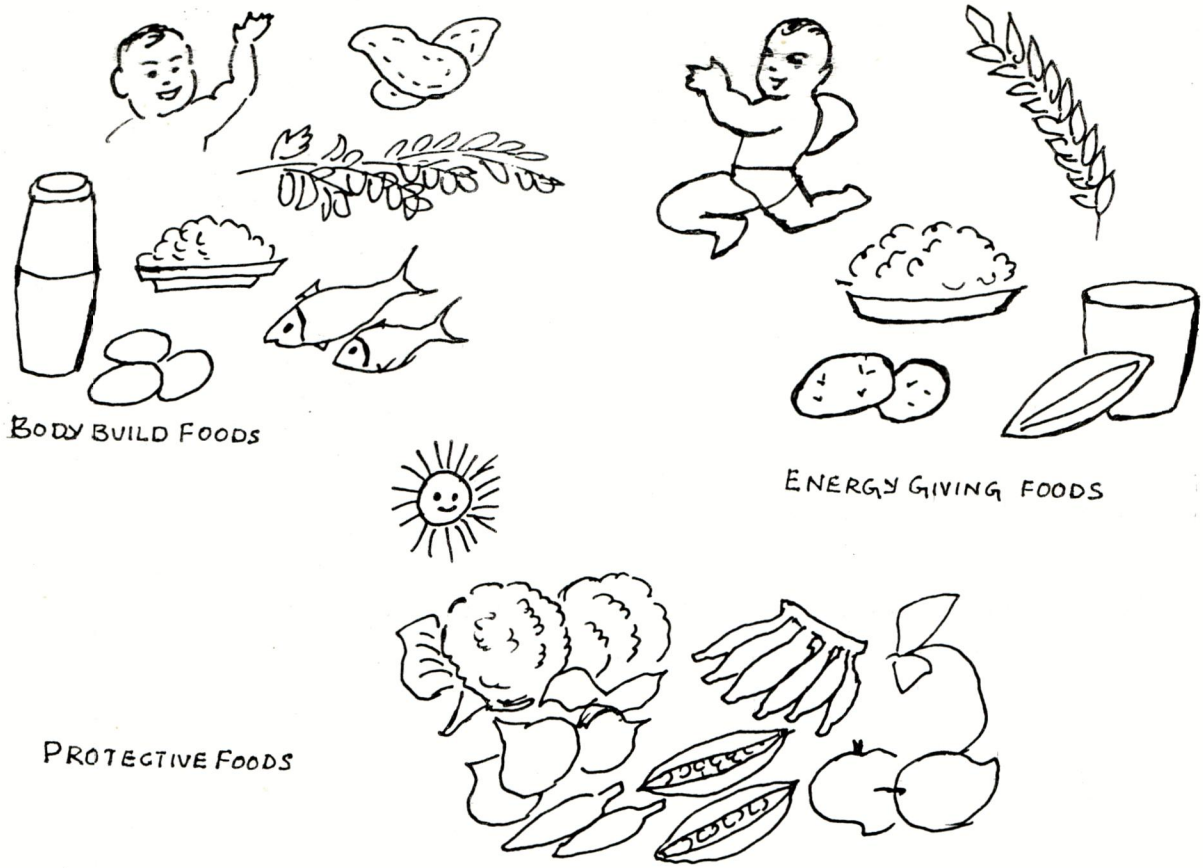


Figure.1 NUTRITION FOR MOTHER AND CHILDREN

Figure.2

BREAST MILK IS THE BEST NATURAL FOOD FOR BABIES

CUP AND SPOONFEEDING IS SAFER THAN BOTTLE FEEDING

RINSE THE BOTTLE SOON AFTER USE. CLEAN THE TEAT AND CAP THOROUGLY. USE A LITTLE SALT TO CLEAN THE NIPPLE. CLEAN THE BOTTLE WITH A BOTTLE BRUSH. RINSE THE BOTTLE THOROUGHLY

Figure.3 CAUSES OF DIARRHOEA

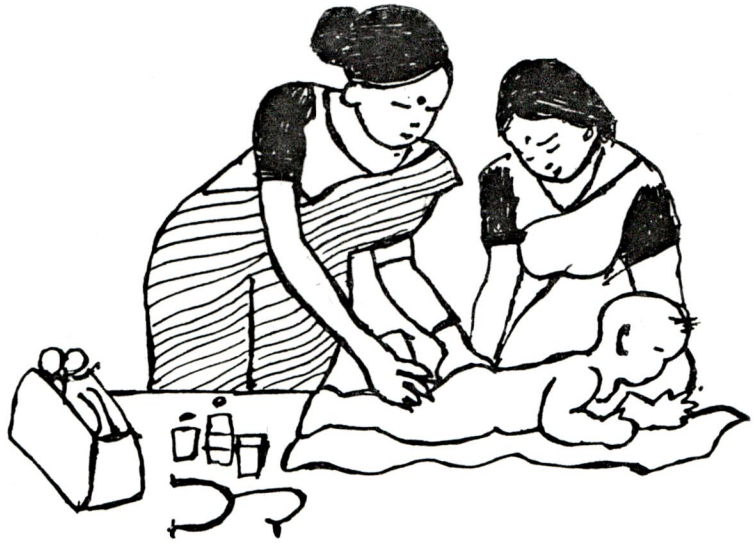
IF A CHILD FEEDING WITH DIRTY BOTTLES AND TEATS WITHOUT WASHING CAN CAUSE DIARRHOEA; DO NOT BOTTLE FEED THE CHILD

FOODS KEPT IN UNSANITARY CONDITIONS, CAUSES DIARRHOEA ON CONSUMPTION BY THE CHILD

IF A CHILD PASSES STOOLS IN DIRTY PLACE, IT SREADS DIARRHOEA

WHEN A CHILD TOUCHES FOOD WITH DIRTY HANDS AND THEN EATS THE FOOD, HE CAN GET DIARRHOEA

IF MOTHER FEEDS THE CHILD IN UNHYGIENIC SURROUNDINGS CAUSES DIARRHOEA



IMMUNISE THE CHILD

Figure.4

SAFE WATER SUPPLY

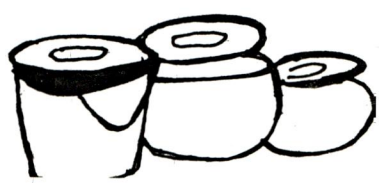
Figure.5

IF WATER FROM RIVERS AND LAKES IS DIRTY AND CAN CAUSE DISEASES TO CHILD

ALWAYS FILL DRINKING WATER FROM A HAND PUMP, TUBE WELL OR OTHER CLEAN SOURCE.

MAKE SURE THERE IS A FENCE AROUND THE WELL. THIS WILL PREVENT ANIMALS FROM COMING NEAR IT AND DIRTYING IT.

USE A LADLE TO DRAW WATER. NEVER DIP YOUR HAND INTO THE WATER POT



STORE WATER IN A CLEAN PLACE, WITH COVERED CONTAINER

Figure.6 — IMPORTANT POINTS TO BE CONSIDERED WHILE COOKING —

BUY FRESH VEGETABLES

WASH THE VEGETABLES BEFORE CUTTING

PEEL THE SKIN LIGHTLY

CUT THE VEGETABLES INTO BIG PIECES

AFTER BOILING THE WATER PUT THE VEGETABLES

AVOID ADDING SODA

COVER THE VESSEL WHILE COOKING

AVOID OVER COOKING

SERVE THE FOOD SOON AFTER COOKING

APPENDIX - V

STATISTICAL ANALYSIS

The following statistical analysis were used in interpreting the data collected.

1. The paired 't' test:

The paired 't' test was used in the grantification and analysis of dates regarding the mothers awareness on knowledge and related to health practices. The paired 't' test is used for judging the significance of the mean of the difference beetween the two related samples (Kothari, 1993). The relevant test statistic, 't' was calculated from the sample data and then compared with its probable value based on t - distribution (from the table for a particular degree of freedom).

The 't' statistic is calculated using the following formula

$$t = \frac{\bar{d}}{S.E.\ (d)}$$

where t - calculated 't' value

n-1 - degree of freedom

n - sample size

d - mean of the differences calculated by the formula

$$\bar{d} = \frac{d}{n}$$

where d - Sum of the differences

n = Sample size

S.E.(d) = Standard error of the mean difference

Calculated by the formula

$$S.D(\bar{d}) = \sqrt{\frac{S.S.(d)}{n\,(n-1)}}$$

where n = Sample size

(n-1) = degrees of freedom

S.S.(d) = Sum of squares of the mean difference calculated by the formula

$$= d2 - \frac{(d)2}{n}$$

where d2 = Sum of the squares of the individual differences

d = Sum of the differences

n = Sample size

2. CHI - Square Test of Significance:

This test of significance is applied to a qualitative data, ie. to test the independence or otherwise, ie. to test the association between reaction among two or more attributes. In the present case this test has been applied to test the association of a set of selected sociopersonal attributes and the awareness, through a set of contingency tables, of order or r x c, where r and c are the numbers of rows and number of columns of the contingency table. In general a chisquare statistic is defined as

$$X2(n-1) \quad En \quad \frac{(O-E)2}{n}$$

where N is the number of classes and O, and E are observed and expectant frequencies of the data. The expected frequencies are estimated based on certain theoritical considerations.

In the present study for the different type of contigency tables chi-square will have (r-1) (c-1) degrees of freedom. The null hypothesis formulated in the case of contingency tables, where attributes have been arranged horizontally, and vertically that these attributes are said to be independent in nature. If the chi-square value tends to be a significant quantity the above hypothesis will be rejected,and association among the attributes will be established. If not dissociation among the attributes will be established. If the attributes will be established. If the attributes are really associated the nature of association will be always positive and the degree of association.

$$C - \frac{X2}{N + X2}$$ will be

calculated where C is the Coefficient of association and N is the total number of frequencies. Based on the significance of the chi-square and also the value of C, the degree of association among the attributes will be inferred.

Establishing relationship between different variables.

a. Age Verses Awareness

Variable Age(years)	Marks			
	Low	Middle	High	Total
16-18	2	2	3	7
19-22	3	3	4	10
23-25	8	6	19	33
Total	13	11	26	50

HO: There is no difference in the marks with reference to age.

O	E	O-E	(O-E)2	(O-E)2/E
2	1.82	0.18	0.032	0.01
2	1.54	0.46	0.211	0.137
3	3.64	-0.64	0.409	0.112
3	2.6	0.4	0.16	0.06
4	2.2	0.8	0.64	0.29
4	5.2	-1.2	1.44	0.27
8	8.58	-0.58	0.336	0.039
6	7.26	-1.26	1.58	0.21
19	17.16	1.84	3.38	0.197
			Total	1.325

The chi-square value is lesser than table value. So age is not dependent on the awareness.

b. Type of family verses awareness:

Variable Type of family	Marks			Total
	Low	Middle	High	
Small	12	8	22	42
Large	2	1	2	5
Joint	2	0	1	3
Total	16	9	25	50

HO. There is no difference in the marks with reference to type of family.

O	E	O.E	(O-E)2	(O-E)2/E
12	13.44	-1.44	2.0736	.15
8	7.56	0.44	0.1936	.02
22	21.00	1.00	1.0000	.04
2	1.6	0.4	0.16	0.1
1	0.9	0.1	0.01	0.01
2	2.5	-0.5	0.25	0.1
2	0.96	1.04	1.0816	1.12
0	0.54	-0.54	0.2916	0.54
1	1.5	-0.5	0.25	0.6
			Total	2.24

respondents is dependent on the awareness of selected respondents.