

# Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Prevention of Malnutrition among Mothers with under Five Children in Selected Urban Slum Area at Gwalior

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## ABSTRACT

Childcare in a right perspective is very important, as children are our future generation. Care not only speaks about just providing children with appropriate food and safe house but also development, mental, profound and social turn of events. The present study was to assess the effectiveness of structured teaching programme on knowledge regarding prevention of malnutrition among mothers with under five children in selected urban slum area at Gwalior". The objectives of the study were To assess the knowledge of mothers with under five children regarding prevention of malnutrition. To evaluate the effectiveness of structured teaching program on knowledge of prevention of malnutrition among mothers with under five children. To determine the association between the knowledge of prevention of malnutrition among mothers with under five children with their demographic variables. The findings of the present study revealed that in pretest majority of them (73%) had average knowledge and after implementation of STP in posttest 59% mothers had excellent knowledge.

**KEYWORDS:** Structured teaching programme, Effectiveness, Malnutrition, Under Five Children, Mothers

## INTRODUCTION

### “PREVENTION IS BETTER THAN CURE”

Children are the future pillars of a nation. Today children's are tomorrow's citizen and leaders. Child health care is the most crucial factor to determine growth of the child, especially in the first two years of life. Childhood is a vital period of the socialization process that is transmission of attitudes, customs and behavior. They are vulnerable to disease, death and disability owing to their age, sex, place of living, socio economic class and host of other variables. Certain specific biological and psychological needs must be met to ensure the survival and healthy development of the child and future adult.

Malnutrition is a major health problem in India. The report says 170 million children mainly in the

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developed world, are now considered 22 million under the age of five, i.e.30% of the children's are malnourished children belongs to Asia. 56% of the deaths in under five children in developing countries and 47% of below 3 years of age are undernourished. More than “10 million of the world's children die each year before reaching the age of five.” Sadly to say two of every three of these children die from easily preventable, treatable diseases such as diarrhea, pneumonia, malaria, measles and tetanus and from the conditions like malnutrition. “Ten children die every minute as a result of malnutrition”.

According to World Health Organization (WHO) severe acute malnutrition is a weighing less than 60% of the ideal median weight for height. WHO recommends three terms i.e. stunting, underweight & wasting for assessing the magnitude of malnutrition

in under five children. *Stunting* refers to a child below 2 standard deviation score from the median height for age of reference population. *Under weight* is defined as a child below 2 standard deviation from the median weight for age of reference population. *Wasting* refers to as a child below 2 standard deviation from the median weight for height of reference population.

Malnutrition main victims are children under the age of 5 years. On a global scale the five principal nutritional deficiency diseases that are being accorded the highest priority action are kwashiorkor, marasmus, xerophthalmia, nutritional anemia and endemic goiter. These diseases represent the tip of the "ICE BERG" of malnutrition. The high rate of maternal mortality, still birth and low birth weight are all associated with malnutrition. The primary cause of malnutrition is inadequate and faulty diet. Apart from poverty and other socio-economic factors and environmental factors also play an important role in aggravating the dietary deficiency diseases.

### NEED FOR THE STUDY

*"Adequate Nutrition is an Integral Part of Health, Happiness, Independence, Quality of Life, Physical and Mental Functioning"*

Malnutrition results from imbalance between the body's needs and the intake of nutrients which can lead to syndromes of deficiency, toxicity and it includes under nutrition, in which nutrients are undersupplied. The causes of malnutrition including a lack of food, common and preventable infections, inadequate care and unsafe water, it plays a role in more than half of the nearly 12 million deaths each year of children under five in developing countries. Poverty is one of the main cause of malnutrition is also consequences, a tragic bequest by malnourished parents to the next generation.

More than 200 million under five children, i.e. 30% of the world's children are malnourished. Over 2/3 of malnourished children belongs to Asia. It is recognized that 56% of deaths occur in under five children in developing countries. Malnutrition is more common in India than in sub-Saharan Africa. One in every 3 malnourished children in the world lives in India. About 50% of all childhood deaths are attributed to malnutrition. In India 46% of all children below the age of three are too small for their age, 47 percent are underweight and at least 16 percent are wasted. Many of these children are severely malnourished.

The Investigators during their clinical experience found that in the community area the mothers have lack of knowledge regarding malnutrition. They have less knowledge regarding weaning food, breast

feeding and immunization because that is very important to prevent malnutrition. So it is essential to educate mothers regarding appropriate breast feeding, complementary feeding practice and introduction of complementary foods rich in vitamins and minerals at appropriate ages to prevent malnutrition in young children.

### STATEMENT OF THE PROBLEM

"Assess the effectiveness of structured teaching programme on knowledge regarding prevention of malnutrition among mothers with under five children in selected urban slum area at Gwalior".

### OBJECTIVES OF THE STUDY

- To assess the knowledge of mothers with under five children regarding prevention of malnutrition.
- To evaluate the effectiveness of structured teaching program on knowledge of prevention of malnutrition among mothers with under five children.
- To determine the association between the knowledge of prevention of malnutrition among mothers with under five children with their demographic variables.

### ASSUMPTIONS:

- The Mothers with under five children have some Knowledge regarding Prevention of malnutrition.
- The knowledge will vary from one individual to other individual.
- The Structured Teaching Programme is an accepted strategy that can enhance the knowledge of mothers with under five children regarding Prevention of Malnutrition.

### HYPOTHESIS:

**H<sub>1</sub>:** The mean posttest knowledge level score of mother with under five children will be significantly higher than the mean pretest knowledge level.

**H<sub>2</sub>:** There will be significant difference between the selected demographic variables with knowledge level scores of mother with under five children.

### DELIMITATIONS

#### Mother who are

- having under five children
- willing to participate in the study
- available during data collection
- able to speak and write in Hindi and English

### THEORETICAL FRAMEWORK

Theoretical framework selected for this study was based on General System Theory as postulated by

Von Ludwig Bertalanffy (1968). In this theory main focus was on the discrete parts of their interrelationship, which make up and describes the whole.

## METHODOLOGY

### Research approach and Research design

A Quasi experimental approach was adopted for this study with one group pretest, post-test design without control group.

The symbolic representation of this design as applied to the present study is given below:

Selected group	Pretest	Intervention	Posttest
Mothers with under five children	Knowledge (O1)	STP (X)	Knowledge (O2)

The symbols used are described as  
(O1) - Pretest assessment of knowledge

STP - Structured Teaching Programme

X - Administration of Structured Teaching Programme on Prevention of Malnutrition

(O2) - Posttest assessment of knowledge

### Variables under study

The variables for the present study are

#### Independent Variable

- Structured Teaching Programme

#### Dependent Variable

- Performance on Pretest
- Performance on Posttest

#### Extraneous Variable

Age, education, occupation, per capita income, religion, type of family, type of diet, no. of under five children, Immunization status of the children and sources of information.

#### Setting

This study is under taken in Urban slum area at Gwalior (M.P.)

#### Population

Mothers having under five children who were residing in urban slum area at Gwalior, were the population for the present study.

#### Sample and Sample Size

The sample for the present study comprised of 100 mothers with under five children.

#### Sampling Technique

Purposive sampling technique was used for the present study to select the samples.

## Development of the Tool

### Preparation of the Tool

A Structured Interview Schedule was prepared by referring related literature, research studies and other available documents. Further, guide was consulted for preparing the tool.

### Description of the Tool

The Structured Interview Schedule comprised of two sections.

**Section A:** It deals with demographic variables which include age, education, occupation, percapita income of family, religion, type of family, type of diet, number of under five children, immunization status of the children, sources of information. It does have any score.

**Section B:** This part consists of 45 items of objective type related to knowledge of prevention of malnutrition. It contains 4 Areas.

**Area I:** This section consists of 5 questions regarding normal nutrition and its components, with maximum of obtainable 5 scores.

**Area II:** This section comprise of 5 questions regarding importance of nutrients with five maximum obtainable scores.

**Area III:** Includes the 4 items related to sources of nutrients with maximum of 4 obtainable scores.

**Area IV:** Has 4 items related to causes of malnutrition with maximum of 4 obtainable scores.

**Area V:** This section consists of 4 questions related to signs and symptoms of malnutrition with five maximum obtainable scores.

**Area VI:** Has 6 items related to prevention of nutritional deficiency with maximum 6 obtainable scores.

**Area VII:** Includes 4 items related to diarrheal management and prevention of worm infestation.

**Area VIII:** This section consists of 4 items related to breast feeding with maximum of 4 obtainable scores.

**Area IX:** This section comprise of 4 items related to complementary feeding practices with maximum of 4 obtainable scores.

**Area X:** Has 5 items related to immunization with maximum of 5 obtainable scores.

Each item has four options with one most appropriate answer. Each correct response has "one" score and wrong answer is considered to be 'Zero'.

Thus, there are 45 items with maximum of 45 scores.

### Scoring Key

It was planned to add up the total and calculate the percentage of the total score. According to the total score obtained it was grouped as follows.

Percentage	Level of Knowledge	Scores
0 -20	Very poor	1 – 9
21 – 40	Poor	10 -18
41 – 60	Average	19 – 27
61 – 80	Good	28 – 36
81 – 100	Excellent	37 – 45

### Methods of Data Collection

The investigators visited each house and Interviewed personally. The study was conducted to mothers with under five children. Data collection was carried out in two phase. In the first phase assessed the knowledge of mothers with under five children regarding prevention of malnutrition. After assessing the knowledge, the STP was administered and in the second phase, data was collected in order to test the effectiveness of Structured Teaching programme.

### RESULTS

Comparison of knowledge of mothers with under five children regarding prevention of malnutrition after implementation of Structured Teaching Programme.

#### Level of pre and Posttest knowledge scores on prevention of malnutrition

**Table 1 Level of pre and Posttest knowledge scores**

Level of Knowledge				
	Scores	%	Pretest %	Posttest %
Very poor	0-9	0-20	-	-
Poor	10-18	21-40	27	-
Average	19-27	41-60	73	-
Good	28-36	61-80	-	41
Excellent	37-45	81-100	-	59

Table 1 reveals the level of knowledge, percentage of scores were classified as very poor [0-20%], poor [21-40%], average [41-60%], good [61-80%] and excellent [81-100%]. Percentage distribution of pre and Posttest knowledge among 100 mothers with under five children shows that, in Pretest majority of them (73%) had average knowledge and only (27%) had poor knowledge. After implementation of STP in Posttest 59% mothers had excellent knowledge and 41% had good knowledge. Hence it can be concluded that through STP mothers were gained more knowledge.

#### Assessment of existing knowledge of mothers with under five children before Implementation of Structured Teaching Programme

**Table 2 Mean, SD, mean percentage of Pretest knowledge scores.**

S. No	Knowledge areas	Max. Score	Level of knowledge		
			Mean	SD	Mean (%)
1.	Normal nutrition and its components	5	2.91	0.95	58.2
2.	Importance of nutrients	5	2.78	1.18	55.60
3.	Sources of nutrients	4	2.25	1.01	56.25
4.	Meaning, causes of malnutrition	4	2.13	1.03	53.25
5.	Signs and symptoms of malnutrition	4	2.08	0.93	52
6.	Prevention of nutritional deficiency	6	2.60	1.17	43.33
7.	Diarrheal management and Prevention of infection	4	1.68	0.86	42.00
8.	Breast feeding	4	1.48	0.89	37.00
9.	Complementary feeding practices	4	1.48	0.87	37.00
10.	Immunization	5	1.68	0.91	33.60
	<b>Overall</b>	<b>45</b>	<b>21.07</b>	<b>2.61</b>	<b>46.82</b>

**Table 2** reveals that comparison of mean, SD, mean percentage before implementation of STP shows that the highest mean score (2.91±0.94) which is 58.2% was for the area of “Normal nutrition and its components” and

the lowest mean score ( $1.68 \pm 0.91$ ) which is 33.60% was for the area of “Immunization”. Further the overall mean percentage of pretest was 46.82%. Findings reveals that mothers with under five children have an average knowledge with regarding “Prevention of malnutrition”. It may be due to non exposure of information regarding malnutrition.

### Major Findings of the study:

#### Section I: Demographic characteristics of the samples

Majority (62%) of them were in the age group between 21-30years, 39% of the mothers had primary education and 28% of the mothers had no formal education, 54% of the mothers were working women. 44% of the mothers were in the family per capita income of below Rs 1000. 50% of the mothers with under five children were belongs to Hindu religion. 73% of the mothers were belongs to nuclear family. 71% of the mothers were had the food habits of mixed diet. 92% of the mothers have one or two children and 8% of the mothers have three or more children. 58% of the children were completely Immunized and 48% were partially Immunized due to lack of awareness regarding immunization. 65% of the mothers acquired information through Television and around 15% were obtained information through Health personal and News paper / Magazine. Only 6% were obtained information from relatives.

#### Assessment of knowledge of mothers after implementation of STP.

##### Level of pre and Posttest knowledge score

Overall Pretest highest mean score was ( $21.07 \pm 2.6$ ) which is 46.82% and during Posttest it was ( $36.94 \pm 3.19$ ) which is 82.08% and the effectiveness of STP was 35.26%.

#### Nursing Implications:

##### Nursing Practice:

- The STP can be utilized to create awareness among mothers with under five children regarding prevention of malnutrition in urban, rural and during home visit also.
- Community health nurse can use it while carrying the clinical activities to educate the mothers with under five children attending the clinics.
- The village health nurse or Female health workers need to prepare health education chart regarding prevention of malnutrition which can be used at hospital and home. The health education chart should be simple, clear and understandable.

#### Nursing Education:

- As a nurse educator, there are ample opportunities for nursing professionals to educate the mothers with under five children on prevention of malnutrition in both areas in community and clinical settings.

- The study emphasizes the significance of short term in service education programme for nurses and peripheral health workers related to health education for mothers with under five children regarding prevention of malnutrition.
- Nurses at the post graduate level need to develop skills in preparing health teaching materials like puppets show, information booklet that can use in various specialized areas at the level of patient’s understanding.

#### Nursing Administration:

- The nursing administrators should take part in the health policy making, developing protocols, standing orders related to designing the health education programs and strategies on prevention of malnutrition among mothers with under five children.
- The nurse administrator should be able to plan, organize and conduct health education programme on prevention of malnutrition among mothers with under five children.
- The nurse administrator should be able to plan, organize and conduct health education programme considering cost effectiveness and carryout successful education programmes.
- The nurse administrator should explore their potential and encourage innovative ideas in preparation of appropriate teaching material and usage of man power.

#### Nursing Research:

- The findings of the study can be utilized for conducting research, knowledge on preventions of malnutrition for the urban area as well as rural area mothers with under five children and also can conduct research in community as well as clinical setting.
- Areas where there is a lack of knowledge should be given importance in module preparation.

#### Limitations:

- The study is limited to 100 mothers with under five children.
- Sample being small and purposive.
- Only single domain that is knowledge is considered in the present study.
- The study setting is limited to urban slum area at Gwalior.

- The study did not use any experimental group.
- The findings could be generalized only to the population which fulfilled the criteria in the study.

#### Recommendations:

- An experimental study can be conducted with the control group for effective comparison.
- Similar study can be replicated on a large sample to generalize the findings.
- A study can be conducted by including additional socio demographic variables.
- A comparative study can be conducted between rural and urban settings.
- A similar study can be conducted by using other educational methods like demonstration, role play, SIM and information booklet etc.

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