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# A study to assess the effectiveness of planned teaching on knowledge of mothers of under five children regarding protein energy malnutrition in selected rural areas in Wardha district

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**Abstract**
**Background of study:** Protein energy malnutrition is an important nutrition problem among preschool age children. This leads to various degrees of growth retardation. When growth retardation is severe, functional deficiencies like resistance to infection, poor intellectual development may occur
**Objectives 1:** To assess the knowledge of mothers of under five children regarding Protein Energy Malnutrition.2**)** To evaluate the effectiveness of planned teaching on knowledge of mother of under five children regarding Protein Energy Malnutrition.3) To find out the association between the post test score with their demographic variables
**Material and Methods:** Data will be collected by using structured close ended questionnaire**.**
**Research design and approach:** Quasi experimental design within one group pre and post test. A convenient sample of 50 subjects' mother of under five children was drawn from the study population, who were taken from selected rural areas in Wardha district.
**Result:** in pre test 2(4%) of mothers of under five children were having poor level of knowledge score, 76% had average and 20% of them had good level of knowledge score. The minimum score in pretest was 2 and the maximum score was 14, the mean score for the pretest was 8.04±1.92 whereas in post test 13(26%) of mothers of under five children were having good level of knowledge score, 64% had very good and 10% had excellent level of knowledge score. The minimum score in posttest was 13 and the maximum score was 23, the mean score for the posttest was 16.18±2.31. The levels of knowledge during the pretest and post test are compared to prove the effectiveness of planned teaching programme. There was no significant association between knowledge score with selected demographic variables. Thus the $H_1$ is accepted.
**Conclusion:** After the completion of the study it is revealed that the planned teaching programme on knowledge of mothers of under five children was effective. Recommendation: this study can be done on a using structured close ended questionnaire.
**Discussion:** In a previous study it was found that mothers of under five children have less knowledge regarding protein energy malnutrition and after the planned teaching programme the knowledge was increases.

**Keywords:** mother of under five children, protein energy malnutrition

## Introduction

"Protein–energy malnutrition (or protein–calorie malnutrition) refers to a form of malnutrition where there is inadequate protein intake."
Types include:-

- Kwashiorkor (protein malnutrition predominant)
- Marasmus (deficiency in calorie intake)
- Marasmic Kwashiorkor (marked protein deficiency and marked calorie insufficiency signs present, sometimes referred to as the most severe form of malnutrition)

Food is an important and basic biological need of man. It is essential for life, growth and repair of the human body, regulation of body mechanisms and production of energy for work. The nutrition of people on a global level is of great concern today particularly in developing nations. A fair section of the population does not get enough food to eat and their diets are deficient in enough food to eat and there are deficient in calories also; the children in the developing countries suffer from malnutrition[1].

## Objectives of the Study

1. To assess the knowledge of mothers of under five children regarding Protein Energy Malnutrition.
2. To evaluate the effectiveness of planned teaching on knowledge of mother of under five children regarding Protein Energy Malnutrition.
3. To find out the association between the post test score with their demographic variables.

## Assumptions

- The mothers of under five children may have some knowledge regarding Protein Energy Malnutrition.
- The planned teaching will enhance knowledge of mothers of under five children regarding Protein Energy Malnutrition.

## Methodology

- **Research approach:** Quasi experimental design within one group pre and post test.
- **Research design:** Quasi experimental research design.
- **Research Setting:** Selected rural areas in wardha district.
- **Sample:** the mothers of under five children of rural areas in wardha district.
- **Sample size:** 50 mothers of under five children in rural areas of wardha district.

**Variables**

- **Independent variable**- Planned teaching programme
- **Dependent variable**- knowledge questionnaire on protein energy malnutrition.

**Criteria for Sample Selection**

➢ **Inclusive Criteria**

Mothers of under five children

- Willing to participate in the study.
- Available during data collection.
- Able to read and write of understanding in Marathi language.

➢ **Exclusion Criteria**

Mothers of under five children

- Who have attended previous class regarding protein energy malnutrition

**Material**

The data collection tool consists of two parts.
It consists of two sections

**Section I – Demographic proforma**

The tool consisted of 8 items which dealt with socio demographic variables such as age of the child, age of mother, educational status of mother, family income per month, mother of children, religion, and type of family and duration of breast feeding.

**Section II- Structured knowledge questionnaire on protein energy malnutrition**.

There were totally 25 items that include definition, scores, incidence, causes, signs and systems, diagnosis, prevention, management and complication. Each item had three choices. There was one correct response that carried '1' mark. The total score was 25.

**Reliability**

Reliability analysis done by Guttmann split-half coefficient was 0.89.

**Method of Data Collection**

The data was collected by simple random sampling.

**Results**

In pre test 2(4%) of mothers of under five children were having poor level of knowledge score, 76% had average and 20% of them had good level of knowledge score. The minimum score in pretest was 2 and the maximum score was 14, the mean score for the pretest was 8.04±1.92 whereas in post test 13(26%) of mothers of under five children were having good level of knowledge score, 64% had very good and 10% had excellent level of knowledge score. The minimum score in posttest was 13 and the maximum score was 23, the mean score for the posttest was 16.18±2.31. Mean, standard deviation and mean percentage score values are compared and student's paired test is applied at 5% level of significance. The levels of knowledge during the pretest and post test are compared to prove the effectiveness of planned teaching programme. There was no significant association between knowledge score with selected demographic variables. Thus the $H_1$ is accepted.

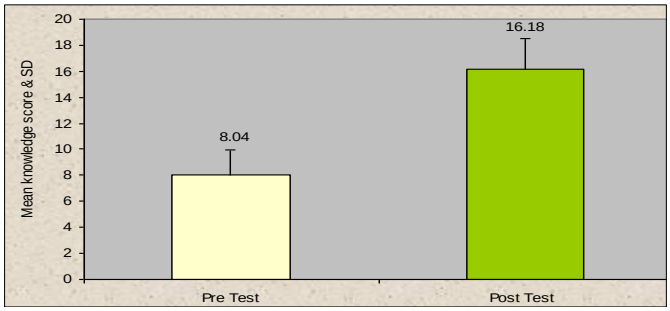


**Fig 1:** Significance of difference between knowledge score in Pre and post test

**Discussion**

**Major findings of the study**

Sample characteristics

- In pre test 2(4%) of mothers of under five children were having poor level of knowledge score, 76% had average and 20% of them had good level of knowledge score.
- The minimum score in pretest was 2 and the maximum score was 14, the mean score for the pretest was 8.04±1.92 whereas in post test 13(26%) of mothers of under five children were having good level of knowledge score, 64% had very good and 10% had excellent level of knowledge score.
- The minimum score in posttest was 13 and the maximum score was 23, the mean score for the posttest was 16.18±2.31.
- The levels of knowledge during the pretest and post test are compared to prove the effectiveness of planned teaching programme. Significance of difference at 5% level of significance is tested with student's paired't' test and tabulated 't' value is compared with calculated 't' value. Also the calculated 'p' values are compared with acceptable 'p' value i.e. 0.05.
- Mean, standard deviation and mean percentage score values are compared and student's paired test is applied at 5% level of significance.
- The tabulated value for n=50-1 i.e. 49 degrees of freedom was 2.00. The calculated value was 25.08 for overall knowledge score. The calculated 't' value are much higher than the tabulated value at 5% level of significance which is statistically acceptable level of significance.
- Hence it is statistically interpreted that planned teaching programme on knowledge regarding protein energy malnutrition among mothers of under five children was effective. Thus the $H_1$ is accepted.

This chapter discussed the findings of the study in relation to other studies earliar studies conducted by other researchers also showed that educational programme are helpful in indicating in the knowledge and attitude of mothers of under-five children. The next chapter deals with the conclusions drawn based on the findings of this study.

**Conclusion**

This chapter deals with the conclusion drawn on the findings of the present study. Protein energy malnutrition is one of the leading causes of childhood morbidity. Since mothers are the primary caretaker of children, their knowledge regarding the care of children with this condition is very vital in reducing the mortality and preventing complications. It is the responsibility

of nursing personnel to update the knowledge of mothers that can be used in community to educate people to improve the knowledge of mothers about protein energy malnutrition. PTP is one of the most important methods that can be used in community to educate people to improve the knowledge of mothers of under-five children regarding protein energy malnutrition.

The conclusions drawn based on the finding of study were

The study findings revealed that in the post test knowledge scores with number of children's of mothers of under five children. The tabulated 'F' values was 4.13(df=3, 49) which is higher than the calculated 'F' i.e. 1.52 at 5% level of significance. Also the calculated 'p'=0.22 which was much higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that number of children of mothers of under five children is not associated with their post test knowledge scores.

1. The association of post test knowledge scores with type of family of mothers of under five children. The tabulated 'F' values was 4.98(df=2,49) which is higher than the calculated 'F' i.e. 1.62 at 5% level of significance. Also the calculated 'p'=0.20 which was much higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that type of family of mothers of under five children is not associated with their post test knowledge scores.
2. There was no significant association between knowledge of mothers of under-five children and selected demographic variables like age, education, income, mothers of children, religion and type of family.
3. The PTP was very much appreciated by the mothers and they expressed their gratitude for providing information on PEM.

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