JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

"A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING HANDWASHING TECHNIQUES AMONG THE STUDENTS OF CLASS 4TH AND 5TH AT SELECTED PRIMARY SCHOOL AT LUCKNOW "

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ABSTRACT

Statement-

A Study To Assess The Effectiveness of Planned Teaching Program on Knowledge Regarding Hand Washing Techniques Among The Students of Class 4th And 5 th At Selected Primary School At Lucknow.

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. It is well- documented that the most important measure for preventing the spread of pathogens is effective hand washing.

Objectives-

To assess the pretest level of knowledge regarding hand washing techniques among the students of class 4th and 5th at selected primary school at Lucknow.
To evaluate the effectiveness of planned teaching programmed on handwashing techniques among the students of class 4th and 5th at selected primary school at Lucknow in term of post test score.
To find association between the selected demographic variables with the student's knowledge on handwashing techniques among the students of class 4th and 5th at selected primary school at Lucknow.

Research Methodology-

This study was conducted by using quantitative research approach at Iqra public school, balagnj Lucknow. In the present study pre-test and post-test research design was been used to achieve the objectives of the study. The total sample size was 50 as calculated statistically. Before conducting the study informed consent was obtain from the sample. convenience sampling technique was used.Data collection was done by using self structured knowledge questionnaire to assess the knowledge regarding hand washing techniques among the students of class 4th and 5th.

Result -

The data obtained are tabulated and analysed by using descriptive and inferential statistics. The statistical analysis of 50 samples shows that 66% samples had adequate knowledge, 30% samples had moderate knowledge and 4% samples had inadequate knowledge.

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. It is well- documented that the most important measure for preventing the spread of pathogens is effective hand washing.
Children need to understand why it is important to wash their hands. To do this they need help from their parents, caregivers, and teachers or from a member of staff at their schools. Children love to play with mud and sand, which host a lot of germs which can cause illness. Teaching them the significance of proper hand washing is a very crucial step towards living a healthy life. Encouraging children from an early age to wash their hands will help to prevent the infection and keep them healthy.

OBJECTIVES OF THE STUDY

1. To find association between the selected demographic variables of students of class 4th and 5th with the students knowledge on handwashing technique at selected primary school at lucknow.
2. To assess the pre test level of knowledge regarding hand washing techniques among the students of class 4th and 5th at selected primary school at lucknow .
3. To evaluate the effectiveness of planned teaching programme on handwashing techniques among the students of class 4th and 5th at selected primary school at lucknow in term of post test score.

RESEARCH APPROACH

In this study quantitative research approach is used to assess effectiveness of planned teaching program on handwashing technique through the pre-test and post-test experimental research approach and to assess the knowledge regarding handwashing technique through Structured multiple choice questionnaire among the student of class 4th and 5th at selected school of Lucknow.

DATA COLLECTION TOOLS & TECHNIQUE-

Obtain formal consent form Era College of Nursing Sarfarazganj Lucknow to conduct the study and then the permission consent was taken from City International School. The data collection period was from 23/05/2024 to 25/05/2024.

Data will be collected by following tool:

Part- 1- Demographic variables(Age, Gender, Religion and Type of family).

Part-2- Structured multiple choice questionnaire on handwashing technique.

Total-22 questions.

Criterion Measures-

Level of knowledge	Score
Adequate Knowledge	16-22
Moderate knowledge	8-15
Inadequate Knowledge	0-7

Result -

The Major Findings of the study:

Age: The majority of participants are 7-10 years old 32 (64%), with a smaller proportion in the 11-13 years category 17 (34%) and a very small group in the 14-15 years category 2 (2%).

Gender: The gender distribution is even, with 25 (50%) male and 25 (50%) female participants.

Religion: Most participants are Muslim 48 (96%), with a small percentage identifying as Hindu 2 (4%). No participants identified as Christian 0 (0%)or Sikh 0 (0%).

Type of Family: The majority of participants come from nuclear families 25 (50%), followed by joint families 22 (44%), and a small number from extended families 3 (6%).

✓ All of students were both male and female.

✓The post-test knowledge score of 50 sample-

- Inadequate Knowledge(0-7): 24% of participants had inadequate knowledge.

- Moderate Knowledge(8-15): 68% of participants had moderate knowledge.
- Adequate Knowledge(16-22): 8% of participants had adequate knowledg

In the statistical analysis of the present study association was calculated with the post-test level of knowledge among students of 4th and 5th class regarding hand washing technique with their selected demographic variables such as age , religion, types of family having no significant association but there is significant association with the demographic variable i.e. gender.

Objectives of the study:-

1. To assess the pre test level of knowledge regarding hand washing techniques among the students of class 4th and 5th at selected primary school at lucknow .
2. To evaluate the effectiveness of planned teaching programme on handwashing techniques among the students of class 4th and 5th at selected primary school at lucknow in term of post test score.
3. To find association between the selected demographic variables of students of class 4th and 5th with the students knowledge on regarding handwashing technique selected primary school at lucknow.

Organization of Analyzed Data:

The analyzed data was organized according to the objectives and presented under the following sections:

SECTION-A

To find association between the selected demographic variables of students of class 4th and 5th with the students knowledge on regarding handwashing technique selected primary school at lucknow.

TABLE: DEMOGRAPHIC PROFILE OF THE SUBJECTS

Variables	Category	Percentage	Frequency
Age	7-10 years	64.0%	32
	11-13 years	34.0%	17
	14-15 years	2.0%	1
Gender	Male	50.0%	25
	Female	50.0%	25
Religion	Hindu	4.0%	2
	Muslim	96.0%	48
	Christian	0.0%	0
	Sikh	0.0%	0
Type of Family	Joint	44.0%	22
	Nuclear	50.0%	25
	Extended	6.0%	3

Table 1 the findings were as follows:

- **Age:** The majority of participants are 7-10 years old (64%), with a smaller proportion in the 11-13 years category (34%) and a very small group in the 14-15 years category (2%).
- **Gender:** The gender distribution is even, with 50% male and 50% female participants.
- **Religion:** Most participants are Muslim (96%), with a small percentage identifying as Hindu (4%). No participants identified as Christian or Sikh.
- **Type of Family:** The majority of participants come from nuclear families (50%), followed by joint families (44%), and a small number from extended families (6%).

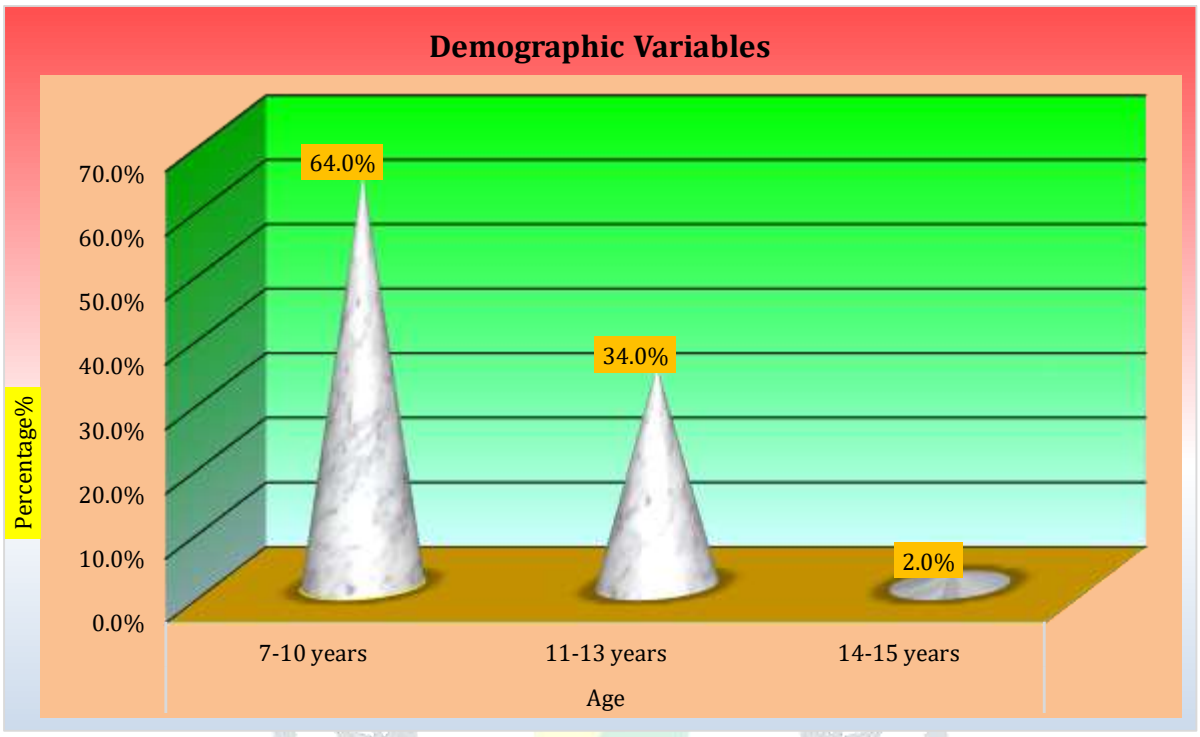


Figure No.: Diagram showing the percentage distribution according to their Age.

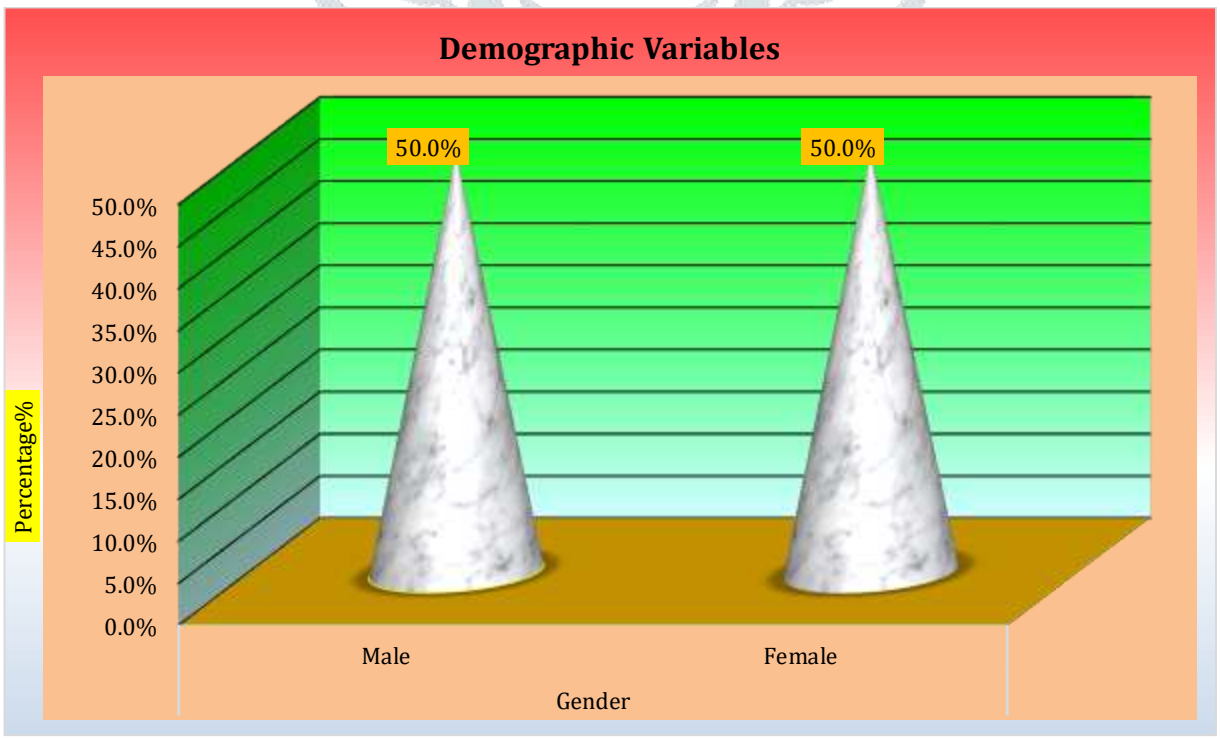


Figure No.: Diagram showing the percentage distribution according to their Gender.

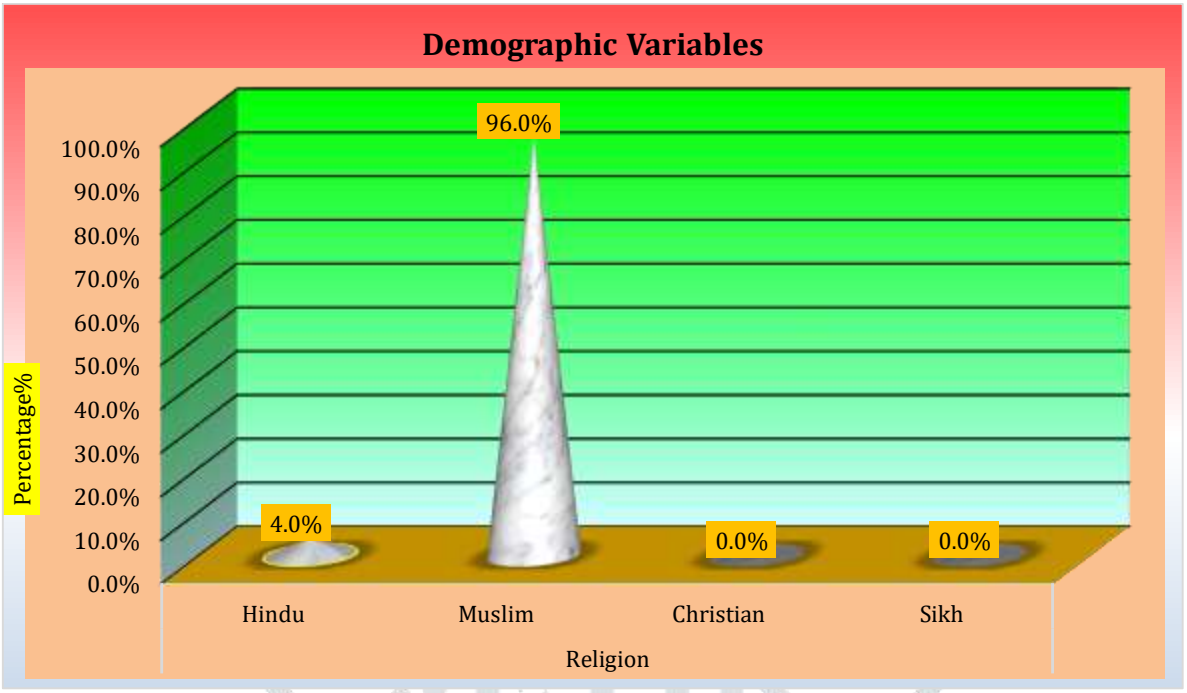


Figure No.: Diagram showing the percentage distribution according to their Religion.

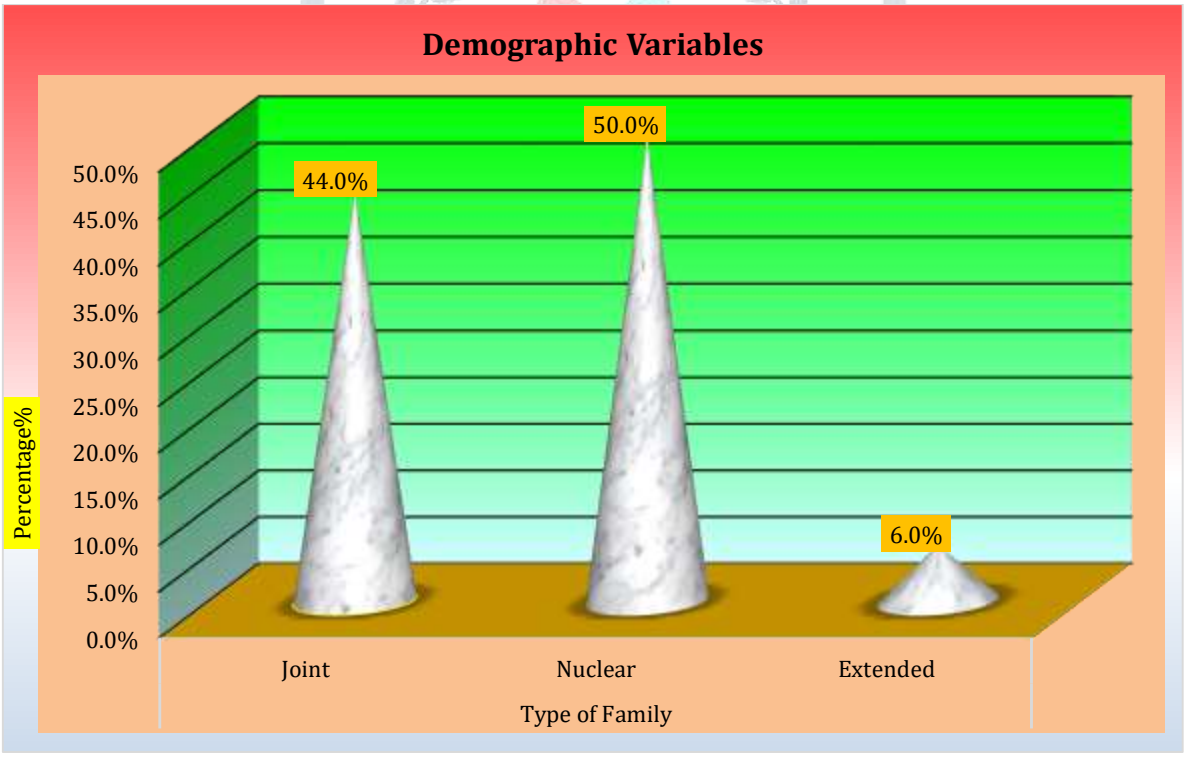


Figure No.: Diagram showing the percentage distribution according to their Type of Family.

SECTION – B

To assess the pre test level of knowledge regarding hand washing techniques among the students of class 4th and 5th at selected primary school at Lucknow .

4.1 Main analysis and interpretation of data

Table –: Frequency & Percentage distribution of pre-test level of knowledge

CRITERIA MEASURE OF PRETEST KNOWLEDGE SCORE	
SCORE LEVEL(N= 50)	PRE TEST f(%)
INADEQUATE KNOWLEDGE.(0-7)	12(24%)
MODERATE KNOWLEDGE.(8-15)	34(68%)
ADEQUATE KNOWLEDGE.(16-22)	4(8%)

Maximum Score=22 Minimum Score=0

- **Inadequate Knowledge:** 24% of participants had inadequate knowledge.
- **Moderate Knowledge:** 68% of participants had moderate knowledge.
- **Adequate Knowledge:** 8% of participants had adequate knowledge.

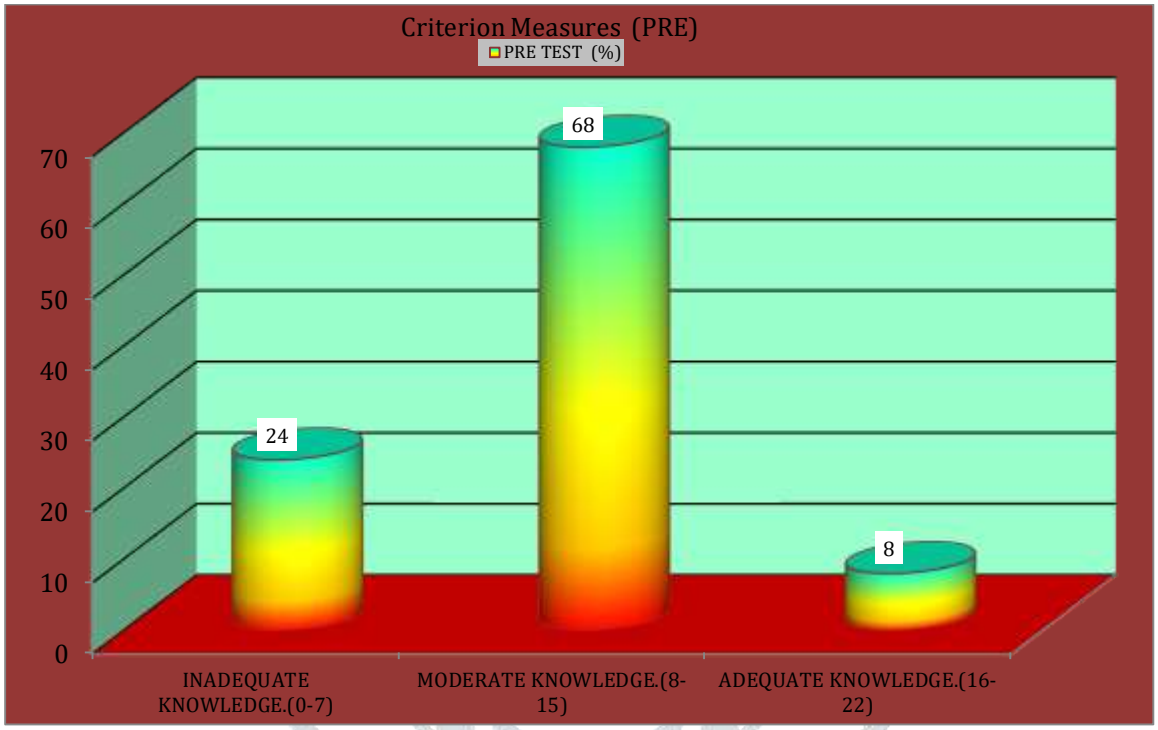


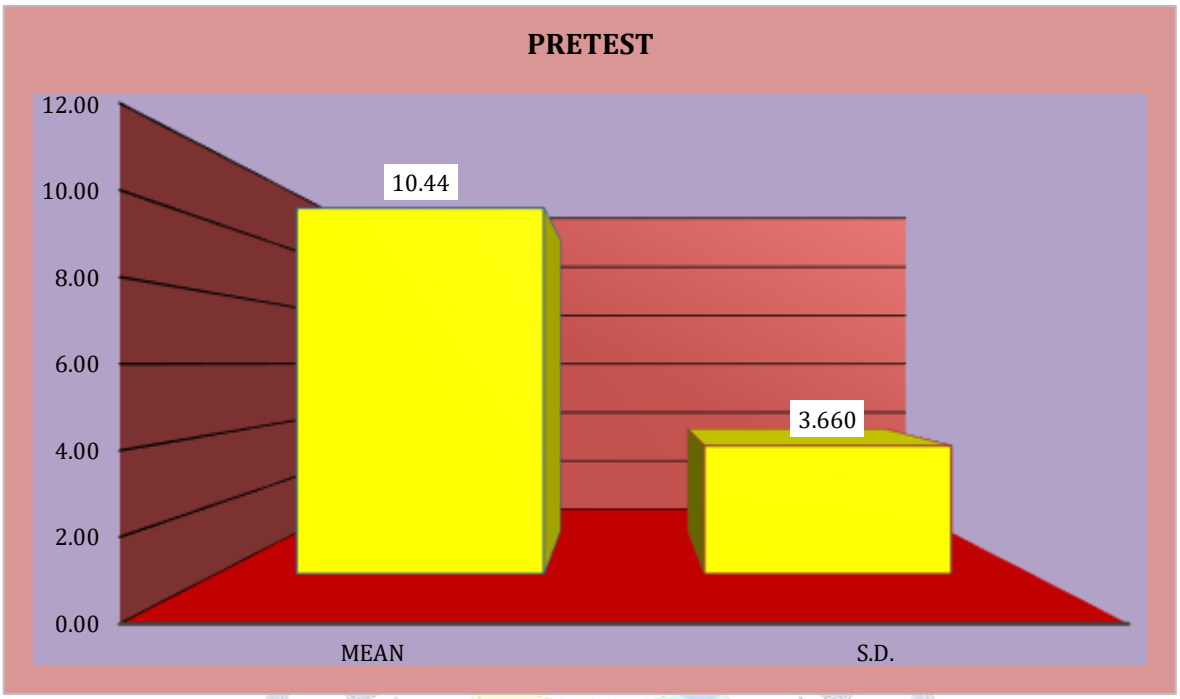
Figure no.: Diagram showing the percentage distribution of pre-test knowledge

Table –: Descriptive statistics of pre-test level of knowledge

Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean %
PRETEST KNOWLEDGE	10.44	3.660	10	19	3	16	47.50
	Maximum =	22	Minimum =	0			

- **Mean Score:** The average pre-test knowledge score is 10.44.
- **Standard Deviation:** The scores vary with a standard deviation of 3.66.

- **Median Score:** The middle value of the scores is 10.
- **Maximum Score:** The highest score achieved is 19.
- **Minimum Score:** The lowest score is 3.
- **Range:** The difference between the highest and lowest scores is 16.
- **Mean Percentage:** The average percentage score is 47.50%.



SECTION -C

To evaluate the effectiveness of planned teaching programme on handwashing techniques among the students of class 4th and 5th at selected primary school at lucknow in term of post test score.

Table –: Frequency & Percentage distribution of post-test level of knowledge

CRITERIA MEASURE OF POSTTEST KNOWLEDGE SCORE	
SCORE LEVEL(N= 50)	POST TEST f(%)
INADEQUATE KNOWLEDGE.(0-7)	2(4%)
MODERATE KNOWLEDGE.(8-15)	15(30%)
ADEQUATE KNOWLEDGE.(16-22)	33(66%)

Maximum Score=22
Minimum Score=0

- **Inadequate Knowledge:** Only 4% of participants fell into this category, indicating a significant reduction from the pre-test phase.

- **Moderate Knowledge:** 30% of participants had moderate knowledge, reflecting a decrease from the pre-test.
- **Adequate Knowledge:** The majority, 66%, achieved adequate knowledge, showing a substantial improvement.

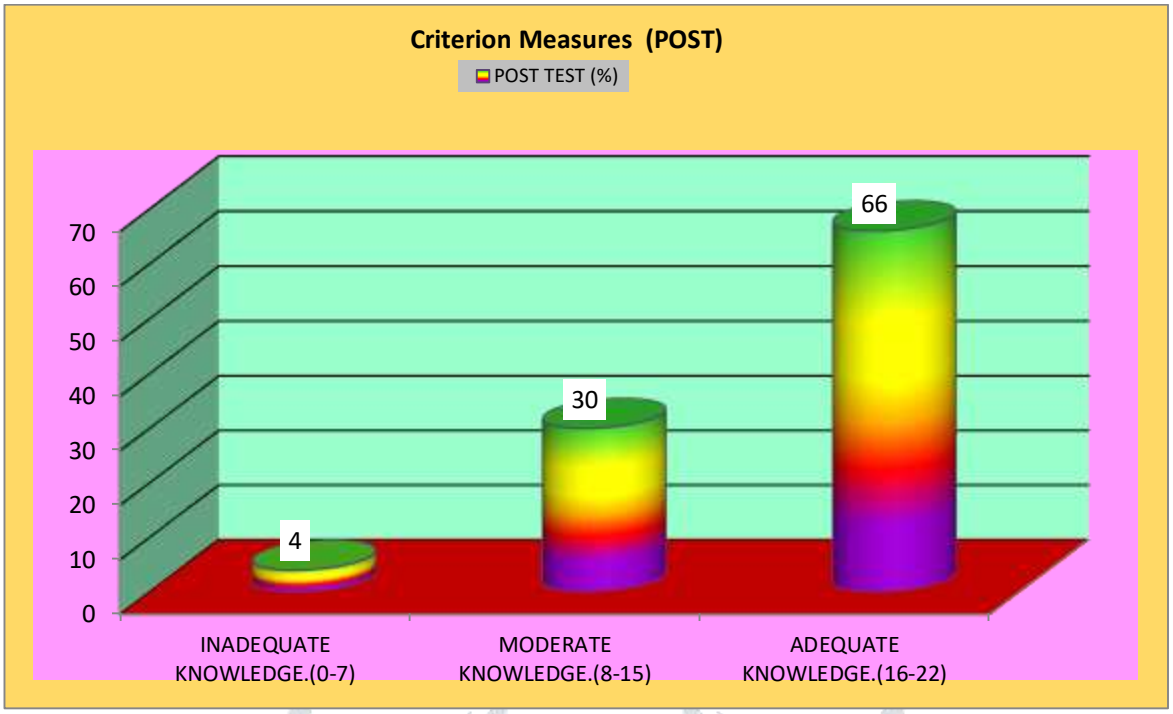


Figure no. : Diagram representing percentage distribution of post-test level of knowledge

Table – : Descriptive statistics of post-test level of knowledge

N=50

Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean %
POSTTEST KNOWLEDGE	16.26	3.539	17	21	6	15	73.90
	Maximum =	22	Minimum =	0			

- **Mean Score:** The average post-test knowledge score is 16.26.
- **Standard Deviation:** The scores vary with a standard deviation of 3.54.
- **Median Score:** The middle value of the scores is 17.
- **Maximum Score:** The highest score achieved is 21.
- **Minimum Score:** The lowest score is 6.
- **Range:** The difference between the highest and lowest scores is 15.
- **Mean Percentage:** Participants achieved an average percentage of 73.90%.

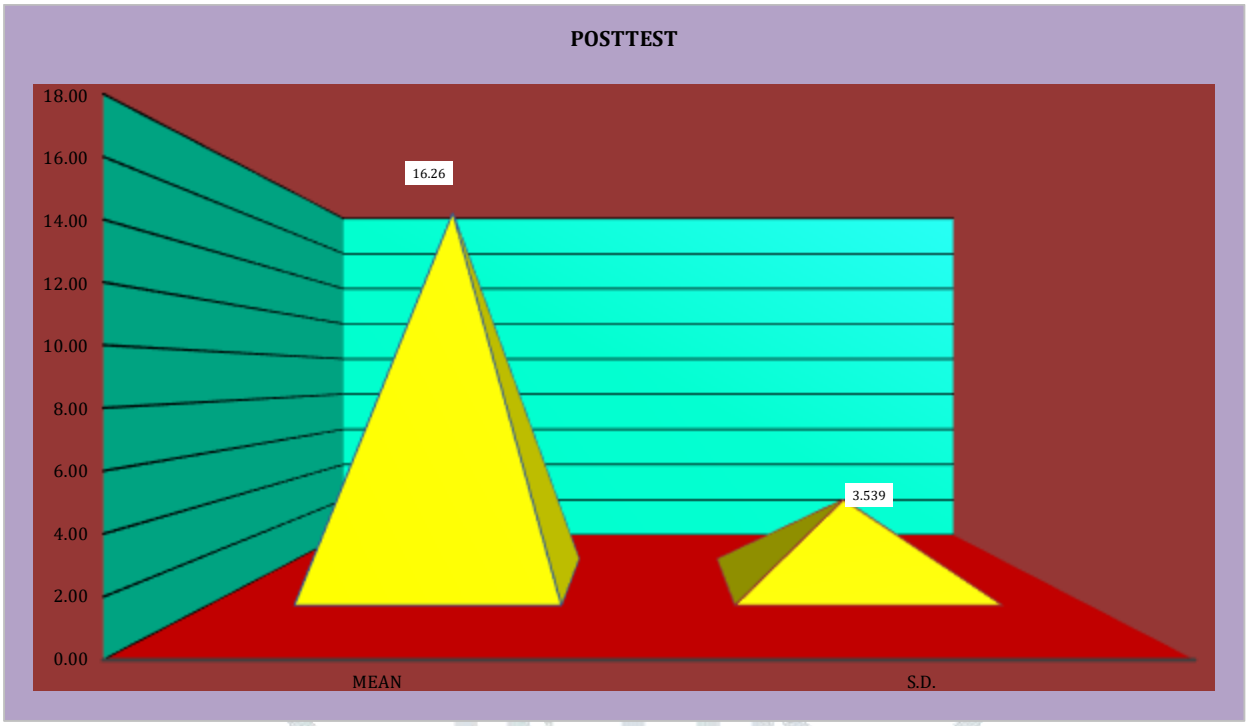


Figure no. : Diagram representing descriptive statistics of post-test level of knowledge

Table – : Comparison of frequency & percentage distribution of pre-test and post-test level of knowledge

CRITERIA MEASURE OF KNOWLEDGE SCORE

SCORE LEVEL(N= 50)	PRE TEST f(%)	POST TEST f(%)
INADEQUATE KNOWLEDGE.(0-7)	12(24%)	2(4%)
MODERATE KNOWLEDGE.(8-15)	34(68%)	15(30%)
ADEQUATE KNOWLEDGE.(16-22)	4(8%)	33(66%)

Maximum Score=22 Minimum Score=0

- **Pre-Test Knowledge:** At the start, 24% of participants had inadequate knowledge, 68% had moderate knowledge, and 8% had adequate knowledge.

- **Post-Test Knowledge:** After the intervention, inadequate knowledge dropped to 4%, moderate knowledge decreased to 30%, and adequate knowledge significantly increased to 66%.

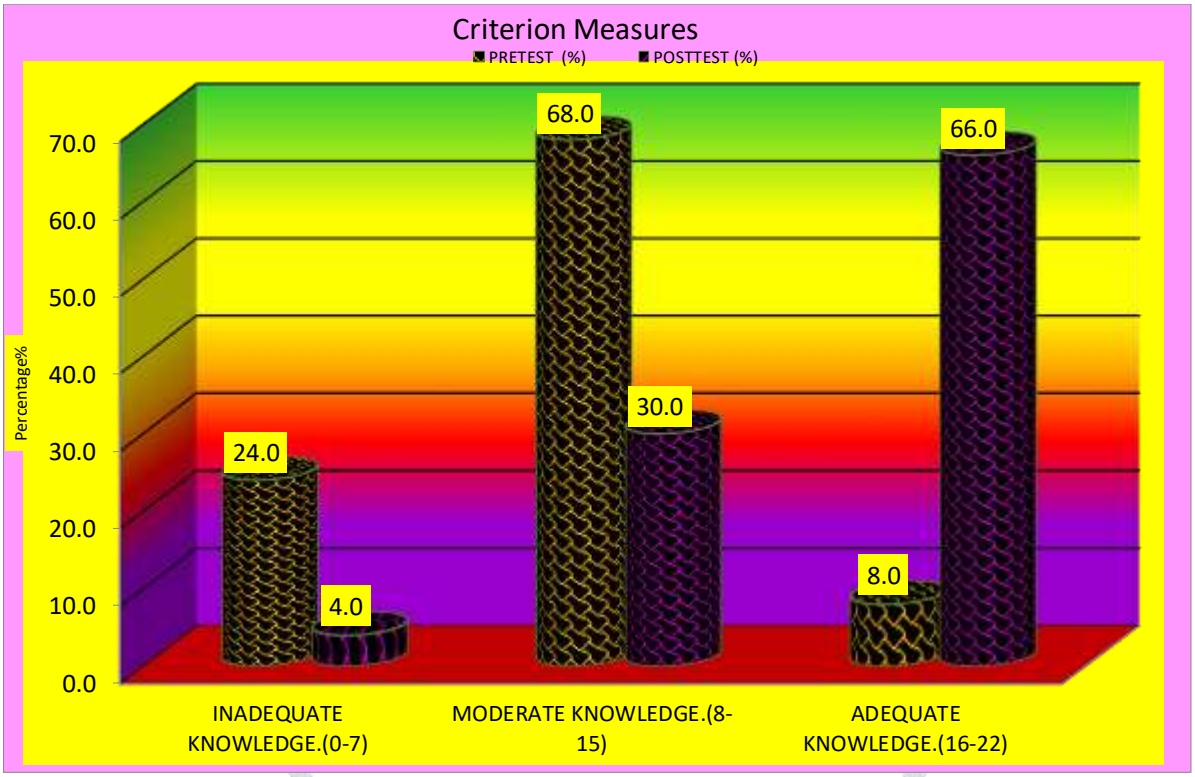


Figure no. : Diagram representing comparison of percentage distribution of pre-test and post-test level of knowledge

Table – 7: Comparison of descriptive statistics of pre-test and post-test Scores of knowledge

N=50

Paired Test	T Test	Mean±S.D.	Mean %	Range	Mean Diff.	Paired T Test	P value	Table Value at 0.05
PRETEST KNOWLEDGE		10.44±3.66	47.50	3-19				
POSTTEST KNOWLEDGE		16.26±3.539	73.90	6-21	5.820	9.45 *Sig	<0.001	2.01

** Significance Level= 0.05

Maximum=22 Minimum=0

 Pre-Test Knowledge: The mean score was 10.44 with a standard deviation of 3.66, representing an average percentage of 47.50%. Scores ranged from 3 to 19.

 Post-Test Knowledge: The mean score increased to 16.26 with a standard deviation of 3.54, representing an average percentage of 73.90%. Scores ranged from 6 to 21.

 Difference: The mean difference between pre-test and post-test scores was 5.82. The paired T-test result is significant ($T = 9.45$, $p < 0.001$), indicating a substantial and statistically significant improvement in knowledge.

Table – : Comparison of descriptive statistics of pre-test and post-test Scores of knowledge

DIAGRAM SHOWING INDIVIDUAL SCORE GAIN (EFFECTIVENESS))						
Mean%	PRE TEST KNOWLEDGE	POST TEST KNOWLEDGE	DIFFERENCE	PRE TEST KNOWLEDGE SCORE %	POSTTEST KNOWLEDGE SCORE %	DIFFERENCE%
Average	10.44	16.26	5.82	47.45	73.91	26.45

- **Mean Scores:** On average, participants improved their knowledge from a mean pre-test score of 10.44 to a mean post-test score of 16.26. This represents an average increase of 5.82 points.
- **Percentage Scores:** The average percentage score increased from 47.45% in the pre-test to 73.91% in the post-test, showing a substantial improvement of 26.45 percentage points.

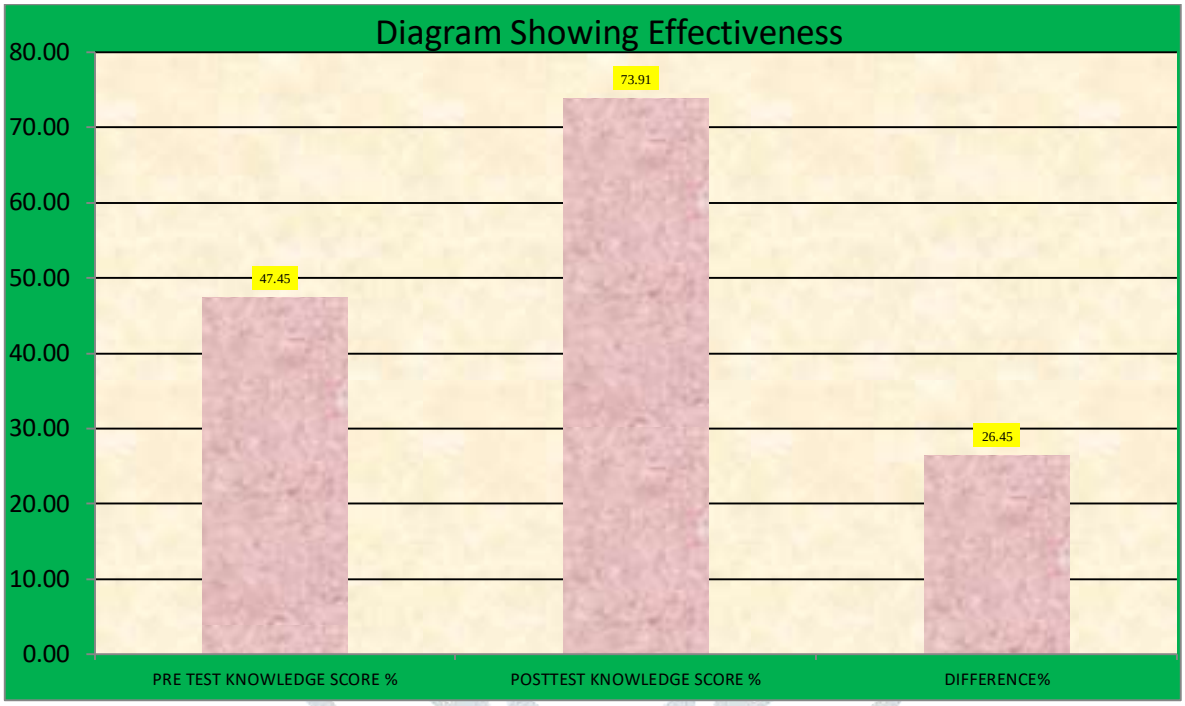


Figure no. : Bar diagram representing comparison of pre-test and post-test level of knowledge representing effectiveness

Conclusion -

The knowledge of hand hygiene increased after health education intervention. The increase in knowledge was statically significant. The statistical analysis of 50 samples shows that 66% samples had adequate knowledge, 30% samples had moderate knowledge and 4% samples had inadequate knowledge.

We conclude that the change in behavior of school children is possible if the health education intervention is properly implemented. Curriculum should be revised taking hand hygiene into consideration for the good health of the school children.

REFERENCES

1)https://azpdf.net/document/zlge9k3l-hand-washing-among-school-children-selected-school-serkadu.html.

2) Gizaw, Z., Demissie, N.G., Gebrehiwot, M. et al. Hand hygiene practice and associated factors among rural communities in northwest Ethiopia. Sci Rep 13, 4287 (2023). https://doi.org/10.1038/s41598-023-30925-0.

3) Gbolu S, Appiah-Brempong E, Okyere P, Vampere H, Obeng Nyarko G, Mensah KA. Determinants of handwashing behaviour among primary school teachers in a district of Ghana. Health Psychol Behav Med. 2023 Mar 15;11(1):2185620. doi: 10.1080/21642850.2023.2185620. PMID: 36949899; PMCID: PMC10026749.

4) Ashenafi Berhanu, et al .Hand washing practice among public primary school children and associated factors in Harar town, eastern Ethiopia: An institution-based cross-sectional study.front . public health,3 November 2022.sec.public health education and promotion.

5) Irene tudagbe obuor. Appraisal of challenges and community promotion in wash facilities in senior high schools in Ghana . Universal journal of social science and humanities. Department of social studies, mount Mary's College of education,somanya Ghana. 10.31586/ujssh.2022.344.published june26,2022 .

6) Khan S, Ashraf H, Iftikhar S, Baig-Ansari N. Impact of hand hygiene intervention on hand washing ability of school-aged children. J Family Med Prim Care. 2021 Feb;10(2):642-647. doi: 10.4103/jfmpc.jfmpc_1906_20. Epub 2021 Feb 27. PMID: 34041054; PMCID: PMC8138401.

7)Harar town eastern Ethiopia, Hand washing practice among public primary school children and associated factors in Harar town, eastern Ethiopia: An institution-based cross-sectional study.Volume 10 - 2022 | https://doi.org/10.3389/fpubh.2022.975507

8) Tafere et al .The effect of organizational and individual factors on health and safety practices: results from a cross-sectional study among manufacturing industrial workers. April 2020Journal of Public Health. DOI:10.1007/s10389-019-01050-y

9) Phasuk N, Punsawad C. Seroprevalence of Toxocara canis infection and associated risk factors among primary schoolchildren in rural Southern Thailand. Trop Med Health. 2020 Apr 22;48:23. doi: 10.1186/s41182-020-00211-0. PMID: 32336929; PMCID: PMC7175560.

10)Vivas, B. Gelaye, N. Aboset, A. Kumie, Y. Berhane, and M. A. Williams, “Knowledge, attitudes, and practices (KAP) of hygiene among school children in Angolela, Ethiopia,” J. Prev. Med. Hyg., vol. 51, no. 2, p. 73, 2010.

11) Sachan B, Idris M, Jain S, Kumari R, Singh A. Social determinantsand its influence on the prevalence of morbidity among adolescentgirls. N Am J Med Sci. 2012;4(10):474 .

12)Sijbesma C, Christoffers T. The value of hygiene promotion: cost effectiveness analysis of interventions in developing countries. Health Policy Plan. 2009;24(6):418-427.

13)Dhimal M, Dhakal P, Shrestha N, Baral K, Maskey M. Environmental burden of acute respiratory infection and pneumonia due to indoor smoke in Dhading. J Nepal Heal Res Counc. 2010; 8:1–4.3.

14)Murray CJL, Lopez AD. The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020. Cambridge: Harvard University Press; 1996

15)Richman L, Pearson J, Beasley C et al. Addressing health inequalities in diverse, rural communities: an unmet need. SSM Popul Health 2019.