



EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING ALLERGIC RESPIRATORY DISORDERS AND THEIR PREVENTION IN CHILDREN AMONG MOTHERS

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ABSTRACT

The study was to "Evaluate the effectiveness of structured teaching programme on knowledge regarding allergic respiratory disorders and their prevention in children among mothers at selected rural area, Bengaluru". The study involved Pre-Experimental design, with Random sampling method. Information was collected from 50 mothers of under-five using the structured interview schedule. STP was implemented and the post-test was conducted after 7 days. Findings related to effectiveness of structured teaching programme showed that the overall mean knowledge score in pre-test is 31.5% and in post-test 59.25% with the enhancement of 27.75% and it is significant at 5% level. The study concluded that STP was effective in improving the knowledge mothers of under-fives regarding allergic respiratory disorders and their prevention in children.

KEYWORDS:

1. **Knowledge:** is the responses of mothers to the items included in the structured questionnaire regarding allergic respiratory disorders and their prevention and expressed in terms of scores.
2. **The allergic respiratory disorders:** Respiratory disorders caused due to the allergic effect of allergens.
3. **Allergens:** The effect of substances which are responsible for allergic reaction.
For Ex: Environmental changes, pollen, dust, furry pets, passive smoke, firewood, kerosene, cosmetics and food, etc.
4. **Mothers:** Mothers refer to the mothers of under-five children residing at selected rural area.

INTRODUCTION

Health is the most important aspect of life, Children are vital to nation. Parents provide every advantage possible to the children in their families and to ensure that they are healthy. Under-five children's are vulnerable group constitute of 13% of total population of India.

In India, the most common disease affecting children is acute respiratory infection (ARI), which is responsible for about 30-50% of visits to health facilities and for about 20-40% hospital admissions. Outdoor air pollution in developed countries cause excess deaths and increased risk during the times of high pollution.

STATEMENT OF THE PROBLEM

"A study to evaluate the effectiveness of structured teaching programme on knowledge regarding allergic respiratory disorders and their prevention among mothers at selected rural area, Bengaluru".

OBJECTIVES

1. To assess the knowledge of mothers regarding allergic respiratory disorders and their prevention before and after administering structured teaching programme.
2. To find an association between posttest levels of knowledge of mothers regarding allergic respiratory disorder and their prevention and selected demographic variables variables.

HYPOTHESIS

H1: There will be a significant increase in the mean posttest knowledge scores of mothers.

H2: There will be a significant association between post-test knowledge scores and the selected demographic variables.

ASSUMPTIONS

1. Children are vulnerable and exposed to the allergic respiratory disorders.
2. Mothers will have some knowledge.
3. Structured teaching programme can increase the knowledge of mothers.

REVIEW OF LITERATURE

The Review of literature was divided into:

1. Assessment of knowledge regarding allergic respiratory disorders.
2. Effects of allergens on children.
3. Preventive measures.

METHODOLOGY

Research approach: Evaluative approach.

Research design: Pre-experimental i.e., one group pre-test post-test design was adopted for the study.

Schematic representation:

| Group | Randomization | Pre test | Treatment | Post Test |
|--------|---------------|----------------|-----------|----------------|
| Single | R | O ₁ | X | O ₂ |

R-Randomization

O1 - Pretest knowledge scores

X - administration of Structured Teaching Programme

O2 - Post-test knowledge score

Variables

- **Independent variable**- Structured teaching programme.
- **Dependent variable**- knowledge of mothers.
- **Attribute variables** - Age, education, occupation, type of family, family income, type of house, cooking fuel used, type of diet, number of under-five children, presence of allergic respiratory disorders in the family and history of respiratory problems and source of health information.

Setting of the Study- The study was conducted at selected rural area, Bengaluru.

Population -Mothers of under-fives residing at selected rural area, Bengaluru.

Sample -50 mothers of under-fives.

Sampling Technique-Simple random sampling technique.

Criteria for Selection of Sample

Inclusion Criteria

1. Mothers who are present during the study period.
2. Mothers those who are willing to participate in the study.
3. Mothers who are present at the time of study.

Exclusion Criteria

- Mothers who are sick during the study period.

Data collection tool

Structured knowledge questionnaire

The tool was divided into two parts:

- i. Demographic performa.
- ii. Structured knowledge questionnaire. There were 30 items with a maximum total score of 30.

Validity: The tool and the intervention was validated by 14 Experts and 1 Paediatrician.

Reliability of the Tool: Split half method with Spearman's Brown Prophecy formula ($r=2r/1+r$) was

4. Effectiveness of structured teaching programme.

CONCEPTUAL FRAMEWORK

The conceptual framework was based on **Imogene King's Goal attainment theory**.

used to measure coefficient of internal consistency. The reliability co-efficient for knowledge questionnaire was found to be 0.932 and validity co-efficient worked to be 0.962 revealing the tool is reliable and feasible.

Data collection procedure: The researcher collected data from the sample pretest which was conducted followed by structured teaching programme. The duration of the STP was 45 minutes and the total time taken for the study was on eand half hour. After 7 days a post test was conducted by using the same structured knowledge scores.

Plan for data analysis: The demographic variables were analyzed by using descriptive statistics(Frequency and percentage). The effectiveness of structured teaching programme was analyzed by inferential statistics(Paired 't' test). Association between demographic variables with knowledge scores were analyzed by using chi-square test.

RESULTS

The results have been organized and presented in 2 sections.

SECTION 1:**Table – 1: Pre-test and post-test mean knowledge on allergic respiratory disorders and their prevention in children.**

N=50

| Aspects | Max. Score | Respondents Knowledge | | | Paired 't' Test |
|-------------|------------|-----------------------|------|----------|-----------------|
| | | Mean | SD | Mean (%) | |
| Pre test | 30 | 12.6 | 4.63 | 31.5 | 20.57* |
| Post test | 30 | 23.7 | 4.09 | 59.25 | |
| Enhancement | 30 | 11.1 | 0.5 | 27.75 | |

* Significant at 5% level,

t (0.05,49df) = 1.96

Table – 2: Aspect wise mean pre-test and post-test knowledge on allergic respiratory disorders and their prevention in children.

N = 50

| No. | Knowledge Aspects | Respondents Knowledge (%) | | | | | | Paired 't' Test |
|-----|--|---------------------------|------|-----------|------|-------------|------|-----------------|
| | | Pre test | | Post test | | Enhancement | | |
| | | Mean | SD | Mean | SD | Mean | SD | |
| I | General information on anatomy and physiology of respiratory system and ARD | 24.4 | 1.08 | 49.8 | 1.17 | 25.4 | 0.09 | 12.7* |
| II | Information regarding causes, signs and symptoms and their complication of ARD | 34.2 | 1.42 | 68.8 | 1.4 | 34.66 | 0.02 | 12* |
| III | Information regarding prevention of ARD in children. | 33.7 | 2.51 | 59.61 | 1.83 | 25.90 | 0.67 | 12.95* |

*Significant at 5% level, t (0.05,49df) = 1.96

SECTION 2:**Table –3: Association between sociodemographic variables and knowledge level of respondents on allergic respiratory disorders and their prevention in children.**

N=50

| Demographic Variables | Respondents Knowledge | | | | χ^2 Value |
|----------------------------|-----------------------|------|----------|------|----------------------|
| | Moderate | | Adequate | | |
| | N | % | N | % | |
| Age in years | | | | | |
| 20-25 | 2 | 18.2 | 9 | 81.8 | 0.99NS df =5.991 |
| 26-30 | 8 | 34.8 | 15 | 65.2 | |
| 30 and above | 5 | 31.2 | 11 | 68.8 | |
| Educational Status | | | | | |
| No formal education | 0 | 0 | 2 | 100 | 4.64 NS df =9.491 |
| Primary | 0 | 0 | 4 | 100 | |
| Secondary | 8 | 27.6 | 21 | 72.4 | |
| PUC & graduate | 6 | 46.2 | 7 | 53.8 | |
| Post graduate | 1 | 50.0 | 1 | 50.0 | |
| Occupational Status | | | | | |
| Housewife | 0 | 0.0 | 4 | 100 | 5.88 NS df=7.82 |
| Daily wages | 5 | 27.8 | 13 | 72.2 | |
| Private | 10 | 43.5 | 13 | 56.5 | |
| Self employed | 0 | 0.0 | 5 | 100 | |
| Type of Family | | | | | |
| Nuclear | 9 | 22.5 | 31 | 77.5 | 5.35* S df =3.841 |
| Joint | 6 | 60.0 | 4 | 40.0 | |
| Family Income/month | | | | | |
| < Rs.5000 | 3 | 20.0 | 12 | 80.0 | 6.23*S df=5.991 |
| Rs.5001-9000 | 4 | 16.0 | 21 | 84.0 | |
| >Rs.9001 | 8 | 80.0 | 2 | 20.0 | |

| | | | | | |
|---|----|------|----|-------|------------------------|
| Type of House | | | | | |
| Pucca | 4 | 22.2 | 14 | 77.8 | 0.82 NS df =5.991, |
| Kacha | 7 | 35.0 | 13 | 65.0 | |
| Semi-pucca | 4 | 33.3 | 8 | 66.7 | |
| Cooking fuel used | | | | | |
| Wood | 9 | 28.1 | 23 | 71.9 | 0.14 NS df =5.991 |
| Kerosene | 4 | 33.3 | 8 | 66.7 | |
| Gas | 2 | 33.3 | 4 | 66.7 | |
| Diet pattern | | | | | |
| Vegetarian | 9 | 52.9 | 8 | 47.1 | 6.45* S df=3.841 |
| Mixed | 6 | 18.2 | 27 | 81.8 | |
| Total No of under-five children | | | | | |
| One | 0 | 0.0 | 3 | 100 | 1.74 NS df=5.991 |
| Two | 7 | 36.8 | 12 | 63.2 | |
| Three | 8 | 28.6 | 20 | 71.4 | |
| Child born less than 2.5Kg | | | | | |
| Yes | 0 | 0.0 | 11 | 100 | 6.04 * S df = 3.841 |
| No | 15 | 38.5 | 24 | 61.5 | |
| Exclusively breast fed | | | | | |
| Yes | 9 | 22.5 | 31 | 77.5 | 5.35*S df = 3.841 |
| No | 6 | 60.0 | 4 | 40.0 | |
| Respondent suffering from ARD | | | | | |
| Yes | 8 | 21.6 | 29 | 78.4 | 4.75*S df = 3.841 |
| No | 7 | 53.8 | 6 | 46.2 | |
| Health problems of respiratory system in under five children | | | | | |
| Yes | 15 | 31.2 | 33 | 68.8 | 0.89 NS df = 3.841 |
| No | 0 | 0.0 | 2 | 100 | |
| Source of Information | | | | | |
| Electronic media | 8 | 27.6 | 21 | 72.4 | 4.64 NS df = 9.491 |
| Print media | 6 | 46.2 | 7 | 53.8 | |
| Health personnel | 0 | 0.0 | 2 | 100.0 | |
| Family members | 0 | 0.0 | 4 | 100.0 | |

NS-Non significant

S-Significant

DISCUSSION

The assessment of knowledge among mother of underfives regarding allergic respiratory disorders and their prevention in children, in pre-test 33[66.0%] parents had inadequate knowledge and 17[34.0%] had moderate knowledge, and in the post-test 15[30.0%] had gained moderately adequate knowledge and 35[70.0%] had gained adequate knowledge towards allergic respiratory disorders and their prevention in children. The improvement mean of knowledge was 27.75% and 't' value 20.57. It shows that there is a significant improvement in knowledge of mothers of underfives after administration of structured teaching programme.

IMPLICATIONS

Nursing Practice

Nursing professionals needs to update their knowledge in regards to allergic respiratory disorders and their

prevention in children and incorporate the knowledge in daily practice and Motivate the mothers to make use of the laws and policies in protecting their children from exposure of allergens.

Nursing Education

Nurse educators should emphasize more on preparing students to impart health information to the public regarding allergic respiratory disorders and their prevention in children.

Nursing Administration

Effectively collaborate the community health agencies with the community leaders so that awareness can be given to the community regarding allergic respiratory disorders and their prevention in children.

Nursing Research

Findings of the present study suggest the educator and administrator should encourage nurses to read, discuss and conduct research to validate effectiveness of structured teaching programme to increase the knowledge about allergic respiratory disorders and their prevention in children and bring about public awareness.

Recommendations

- * A similar study can be conducted on public to assess knowledge and attitude towards allergic respiratory disorders and their prevention in children.
- * Manuals, information booklets and self-instruction module can be prepared and distributed in community to create awareness.
- * Follow up study can be conducted to evaluate the association between knowledge and attitude of mothers of under-five.

CONCLUSION: The study findings analysis shows that there was a significant gain in knowledge regarding allergic respiratory disorders and their prevention in children.

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Sd/-

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