VOLUME - 14, ISSUE - 08, AUGUST - 2025 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Nursing

A STUDY TO ASSESS THE EFFECTIVENESS OF FLEX AND DEMONSTRATION TECHNIQUE OF HAND WASHING AMONG SCHOOLCHILDREN IN SELECTED AIDED SCHOOL IN JALANDHAR, PUNJAB, INDIA.

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ABSTRACT

Objectives-: 1. To assess the pre interventional level in both interventional and control group.
2. To provide intervention (with the help of flex and demonstration) to the interventional group.
3. To assess the post level in both interventional and control group.
4. To compare the outcome both interventional and control group.

Methods: A simple randomized control trial was conducted at selected aided school, involving 70 students of 7 to 10 year age group. The students were divided into two groups i.e. interventional and control group having 35 students in each group. **Results:** The present study results revealed that Pre intervention mean±SD for experimental group was 15.45±1.14 and was 15.26±1.61 for control group. Post intervention mean±SD for experimental group 10.35±1.55 and for control group was 11.38±1.39. Results reveals that t value in experimental group was 14.759 at df 34 with p value 0.001 and 22.435 at df 34 with p value 0.001 in experimental and control group which is found to be significant at p=0.005. **Conclusion:** The study revealed that there is significant increase in knowledge among students in international group as compared to control group.

KEYWORDS : Flex, Hand washing Technique, Schoolchildren

INTRODUCTION:-

Hand washing with soap is a crucial practice that can significantly reduce morbidity and mortality from infections spread through fecal-oral routes and person-to-person contact.[1] Despite its effectiveness, many developing nations struggle to adhere to proper hand washing practices.

India Data:

A school-based hand washing campaign in Bihar increased hand washing prevalence among schoolchildren and mothers by 4.4%, with a notable 10.1% increase in the Desari block.[2]

A study in Delhi found that a school-based hand washing promotion program significantly improved knowledge and hand washing behavior among schoolchildren, with: 95% of students understanding the importance of frequent handwashing after the program 42% of children sharing hand washing information with their parents.[3]

Punjab Data:

Urban primary school children in Kapurthala District demonstrated better handwashing practices than rural children, with significant differences observed: Before eating: P=0.006 After handling dirty things: P=0.042 Education of mothers significantly influenced correct handwashing techniques among children (P=0.001).[4] Studies in Punjab showed that: Planned teaching programs effectively improved knowledge and practices regarding hand hygiene among school-age children in rural areas Child-to-child approach raised the level of knowledge and improved hand washing practices among primary School Children: World, India, and Punjab Data.[5]

Hypothesis: Null Hypothesis :(H_0)

There will be no any significant difference in improvement of hand washing level in interventional group as compare to control group.

Research Hypothesis: (H_1)

There will be significant difference in improvement of hand washing level in interventional group as compare to compare to control group.

Methodology:-

Research Approach: - A quantitative research approach.

Research Design: - Experimental research design.

Setting Of The Study: - Aided School Jalandhar Punjab India.

Target Population: - Schoolchildren of age group 7 to 11years.

Sampling Technique: - Randomized trial control technique.

Sample Size:- Total 70 sample Students 35 in control group and 35 on interventional group.

Variable:-

1. Independent:- School children
2. Dependent:- Hand washing technique with flex and demonstration.

Inclusion Criteria: -The study includes students with –
1. Age group of 7 to 11 years
2. Study in aided school Jalandhar Punjab.
3. Willingness of students.

Exclusion Criteria:-

The study includes the students with age group less than 7 year and more than 7 year.

Selection Of Developmental Tool:-

The tool was develop by keeping in mind the objectives of the study, review of literature and previous study. The tool include following parts

A. Part A- It consist of socio demographic variables such as Age, gender, Class, Type of family Place of residence , Mother educational status and Father educational status

B. Part B- The self-structured tool (Checklist) was prepared to assess the hand washing technique among schoolchildren. Which includes Wet your hand,apply soap, Lather and rub, duration, rinse thoroughly and dry completely.

C. Part C- It include Flex which explain about the steps of hand washing and its purposes.

Reliability Of Tool:-

The reliability was completed and calculated by using Karl Pearson's coefficient and Spearnan's Brown Prophecy formula the reliability of tool was 0.74. Hence, the tool was reliable.

Ethical Consideration:-

The study approval was taken from school at Jalandhar

Punjab. Keeping in mind the legal rights of the study subject, only those who were will to participate were included in the study. The verbal consent was taken from the student.

Procedure Of Data Collection:–

The data collection for the study was carried including 70 subjects (School children studying in Aided school Jalandhar Punjab, India.

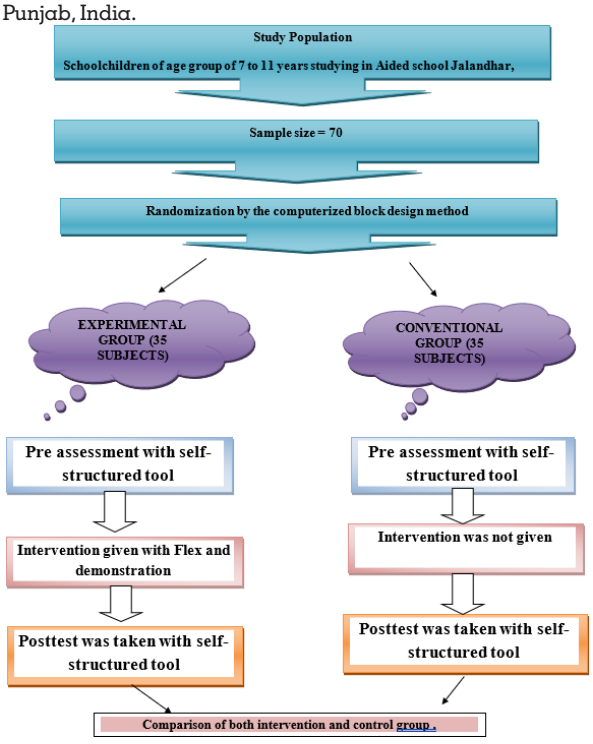


Figure no. 1 Flow chart of the study intervention.

Difficulty By Researcher:–

1. There was difficulty in attaining the willingness of the student.

Data Analysis:-

The raw data were enter in a master sheet, analyzed, and interpret using descriptive and inferential statistic.

Table 1: Frequency And Percentage Distribution Of Selected Socio Demographic Variable Among Schoolchildren.

S. no	Variables	Control group (N-35)		Intervention al group (N-35)		Total	x2 df	p-value
		f	%	f	%	f (%)		
1	Age of the school children						5.1832	0.075 NS
	7-8 years	00	00	00	00	00		
	8-9years	11	31.4	08	22.8	27.1		
	9-10 years	23	65.7	20	57.1	61.4		
	10-11 years	01	02.8	07	20.0	11.4		
2	Gender						2.8091	0.094 NS
	Male	20	57.1	13	37.1	47.1		
	Female	15	42.8	22	62.8	52.8		
3	Class						5.2762	0.071 NS
	III Standard	03	08.5	09	25.7	17.1		
	IV Standard	13	37.1	15	42.8	40		
	V Standard	19	54.2	11	31.4	42.8		
	VI Standard	00	00	00	00	00		
4	Type of family						1.9052	0.386 NS
	Nuclear	10	28.5	11	31.4	30		
	Extended	20	57.1	15	42.8	50		
	Single-parent	05	14.2	09	25.7	20		
5	Father educational status						7.1373	0.068 NS
	Secondary	18	51.4	08	22.8	37.1		
	Undergraduate	2	05.7	01	02.8	04.2		
	Postgraduate	10	28.5	17	48.5	38.5		
	Diploma	00	00	00	00	00		
	Uneducated	5	14.2	9	25.7	20		
6	Place of residence						0.2451	0.621 NS
	Urban	14	40	12	34.2	37.1		
	Rural	21	60	23	65.7	62.8		
7	Time taken to wash hands						2.1673	0.539 NS
	Less than 1min	0	0	2	05.7	02.8		
	2-3 min	21	60	21	60	60		
	3-4 min	13	37.14	11	31.4	34.2		
	More than 4min	1	02.8	1	02.8	02.8		
8	Mother educational status						6.5556	0.364 NS
	Secondary	15	42.85	18	51.42	47.14		
	Undergraduate	2	5.71	00	00	2.85		
	Postgraduate	1	2.85	2	5.71	4.28		
	Diploma	1	2.85	2	5.71	4.28		
	Uneducated	5	14.28	2	5.71	10		

Table 1: Depicts the frequency and percentage distribution of selected socio demographic variable among schoolchildren in interventional group (N=35) and control group (N=35).

Table 2: Mean And Standard Deviation Of Pre Interventional Level Of School Children In Selected School, Jalandhar, Punjab, India. N = 70

School children	Interventional group Mean± SD	Control group Mean± SD
Pre Intervention	15.457± 1.145	15.263± 1.6028

Table 2: Depicts that Pre Intervention means baseline data for interventional group was15.457± 1.145 and 15.263± 1.6028 in control group respectively.

Table 3: Mean And Standard Deviation Of Post Interventional Level Of Bilirubin In Neonates With Jaundice Under The Phototherapy With Low Cost White Curtain And Routine Phototherapy. N=70

School Children	Interventional Group N=35		Control Group N=35	
	Mean	SD	Mean	SD
Post intervention	10.351	+1.55	11.389	+1.39

Table 3: Depicts that Post intervention mean±SD baseline data of interventional group was 10.351±1.55 and 11.389 1.39 in control group respectively.

Table 4: The Comparison Between The Interventional Group And Control Group. N=70

Groups	Interventional group (Mean ± SD) N=35	Control group (Mean ± SD) N=35	T	df	p value
Pre Intervention	15.457±1.14	15.263±1.60	0.584	68	0.561
Post Intervention	10.351±1.55	11.389±1.39	2.934	68	0.005*
	t value-14.759 p value-0.001*	t value -22.435 p value -0.001*			

*=significant at p<0.05

Table 4: Depicts that pre intervention mean±SD of

interventional group was 15.457± 1.14 and 15.263±1.60 in control group respectively. Post intervention mean±SD of interventional group was 10.351±1.55 and 11.389 1.39 in control group respectively. Paired t test and Independent t test was applied for statistical analysis. Results reveals that paired t value 14.759 at df 34 with p value 0.001 in interventional group and was- 22.435 at df 34 with p value 0.001 in control group respectively. In the Individual t test, t value- 0.584 at 68 df with the p value 0.561 at pre-intervention and was t value- 2.934 at df 68 with p value 0.005* It proved that both groups were significant but Post intervention was more significant at the level of p ≤0.05.than pre-intervention.

Hypothesis Testing:-

H_1: The intervention group shows a significant improvement in handwashing practices compared to control group. The above stated hypothesis is accepted.

However, on comparison between the interventional group and control group found to be significant (p=0.005).Therefore, null hypothesis was rejected and research hypothesis was accepted.

RESULT:-

The present study results revealed that Pre intervention mean+SD for experimental group was 15.45+1.14 and was 15.26+1.61 for control group. Post intervention mean+SD for experimental group 10.35+1.55 and for control group was 11.38+1.39. Results reveals that t value in experimental group was 14.759 at df 34 with p value 0.001 and 22.435 at df 34 with p value 0.001 in experimental and control group which is found to be significant at p=0.005.

CONCLUSION OF THE STUDY:-

The study demonstrated a significant improvement in hand washing practices among schoolchildren in the intervention group compared to the control group.[8] The intervention, which included demonstration with flex on proper hand washing techniques, led to:

1. Improved Hand washing Practices: Schoolchildren in the intervention group showed a notable increase in proper hand washing practices, including frequency and technique.[6]
2. Better Health Outcomes: The improvement in hand washing practices is likely to contribute to better health outcomes, including reduced absenteeism due to illness.[7]
3. The findings suggest that targeted interventions can effectively promote good hand hygiene practices among schoolchildren, ultimately contributing to improved health and well-being.[9]

Limitations:-

- The study was limited to the schoolchildren.
- Schoolchildren with the age group of 7-11 years.

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