



# EFFECTIVENESS OF NUTRITIVE PUDDING AND PLANNED NURSING INTERVENTION TO OVERCOME MALNUTRITION AMONG PRE-SCHOOL CHILDREN, IN TERMS OF WEIGHT OF THE CHILD AND KNOWLEDGE OF THE DOMESTIC VIOLENCE VICTIMIZED MOTHERS

## Nursing

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## ABSTRACT

*A quantitative evaluative research approach was carried out among domestic violence victimized mothers and their malnourished preschool children in Pipaldhaar village at Sendhwa. The study was aimed to find out the effectiveness of nutritive pudding and planned nursing intervention to overcome malnutrition among preschool children. 30 samples were selected by adopting convenient sampling technique. Degree of malnutrition was assessed by checking the weight of the child based on GOMEZ'S classification and structured interview schedule was used to assess the knowledge on management of malnutrition among mothers. The findings shows that the post-test mean percentage score of weight and knowledge is higher than the pretest mean percentage score of weight of the children and knowledge of the domestic violence victimized mother. It is recommended that the nutritive puddings and planned nursing intervention was found significantly effective in improving the weight of the child and knowledge of the mother.*

## KEYWORDS

Effectiveness, Nutritive puddings, Planned nursing intervention, Knowledge. Malnutrition, domestic violence victimized mother, preschool children.

## INTRODUCTION

Under nutrition or malnutrition is a worldwide problem of today. It is not only an important cause of child mortality and morbidity but it also leads to permanent impairment of physical and mental growth of those who survive. The main target of malnutrition is preschooler. Although biomedical and socioeconomic risk factors for malnutrition in India are well known, the role that psychosocial factors play in anemia and underweight is less understood. Exposure to domestic violence is a psychosocial factor that may be associated with anemia and underweight for women as well as their children. Domestic violence increases psychological stress among Indian women, and witnessing maternal domestic violence increases psychological stress among children. Psychological stress increases oxidative stress and metabolic levels, risk factors for anemia and underweight. Domestic violence could also increase the risk of poor nutritional outcomes through environmental circumstances such as the withholding of food by abusive family members

## Statement of the problem

"A study to evaluate the effectiveness of nutritive pudding and planned nursing intervention to overcome malnutrition among pre-school children, in terms of weight of the child and knowledge of the domestic violence victimized mothers in a selected area, Sendhwa."

## Objectives

1. To screen the domestic violence victimized mothers
2. To screen the degree of malnutrition among pre-school children of domestic violence victimized mothers.
3. To prepare and validate the planned nursing intervention on "Management of malnutrition in children" for the mothers.
4. To compare the child's weight before and after intervention.
5. To assess and compare mean pretest and mean post-test knowledge score on management of malnutrition among the mothers of malnourished pre-school children.
6. To determine the association between the mean pretest weight among the children with their selected demographic variables (Age of the child)
7. To determine the association between mean pretest knowledge score on management of malnutrition among domestic violence victimized mothers with their selected demographic variables. (Age and education of the mother).

## Hypotheses (Level of Significance at $P < 0.05$ )

**H<sub>1</sub>**- There will be significant difference between the mean pre-test and mean post-test weight score among the pre-school children.

**H<sub>2</sub>**- There will be significant difference between mean pre-test and mean post-test knowledge score on management of malnutrition among the domestic violence victimized mothers.

**H<sub>3</sub>**-There will be significant association between mean pre-test weight score among the children and their age

**H<sub>4</sub>**- There will be significant association between mean pre-test knowledge score on malnutrition among the domestic violence victimized mothers and their selected demographic variable.

**H<sub>4</sub>[a]**- There will be significant association between mean pre-test knowledge score on management of malnutrition and age of the domestic violence victimized mothers.

**H<sub>4</sub>[b]**- There will be significant association between mean pre-test knowledge score on management of malnutrition and educational status of the mothers.

## METHODS

### (1) Nutritive pudding:

In this study it refers a nutritious pudding that is rich in protein and energy which is prepared by the researcher with the following ingredients. 1) Whole wheat flour -40gm, 2) Roasted Bengal gram-16 gm, 3) Groundnut-14 gm, 4) Jaggery-25 gm, 5) Ghee-5 gm, 6) Luke warm water -two tablespoon. Two laddus (100gm) contain approximately 12.12 gms of proteins, 6.61 mgms of iron and 416.33 Kcal of energy.

### (2) Planned Nursing Intervention on management of malnutrition among the domestic violence victimized mothers:

It consist of teaching on management of malnutrition and demonstration about preparation of nutritive pudding. The Planned Nursing Intervention on Management of malnutrition was developed with appropriate visual aids. Live demonstration on preparation of nutritive pudding was done by the researcher to the mothers.

(3) Malnutrition: In this study it refers the reduction of child's weight which is according to GOMEZ's score

$$\text{Weight for age (\%)} = \frac{\text{Weight of the Child}}{\text{Weight of the Normal Child of same Age}} \times 100$$

It was interpreted as normal nutritional status if weight between 90-110%, mild malnutrition between 75-89%, Moderate malnutrition between 60-74% and Severe malnutrition below 60%. Children whose weight is between 89% and 60% [mild and moderate malnutrition] were included in this study.

A group pretest posttest design was conducted at Pipaldhaar area, Sendhwa. Initially the researcher got the permission from concerned authority. Then the population were identified and screening were done by adopting GOMEZ's score to assess the degree of malnutrition. Based on the screening, mild and moderate malnourished preschool children were selected by using Non probability Convenient Sampling technique. Sample size was 30 malnourished pre school children and their mothers and obtained written consent from each mother by explaining the nature of the study and giving assurance for keeping their information Confidentially. On Day 1, the pretest was done by using structured interview schedule to assess the knowledge on

management of malnutrition among the mothers. On Day 2 the planned intervention was given by dividing the mothers of malnourished pre school children into three groups. The planned intervention on management of malnutrition was administered by using adequate teaching aids, along with demonstration on preparation of nutritive pudding. Duration was 60 min. Followed those doubts were clarified and randomly one mother from each group showed return demonstration. Followed by researcher visited their home between 7.30 A.M to 12.30 P.M and distributed two nutritive puddings (250gm) to the samples daily, from which 100gm was consumed by the child during morning in the presence of researcher and the balance was preserved in an air tight container and the mother was made responsible to give it to child after 4 hours of the consumption of first serving. Researcher distributes it for 30 days and assured the intake of nutritive pudding.

On Day 8, post test knowledge was assessed by using the same questionnaire among the mothers and on Day 31 post weight was checked among the children.

### Findings

The following diagram represents the pre-test and post-test weight among malnourished preschool children.

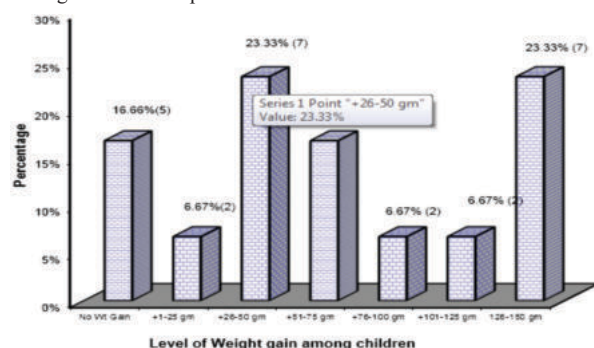


Fig 1: Bar diagram on level of weight gain among malnourished preschool children

Table1: Maximum possible score, mean, standard deviation, Range, mean score percentage, paired mean difference and paired 't' value of management of malnutrition among the domestic violence victimized mothers. n=30

| S. No | Area of Knowledge | Max. Possible score | Pre-test knowledge score |    | Mean score (%) | Post-test knowledge score |      | Mean score % | Paired mean difference | Paired 't' value |
|-------|-------------------|---------------------|--------------------------|----|----------------|---------------------------|------|--------------|------------------------|------------------|
|       |                   |                     | Mean                     | SD |                | Mean                      | SD   |              |                        |                  |
|       | Overall           | 25                  | 14.12                    | 5  | 56.48          | 20.16                     | 3.96 | 80.4         | 5.98                   | 12.574           |

\* Significant  $P < 0.05$  level  $t_{29} = 2.045$   $df = 29$

The mean pretest weight was 11.45 but the mean posttest weight was 11.52, the paired 't' value was  $t_{29} = 8.0477$  and the table value 2.045, which showed it was significant at  $P < 0.05$  level.

The overall mean percentage posttest knowledge score on management of malnutrition was 80.4% and the mean percentage pretest knowledge score was 56.48%, with  $t_{29} = 12.574$  which is more than the table value at  $P < 0.05$  level of significant.

The chi-square value of the mean pre-test weight among children and their age was found to be not significant. ( $\chi^2 = 0.092 < \text{table value } 3.84$ ), at  $p < 0.05$  level.

The chi-square value of the mean pre-test knowledge score on management of malnutrition among the mothers and their age was found to be not significant. ( $\chi^2 = 4.106 < \text{table value } 15.51$ ), at  $p < 0.05$  level.

The chi-square value of the mean pre-test knowledge score on management of malnutrition among the mothers and their educational level was found to be significant. ( $\chi^2 = 32.768 > \text{table value } 15.51$ ) at  $p < 0.05$  level.

### Limitation:

1. Consumption of nutritive pudding during evening time could be assessed only by self-reporting method of the mother.
2. All the mothers were not given chance for return demonstration.

### CONCLUSION

Women who experience domestic violence tend to have higher levels of psychological stress. We must empower them through different activities. In this study the mean post-test score on weight of the child and knowledge of the mother was much better than the mean pretest weight and knowledge score. It indicated that the Nutritive pudding and planned nursing intervention was highly effective in improving the child's weight and knowledge of the mother.

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