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Short Communication

Health promotion intervention to educate mothers of preschool children to promote wellness

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ABSTRACT

Preschoolers are delicate individuals with higher rates of mortality and morbidity. Nowadays, the focus is to reduce mortality rates by focusing on risk factors, including preventable causes and elements that affect children's health. Creating an awareness among mothers in a particular community will help prevent and promote health among such children. Therefore, a study is designed to find out the effectiveness of focused intervention on health promotion among mothers of preschool children in selected urban area of Chennai. To validate the effectiveness of focused intervention a pre-test and posttest outcomes were measured to enable the wellness of preschool children. A quantitative research approach and pre-experimental design were used to gather data from 100 mothers of preschool children using convenience sampling technique. Self-structured knowledge questionnaires were used during pretest and post-test. After pretest, a focused intervention on health promotion among mothers of pre-school children was given. The outcome of the study was measured through a post-test. The data collected was analyzed, interpreted and the outcomes were reported. The average pre-test level of knowledge score of mothers was 8.22 and the average post-test knowledge score was 16.05, a significant difference (7.83). Mothers in nuclear family in the urban area having more than one child showed better outcome. Statistical significance was calculated using the chi-square test. The preliminary study's findings support that focused intervention helps mothers to gain more knowledge that may help to maintain the health of their children. Such studies may be recommended to educate the mothers help reduce under five child mortality.

Keywords: Preschool children, Health promotion, Demographic variables, Focused intervention, Statistical significance, Chi-square test

INTRODUCTION

Mortality among school children including preschool children are high.[1] This is due to malnutrition which make them susceptible to common childhood illnesses like pneumonia, malaria and diarrhoea.[1]Mortality rate among children below the age of five in India is reported to be reduced from the survey taken in 2015 to the one taken in 2017 at the national level. The same trend is observed in Tamil Nadu with decline in mortality rate for children below five years old.

The healthcare system in India includes primary, secondary and tertiary care health centers. A primary

health center involves in curative, preventive, promotive and family welfare services. It is support by a medical officer and other paramedical staff including nursing personnel. It includes 6 subcenters. Tamil Nadu has around 2000 primary health centers.

One such area is Choolai in Tamil Nadu. In this area a survey was taken to find out the number of children living in the area. It was found that there are 4158 children are living in the area, of which 2052 children are males and 2106 are female children.[2,3]

Community health nurse in such centers plays a vital role in promoting community health. She provides guidance and support to the primary care provider. She creates a healthy environment for mother and child to maintain and promote child's growth and development.[4]

One of the major roles is to promote reproductive health of mothers and their children. Educating and maintaining the health of mothers will help promote wellness of the children and therefore, control infant mortality rate. Preschool children are more prone to disease and death. One of the ways to control infant mortality rate is identify the preschool children and their mothers who need community health support.[5]

As a community health nurse, one has to meet the health needs of the mother and children those who visit the primary health centers. As this is an urban primary health center, most of the families are nuclear families with one child and few with more than one child. It was designed to provide a planned health intervention to selected mothers of preschool children. The planned health intervention included a) parental education regarding growth and development monitoring, immunization, proper care during a common childhood illness, play and child safety and b) diet counselling such as safe drinking water, balanced diet and food safety measures. The health intervention protocol helps to promote awareness of among preschool mothers and therefore, health of the children.[6,7]

The present pilot study was undertaken to educate the preschool children's mother in a particular area "Choolai. The outcome of intervention was reported after analyzing the data collected before and after health intervention in the participating preschool mothers.

METHODS

The current study was undertaken during the month of August 2023. Mothers of preschool children formed the subjects for the study. The sample size was calculated and 100 mothers of preschool children in Choolai area were included in the study. Non-probability convenience sampling technique was used for the present study.

After obtaining formal administrative permission and the ethical clearance, a pilot study was conducted. Mothers who were available during the study period and willing to participate were included in the study. Informed consent was obtained from the mothers after explaining the purpose of the study.

Self-structured questionnaires including demographic data and knowledge questionnaire were used to collect data during pretest and post-test. Following the pretest, a focused intervention was given to mothers, and after 7 days a post-test was conducted. The focused intervention included a) Parental education regarding growth and development monitoring, immunization, proper care during a common childhood illness, play and child safety and b) diet counselling such as safe drinking water, balanced diet and food safety measures.[7]

Data analysis

The obtained data was analyzed using Microsoft Excel and SPSS packages. Results were presented in the form of Tables and Figures. Student Paired't' test, Extended Mc Nemar's test, and chi-square test were applied wherever necessary.

RESULTS

Most of mothers (70%) were below 25 years. Nearly half of the mothers 43% had completed their secondary education, 13% of them had non-formal education, 34% had primary education and only 10% of them were graduates. The majority of mothers 46% were housewives. 95% of mothers were residing in urban areas and very few of them were from the semi-urban area. 60% of mothers belonged to the nuclear family. More than half of the mothers' diet pattern 59% was mixed food. The Majority of the mothers involved in the study 52% had only one child. It was evident from the result that the majority of mothers 74% hadn't any previous knowledge about child health promotion (Table 1).

For post-test scores of mothers, none of them had an inadequate level of knowledge score, 28.00% of them had a moderate level of score and 72.00% of them had an adequate level of knowledge score. Statistically, there was a significant difference between the pretest and post-test knowledge scores. (p=0.001) (Figure 1).

In the pretest, the knowledge score was 8.22, in the post-test, the knowledge score was 16.05, and the difference was 7.83 (p=0.001) (Figure 2). The 75.00% of mothers gained more percentage of knowledge score for the questionnaire about "components of the nutrition" (Table 2).

There was a significant association between post-test level of knowledge score and demographic variables among mothers of preschool children such as place of residence, type of family, and number of children in the family (p=0.05) (Table 3).

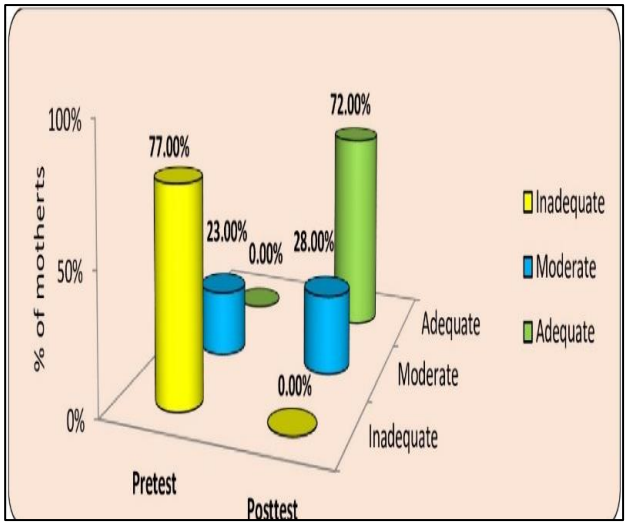

Figure 1: Pretest and post-test levels of knowledge score.

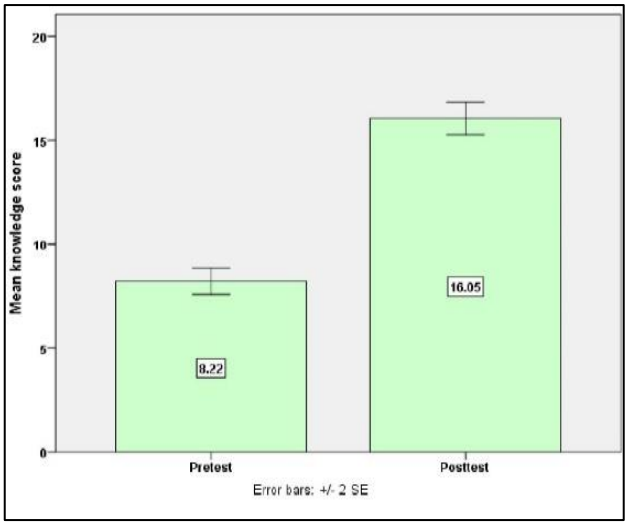

Figure 2: Simple bar diagram with two standard error.

Table 1: Description of demographic characteristics of mothers of preschool children.

Demographic variables		N	Percentages (%)
Age of the mother (in years)	Below 25	70	70.00
	26-30	27	27.00
	31-35	3	3.00
	Above 35	0	0.00
Religion	Hindu	59	59.00
	Muslim	16	16.00
	Christian	25	25.00
Educational status of the mother	Non-formal education	13	13.00
	Primary	34	34.00
	Secondary	43	43.00
	Graduate	10	10.00
Occupation	House wife	46	46.00
	Government	7	7.00
	Self employed	22	22.00
	Private	25	25.00
Total family income per month (INR)	Below 10,000	24	24.00
	10,001-20,000	51	51.00
	20,001-30,000	25	25.00
	Above 30,000	0	0.00
Place of residence	Urban	95	95.00
	Rural	0	0.00
	Semi urban	5	5.00
Type of family	Nuclear	60	60.00
	Joint	35	35.00
	Extended family	5	5.00
Diet pattern	Vegetarian	25	25.00
	Non vegetarian	16	16.00
	Mixed type	59	59.00
Total number of children	1	56	56.00
	2	42	42.00
	3	2	2.00
	>3	0	0.00
Previous knowledge about child health promotion	Yes	26	26.00
	No	74	74.00

Table 2: Statement wise pretest and post-test percentage of knowledge gain score.

Statements	Knowledge gain score (%)		
	Post test	Pretest	Gain
What is the age group for preschoolers?	78.00	72.00	6.00
A healthy child means	67.00	33.00	34.00
What are the measures to promote child health?	92.00	60.00	32.00
How often weight should be checked for 3-6 years of children?	78.00	68.00	10.00
Do your child is able to perform the following activities?	97.00	53.00	44.00
What are the components of nutrition?	93.00	18.00	75.00
What is the protein rich foods given below?	78.00	13.00	65.00
Foods to be avoided	78.00	58.00	20.00
Vaccines to be given to preschoolers	73.00	42.00	31.00
Vitamin A, oral solution benefits child with	80.00	61.00	19.00
What to be done in case of any illness occurred?	75.00	25.00	50.00
What should be done to reduce fever?	78.00	22.00	56.00
Diet for a child with diarrhoea includes	77.00	43.00	34.00
Moments of hand washing	85.00	30.00	55.00
Which criteria should be followed while selecting play materials?	90.00	33.00	57.00
What do you consider a safe environment for your child?	77.00	23.00	54.00
What is safe drinking water?	77.00	23.00	54.00
What are all the water-borne diseases?	78.00	53.00	25.00
How to prevent food-borne illnesses?	75.00	65.00	10.00
How to wash the fresh vegetables before cooking?	78.00	18.00	60.00

Table 3: Association between post-test level of knowledge score and mothers' demographic variables.

Demographic variables		Post-test level of knowledge				Total	Chi-square test
		Moderate		Adequate			
		N	%	N	%		
Place of residence	Urban	16	16.86	77	82.79	93	χ^2=6.72 p=0.05*(S)
	Rural	0	0.00	0	0.00	0	
	Semi urban	1	50.00	1	50.00	2	
Type of family	Nuclear family	8	20.00	32	80.00	40	χ^2=4.10 p=0.05*(S)
	Joint family	9	45.00	11	55.00	20	
	Extended family	0	0.00	0	0.00	0	
Diet pattern	Vegetarian	4	16.00	21	84.00	25	χ^2=5.35 p=0.07 (NS)
	Non vegetarian	4	25.00	12	75.00	16	
	Mixed Type	9	47.37	10	52.63	19	
Total number of children	1	10	47.62	11	52.38	21	χ^2=6.43 p=0.05*(S)
	2	7	19.44	29	80.56	36	
	3	0	0.00	3	100.00	3	
	>3	0	0.00	0	0.00	0	
Previous knowledge about child health promotion	Yes	6	23.08	20	76.92	26	χ^2=0.62 p=0.43 (NS)
	No	11	32.35	23	67.65	34	

*S-significant and NS-not significant.

DISCUSSION

Meena et al study showed that structured teaching program was statistically effective.[8] The present study followed the same pattern and proved effective in assessing the effect of focused intervention to educate.

The current study showed that there was a significant association between adequate level of knowledge of mothers with their place of residence at urban area, living in nuclear family and have more than 1 child.[9] Findings of study in agreement with study done by another group.[10] Contrary to another study's findings, present study's findings showed significant association with demographic variables between pretest and post-test values.[10]

Present preliminary study brought out the importance of creating awareness and educating mothers could be considered as one of the prime responsibilities of community nurse.

Merits

The study lays emphasis in educating women in general and mothers in particular about the risk factors related to a child's health.

Demerits

The present study is conducted with fewer subjects, shorter duration on a small community.

CONCLUSION

Educating the mothers with structured information administered by a well-trained community nurse helps mothers to rear and protect children from avoidable risk factors related to nutrition and creating healthy environment. This preliminary study could form the basis for future studies with more subjects and different communities to lay emphasis on the importance of educating mothers.

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