

EFFECTIVENESS OF A STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING PREVENTION AND DOMICILIARY MANAGEMENT OF RESPIRATORY TRACT INFECTION AMONG MOTHERS OF UNDER-FIVE CHILDREN IN SELECTED ANGANWADI CENTRE AT ANKALI, BELAGAVI, KARNATAKA

Ms. Wajidabegum Tangadgi, ²Ms. Laxmibai Biradar

¹ Lecturer, Department of Community Health Nursing, Shri GESS College of Nursing Ankali, Belagavi, Karnataka, India

² Assistant Professor, Department Gynecological Nursing (OBG), Shri GESS College of Nursing Ankali, Belagavi, Karnataka, India.

Article Info

Received 12/05/2026

Revised 15/06/2026

Accepted 28/07/2026

Key word:

Respiratory tract infection, mothers, under-five children, structured teaching program, knowledge, domiciliary management, Anganwadi Centre.

ABSTRACT

Background: Respiratory tract infections are common among children under five years of age and remain an important cause of childhood morbidity. Mothers play a major role in preventing infection and providing appropriate domiciliary care. Inadequate knowledge regarding preventive measures and home management may increase the risk of complications and delay appropriate healthcare-seeking. Objective: To assess the existing knowledge regarding prevention and domiciliary management of respiratory tract infection among mothers of under-five children, evaluate the effectiveness of a structured teaching program, and determine the association between post-test knowledge and selected demographic variables. Methods: A pre-experimental, one-group pre-test and post-test design was adopted. The study was conducted among 50 mothers of under five children in a selected Anganwadi Centre at Ankali, Belagavi, Karnataka. Participants were selected using non-probability convenient sampling. A structured knowledge questionnaire was used for data collection. Following the pre-test, a structured teaching program was administered, and a post-test was conducted on the seventh day. Descriptive and inferential statistics were used for analysis. Results: The overall mean pre-test knowledge score was 13.78 ± 4.2 (45.9%), whereas the post-test mean score increased to 24.30 ± 2.5 (81.0%). The mean enhancement was 10.52 ± 4.7 (35.1%). The calculated paired t value was 16.01, which was statistically significant at the 0.05 level, indicating a significant improvement in knowledge following the structured teaching program. Significant associations were observed between post-test knowledge and type of family, maternal education, family income, and previous knowledge. No significant association was found with age, religion, or occupation. Conclusion: The structured teaching program was effective in improving mothers' knowledge regarding the prevention and domiciliary management of respiratory tract infection. Regular health education programs through Anganwadi centers and community settings may help strengthen maternal knowledge and promote appropriate home-based care practices.



INTRODUCTION

Children under five years of age are particularly vulnerable to respiratory tract infections because of their developing immune systems, frequent exposure to infectious agents, and dependence on caregivers for health-related practices. Respiratory tract infections remain an important cause of morbidity among young children and contribute substantially to healthcare visits and hospital admissions.

Mothers are the primary caregivers of young children and play a central role in the prevention, early recognition, and domiciliary management of respiratory tract infections. Knowledge regarding hygiene, prevention, signs and symptoms, risk factors, and appropriate home management is essential for reducing the risk of complications and promoting timely health care-seeking behaviour.

The revised study identified a need to improve maternal knowledge regarding the prevention and domiciliary management of respiratory tract infection. The study therefore evaluated a structured teaching program among mothers of under-five children in a selected Anganwadi Centre at Ankali, Belagavi, Karnataka.

MATERIALS AND METHODS

A pre-experimental, one-group pre-test and post-test research design was adopted to assess the effectiveness of a structured teaching program on knowledge regarding the prevention and domiciliary management of respiratory tract infection among mothers of under-five children. The study was conducted at a selected Anganwadi Centre in Ankali, Belagavi, Karnataka. The study population consisted of mothers of under-five children, and a sample of 50 mothers was selected using a non-probability convenient sampling technique. Mothers who were present at the time of data collection, willing to participate in the study, and able to understand the Kannada language were included. Mothers who were unwilling to participate or were sick at the time of data collection were excluded.

Data were collected using a structured knowledge questionnaire. A pre-test was conducted to assess the baseline knowledge of the participants, followed by the administration of a structured teaching program regarding the prevention and domiciliary management of respiratory tract infection. A post-test was conducted on the seventh day to evaluate the effectiveness of the intervention. The

Corresponding Author

Wajidabegum Tangadgi

Email: wajeedamirajakar@gmail.com

collected data were analysed using descriptive and inferential statistics. The paired t-test was used to compare the pre-test and post-test knowledge scores, while the chi-square test was used to determine the association between post-test knowledge and selected demographic variables.

RESULTS

The largest proportion of mothers were aged 23–27 years (48%), belonged to nuclear families (68%), had completed PUC education (50%), and had a monthly family income of ₹5,001–10,000 (68%).

The mean knowledge score increased from 45.9% in the pre-test to 81.0% in the post-test, demonstrating a significant improvement following the structured teaching program.

Significant associations were found between post-test knowledge and type of family, maternal education, family income, and previous knowledge. The hypothesis was accepted for these variables.

DISCUSSION

The present study assessed the effectiveness of a structured teaching program on knowledge regarding the prevention and domiciliary management of respiratory tract infection among mothers of under-five children in a selected Anganwadi Centre at Ankali, Belagavi, Karnataka.

The pre-test findings demonstrated inadequate knowledge among the mothers regarding prevention and domiciliary management of respiratory tract infection. Following the structured teaching program, a significant improvement was observed in post-test knowledge scores.

The overall mean knowledge score increased from 45.9% in the pre-test to 81.0% in the post-test, with a mean enhancement of 35.1%. The paired *t* value of 16.01 demonstrated a statistically significant difference between pre-test and post-test knowledge scores, confirming the effectiveness of the intervention.

The study also demonstrated significant associations between post-test knowledge and type of family, maternal education, family income, and previous knowledge. These findings indicate that demographic and prior educational factors may influence the acquisition of health-related knowledge.

The findings support the use of structured health education as an effective strategy for improving maternal knowledge regarding respiratory tract infection prevention and home-based management. The study further emphasizes the importance of community-based health education through Anganwadi centres.

Table 1: Distribution of Mothers According to Selected Demographic Characteristics N = 50

DEMOGRAPHIC VARIABLE	CATEGORY	N	%
Age (years)	18–22	4	8.0



	23–27	24	48.0
	28–32	19	38.0
	33 and above	3	6.0
Religion	Hindu	28	56.0
	Muslim	9	18.0
	Christian	13	26.0
Type of family	Nuclear	34	68.0
	Joint	16	32.0
Education	Primary	4	8.0
	Secondary	14	28.0
	PUC	25	50.0
	Graduate	7	14.0
Family income/month	< ₹5,000	6	12.0
	₹5,001–10,000	34	68.0
	₹10,001–15,000	10	20.0

Table 2: Comparison of Pre-test and post-test Knowledge Scores

Assessment	Mean Score	Mean Percentage
Pre-test	13.78	45.9
Post-test	24.3	81.0

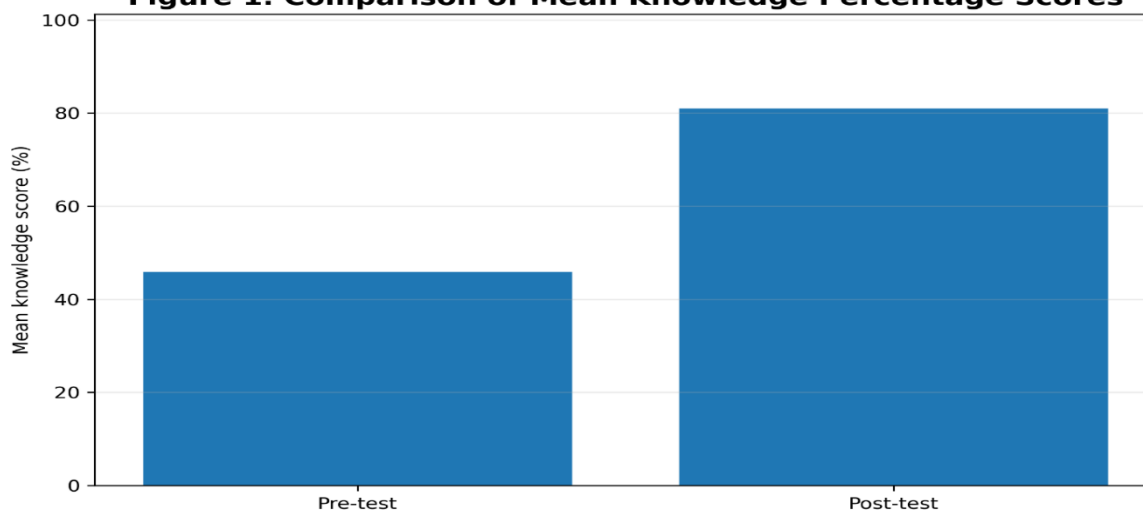
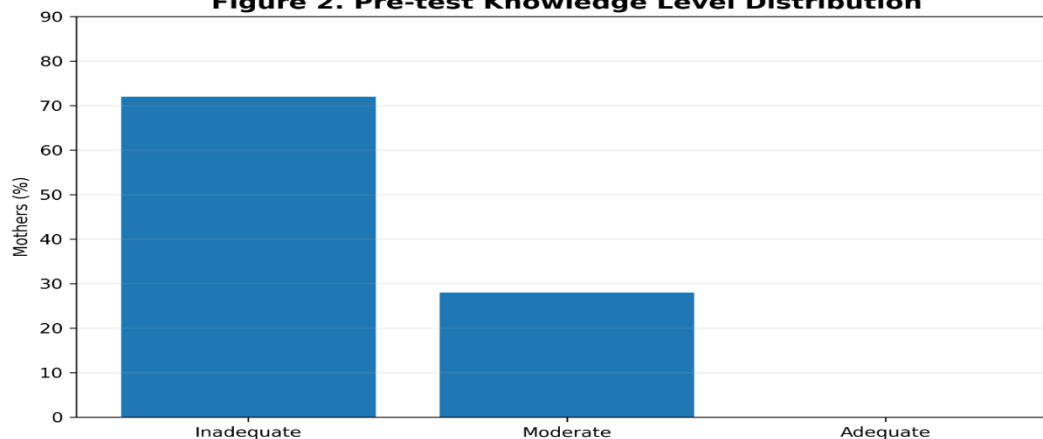
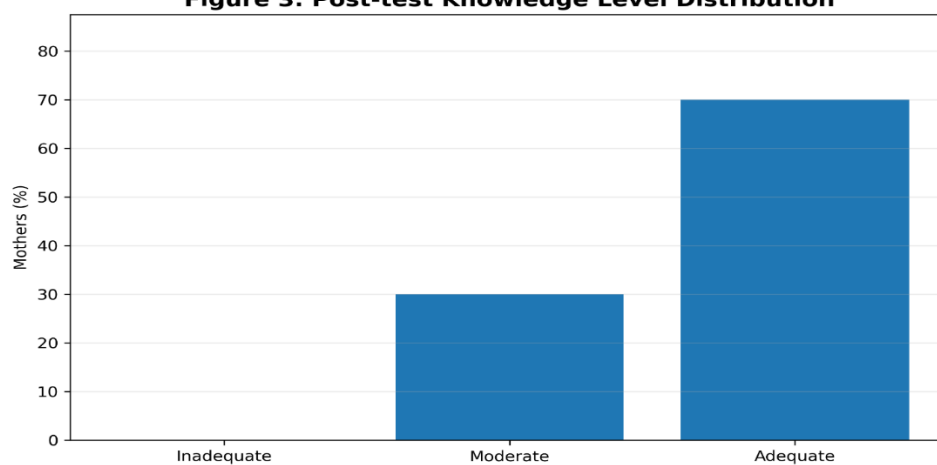
Table 3: Distribution of Mothers According to Knowledge level

Knowledge Level	Pre-test	Post-test
Inadequate	72	0
Moderate	28	30
Adequate	0	70

Table 4: Association Between Selected Demographic Variables and Post-test Knowledge

Variable	Chi-square	Significance
Type of family	4.48	Significant
Education of mother	8.83	Significant
Family income	6.75	Significant
Previous knowledge	4.67	Significant
Age	2.3	Not significant
Religion	0.32	Not significant
Occupation	5.22	Not significant



Figure 1. Comparison of Mean Knowledge Percentage Scores**Figure 2. Pre-test Knowledge Level Distribution****Figure 3. Post-test Knowledge Level Distribution****CONCLUSION:**

The study concluded that mothers of under-five children had inadequate knowledge regarding the prevention and domiciliary management of respiratory tract infection before the intervention.

The structured teaching program resulted in a statistically significant improvement in mothers' knowledge. Therefore, structured teaching programs may be used as an effective educational strategy to improve maternal knowledge and promote appropriate preventive and domiciliary management practices for respiratory tract infections among under-five children.

RECOMMENDATIONS

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1. Similar studies may be conducted with a larger sample size to improve the generalizability of the findings.
2. Comparative studies may be conducted among mothers in urban and rural areas.
3. Similar studies may be conducted using a true experimental research design.
4. Structured teaching programs, demonstrations, and health awareness sessions should be organized regularly for mothers through Anganwadi centres and community settings.

CONFLICT OF INTEREST

The Author Declares No Conflict of Interest..

