

The Effectiveness of a Structured Teaching Programme on Knowledge and Practice Regarding Hand Washing Among the Children

Priyanka Devi*

HOD of Child Health Nursing, Army College of Nursing Jalandhar Cantt.

*Corresponding Author
Priyanka Devi

HOD of Child Health Nursing,
Army College of Nursing
Jalandhar Cantt.

Article History

Received: 13.07.2024

Accepted: 28.08.2024

Published: 20.09.2024

Abstract: - The World health organisation (2018) states “Good hand hygiene is: A simple, cost effective way to save lives and transform the quality of health care at all levels. Hand washing complies of manually getting rid of visible short-term contaminants from hands by using soap and water. Hand washing is described to be the efficient yet short rubbing of all surfaces of the hands with lathered soap which is then followed with rinsing and cleansing under flowing streaming water. According to the CDC, washing hands could protect about 1 of 3 young children who get sick with diarrhoea and 1 of 5 young children with respiratory infections like pneumonia. Global hand washing Day observed annually on October 15 to raise awareness and highlight the importance of handwashing as an effective means of disease prevention. The theme for Global Handwashing Day 2023 is SAVES LIVES- clean your hands. The objective of study is to evaluate the effectiveness of a structured teaching programme on knowledge and practice regarding hand washing among the children of age group 10 – 15 years. A quasi experimental one group pertest post-test design was used to conduct the research. A convenience non-random sampling technique was selected. Samples are collected through non-probability purposive sampling technique. The sample of 60 children among 10 – 15 years was selected through non-probability purposive sampling technique. The tool used for the study was self-structured knowledge questionnaire. The study adopted one group pre-test post-test research design and was conducted at selected areas of Saddar Bazaar, Jalandhar Cantt. Pre-test and post-test was conducted using structured Questionnaire and Checklist among 60 selected children. Data was collected, recorded and analysed. The mean score for knowledge was increased from 15.57 to 28.05 and for practice the mean score increased from 5.5 to 9.23. The study also reveals that there is a weak positive correlation between level of knowledge and practice. The findings of the study conclude that STP was effective to improve the level of knowledge and practice among children regarding handwashing.

Keywords: Handwashing, STP, effectiveness, knowledge and practice, children.

Cite this article:

Devi, P., (2024). The Effectiveness of a Structured Teaching Programme on Knowledge and Practice Regarding Hand Washing Among the Children. *ISAR Journal of Medical and Pharmaceutical Sciences*, 2(9), 45-50.

Background of the study

The World Health Organization (2018) states “Good hand hygiene: A simple, cost-effective way to save lives and transform the quality of health care at all levels. Handwashing complies of manually getting rid of visible short-term contaminants from hands by using soap and water (SAH 2015). Hand washing is described to be the efficient yet short rubbing of all surfaces of the hands with lathered soap which is then followed with rinsing and cleansing under flowing streaming water (CDC 2009). Hand wash is a frontline hygienic act that prevents diseases and saves a lot of lives annually. Surprising as it may seem, but hand wash alone, saves millions of lives globally every year, mainly those of small children. Germs settle down on the hands when one touches a surface, plays or

shakes hand. These germs may cause several diseases if they enter the body through several portals of entries.

Hand wash is very effective in preventing diseases and their spread from person to person. It prevents diseases like diarrhoea and other respiratory ailments like influenza and pneumonia. In developing countries, pneumonia takes the lives of around 1.8 million children, below the age of 5 years. Both pneumonia and diarrhoea account for the death of over 3 million children globally every year. Studies have shown that in societies or families where hand wash is regularly practiced, the chances of infant mortality are reduced by around 50%. Hand washing also prevents the occurrence of several bacterial diseases that spread through human-to-human contact. [1] According to the CDC, washing hands could protect about 1 of 3 young children who get sick with diarrhoea and 1 of 5 young

children with respiratory infections like pneumonia. [2] By promoting good hand hygiene in children can dramatically enhance the safety, quality and effectiveness of health in children at all levels. Handwashing has always been one of most effective ways of keeping diseases at bay. It is a simple act that pays in dividends when it comes to keeping ourselves healthy and safe. Handwashing is also one of the key stone of COVID-19 prevention. Now more than ever as we embrace the new normal and live with COVID-19, hand hygiene needs to become an integral part of our daily routine and our lives, as we live through this pandemic, and beyond, to protect us from diseases,' said Dr Poonam Kheradpir Singh, Regional Director, WHO South-East Asia Region.

Review of Literature

Osama Al-Wyted, Ali E Mansour et al. (2021) performed a cross sectional study to assess knowledge, attitudes and practice of students in Saudi Arabia during partial lockdown. Sample size was 1323 children from all regions of Saudi Arabia. Survey was done by web- based validated questionnaire. Results suggested that handwashing knowledge was directly associated with positive attitudes towards handwashing. It is concluded that people are following correct handwashing techniques during lockdown. [4]

Faisal Hayat (2021) conducted a quasi-experimental single group pre-test post-test design to determine the effectiveness of education by using animation video in handwashing. 60 students from class 6th of elementary school in Cimabue Seringatam took part in the study. The result of study revealed that in pre-test, knowledge and skills of handwashing in students are 26.7% and 83% respectively and in post-test, it shows that students acquire excellent knowledge of handwashing along with handwashing skills. It is concluded that animated video teaching affects handwashing knowledge and behaviour of children. [5]

Ojime Zechariah Wada, Elizabeth Oloruntoba (2021) conducted a mixed method study which aimed to evaluate handwashing facilities and students' hand hygiene knowledge and practices. It includes semi-structured questionnaire, observational checklist and guided interview from 351 students from 5 different schools using 4-stage sampling technique. It is observed that there is absence of handwashing facilities in schools which showed that majority

(83%) students possessed fair knowledge on hand hygiene but only 47% students performed hand hygiene with soap water. It was concluded that rapid interventions should be done so as to ensure good facilities and good hand hygiene knowledge and practice among students. [6]

Mohan Kumar, Shanti prasad et al. (2021) conducted descriptive study to identify association between knowledge and practice of handwashing among students in Nepal. Total 327 students were selected from 9th to 12th grades using multi stage sampling technique. Questionnaire were used to collect data. Results shows that 36.9% students had poor knowledge regarding handwashing, whereas 43.42% students have higher knowledge but had low practice of handwashing. Hence, it concludes that good knowledge is not associated with good practice of handwashing. [7]

Methodology

A Quantitative research approach was used. A quasi experimental one group pretest post-test design was used. The research area for the research study was Saddar Bazar, Jalandhar Cant. Target population in this refers to school children of age group between 10-15 years residing in Saddar bazaar, Jalandhar Cant. Accessible population refers to children of age between 10-15 years of age in selected areas of Saddar Bazaar, Jalandhar Cant. Sample The sample of study was children of age group between 10-15 years. A convenience non-random sampling technique was selected. A sample of 60 children of age between 10-15 years was selected Method of sample selection. Inclusion criteria • Children who were aged between 10 – 15 years. • Children who live in selected area of Saddar Bazaar • Children who were able to speak, read, and write English/Hindi. Exclusion criteria • Children who were not present in their house at the time of study. • Children who were not willing to participate in this study. 20 Variables Independent Variable Structured teaching programme and demonstration on handwashing. Dependent variable Levels of knowledge and practice on hand washing among children of age 10 - 15 years. Demographic variable were age of the children, gender, domicile, educational status of father and mother, occupational status of the father and mother, family income per month, type of family, number of siblings and previous source of knowledge.

Results

SECTION 1- Description of the demographic variables of selected children

Table 1: Frequency and percentage distribution of sample characteristics

S.No.	Demographic variables	Frequency	Percentage (%)
1	Age (in Years)		
	• 10 - 12	32	53.33
	• 13-15	28	46.67
2	Gender		
	• Female	25	41.67
	• Male	35	58.33
3	Type of family		
	• Nuclear	46	76.67
	• Joint	14	23.33
	• Extended	-	-

4	Educational status of father - No formal education - Less than or till higher secondary - Graduate - Post graduate	- 37 23 -	- 61.67 38.33 -
5	Occupational status of father - Government sector - Private sector - Self employed - Unemployed	6 24 30 -	10 40 50 -
6	Educational status of mother - No formal education - Less than or till higher secondary - Graduate - Post graduate	11 25 17 7	18.33 41.67 28.33 11.67
7	Occupational status of mother - Government sector - Private sector - Self employed - Unemployed	3 4 3 50	5 6.67 5 83.33
8	Family income in a month - Less than 20,000 20,000-30,000 30,000-40,000 - More than 40,000	- 12 27 21	- 20 45 35
9	Previous source of knowledge - Family - School - Mass media - Health professional - None	7 30 9 - 14	11.67 50 15 - 23.33

The table above depicts that out of 60 samples, 32 (53.33%) children were 10-12 years and 28 (46.67%) were 13-15 years

- Gender distribution, 25 (41.67%) children were female and 35 (58.33%) children were male.
- Type of family, table shows 46 (76.67%) children were in nuclear family and 14 (23.33%) children were from joint family out of 60 samples.
- Educational status of father, out of 60 samples, father of 37 (61.67%) children studied less or till higher secondary only whereas father of 23 (38.33%) children were graduate.
- Occupational status of father, out of 60 samples, father of 30 (50%) children were self-employed, 24 (40%) were in private sector and only 6 (10%) were in government sector.
- Educational status of mother, 11 (18.33%) had no formal education, 25 (41.67%) studied less or till higher secondary, 17 (28.33%) were graduate and 7 (11.67%) were post graduate out of 60 samples.
- Occupational status of mother, out of 60, 3 (5%) were in government sector, 4 (6.67%) were in private sector, 3 (5%) were self-employed and 50 (83.33%) were unemployed. This data shows that maximum mothers were unemployed (housewife).
- Family income, the above table show that 12 (20%) had Rs.20000-30000, 27 (45%) had Rs.30000-40000 and 21 (35%) had more than Rs.40000 in a month.

- Previous sources of knowledge regarding handwashing, out of 60 samples 7 (11.67%) had knowledge through family, 30 (50%) had knowledge through school, 9 (15%) had knowledge through mass media and 14 (23.33%) had no previous knowledge

SECTION 2- Analysis of pre test and post test level of the knowledge and Practice regarding handwashing

2.1 Analysis of pre test and post test level of the knowledge

Table 2: Frequency and percentage distribution of level of the knowledge among the selected children

(n=60)

S.NO.	LEVEL OF KNOWLEDGE	PRETSET		POSTTEST	
		Frequency	Percentage %	Frequency	Percentage %
1.	Excellent Knowledge	2	3.33	57	95
2.	Average Knowledge	49	81.67	3	5
3.	Poor Knowledge	9	15	0	0
TOTAL		60	100	60	100

The above table outlines that out of 60 children of age group 10-15years, only 2 (3.33%) had excellent knowledge, 49 (81.67%) had good knowledge and 9 (15%) children had poor knowledge, regarding handwashing in pretest, on the other hand in the posttest 57 (95%) children had excellent knowledge, 3 (5%) had good knowledge and none (0%) of them had poor knowledge.

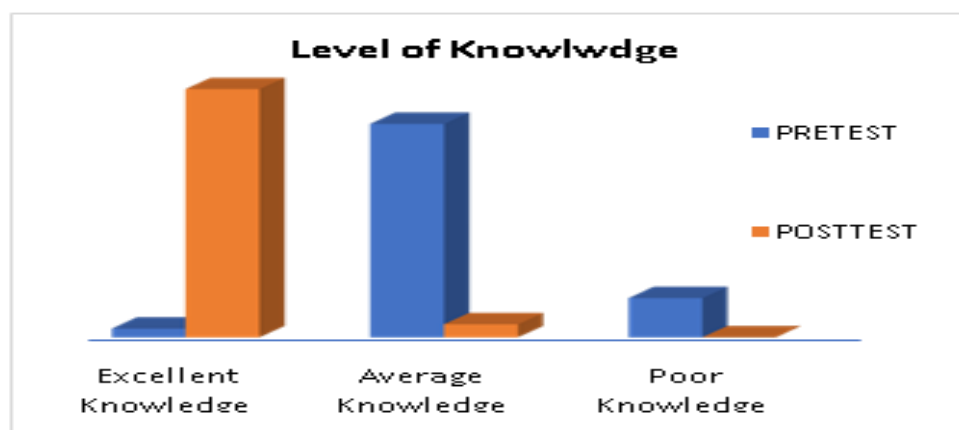


Fig 1: Distribution of pretest and posttest level of knowledge regarding handwashingamong children of age group 10-15years

2.2 Analysis of pretest and posttest level of practice

Table 3: Frequency and percentage distribution of level of practice among theselected children

(n=60)

S.NO.	Level ofpractice	Pretest		Posttest	
		Frequency	Percentage %	Frequency	Percentage %
1.	Excellent Practice	0	0	56	92.33
2.	Average Practice	58	96.67	4	6.67
3.	Poor Practice	2	3.33	0	0
TOTAL		60	100	60	100

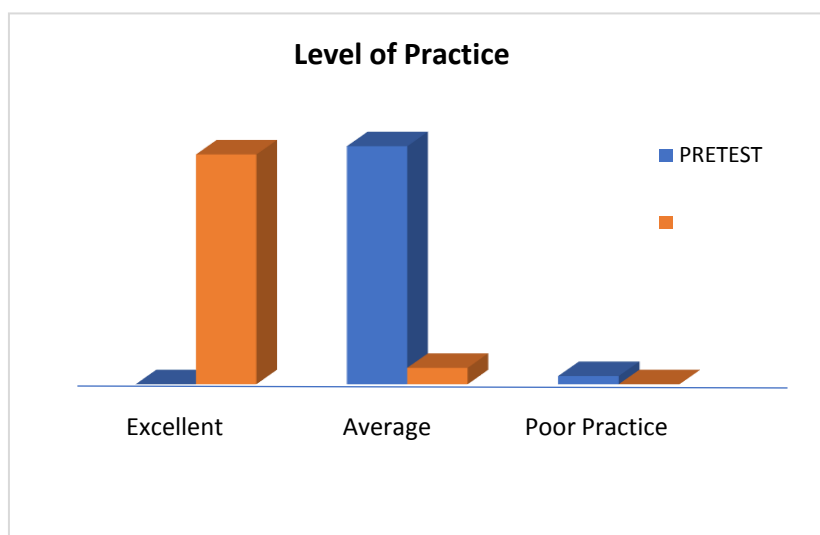


Fig 2: Distribution of level of practice regarding handwashing among children of agegroup 10-15 years

The above table illustrates that 2 (3.33%) children had poor practice, 58(96.67%) had average practice whereas none of them had excellent practice in the pretest, while in the posttest 56 (92.33%) had excellent practice, 4(6.67%) had good practice and none of them had poor practice.

SECTION 3: Evaluation of effectiveness of structured teaching programme on level of knowledge and practice regarding handwashing

3.1 : Evaluation of effectiveness of STP on level of knowledge

Table 4: Effectiveness of STP on level of knowledge

(n=60)

Category	Mean	Standard Deviation	Mean Difference	Paired 't' Test
PRETEST	15.57	3.743	13.183	23.262
POSTTEST	28.05	2.346		

(p<0.05)

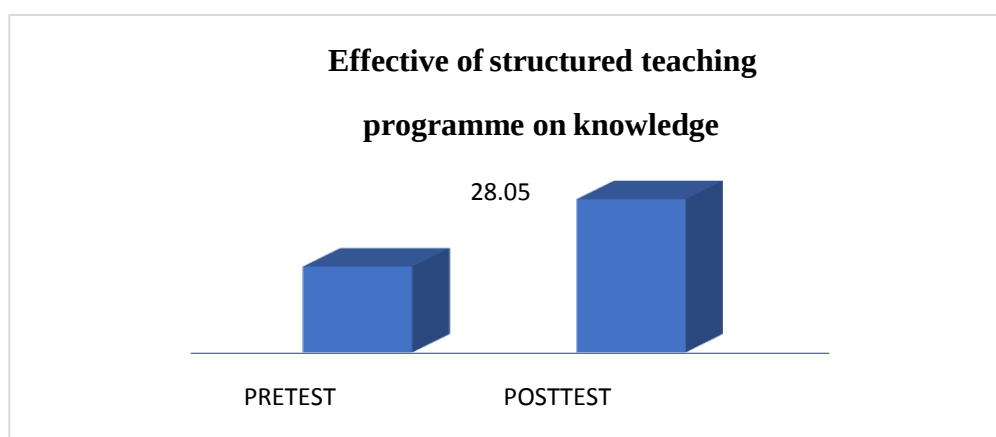


Fig 3: Mean score of knowledge in pretest and posttest

The above table and Figure show significant improvement in knowledge after structured teaching programme. The mean score and standard deviation of pretest is 15.57 and 3.743 respectively whereas the posttest mean value is 28.05 and standard deviation is 2.346.

The mean difference is 13.183 and calculated 't' value is 23.262 which is greater than tabulated value (2.00) and was highly significant (at p<0.05). **Hence H1 is accepted.**

3.2 : Evaluation of effectiveness of STP on level of practice Table

TABLE 5: Effectiveness of STP on level of practice

(n=60)

Category	Mean	Standard Deviation	Mean Difference	Paired 't' Test
PRETEST	5.5	1.033	3.73	23.44
POSTTEST	9.23	0.810		

(p<0.05)

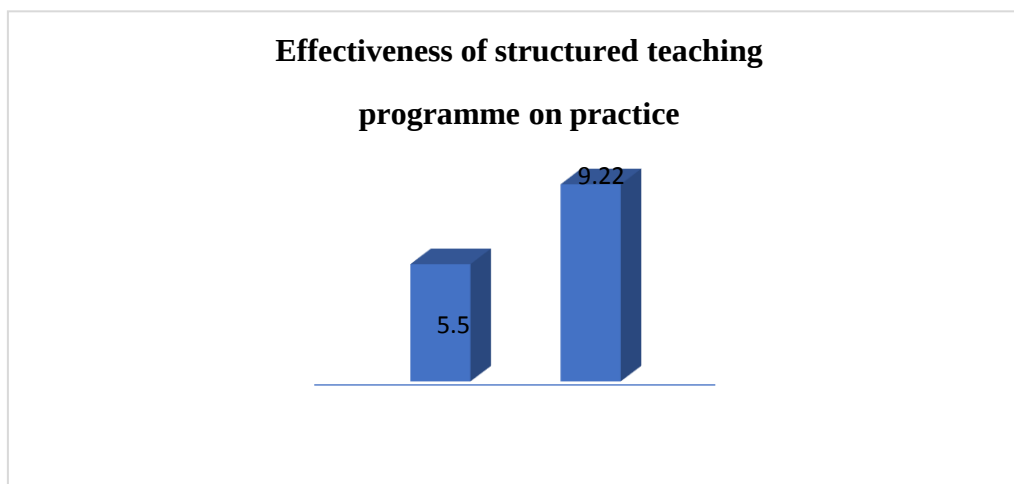


Fig 4: Mean score of practice in pretest and posttest

The above table and Figure show the effectiveness of demonstration on practice. The mean value and standard deviation are 5.5 and 1.033 respectively in pretest whereas the posttest mean value is 9.23 and standard deviation is 0.810. The mean difference is 3.73 and the obtained 't' value is 23.44 which is highly significant as it is higher than the tabulated value, 2.00 (at p<0.05).

Hence H2 is accepted.

Conclusion

The present study conducted to assess the effectiveness on the knowledge and practice regarding hand washing among children of age group 10-15 years.

Quantitative research approach used for the present study. A total of 60 school children 10 - 15 years fulfilling the inclusive criteria were selected by using a convenient non-random sampling technique in selected areas of Saddar Bazar. The structured questionnaire and observational checklist used for this study. Data collected, organized and analyzed in terms of both descriptive and inferential statistics. The findings disclosed that a statistically significant difference between pre and posttest levels on the knowledge and practice regarding hand washing among children (at p<0.05). Hence the **H1** and **H2** is accepted.

References

1. <https://www.essaybanyan.com/essay/essay-on-hand-wash/amp/>

2. <https://www.childrens.com/health-wellness/importance-of-hand-washing-for-kids-infographic>
3. Younie, S., Mitchell, C., Bisson, M. J., Crosby, S., Kukona, A., & Laird, K. (2020). Improving young children's handwashing behaviour and understanding of germs: The impact of A Germ's Journey educational resources in schools and public spaces. *PLoS One*, 15(11), e0242134.
4. Al-Wutayd, O., Mansour, A. E., Aldosary, A. H., Hamdan, H. Z., & Al-Batanony, M. A. (2021). Handwashing knowledge, attitudes, and practices during the COVID-19 pandemic in Saudi Arabia: A non-representative cross-sectional study. *Scientific Reports*, 11(1), 16769.
5. Hayat, F. (2021). The effect of education using video animation on elementary school in hand washing skill. *Acitya: Journal of Teaching and Education*, 3(1), 44-53.
6. Wada, O. Z., & Oloruntoba, E. O. (2021). Safe reopening of schools during COVID-19: An evaluation of handwash facilities and students' hand hygiene knowledge and practices. *European Journal of Environment and Public Health*, 5(2), em0072.
7. Sharma, M. K., Khanal, S. P., Acharya, D., & Acharya, J. (2021). Association between handwashing knowledge and practices among the students in Nepal. *Prithvi Academic Journal*, 4, 7-17.