

Common Respiratory Disorders: A Study on Knowledge and Prevention among Under 5 Mothers

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Abstract

A pre-experimental research to assess the effectiveness of structure teaching module regarding knowledge on common respiratory disorders and its prevention identified the overall mean knowledge score of mothers of under five children during pre-test was 9.99 ± 5.52 (SD) which is 35.73% of the total mean score, whereas in post-test, the mean score was 22.23 ± 4.55 (SD) which is 76.17% of the total mean score revealing gain of 40.43% in knowledge score. Area wise assessments shows that during post-test mean score was above 67.2% of the total score in all areas, which reveals that mothers of under five children had gained adequate knowledge. It is observed that during pre-test the mothers of under five children had poor overall knowledge whereas it was good after the implementation of structured teaching module. Highly significant difference was found between pre-test and post-test knowledge score ($P < 0.05$) and no association was found between post test knowledge scores of mothers of under five children when compared with selected demographic variables.

Keywords: Under five children; Common respiratory disorder; Knowledge.

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INTRODUCTION

"The childhood shows the man as, morning shows the day" John Milton

Children are an embodiment of our dreams and hopes for the future. They are wet clay in the potter hands. Handle with care they become something beautiful or else they break and become discarded. They are the most vulnerable group in the society. World Health Organization (WHO) focused its activities towards children with the theme "healthy environment for the children"

simply to look forward for healthier children.¹ Health is complex phenomenon "a state of complete physical, mental, social well being not merely an absence of disease or infirmity" In spite of this broad definition health is traditionally assessed by observing mortality and morbidity over a period of time. Therefore the balance between physical, mental, social well being and the presence of disease becomes a prime indicator for health. WHO defines ARI among children to include any combination of the following symptoms: cough with or without fever, blocked or runny nose, sore throat, and/or ear discharge with infection of the lungs and pneumonia being the most serious form.^{2,3}

Moving along with ARI control programme since 1978 the health professionals efforts should be deviated towards charting a better healthier future for humanity a future in which millions of children no longer face death in infancy and childhood. To make such a change, present day our challenge is to gain better understanding that makes a difference in the health of the children. Family members especially the mothers have an important role in preventive aspects and through that health promotion in their children pediatric nurse are in a position to identify the mothers knowledge, attitude and practice towards these challenges problems. This will enable the nurse to plan with specialized service to help the mother to understand about common childhood diseases that will more a significant difference in the prevalence of these diseases affecting the health of the children.²

Incidence of ARI is about 50 times more in developing countries compared to the developed countries compared to the developed countries 1/3d of all deaths in the first year of life. ARI accounts as the main cause for 14.3% of deaths in infancy and 15.9% in children between 1-5 years of age in India.^{4,5} In India, during the year 2008 about 27.4 million cases of acute respiratory tract infection were reported which gives an incidence rate of about 2394 cases per lakh population. Pneumonia cases were about 7.32 lakhs, with incidence rate of about 64 cases per lakh population.¹

The incidence of acute respiratory infection is similar in developed and developing countries, however while the incidence of pneumonia in developed countries may be as low as 3-4%, its incidence in developing countries range between

20-30%.⁶ In India in the states and districts with high infant and child mortality rates, acute respiratory infection is one of the major causes of death, Acute respiratory infections is one of the major reasons for which children are brought to the hospitals and health facilities.⁷

Statement of the problem

Effectiveness of structured teaching module regarding knowledge on common respiratory disorders and its prevention among mothers of under five children at selected rural area, Karaikal.

OBJECTIVES

- To assess the knowledge on common respiratory disorders and its prevention among mothers of under five children.
- To assess the effectiveness of structured teaching module regarding knowledge on common respiratory disorders and its prevention among mothers of under five children.
- To find the association between the post-test knowledge on common respiratory disorders and its prevention among mothers of under five children with selected demographic variables.

METHODOLOGY

In the present study a pre experimental research design with pre-test and post-test without control group was undertaken in Serumavilangai village, Karaikal. The data was collected from 60 mothers of under five children through purposive sampling technique to assess the effectiveness of structure teaching module regarding knowledge on common respiratory disorders and its prevention. Pre-test was conducted among mothers of under five children by using semi structured interview questionnaire. Soon after pre-test, structured teaching module about common respiratory disorders and its prevention was given to the mothers of under five children. Evaluation was done by conducting post-test after the 10th day of pre-test by using the same semi structured interview questionnaire, which was used for the pre-test.

Table 1: Area wise comparison of mean, SD, and mean percentage of pretest knowledge scores about common respiratory disorders and its prevention among mothers of under five children

Area	Max obtainable score	Pre test score		
		Mean	SD	Mean (%)
Knowledge on common respiratory disorders	5	2.46	1.25	49.2
Knowledge on types and causes	6	1.86	1.14	31
Knowledge on spreads and signs/symptoms	7	2.16	1.06	30.85
Knowledge on treatment and prevention	11	3.51	2.07	31.90
Over all	29	9.99	5.52	35.73

Table.no.1 shows that the highest mean score [3.51±2.07(SD)] which is 31.90% of the total score obtained in the area of “Knowledge on treatment and prevention” whereas the lowest mean score [1.86±1.14(SD)] which is 31% of the total score was in the area of “Knowledge on types and its causes”.

It reveals that the mothers of under five children had average knowledge in the area “Knowledge on common respiratory disorders” and below average knowledge in the area “Knowledge on types and causes, spread and signs/symptoms and treatment and prevention”

Table 2:

Area	Max obtainable score	Post test score		
		Mean	SD	Mean (%)
Knowledge on common respiratory disorders	5	4.18	0.82	83.6
Knowledge on types and causes	6	4.31	1.1	71.8
Knowledge on spreads and signs/ symptoms	7	4.71	1.19	67.2
Knowledge on treatment and prevention	11	9.03	1.44	82.09
Over all	29	22.23	4.55	76.17

Table no. 2 shows that the highest mean score [9.03± 1.44 (SD)] which is 82.09% of the total score obtained in the area of “Knowledge on treatment and prevention” whereas the lowest mean score [4.18±0.82 (SD)] which is 83.6 % of the total score was

in the area of “Knowledge on common respiratory disorders”. It reveals that the mothers of under five children had above average knowledge in all the area’s after the implementation of structured teaching module.

Assessment of effectiveness of structured teaching module

Table 3: Comparison of pre-test and post-test level of knowledge on common respiratory disorders and its prevention among mothers of under five children.

Sl. No	Level of knowledge	Pre test scores		Post test scores	
		Number	Percentage	Number	Percentage
1	Adequate (>76%)	-	-	42	70
2	Moderate (51-75%)	11	18.3	18	30
3	Inadequate (<50%)	49	81.6	-	-

Table no. 3 shows that during pre test 18.3% of mothers of under five children had moderately adequate knowledge and 81.6% of mothers of under five children had inadequate knowledge

whereas, during post-test 30% of mothers of under five children had moderately adequate knowledge and 70% of mothers of under five children had adequate knowledge.

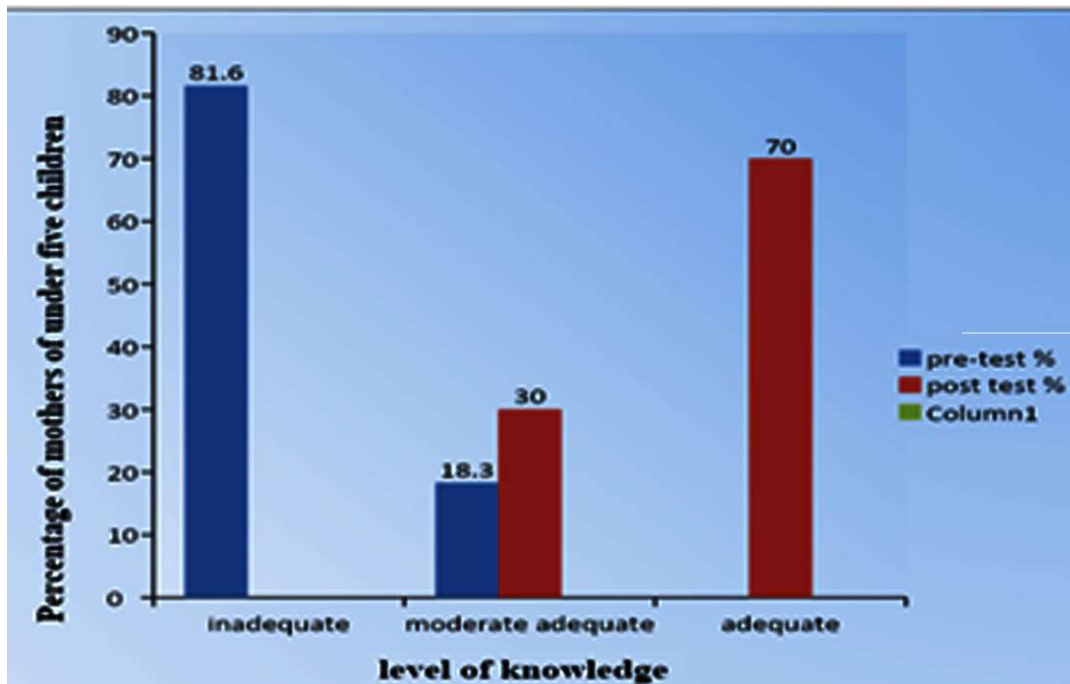


Table 4: Area wise distribution of mean, SD, and mean percentage of pre-test and post- test knowledge scores on common respiratory disorders and its prevention among mothers of under five children.

Area	Max score	Pre test scores			Post test score			Difference in mean (%)
		Mean	SD	Mean%	Mean	SD	Mean %	
Knowledge on common respiratory disorders	5	2.46	1.25	49.2	4.18	0.82	83.6	34.4
Knowledge on types and causes	6	1.86	1.14	31	4.31	1.1	71.8	40.8
Knowledge on spreads and signs/ symptoms	7	2.16	1.06	30.85	4.71	1.19	67.2	36.35
Knowledge on treatment and prevention	11	3.51	2.07	31.90	9.03	1.44	82.09	50.19
Over all	29	9.99	5.52	35.73	22.23	4.55	76.17	40.43

Table 5: Comparison between difference of pre-test and post- test knowledge scores regarding common respiratory disorders and its prevention among mothers of under five children.

Sl. No	Area	't' value	Level of significance
1	Knowledge on common respiratory disorders	11.02***	HS
2	Knowledge on types and causes	15.05***	HS
3	Knowledge on spreads and signs/ symptoms	14.62***	HS
4	Knowledge on treatment and prevention	18.62**	HS
	Over all	59.31	HS

(Degree of freedom (df) = 59, table value=1.98, highly significant (HS))

Table no 5 shows that there is highly significant difference between the area wise score of pre-test and post-test. Hence, stated null hypothesis is

rejected and statistical hypothesis is accepted. Thus the difference observed in the mean score value of pre-test and post-test were true difference.

Table 6: Association between post-test score on common respiratory disorders and its prevention among mothers of under five children with demographic variables.

Sl. no	Demographic variables	Df	Table value	2 value	Level of significant
1	Age	6	12.59	5.53	Not significant
2	Religion	6	12.59	0.29	Not significant
3	Education of the mother	6	12.59	1.89	Not significant
4	Occupation	6	12.59	1.47	Not significant
5	Monthly income	6	12.59	7.37	Not significant
6	Types of family	6	12.59	1.5	Not significant
7	Sex of the baby	2	5.99	1.58	Not significant
8	Development age of child	6	12.59	4.26	Not significant
9	Type of house	6	12.59	1.50	Not significant
10	Type of floor used in house	6	12.59	3.53	Not significant
11	Type of fuel used for cooking	6	12.59	3.59	Not significant
12	Type of air pollution nearer to home	6	12.59	0.97	Not significant

Table 6 shows that there was no significant association between post-test knowledge scores of mothers of under five children when compared with demographic variables. Hence, null hypotheses related to association between post-test knowledge scores and demographic variables are accepted. It can be interpreted that structured teaching module was effective for all mothers of under five children irrespective of their difference in demographic variables.

RESULT

The result of the present study shows the knowledge on common respiratory disorders and its prevention among mothers of under five children in pre test 49 (30%) of the mothers had inadequate knowledge, 11 (18.3%) of them had moderately adequate knowledge and none of them had adequate knowledge, whereas in the post test 18(30%) of the mothers had moderately adequate knowledge, 42(70%) of them had adequate knowledge and none of them found to have inadequate knowledge. Area wise comparison of Mean, SD and mean percentage shows the highest mean difference 50.19% found in Knowledge on treatment and prevention and the lowest mean difference 34.4% found in Knowledge on common respiratory disorders. The demographic profiles were not found having significant association with knowledge on common respiratory disorders and its prevention among mothers of under five children.

DISCUSSION

The aim of the study was to assess the effectiveness of structured teaching module regarding knowledge on common respiratory disorders and its prevention among mothers of under five children. Analysis on the level of knowledge Table no. 6 shows that during pre-test 18.3% of mothers of under five children had moderately adequate knowledge and 81.6% of mothers of under five children had inadequate knowledge. The highest mean score [3.51+2.07(SD)] which is 31.90% of the total score obtained in the area of "Knowledge on treatment and prevention" whereas the lowest mean score [1.86±1.14(SD)] which is 31% of the total score was in the area of "Knowledge on types and its causes". It reveals that the mothers of under five children had average knowledge in the area "Knowledge on common respiratory disorders" and below average knowledge in the area "Knowledge on types and causes, spread and signs/symptoms, and treatment and prevention". Further, the overall mean was 9.99;5.52 (SD) which is 35.73% of the total mean score, which reveals that the mothers of under five children had poor knowledge in the area of knowledge on common respiratory disorders, types and causes, spreads and signs symptoms and treatment and prevention. post-test 30% of mothers of under five children has moderately adequate knowledge and 70% of mothers of under five children have adequate knowledge.20% of the total score obtained in the area of "Knowledge on treatment. Table. no. 5 shows that the highest mean score [9.03;1.44 (SD)] whereas the lowest mean score [4.18;10.82 (SD)]

which is 83.6% of the total score was in the area of "Knowledge on common respiratory disorders". There was no significant association between post-test knowledge on common respiratory disorders and its prevention among mothers of under five children when compared with selected demographic variables. Hence, null hypotheses related to association between post-test knowledge scores and selected demographic variables are accepted. It can be interpreted that structured teaching module was effective for all mothers of under five children irrespective of their difference in demographic variables.

CONCLUSION

From the findings of the present study it can be concluded that structured teaching module regarding knowledge on common respiratory tract infection and its prevention among mothers of under five children was effective to improve their knowledge. Prior to implementation of structured teaching module the mothers of under the children had mean percentage is 35.93% of the total mean score reveals that the thereof under five children under study had poor knowledge, whereas after giving structured teaching module the mothers of under five children had mean percentage 17% of the total mean score reveals that the mothers of under five children gained knowledge.

Conflict of interest: None to declare

Financial disclosure: There is no financial disclosure
Ethical clearance: Institutional ethical clearance was obtained.

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