
“A STUDY TO ASSESS THE KNOWLEDGE REGARDING HAND HYGIENE PRACTICES AMONG SCHOOL CHILDREN IN SELECTED SCHOOLS, BANGALORE”

***Pretty Elsa Nebu, Priya B, Ranitha R. Nair, Rohit, Sanjana S, Santhipriya, Sathi
Khatun, Sethulakshmi S, Shayeesta Khatoon, Simi Mariam Joseph, Sivaparvathy,
Sneha R.**

B.Sc. Nursing IV Year Students, RR College of Nursing, Bengaluru, Karnataka, India.

Article Received: 01 July 2026, Article Revised: 21 July 2026, Published on: 08 August 2026

***Corresponding Author: Pretty Elsa Nebu**

B.Sc. Nursing IV Year Students, RR College of Nursing, Bengaluru, Karnataka, India.

Doi: <https://doi-doi.org/101555/ijarp.4596>

ABSTRACT

Background

Hand hygiene is one of the simplest, safest, and most cost-effective measures for preventing communicable diseases among school children. Inadequate hand hygiene contributes to the transmission of infections, resulting in increased absenteeism and poor health outcomes. School-based health education using Video-Assisted Teaching (VAT) provides an effective and engaging approach to improve children's understanding of proper hand hygiene practices.

Objectives

To assess the knowledge regarding hand hygiene practices among school children in selected schools, Bangalore.

Materials and Methods

A quantitative research approach was adopted for the study among 40 school children selected using a non-probability convenience sampling technique. A Video-Assisted Teaching (VAT) session on hand hygiene practices was conducted. Following the educational session, a structured knowledge questionnaire was administered to assess the knowledge of the participants. The collected data were analyzed using descriptive and inferential statistics.

Results

The findings revealed that 36 (90%) school children had adequate knowledge, while 4 (10%) had moderately adequate knowledge.

None of the participants had inadequate knowledge. The overall mean knowledge score was 13.73 ± 1.43 , with a mean percentage score of 91.5%.

Conclusion

The study concluded that the majority of school children possessed adequate knowledge regarding hand hygiene practices. The incorporation of Video-Assisted Teaching in school health education can support awareness regarding proper hand hygiene and encourage healthy hygienic practices among children.

KEYWORDS: Hand hygiene, School children, Video-Assisted Teaching, Knowledge, Infection prevention, Health education.

INTRODUCTION

Hand hygiene is one of the most effective, simple, and economical measures for preventing the transmission of infectious diseases. Proper hand hygiene practices help remove harmful microorganisms from the hands, thereby reducing the spread of communicable diseases such as diarrhoea, respiratory tract infections, influenza, and other infections. School children are particularly vulnerable to infections because they frequently come into contact with contaminated surfaces, share learning materials, and often neglect proper handwashing practices.

Healthy hand hygiene habits developed during childhood can continue throughout life and contribute to improved individual and community health. Schools play a vital role in promoting these healthy behaviours through regular health education programmes. Educational strategies that are interesting and easy to understand encourage children to learn and practice proper hand hygiene.

According to your teaching plan, Video-Assisted Teaching (VAT) is used as an audiovisual teaching method to help children understand the definition of hand hygiene, its importance, the appropriate times for handwashing, the correct handwashing steps, the use of soap and water, common mistakes, and good hand hygiene habits. This method promotes active learning and improves children's understanding of the topic.

Therefore, assessing the knowledge regarding hand hygiene practices among school children is essential to understand their level of awareness and to strengthen school health education programmes.

NEED FOR THE STUDY

Hand hygiene is recognized as a fundamental public health practice for preventing communicable diseases among school children. Although handwashing is a simple practice, many children do not consistently follow the recommended hand hygiene measures because of inadequate knowledge and awareness.

School-based health education provides an excellent opportunity to improve children's understanding of proper hand hygiene practices. The use of Video-Assisted Teaching (VAT) makes learning more interactive and understandable by presenting health information through visual demonstrations and simple explanations. Your teaching content focuses on important aspects of hand hygiene, including its definition, importance, appropriate times for handwashing, correct handwashing steps, the use of soap and water, common mistakes, and healthy hand hygiene habits.

Assessing the knowledge of school children regarding hand hygiene practices after the educational session helps identify their level of understanding and highlights the importance of continuous school health education programmes. Therefore, the present study was undertaken to assess the knowledge regarding hand hygiene practices among school children in selected schools, Bangalore.

REVIEW OF LITERATURE

Hand hygiene is a fundamental public health measure for preventing the spread of communicable diseases. Several national and international studies have highlighted the importance of improving hand hygiene knowledge and practices among school children through structured health education programmes.

Allegranzi B, Gayet-Ageron A, Damani N, et al. (2013) conducted a quasi-experimental study on the global implementation of the WHO multimodal hand hygiene improvement strategy. The study demonstrated that implementing structured hand hygiene programmes significantly improved hand hygiene compliance and promoted safer healthcare practices.

Mbakaya BC, Lee PH, and Lee RLT (2017) conducted a systematic review on hand hygiene intervention strategies to reduce diarrhoeal diseases and respiratory infections among children. The review concluded that health education interventions effectively improved hand hygiene knowledge and practices and reduced the occurrence of communicable diseases.

Hareesh PV, Rajkumar R, Gopi A, and colleagues (2024) conducted a systematic review and meta-analysis on the prevalence and determinants of hand hygiene behaviour among the Indian population. The study reported that educational status, awareness, and access to

hygiene facilities were important factors influencing proper hand hygiene behaviour and emphasized the need for continuous health education programmes.

Sharma and Kumar (2021) conducted a quasi-experimental study among primary school children to evaluate the effectiveness of a structured hand hygiene education programme. The study found a significant improvement in children's knowledge regarding hand hygiene following the educational intervention.

Maria Lopez, David Brown, and Helen Carter (2022) conducted an intervention study among primary school children to assess the impact of a school-based hand hygiene promotion programme. The findings showed that educational interventions improved children's knowledge and encouraged regular handwashing practices.

The above studies support the importance of school-based health education and reinforce the need for assessing knowledge regarding hand hygiene practices among school children. They provide a strong scientific basis for the present study.

MATERIALS AND METHODS

Research Approach

A quantitative research approach was adopted to assess the knowledge regarding hand hygiene practices among school children in selected schools, Bangalore.

Research Design

The study was conducted to assess the knowledge regarding hand hygiene practices among school children. A Video-Assisted Teaching (VAT) session on hand hygiene practices was conducted, following which knowledge was assessed using a structured questionnaire.

Study Setting

The study was conducted among school children in selected schools, Bangalore.

Study Population

The target population comprised school children studying in selected schools, Bangalore.

Sample Size

The sample consisted of 40 school children who fulfilled the inclusion criteria.

Sampling Technique

A non-probability convenience sampling technique was used to select the participants for the study.

Inclusion Criteria

The study included school children who:

- Were studying in the selected school.
- Were present during the period of data collection.
- Were willing to participate in the study.

Exclusion Criteria

- The study excluded school children who:
- Were absent during data collection.
- Were unwilling to participate in the study.

Description of the Tool

The tool consisted of two sections:

Section A: Demographic variables including age, gender, religion, class/standard, educational status of mother and father, occupational status of mother and father, source of information, and previous information regarding hand hygiene practices.

Section B: A structured knowledge questionnaire consisting of 15 multiple-choice questions to assess knowledge regarding hand hygiene practices. Each correct response carried one mark, with a maximum obtainable score of 15.

Data Collection Procedure

After obtaining permission from the concerned school authorities, the purpose of the study was explained to the participants. A Video-Assisted Teaching (VAT) session on hand hygiene practices was conducted. Following the educational session, the structured knowledge questionnaire was administered to all participants. The completed questionnaires were collected on the same day for analysis.

Statistical Analysis

The collected data were organized, coded, tabulated, and analyzed using descriptive and inferential statistics. Frequency, percentage, mean, and standard deviation were used to describe the findings.

RESULTS

A total of 40 school children participated in the study. The collected data were analyzed using descriptive and inferential statistics and are presented under the following headings:

Distribution of school children according to demographic variables.

Assessment of knowledge regarding hand hygiene practices among school children.

Association between knowledge regarding hand hygiene practices and selected demographic variables.

Table 1: Distribution of School Children According to Level of Knowledge Regarding Hand Hygiene Practices. (N = 40)

Level of knowledge	Frequency	Percentage
Inadequate	0	0
Moderately adequate	4	10
Adequate	36	90

Interpretation

Table 1 shows the distribution of school children according to their level of knowledge regarding hand hygiene practices. Out of 40 participants, 36 (90%) had adequate knowledge, 4 (10%) had moderately adequate knowledge, and none (0%) had inadequate knowledge. These findings indicate that the majority of the school children had an adequate level of knowledge regarding hand hygiene practices.

Table 2: Overall Knowledge Score of School Children Regarding Hand Hygiene Practices. (N = 40)

Variables	Maximum score	Mean	Standard deviation	Mean percentage
Knowledge score	15	13.73	1.43	91.5%

Interpretation

The overall mean knowledge score of the participants was 13.73 with a standard deviation of 1.43. The mean percentage score was 91.5%, indicating that the school children had a high level of knowledge regarding hand hygiene practices. This finding suggests that the participants demonstrated satisfactory knowledge regarding the importance and practice of hand hygiene.

DISCUSSION

The present study was conducted to assess the knowledge regarding hand hygiene practices among school children in selected schools, Bangalore. A Video-Assisted Teaching (VAT) session on hand hygiene practices was conducted, and the participants' knowledge was assessed using a structured questionnaire. The findings of the study indicate that the majority of the participants possessed adequate knowledge regarding hand hygiene practices.

In the present study, 36 (90%) school children had adequate knowledge, while 4 (10%) had moderately adequate knowledge, and none of the participants had inadequate knowledge. The

overall mean knowledge score was 13.73 ± 1.43 , with a mean percentage score of 91.5%. These findings indicate that the school children demonstrated a satisfactory level of knowledge regarding hand hygiene practices.

The findings of the present study are supported by the study conducted by Sharma and Kumar (2021), which reported that a structured hand hygiene education programme significantly improved knowledge regarding hand hygiene among primary school children. Similarly, Maria Lopez, David Brown, and Helen Carter (2022) reported that school-based educational programmes improved children's awareness and encouraged proper handwashing practices.

The findings are also consistent with the systematic review conducted by Mbakaya BC, Lee PH, and Lee RLT (2017), which concluded that educational interventions promote hand hygiene knowledge and help reduce communicable diseases among children. Likewise, Hareesh PV et al. (2024) emphasized that continuous health education and awareness programmes play an important role in improving hand hygiene behaviour among the Indian population.

The present study highlights the importance of incorporating Video-Assisted Teaching (VAT) into school health education programmes. Audiovisual teaching methods provide a simple, attractive, and effective way of educating children regarding proper hand hygiene practices. Regular reinforcement through school health education programmes can further improve awareness and encourage healthy hygiene behaviours among school children.

CONCLUSION

Hand hygiene remains one of the most effective measures for preventing communicable diseases among school children. The present study assessed the knowledge regarding hand hygiene practices among school children in selected schools, Bangalore. The findings revealed that the majority of participants had adequate knowledge (90%), while 10% had moderately adequate knowledge, with an overall mean knowledge score of 13.73 ± 1.43 .

The study indicates that school children possess a good level of knowledge regarding hand hygiene practices. The inclusion of Video-Assisted Teaching (VAT) as part of the educational programme provided an engaging method of delivering information on hand hygiene. Continuous school health education programmes and reinforcement of proper hand hygiene practices are essential for promoting healthy behaviours and preventing communicable diseases among children.

RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are made:

- Similar studies may be conducted among a larger sample of school children.
- Comparative studies may be conducted between government and private schools.
- Similar studies may be conducted in rural and urban settings.
- School health education programmes using Video-Assisted Teaching (VAT) may be implemented to reinforce knowledge regarding hand hygiene practices.
- Future studies may assess the knowledge, attitude, and practice regarding hand hygiene among school children.

ACKNOWLEDGEMENT

The authors express their sincere gratitude to the Management and Principal of RR College of Nursing, Bengaluru, for providing the opportunity and necessary facilities to conduct this study. The authors extend their heartfelt thanks to the research guide, faculty members of the Department of Child Health Nursing, and the Principal and staff of the selected school for their valuable support, guidance, and cooperation throughout the study. The authors also express their sincere appreciation to all the school children who willingly participated in the study.

ETHICAL CLEARANCE

Ethical clearance was obtained from the Institutional Ethics Committee of RR College of Nursing, Bengaluru before the commencement of the study. Formal permission was obtained from the concerned school authorities. The purpose of the study was explained to the participants, confidentiality was maintained, and the collected information was used only for research purposes.

SOURCE OF FUNDING

The study was self-funded, and no external financial assistance was received for conducting the research.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest related to this study.

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