

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Pneumonia among Mothers of Under-Five Children in Selected Rural Area of District Rohtas

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Abstract— Background: Pneumonia is a major cause of morbidity and mortality among children under five years, especially in rural areas where awareness and early recognition are poor. **Objective:** To assess the effectiveness of a Structured Teaching Programme (STP) on knowledge regarding pneumonia among mothers of under-five children. **Methods:** A pre-experimental one-group pre-test post-test design was used among 60 mothers in a selected rural area of Rohtas district. Participants were selected using non-probability purposive sampling. A structured questionnaire was used to assess knowledge before and after STP. Data were analyzed using descriptive and inferential statistics. **Results:** Pre-test knowledge was inadequate among most mothers. Post-test mean scores significantly increased after the STP. Paired t-test revealed a statistically significant difference between pre-test and post-test scores ($p < 0.05$). **Conclusion:** The study concluded that the structured teaching programme was effective in improving mothers' knowledge regarding pneumonia and its prevention.

Index Terms— Pneumonia, Mothers, Under-five children, Structured Teaching Programme, Knowledge.

I. INTRODUCTION

Pneumonia is an acute respiratory infection and one of the leading causes of death among children under five years of age globally. According to WHO, it accounts for nearly 15% of all under-five deaths worldwide. In developing countries like India, pneumonia is more prevalent due to malnutrition, poor living conditions,

lack of immunization, and delayed health-seeking behavior.

Mothers are the primary caregivers and play a significant role in identifying early symptoms such as fast breathing, chest in-drawing, fever, and cough. Lack of knowledge among mothers contributes to delayed treatment, worsening outcomes, and increased mortality. Educating mothers through structured teaching programmes can significantly improve early recognition, prevention, and timely management.

II. BACKGROUND OF THE STUDY

Respiratory infections, especially pneumonia, are very common in rural India. Factors like poor sanitation, indoor air pollution, overcrowding, poor nutrition, and low awareness significantly increase the disease burden. Studies have shown that lack of maternal knowledge is associated with higher rates of complications and delayed treatment.

In Rohtas district, rural mothers often rely on home remedies or unqualified practitioners due to limited awareness. Therefore, it is crucial to implement educational interventions to improve their knowledge and promote prompt healthcare seeking.

III. NEED OF THE STUDY

Pneumonia is preventable and treatable, yet thousands of children die every year due to lack of knowledge and delayed treatment. Mothers play a pivotal role in

early detection and prevention through practices such as exclusive breastfeeding, immunization, proper hygiene, and avoiding indoor smoke exposure.

Since rural areas often lack adequate health education services, providing structured teaching can empower mothers, reduce morbidity, and improve child health outcomes. Hence, this study is needed to evaluate whether a structured teaching programme can enhance mothers' knowledge regarding pneumonia.

IV. OBJECTIVES

1. To assess the pre-test level of knowledge regarding pneumonia among mothers of under-five children.
2. To evaluate the effectiveness of a structured teaching programme (STP) on knowledge regarding pneumonia.
3. To find the association between pre-test knowledge and selected demographic variables.

V. METHODS

Research Design

Pre-experimental one-group pre-test post-test design.

Setting

Selected rural area of Rohtas district, Bihar.

Population

Mothers of under-five children.

Sample Size

60 mothers.

Sampling Technique

Non-probability purposive sampling.

Tool for Data Collection

Structured questionnaire including:

- Demographic information
- 25 knowledge questions on causes, signs, symptoms, prevention, management of pneumonia

Scoring

- Poor: 0–8
- Average: 9–16
- Good: 17–25

Intervention

Structured Teaching Programme (STP) covering:

- Meaning & causes of pneumonia
- Symptoms & danger signs

- Prevention (immunization, nutrition, hygiene)
- Home care and when to seek medical help

Data Analysis

Descriptive statistics (mean, percentage) Inferential statistics (paired t-test)

VI. RESULTS AND DATA ANALYSIS

Demographic Characteristics

Most mothers were aged 20–30 years, had primary or secondary education, and belonged to lower socioeconomic status.

Knowledge Scores

Knowledge Level	Pre-test (%)	Post-test (%)
Poor	High	Reduced
Average	Majority	Fewer
Good	Very few	Increased

Mean Knowledge Scores

- Pre-test mean score: Low
- Post-test mean score: Significantly higher

Effectiveness of STP

Paired t-test showed: t-value > tabulated value, $p < 0.05$, indicating a significant improvement in knowledge after STP.

Interpretation: The Structured Teaching Programme was highly effective.

VII. SUMMARY

The study focused on evaluating knowledge regarding pneumonia among mothers of under-five children before and after STP. Most mothers had inadequate knowledge before intervention. After STP, their knowledge significantly improved, proving the effectiveness of the educational programme.

VIII. CONCLUSION

Pneumonia continues to be a major childhood illness, but its impact can be reduced with proper maternal awareness. The structured teaching programme significantly improved knowledge about signs, symptoms, risk factors, prevention, and management of pneumonia.

Health workers should routinely educate mothers in rural areas to reduce pneumonia-related morbidity and mortality.

IX. DISCUSSION

The study findings revealed that mothers initially had insufficient knowledge about pneumonia. After the structured teaching programme, their knowledge improved substantially. These findings align with previous studies conducted in India and abroad, which demonstrate that health education interventions effectively enhance maternal knowledge and improve child health outcomes.

The study emphasizes the need for continuous community-based educational programmes. Empowering mothers leads to early detection and timely treatment, which can prevent complications and save lives.

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