

Effect of Nutrition Demonstration Programme on Knowledge Regarding Preparation of Hyderabad Mix Recipe among Mothers of Pre-school Malnourished Children

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Abstract

Poor knowledge of mothers on preparation of nutritive food items is one of the reasons for prevalence of malnutrition among preschoolers. Hyderabad mix recipe invented by National Institute of Nutrition, Hyderabad is the best supplementary food for home treatment and prevention of malnutrition. The present study was undertaken to evaluate the effect of nutrition demonstration programme on knowledge of preparation of Hyderabad mix recipe among mothers of preschool malnourished children; knowledge scores of Hyderabad mix recipe of mothers were also associated with demographic variables. The study established that nutrition demonstration programme was quite effective in improving the mother's knowledge about preparation of Hyderabad mix recipe.

Children are the future of nation and society and mothers are guardian of that future. Care of children has traditionally been the responsibility of mothers irrespective of education, income and social class difference. In the study conducted by Sharma S (2006), mothers had poor nutritional knowledge regarding nutritive food recipes which would provide adequate protein caloric requirement to the child. Malnutrition contributes to 60 percent of the 10 million deaths globally every year among children less than five years of age. Thirty-five percent of the world's undernourished children live in India. In India, 61 million preschoolers (51% children under the age of five) are stunted (WHO, 2008).

According to report under ICDS programme July-2012, 95,700 anganwadis and 10,000 mini anganwadis across the state of Maharashtra showed that out of the total number of children weighed (63.16 lakh), 7.75 lakh were moderately underweight and 1.11 lakh of them were severely underweight. While Pune district adds 1,000 cases of underweight children each month. In June 2012 out of total children weighed (3.54 lakh), 40,325 were moderately underweight and 3,645 were severely underweight. In July 2012 out of total children weighed (3.63 lakh), 41,792 were moderately underweight and 3,812 severely underweight. Malnu-

trition severely affects child's physical, mental development and weakens the immune system, thereby contributing to more than 50 percent of deaths associated with infectious diseases. According to Health Scenario Karnataka-2008, 44 percent of its children below 5 years were underweight and 37 percent had stunted growth.

Malnutrition in children is the result of faulty feeding practices, inadequate food and health security, lack of awareness and knowledge of mothers regarding their food requirement (Lancet, 2003). Systemic study of habitual diets of preschool children indicated 300 cal/day energy deficit, hence supplementary feeding is needed in them as they consume inadequate diets and suffer from malnutrition (Swaminathan M). Millennium Development Goal (MDG) calls for a two-third reduction in mortality children aged less than 5 years between 1990-2015 and eradicate the prevalence of underweight children less than 5 years, thus supporting introduction of appropriate and adequate complementary foods as keys to meet MDG.

National Institute of Nutrition (NIN), Hyderabad (1CMR) has invented a homemade supplementary feed called Hyderabad mix of whole wheat-40g, Bengal gram-16 gm, ground nut-10 gm, jaggery-20 gm for cases of malnutrition. It provides 11.3 gm proteins and 330 kcal. Studies done by NIN, Hyderabad have shown that a daily supplement of 86 gm of Hyderabad mix food brings about significant improvement in the growth rate of pre-school children. The 9th five-year plan of Food and Nutrition Security

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(2007-2012) and WHO report in Applied Nutrition Programmes, India (2007) suggested of Hyderabad mix as supplementary feeding at low cost to prevent malnutrition in children, and also suggested in building nutrition awareness in the general population.

In a study conducted by Mishra (2007) mothers had poor knowledge regarding nutritive foods and suggested that nutrition education programmes must be incorporated among the mothers, thus teaching by nurses would enhance nutritive knowledge and feeding practices.

Nutrition demonstration programme is an active measure to deliver knowledge to the mothers of children and has been proved to cost less but have miraculous effect. Thus, the investigator felt the need for nutrition demonstration programme to update the knowledge of mothers of malnourished children in the anganwadi centres.

Objectives

The purpose of the study was:

- > To assess the knowledge of mothers of preschool malnourished children regarding preparation of Hyderabad mix recipe.
- > To evaluate the effectiveness of nutrition demonstration programme on knowledge regarding preparation of Hyderabad mix recipe among mothers of preschool malnourished children.
- > To find an association between pre-test knowledge scores and selected demographic variables.

Review of literature

The literature related to effectiveness of (i) nutrition demonstration programme on knowledge of mothers on nutrition, and (ii) Hyderabad mix on malnourished children was reviewed.

Table 1: Area wise distribution of mean percentage of pretest and post-test knowledge scores of mothers of malnourished children (n = 50)

	Areas of knowledge	Total score	Mean % score of subjects		
			Pre-test	Post-test	Difference
1	Concept of malnutrition	250	73.60	89.20	15.60
2	Concept of supplementary feeding in malnourished children	250	49.20	92.00	42.80
3	Concept of Hyderabad mix	400	68.50	89.50	21.00
4	Nutrient knowledge on Hyderabad mix	500	54.80	88.80	34.00
5	Preparation of Hyderabad mix recipe	350	57.00	94.28	37.28

Hypothesis

H1: The mean post-test knowledge scores of mothers regarding preparation of Hyderabad mix recipe is significantly higher than their mean pretest knowledge score at 0.05 level of significance.

H2: There is a statistically significant association between pre-test knowledge scores of mothers regarding preparation of Hyderabad mix recipe with their selected demographic variables at 0.05 level of significance.

Methodology

The study was conducted in anganwadi centres of Honaga village under Vantamuri PHC at Belgaum using purposive sampling technique. A Pre experimental research approach, one group pre-test and post-test design was used to assess the knowledge of mothers of malnourished children regarding preparation of Hyderabad mix recipe. Mothers of preschool malnourished children were selected as sample. The sample size comprised of 50 mothers.

A 2-part structured interview schedule was used to collect the data which had two parts, I and II. Part-I contained demographic characteristics of the mothers and Part-II had 30 multiple choice items pertaining malnutrition and Hyderabad mix recipe with 30 maximum scores. Data was collected by the investigator herself during the study. All subjects were informed to attend nutrition demonstration programme on third day of pre-test. The post-test was conducted within a week of nutrition demonstration programme using the same structured interview schedule. The collected data was analyzed, tabulated and interpreted using descriptive and inferential statistics.

Results

Majority of mothers of malnourished children (90%) belonged to the age group of 21-25 years, 40 percent had primary education. Regarding occupation of mothers 66 percent were daily wages and maximum number of mothers i.e. (86%) belonged to joint type of family. Maximum mothers (62%) had monthly income Rs. 2000/- per month. Majority of mothers (54%) had birth order of their preschooler second. Majority of mothers (31%) had source of information of nutrients and recipes through health professionals.

Table 1 depicts area wise pre-test and post-test mean percentage knowledge score of the mothers. In pre-test there was maximum knowledge deficit in the area of concept of

Table 2: Chi square values computed between knowledge of Hyderabad mix recipe with selected demographic variables (n=50)

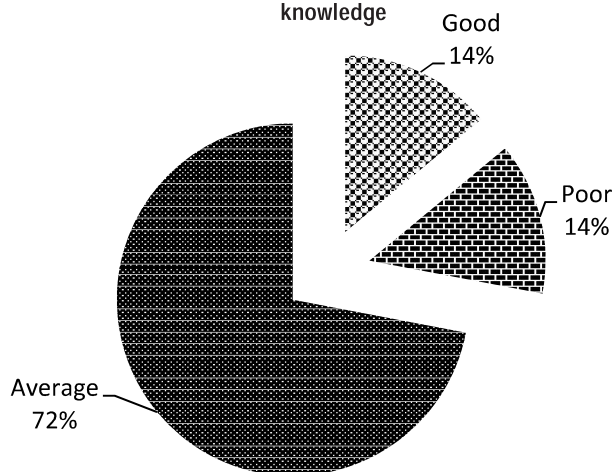
SNo.	Variables	X ²	df	Significance
1	Age	17.35	6	Significant
2	Educational status	56.16	6	Significant
3	Occupation of mother	12.46	4	Significant
4	Type of family	28.76	4	Significant
5	Religion	19.95	6	Significant
6	Family income	20.17	8	Significant
7	Birth order of the preschooler	12.69	6	Significant
8	Sources of information	20.17	8	Significant

Level of significance: $p=0.05$ level
 $X^2(6)$, 12.59, $p<0.05$, $X^2(4) = 9.48$, $X^2(8) = 15.50$

supplementary feeding, nutrient knowledge on Hyderabad mix, preparation of Hyderabad mix and concept of malnutrition. The mean post-test knowledge of the mothers was found to be significantly higher than their mean pre-test knowledge scores in all the areas. The overall pre-test mean knowledge scores was 21.12 ± 4.11 , whereas post-test mean knowledge scores was 31.72 ± 1.80 . The t-value (25.23) was found to be significant at 0.05 level of significance, which clearly indicates the effectiveness of nutrition demonstration programme in improving knowledge of mothers of malnourished children about preparation of Hyderabad mix recipe.

Overall level knowledge on preparation of Hyderabad mix recipe shows that 72 percent of them had average knowledge, 14 percent had good knowledge and 14 percent had poor knowledge, revealing that mothers of malnourished children had average knowledge regarding Hyderabad mix recipe (Fig 1).

Fig 1 : Distribution of mothers according to their level of knowledge



Association between knowledge scores of the mothers with selected demographic variables the results showed significant association ($p>0.05$) between age, educational status, occupation of mothers, type of family, religion, family income, birth order of the preschooler, and sources of information (Table 2).

Discussion

The present study revealed that majority of the mothers (90%) belonged to age group of 21-25 years, they were daily wages workers (66%), and had primary education (40%). It is congruent with the study conducted in Varanasi where a greater percentage of mothers (48%) belonged to 21-25 years, 40 percent were daily wage workers and 31.3 percent had primary education.

This study also clearly indicates the effectiveness of nutrition demonstration programme in improving knowledge of mothers of malnourished children about preparation of Hyderabad mix recipe. The findings are supported by Priyadarshini S, Valsaraj BP, D Souza et al, Sharma, and others. Studies have indicated gain in nutrition knowledge of mothers of malnourished children with teaching nutrition demonstration programme. The impact of nutrition education and intervention showed improvement in the feeding practices and child care of the mothers of the malnourished pre-school children by nurses as revealed by Bhargava (2008).

Conclusion

Nutrition demonstration programme was found effective in improving knowledge of mothers of malnourished children regarding Hyderabad mix recipe. The knowledge would be utilised during routine OPD clinical check-ups, immunisation clinics, well baby clinics, home visiting in community area, ward postings so that the mothers would take precautionary measures to improve the nutritional status of their child and prevent them from malnutrition.

Recommendations

Based on this study, following recommendations are made:

- The study can be replicated on a large sample for making wider generalisations.
- An experimental study can be conducted (i) using control group in comparison, and (ii) in community setting / colleges for public health nurses / nursing students respectively.
- A study can be conducted on malnourished children to increase their nutritional status.

- Manuals, information booklets and self-instruction module may be developed in areas of preparation of Hyderabad mix recipe.

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Book Review

Title: Essentials of Psychiatric & Mental Health Nursing

Author: Dr Mary Verghese

Published by: Elsevier Indian Pvt Ltd.

Price: Not mentioned

Pages: 554 + xviii

Psychiatric Nursing is gaining increasing attention and coverage in health care due to phenomenal growth in the number of people living with psychiatric disorders of various kinds in most countries. Primarily intended for nurse students at various levels, the book is of value to other health care functionaries as well.

Topics such as Qualities of Psychiatric Nursing, Mental Health Programme, Standards of Care Professional Performance, Nursing Process, etc. have been well covered by the author. Concepts of Mental Status Examination, Community Health, Admission Procedures and Psychiatric First Aid have been covered. Inclusion of Glossary and a section on Ayurvedic treatment for various morbidities adds to the value of the title.

Yet there are certain weak areas that need more comprehensive treatment. Like, signs and symptoms of Anxiety Disorder have not been covered. Other missing issues that a reader expects are Principles and Standards of Mental Health Nursing, Mini Mental Status Examination, Group theory, Occupational therapy, Relaxation therapy, Psycho-analytical therapy. Then, areas like therapeutic communication and crisis intervention and Electroconvulsive therapy have not been properly covered. These can be looked into in forthcoming editions of the book.

Over all, the book is good enough, written in a style that is easily understandable, and recommended for use of GNM, BSc and MSc nursing students.

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