



International Journal of Advance Research in Community Health Nursing

E-ISSN: 2664-1666

P-ISSN: 2664-1658

www.communitynursing.net

IJARCN 2019; 1(2): 41-44

Received: 19-05-2019

Accepted: 23-06-2019

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A study to assess the effectiveness of planned teaching module on knowledge regarding hand hygiene status among students of secondary school at selected urban area of Kokapet, Ranga Ready District Andhra Pradesh

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DOI: <https://doi.org/10.33545/26641658.2019.v1.i2a.173>

Abstract

Introduction: Our hands do so much for us. They are capable of a wide variety of functions like touching, grasping, feeling, holding, manipulating, caressing, and performing daily activities and more. They are a vitally important part of who we are and how we see ourselves." Good hand hygiene is one of the most critical control strategies in outbreak management. Hand hygiene is defined as any method that removes or destroys microorganisms on hands.

Objective: The main aim of the study is to assess the effectiveness of planned teaching module on knowledge regarding hand hygiene status among secondary school at selected urban area of kokapet, Ranga Ready District Andhra Pradesh.

Research methodology: a pre experimental one group pre-test and post-test design study conducted on 60 students of secondary school. The sample selected through convenient sampling technique. The dependent variable includes knowledge of students and independent variables include planned teaching module regarding hand hygiene. The data collected through structured knowledge questionnaire.

Results: The mean knowledge score of the participants regarding hand hygiene was 13.55 ± 2.41 before administration of the planned teaching module whereas 18.13 ± 2.19 after administration of planned teaching programme. The value of t was 11.01. It was found to be statistically significant at $p < 0.001$.

Conclusion: The study finding proved that the planned teaching module administered by the researcher was effective to increase the knowledge of the secondary school children on hand hygiene

Keywords: Effectiveness, Planned teaching Module, Knowledge, Hand hygiene, Students

Introduction

Our hands do so much for us. They are capable of a wide variety of functions like touching, grasping, feeling, holding, manipulating, caressing, and performing daily activities and more. They are a vitally important part of who we are and how we see ourselves." Good hand hygiene is one of the most critical control strategies in outbreak management. Hand hygiene is defined as any method that removes or destroys microorganisms on hands.

Infection is the invasion of an organism's body tissues by disease-causing agents, their multiplication, and the reaction of host tissues to these organisms and the toxins they produce. Infectious disease, also known as transmissible disease or communicable disease is illness resulting from an infection. Hosts can fight for infections using their immune system. Infectious diseases resulted in 6.6 million deaths in 2014 according to global burden of infectious disease.

Washing hands at least five times a day reduces the risk of getting a cold, flu and other infections. Most of the children do not wash their hands before eating and after toilet practice, because they don't know the importance of hand washing. Hand washing helps stop the spread of germs and illnesses.

Hand hygiene is important at every age especially in children. Hand washing is something everyone learns at a very early age and yet many people just don't do it. The problem is that most and in particular young children don't see it as a priority. Keeping hands clean through

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improved hand hygiene is one of the most important steps one can take to avoid getting sick and spreading germs to others.

Need of the study

Hand-washing has been accepted as an effective measure to prevent the transmission of many infectious diseases with a recent meta-analysis showing a 31% reduction in gastrointestinal infections and 21% reduction in respiratory illness through proper hand-washing practices. Simple hand-washing practices in the community could save a million lives annually. However, health behaviors like hand-washing are difficult to incorporate and change. Parents usually teach their children regarding the importance of hand-washing very early in childhood, but reinforcement often decreases in school children.

Hygiene is essential to the public health mission of reducing the transmission and consequences of Infectious diseases which are still the deadly group of diseases for developing world. The leading causes of childhood mortality like diarrheal disease (11%) and acute respiratory infections (18%) are closely associated with inadequate hygiene practices.

According to a UNICEF (United Nations Children's Fund) report, involving children themselves as active participants in promoting hand washing with soap in schools creates a sense of ownership in the children and they are likely to take further into their adulthood. Bearing in mind that school children have been consistently implicated in the spread of communicable diseases and that the school has been recognized as a vital setting for health promotion, this study was conducted to assess the knowledge of hand washing among students of school going who will be the adults in the future.

Aim of the study

The main aim of the study is to assess the effectiveness of planned teaching module on knowledge regarding hand hygiene status among secondary school at selected urban area of Kokapet, Ranga Ready District Andhra Pradesh

Objectives of the study

- To assess the baseline knowledge regarding hand hygiene among students of secondary school.
- To evaluate the effectiveness of planned teaching module on knowledge regarding hand hygiene among students of secondary school.
- To find association of knowledge regarding hand hygiene among students of secondary school. with their selected demographic variables.

Hypotheses

H₁: There is a significant difference in knowledge regarding hand washing after administration of planned teaching module among students of secondary school.at the level $p < 0.05$.

H₂: There is a significant association of selected socio demographic variables and health related variables with level of knowledge regarding hand washing among students of secondary school at the level $p < 0.05$.

Review of Literature

Review of literature is presented under the following heading.

1. Review of literature related to knowledge of hand hygiene among secondary school children.
2. Review of literature related to educational interventions among school children regarding hand washing.

Research Methodology

Research Approach: Quantitative research approach was used.

Research Design: The research design adopted for the present study was a pre-experimental one group pre and post-test design was chosen.

Independent Variable: In present study planned teaching module regarding hand hygiene was independent variables.

Dependent Variable: In the present study level of knowledge regarding hand hygiene technique among IX and X standard school students.

Demographic Variables: Demographic variables selected for this study are age, gender, religion, occupation of parents, type of family, family income and previous knowledge.

Setting of The Study: The present study was conducted at Kokapet, Ranga Ready District Andhra Pradesh.

Sample Size: The investigator selected IX and X standard school students.

Sampling Technique: The sampling technique used for this study was convenient sampling technique.

Population: The target population for the study was school students who were studying IX and X standard.

Inclusion criteria

- All the school children who were studying IX and X standard and residing at urban area of Kokapet, Ranga Ready District Andhra Pradesh.
- Students who were aged between 14 to 16 years.
- Students, who were able to speak, read and write Hindi and English.

Exclusion criteria

- Students who were not willing to participate in this study.
- School students who were are medically unfit.

Data Collection Tools and Technique: The instrument select in a research should as far as possible be the vehicle that would best obtaining data for drawing conclusions pertinent to the study and add to the body of knowledge in discipline.

Tool: The structured self-administered multiple choice questionnaire was used as an instrument to assess the knowledge of students. The final tool consists of:

- **Part I:** Socio demographic variables
- **Part II:** Structured multiple-choice questions to assess the knowledge on hand hygiene

Reliability: The reliability was calculated by using split half

method. Inter rated score was 0.82 and found to be highly reliable

Data Collection Procedure: A written formal permission was obtained from principal of senior secondary school of Kokapet, Ranga Ready District Andhra Pradesh to conduct

the study from 15/09/2019 to 08/10/2019. The samples were informed by researcher about the nature and purpose of study. The investigator himself assesses the effectiveness planned teaching module on hand hygiene.

Results

Table 1: Baseline mean knowledge score of the secondary school students regarding hand hygiene before administration of the planned teaching module

| Variable | Mean | SD | Minimum Score | Maximum Score |
|-----------------|-------|------|---------------|---------------|
| Knowledge score | 13.55 | 2.41 | 8 | 17 |

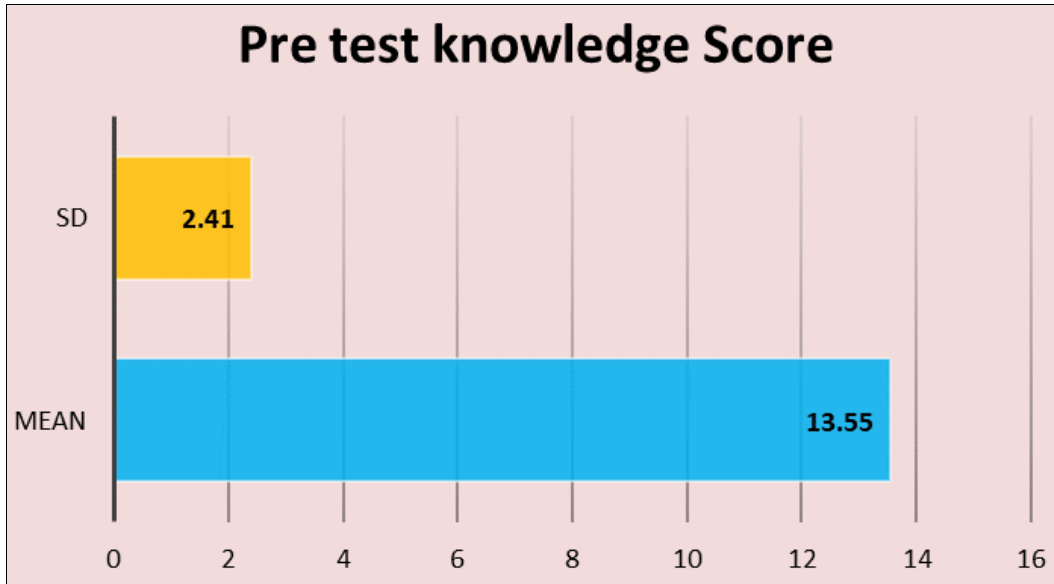


Fig. 1: Diagram showing Mean Knowledge score of participants regarding hand hygiene before administration of planned teaching module

Table 1 and figure 1 depicts the baseline mean knowledge score of the secondary school children regarding hand hygiene. The mean knowledge score of the participants before administration of the planned teaching module

regarding hand hygiene was 13.55±2.41. The minimum score of participants was 8 and maximum score of the participant was 17.

Table 2: Mean knowledge score of the secondary school students regarding hand hygiene after administration of the planned teaching module

| Variable | Mean | SD | Minimum Score | Maximum Score |
|-----------------------|-------|------|---------------|---------------|
| Total knowledge score | 18.13 | 2.19 | 11 | 20 |

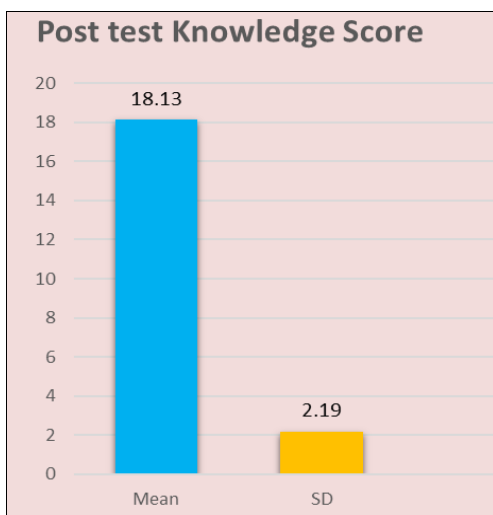


Fig 2: Bar diagram showing Mean Knowledge score of participants regarding hand hygiene after administration of planned teaching module

Table 2 and figure 2 depicts the mean knowledge score of the secondary school children regarding hand hygiene after administration of the planned teaching module regarding hand hygiene. The mean knowledge score of the participants after administration of the planned teaching module regarding hand hygiene was 18.13±2.19. The minimum score of participants was 11 and maximum score of the participant was 20.

Table 3: Mean difference of knowledge score regarding hand hygiene among secondary school children after administration of the planned teaching module N=60

| Variable | Mean Difference | SD | Paired t test | p value |
|------------------|-----------------|-----|---------------|----------|
| Posttest-pretest | 4.58 | 3.2 | 11.01 | <0.001** |

*significant at p<0.05: **significant at p<0.01

Table 3 depicts mean difference of knowledge score regarding hand hygiene among secondary school children after administration of the planned teaching module. It

interprets the effectiveness of the planned teaching module on knowledge regarding hand hygiene. There was statistical significant difference between pre-test and post-test knowledge score which is calculated by paired t test. The value of t was 11.01. It was found to be statistically significant- at $p < 0.001$.

Conclusion

The study finding proved that the planned teaching module administered by the researcher was effective to increase the knowledge of the secondary school students on hand hygiene.

Conflict of Interest: The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source: There is no funding Source for this study

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