

A Study to Assess the Effectiveness of Child to Child Approach on Knowledge and Practices Regarding Hand Washing among the Primary School Children of a Selected School Faridkot, Punjab

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Abstract

Introduction: Hand washing is part of our life. Hands are the main cause for disease transmission. They spread vector infection from one person to another. Hand washing with soap (HWS) is a simple and effective measure to prevent transmission of fecaloral disease and other infectious diseases in school-age children. There are over 10 million episodes of food related infection in a year but most of these are probably related to improper hand washing. Many of these deaths are easily preventable through simple practices such as hand washing with soap. Evidence suggests that improved hand washing can have a major impact on public health in any country and significantly reduce the two leading causes of childhood mortality. There is need to enhance the knowledge and practice skill of hand washing among school children.

Aim of the Study: Aim is to assess the effectiveness of child to child approach on knowledge and practices regarding hand washing among the primary school children of a selected school of Faridkot, Punjab.

Material and Method: A quantitative approach with one group pre test-post test research design was selected for the present study. With simple random sampling (100) school children from the 3rd, 4th and 5th classes, selected the 10 students from the all study subjects. Then pre test of whole children were taken. After pre test, intervention was given to the selected 10 students about hand washing after that, post test was taken, and allowed the selected students to teach the other students about hand washing. Socio demographic data sheet and tool, structured knowledge interview performa and observational checklist were prepared to assess the effectiveness of child to child approach on knowledge and practices regarding hand washing.

Results: The present study revealed that interventions i.e. child to child approach were helpful in improving hand washing knowledge and practices among primary school children, post test mean score of knowledge was 15.2 respectively which was significant at p value <0.05, similarly post test mean of hand washing practices was 10.41, which was significant at p <0.05 level.

Conclusion: Child to child approach is an effective intervention to raise the level of knowledge and improve the practices of hand washing. After being instructed, primary school children taught each other and to their siblings, playmate, and friends at home. There is no or little need of any supervision.

Keywords: Child to child approach, Hand washing, practices, knowledge.

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Introduction & Background of the Study

Keeping hands clean through improved hand hygiene is one of the most important steps one can take to avoid getting sick and spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean running water. The use of soap and available water is the best way to keep hands clean and free of micro-organisms¹.

Diarrhoea and pneumonia are among the leading causes of child mortality worldwide. In fact, 18% children under five years die due to diarrhoea and 19% die due to pneumonia every year. In India, this translates to the loss of over six lakh children under the age of five, every year. Many of these deaths are easily preventable through simple practices such as hand washing with soap. Evidence suggests that improved hand washing can have a major impact on public health in any country and significantly reduce the two leading causes of childhood mortality. Hand washing habits must be improved along with access to safe water and sanitation².

The Child to child approach is an emerging concept for spreading awareness on various health related concepts among family members and communities by educating children. The aim of this approach is children will be more responsible for the health of themselves and their communities. The ideas of the child to child approach are: Children learn better by doing, they are active learners, they learn better from each other, children act as partners in promoting health and issues concerning their communities, children influence adults as well as other children e.g. sisters, brothers, siblings playmates and classmates³.

Objectives of the Study

1. To assess the knowledge of primary school children regarding hand washing in terms of pre-test scores.
2. To assess the practices of primary school children regarding hand washing in term of pre-test scores.
3. To evaluate the effectiveness of child to child approach comparing pre and post knowledge and practice scores of primary school children.
4. To find out the co-relation between knowledge and practices of school children regarding hand washing.

Material and Method

Research approach & Design: Quantitative research approach and One group, pretest - post-test-only design was chosen for the study where effectiveness of child to child approach was seen on knowledge, practices of hand washing.

Research Setting: The present study was conducted in M.G.M Senior Secondary School Faridkot, which is an autonomous institution of education. In 5th has 50 students, 4th has 40 students and in 3rd class 39 has been studying. The study setting was chosen purposively.

Because strength of children in that school was fulfill researcher's sample criteria.

Sample & sampling technique: The study population was the all primary school children, studying in 3rd, 4th, 5th standard in selected school, Faridkot. 100 children were selected using random sampling technique.

Research tool: Research tool used for the study consists of 3 parts. Part I The socio-demographic Profile of the school children. Part II Consists of Structured interview Performa for assessment of knowledge of school children. Part III Checklist for the assessment of hand washing practices of school children.

Description of intervention: Planned intervention was given to the school children who were randomly selected from the classes. Researcher taught them about hand washing for 30 minutes by using audio-visual aids and by giving demonstration on hand washing on two different days. After the teaching, students were allowed to give the information to the other students in their respective classes. After ten days a post test of knowledge and practices was conducted.

Analysis of data: The analysis of data was done in accordance with objectives of the study. The data was analyzed by using descriptive statistics (frequency and percentage distribution, mean, and standard deviation) and inferential statistics (paired' test, coefficient correlation) with statistical package SPSS 20. The level of $p < 0.05$ for significance and $p < 0.001$ for highly significance was selected for the study.

Ethical Considerations

This study has been approved by the Ethical committee of University College of Nursing, BFUHS (Baba Farid University of Health Sciences). Permission was sought from Principal of M.G.M. Senior secondary school, Faridkot. The investigator introduced her to the subjects and developed good rapport with them. Privacy and comfort was provided to each subject while collecting the data. The investigator gained confidence and maintained good rapport.

Results

Table 1 describes the socio-demographic characteristics of the respondents. Majority 60% of the primary school children were in the age group of 5-10 years, followed by 40% in the age group of 11-15 years. 47% primary school children were from 5th class, 33%

from 3rd class and 20% respondents from 3rd class. 61% primary school children were males and 92% belong to urban community. Majority of primary school children; 60 (60%) belong to Hindu religion, 38% primary school children were from Sikh religion and 58% of primary school children were from nuclear family. Classification of primary school children on parental education and occupation indicates 18 % primary school children fathers were illiterate, 39% students' father educated up to middle and 20% children fathers were educated up to secondary and 69% primary school children fathers were labourer. 30% of the primary school children mother were illiterate, 20% of the primary school children mothers were educated up to mothers were educated up to secondary and 78% student's mothers were unemployed,. Maximum 79% primary school children said that they took information from their parents about hand washing.

Table 1: Frequency and percentage distribution of pre test knowledge score of primary school children

N=100

Level of knowledge	Range of Knowledge Score	n/%
Good	13-18	1
Average	7-12	41
Poor	0-6	58
Mean 6.94	SD 2.255	

Maximum knowledge score = 18 Minimum knowledge score = 0

Table 1 depicts frequency and percentage distribution the pre test knowledge score of primary school children. Only 1 (1%) student had good knowledge, 41 (41%) had average knowledge whereas, more than half of the students i.e., 58 (58%) had poor knowledge regarding hand washing. The knowledge score of students regarding hand washing. The maximum possible score was 18, maximum obtained score was 13 and minimum obtained score was 0. The mean score was found to be 6.94 ± 2.255 .

Table 2: Frequency and percentage distribution of pre test practice score of primary school children

N=100

Level of practice	Range of Practice Score	n/%
Good	9-12	1
Average	5-8	37
Poor	0-4	62
Mean 4.86	SD 1.206	

Maximum practice score = 12 Minimum practice score = 0

Table-2 depicts the pre test frequency and percentage distribution of the primary school children regarding hand washing. Only 1 (1%) students had good practice, 37 (37%) had average practice whereas, more than half of the primary school children i.e., 62 (62%) had poor knowledge regarding hand washing. The maximum possible score was 12, maximum obtained score was 10 and minimum obtained score was 0. The mean score was found to be 4.86 ± 1.206 .

Table 3: Effectiveness of child to child approach on knowledge of children regarding hand washing

N=100

Variables	Mean $\pm$ SD	Mean Difference	t value	df	p-value
Pre test knowledge score	6.94 ± 2.255	8.26	30.393	99	0.00**
Post test knowledge score	15.2000 ± 1.93845				

** significant p value < 0.05

Table 3 shows that the pre-test mean knowledge of the students was 6.94 ± 2.255 and post test mean of knowledge of hand washing 15.2000 ± 1.93845 with mean difference i.e. 8.26. t- Value 30.393. df 99 p value is 0.00 which was significant at $p < 0.05$ level.

Table 4: Effectiveness of child to child approach on practice of primary school children regarding hand washing

N=100

Variables	Mean $\pm$ SD	Mean Difference	t value	df	p-value
Pre test	4.80 ± 1.206	5.61000	24.160	99	0.00
Post test	10.41000 ± 1.98018				

** significant p value < 0.05

Table 4 shows that the pre-test mean practice of the students was 4.80 ± 1.2065 and post test mean of practice of hand washing 10.41000 ± 1.98018 with mean difference i.e. 5.61000. t- Value 24.160. df 99 p value is 0.00 which was significant at $p < 0.05$ level.

Table 5: Co-relation of knowledge and practices regarding hand washing

N=100

Attribute	Mean	r
Knowledge	6.94	.137
Practice	4.86	

Table 5 depicts co-relation of knowledge and practices regarding hand washing. The mean score of knowledge i.e. 6.94 and mean score of practice i.e. 4.86. The correlation coefficient between pre knowledge and pre-practices $r = .137$. There is 13.7% weak positive correlation between pre knowledge and practices.

Discussion

The findings of present study revealed that the child to child approach for assessing the effectiveness hand washing have good results. There was significant difference in the pre test result and post test results regarding hand washing knowledge and practices. Thus, child to child approach was found to be effective as compared to the simple teaching. There was significant co-relation between knowledge and practices.

The present study depicts that children have less knowledge and poor practices regarding hand washing before intervention. Through child to child approach intervention was administered and assessed the effectiveness of child to child approach it give better result and improve the knowledge and practices of hand washing. This might be due to children learn better by doing, they are active learners, they learn better from each other. Children influence more other children than adult. This finding supported by study conducted by **Hawash M (1998)**⁵ that the Child to child approach was used for spreading awareness on various health related concepts among family members and communities by educating children. The aim of this approach is children will be more responsible for the health of themselves and their communities. The ideas of the child to child approach are: Children learn better by doing, they are active learners, they learn better from each other. Study conducted by **Vivas A, Gelaye B, Aboset N, Kumie A, Berhane Y and Williams M.A(2011)**⁶ assessed the need of hand washing intervention by evaluation of the knowledge, attitudes, and practices (KAP) of hygiene among rural primary school children in Ethiopia. Data consisted of hygiene and hand washing practices, knowledge about sanitation; personal hygiene Study findings stressed the need for more hand washing and hygiene education in schools⁷.

Conflict of Interest: None

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