

**A study to evaluate the effectiveness of planned teaching programme on knowledge of care givers regarding dietary pattern among preschool children in selected schools, Bangalore**

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**Citation this Article:** Prof. Vernonsiya. A, “A study to evaluate the effectiveness of planned teaching programme on knowledge of care givers regarding dietary pattern among preschool children in selected schools, Bangalore”, IJMSIR- May - 2022, Vol – 7, Issue - 3, P. No. 57 – 62.

**Type of Publication:** Original Research Article

**Conflicts of Interest:** Nil

**Abstract**

**Introduction and objectives:** Children are the supreme gift of God. Healthy, growing children need a balanced diet. Food should be provided in qualities that balance energy and nutrients with the children small appetites. The aim of the present study is to assess the effectiveness of planned teaching program on knowledge of care givers regarding dietary pattern among preschool children. The objectives were to Assess the pre-test knowledge score of mothers regarding dietary pattern among preschool children. Prepared a planned teaching program. Evaluate the effectiveness of the planned teaching programme regarding dietary pattern of preschool children and to Determine the association between pretest knowledge score of mothers regarding dietary pattern among preschool children selected demographic variables.

**Methods:** A pre-experimental approach was adopted for this study since the investigation was aimed to evaluate the effectiveness of a planned teaching programme regarding dietary pattern among care givers of preschool children. The participants were 40 mothers of preschool children studying in Lowry memorial school, Bangalore-

16. A convenience sampling technique was used to select the sample for study. A questionnaire is used to collect data from the subjects. The obtained data was analyzed using descriptive and inferential statistics and interpreted in terms of objectives and hypothesis of the study. The level of significance was set at 0.05 levels.

**Results:** The present study reveals that in the pre-test the subjects had inadequate knowledge with a mean of 16.57% and standard deviation of 4.02 where as in posttest there was a significant mean knowledge gain of 21.8% and standard deviation of 3.69. A significant association was found between educational status, no of children and income and mean pretest knowledge score. The overall mean of the posttest knowledge score obtained for the subjects (21.8) is apparently higher than overall mean of pretest scores (16.57). The mean difference being (5.22). The paired' value at df (39) obtained is 23.74 significant at 0.05 level. There is positive correlation between pretest and posttest knowledge level of care givers and 'r' is found to be significant with the score of  $t = 14.85(t_{38,0.05}) = 1.96$  value respectively. Therefore, the null hypothesis is

rejected and research hypothesis is accepted. The planned teaching program had enhanced the knowledge of mothers of preschool children regarding knowledge on the dietary pattern. Hence the planned teaching program is instructionally effectively, appropriate & feasible.

**Conclusion:** This study concludes that the subjects had an inadequate knowledge in the pretest where as in the post test all the subjects had gained adequate knowledge. The study findings indicate that planned teaching programme was effective in enhancing the knowledge of mothers regarding dietary pattern among preschool children.

**Keywords:** Balanced Diet, Care givers, Dietary pattern, Preschool children, Food, Health, Planned teaching programme.

### Introduction

“If we could give every individual the right amount of nourishment and exercise, not too little and not too much, we would have found the safest way to health.” -- Hippocrates.

Children constitute the most important and vulnerable part of our population. A healthy child is a sure future. The future of our nation depends on the way in which we care for them and diet plays an important factor in influencing growth and development. The child completely depends upon the mother and the care giver for the diet. The diet of the child is assigned by the care givers in the form of dietary patterns based on the socio-economic, education, religion and cultural status. Diet is the pathway for success to reach the circle of healthy citizen and is understood that nutrition is the single most important influence on growth and development of children.<sup>1</sup>

Food should be provided in quantities that balance energy and nutrients with the children's small appetites

Children typically grow taller by 2 or 3 inches and heavier by 5 lb or so each year from age 1 year to adolescence. Total energy needs increase slightly with age, although energy needs per kilogram of body weight actually it declines gradually during childhood. Energy requirements are also influenced by activity level. Growth and activity patterns vary widely among children. The Food guidance systems that recommend minimum amount and age-appropriate portion sizes are available to help caregivers plan menus to balance energy and nutrients with children's growth and activity patterns. By ensuring that children are provided with adequate amount and combinations of food during their day in care, child-care programs can make substantial contributions to prevent hunger and increase nutrition security for the nation's young children.<sup>3</sup>

In India children are affected with malnutrition and it is found to be one of the greatest health problem which is being faced by our community today. It is reported that 60-70% of young children today have nutritional deficiency. It is recognized that people in India take diet with minimum proteins requirement and less in sufficient calories. A child becomes malnourished because if illness in combination with inadequate food intake. Malnutrition contributes to over 6 million death of children each year, 55% of the death among children are associated with factors such as social economic and moral aspects the vulnerable period is 4-6 years of life 40% of this age group consume adequate diet.<sup>5</sup>

Healthy, growing children need a balanced diet to achieve a dietary pattern that maintains appropriate blood cholesterol levels and optimal energy. Preschoolers should still receive greater portions of energy-rich foods and foods high in calcium, zinc, iron, and supplementation of vitamin D and B12. Furthermore, it is

important to ensure a good mix of plant-protein sources. A whole-food diet, comprising legumes, grains, nuts, seeds, fruits, and vegetables together with fortified soy milk, will have children brimming with health.<sup>8</sup>

When children are young, their parents, care givers and families have greater control over what they eat. At the beginning of the twenty-first century, more families are headed by single parent than ever before and a greater number of two parent families have both parents in the workforce. As a result, preschooler often has to depend on their schools to feed them. Though the schools take full care, there is no guarantee that they will eat what is given.<sup>10</sup>

Early eating pattern have effects that persist over time, regardless of later changes in diet. So it is very important for children to eat a well-balanced diet from an early age if they are to get the best out of their education.<sup>11</sup>

### **Materials and method**

To accomplish the objectives of the study, a pre-experimental approach was adopted for this study since the investigation was aimed to evaluate the effectiveness of a planned teaching programme regarding dietary pattern among care givers of preschool children. A one pre group and post group test research design was selected for the study. Therefore, a total number of 40 mothers who met in the inclusion criteria were selected by using convenience sampling technique. The study was conducted at Lowry Memorial School, Bangalore-16. Planned teaching program schedule was used to collect the data which consisted of 2 parts of structured knowledge questionnaire Part I and Part II

Part I: Socio demographic data consists of 10 items such as age group, religion, family income, types of family, educational status of mother, occupational status of

women, sources of health-related information, foods habits, number of children and age of the child.

Part II: It is a structured interviewed schedule questionnaire on nutrition and planned dietary pattern using multiple choice questions which contained 40 items. Each. To interpret the score, the correct response is given a score of one mark and the wrong response is given a score of zero. The resulting knowledge score ranged as\* Adequate knowledge (75-100%) \* Moderate knowledge (51-75%) \* Inadequate knowledge (< 50%).

The prepared tool was administered to 40 care givers of preschool children at Lowry memorial School at Bangalore. Formal permission was obtained from the concerned authority to conduct the study. Samples were selected in accordance with laid down criteria's. Consent was obtained from each subject after giving assurance of confidentiality. Pretest was given on day one day followed by planned teaching programme and on day seventh posttest was taken. The reliability of the structured knowledge questionnaire was established by using split half method. Correlation of the test was found out by using Karl-Pearson's correlation co-efficient formula. The knowledge questionnaire was found reliable ( $r = 0.96$ ). Hence the tool was reliable for the study. The pilot study findings revealed that the overall posttest knowledge scores obtained was higher than the overall pre-test knowledge scores which showed significant at  $p < 0.005$ , so this significant gain in knowledge among care givers after attending Planned teaching program on the knowledge regarding dietary pattern of preschool children on the effectiveness of Planned teaching program Pilot study showed that the study was feasible.

## Results

### Findings related to pre-test knowledge among the caregivers of preschool children.

It was found that the knowledge of the subjects in pretest had inadequate knowledge with a mean of 16.57% and standard deviation of 4.02 where as in posttest there was a significant mean knowledge gain of 21.8% and standard deviation of 3.69 respectively. The overall mean of the posttest knowledge score (21.8) is apparently higher than overall mean of pretest scores (16.57). The mean difference being (5.22). The paired 't' value at df (39) obtained is 23.74 significant at 0.05 level.

### Findings related to post-test knowledge among the caregivers of preschool children

After the teaching programme, the mean knowledge score was 56% for introduction and definition, 59% for nutritive requirement, 65% for Advantages and deficiencies, 76% for tips for planned diet and 61% for nutritional counseling for pretest. The overall mean of the posttest knowledge score (21.8) is apparently higher than overall mean of pretest scores (6.57). The mean difference being (5.22). The paired 't' value at df (39) obtained is 23.74 significant at 0.05 level.

### Association between the levels of knowledge of care givers with demographic variables.

The association between the pretest and posttest  $\chi^2$  value at 5% level of significance concluded that the demographic variables like monthly income, No. of children and educational status with respect to knowledge levels are found to be significant at 5% level of significance. And the other variables like type of family, occupation, food habit, age, religion are found to be not significant at 5% level of significance. Therefore, the null hypothesis is rejected and research hypothesis is accepted.

$H_1$  - There will be significant increase in knowledge among care givers of Preschool children regarding dietary pattern followed by planned teaching programme.

## Discussion

The aim of the present study was to evaluate the effectiveness of planned teaching program on knowledge of care givers regarding dietary pattern among preschool children in a selected school at Bangalore. With an Objective to assess the pretest knowledge of mothers regarding dietary pattern among preschool children. The Results show that out of 40 samples, 69% had inadequate knowledge regarding dietary pattern in the pretest. The overall pretest knowledge score was only (16.57%). This shows that inadequate knowledge of mothers regarding dietary pattern. After validation from 8 experts and with the support/ guidance from the guide PTP was prepared with adequate contents. The planned teaching programme was conducted for about 30 minutes using flashcards and charts. 3: was to evaluate the effectiveness of the planned teaching programme regarding dietary pattern of preschool children.

Analysis result showed that the overall pretest mean is 16.57% and mean % of 69% with SD of 4.02 and posttest mean is 21.8% and mean % was 75% with SD of 3.69 So the knowledge score of mothers on dietary pattern of preschool children had an enhancement of knowledge as observed by mean of mean % of 85.0 and SD of 9.2. Since the posttest value is more than the pretest, the planned teaching programme was effective.

Since, the obtained value is more than the table value at 0.05 level of significance. So the research hypothesis  $H_1$  is accepted and the null hypothesis is rejected.

## Conclusion

The present study assessed the knowledge of care givers regarding dietary pattern among preschool children and

also to evaluate the effectiveness of planned teaching programme. A knowledge questionnaire was used to assess the knowledge among the care givers of preschool children. The data was interpreted by suitable appropriate statistical methods. The study findings indicate that planned teaching programme was effective in enhancing the knowledge of care givers regarding dietary pattern among preschool children Hence the planned teaching program is instructionally effective, appropriate & feasible.

### **Implications of the study**

The findings of this study have implications in various areas of nursing namely nursing practice, nursing education, nursing administration and nursing research.

### **Nursing practice**

Nurses are the key persons of health team, who play vital role in promotion and maintenance of health. They should involve in planning the implementation of dietary pattern of preschool children among the mothers. Nurses should incorporate the concept of different pattern of diet they practice. They can play a key in identifying the growth and development of the child and the requirement of nutritive values in their diet and pattern of eating and can motivate mothers to improve the health status of the children.

### **Nursing education**

Nurse educator can teach the mothers to gain adequate knowledge in dietary pattern of the preschool children and their daily requirement of nutrition in each meal.

They can also teach the mothers about the adverse effect which affect the health of the child due to improper diet and eating habits. Nurse educator can teach to adopt appropriate measures to improve the implementation of planned diet pattern for the preschool children.

### **Nursing administration**

Nurse administrators can plan and conduct a short-term educational program for mothers as well as the nurses to improve their knowledge on dietary pattern of preschool children. Nurse administrator should plan in service education program for nurses to enhance their knowledge. Nurse administrators are in the key position to organize, implement and evaluate staff education programs which will in turn help to raise the standard of care.

### **Nursing research**

The finding of the study shows that majority of mothers had lack of knowledge about diet and planned dietary pattern in the pretest. Based on this finding the researchers can conduct further studies on awareness and improvement of knowledge of mothers regarding dietary pattern among preschool children on large samples. The study will motivate the new researcher and to conduct studies with different variables on large scale. Nursing research can help to identify the existing knowledge gap in the nursing profession. This will help to improve the quality and standard of nursing care based on evidence-based practice.

### **Recommendations**

On the basis of the study findings the following recommendations were made for further research.

- Similar study can be undertaken with a larger number of samples to generalize the findings.
- A similar study can be undertaken with control group design.
- A similar study can be repeated with randomization of sample.
- A comparative study can be done in both rural school and urban schools.

## Acknowledgement

I thank Lord Almighty, whose blessing and inspiration guided me throughout the study. No one can lead a life apart, I would like to thank everyone who inspired, encouraged, helped and guided me with this thesis. I could never complete this work without their help. At this occasion my heart felt, sincere and respectful thanks to Mrs. Vasanth a Kumari Principal/ HoD Child Health Nursing under whose guidance, I have pursued this study. I record my sincere gratitude to her for her guidance, suggestion, encouragement and personal concern in going through my research and elevate the quality of the research. Special thanks my beloved parents Mr. & Mrs. Grace Amos and my sisters and their families for their inspiration endless and continuous support. The Overwhelming support of my husband Mr. Kirubhagaran, and my only beloved son Master Kalvin Aaron for their understanding and encouragement throughout the study. My special thanks to Mr. Uma Pati Assoc. Professor Dept. of statistics, M.E.S College for his guidance in compiling the statistic for the dissertation. My sincere thanks to all the faculty members, and office members of Adarsha College of Nursing. My heartfelt thanks to all the 40 mothers and the little ones who participated in the study.

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