

Effect of Animated Presentation in Knowledge on Personal Hygiene among Children at Government Primary School, Tiruvellore

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Abstract: Majority of the health problems affecting school age children are preventable by the promotion of hygiene practices through proper health education. UNICEF (2013) reported that survey among school children in India revealed that about half of the ailments are related to lack of personal hygiene. Totally 100 children (50 were intervention group and 50 were control group) from primary schools in Tiruvellore district were selected randomly. They were assessed for the evaluating the effect of animated presentation on personal hygiene. 27(54%) of them in the experimental group and 25 (50%) of them in the control group were 8 years of age. The paired 't' test knowledge score in experimental group the pretest value was 24.203, in control group was 5.408, both were statistically significant at the level of $P < 0.001$. There was no significant association between knowledge level and the selected demographic variables in experimental and control group at the level of $P < 0.05$.

Keywords: Personal Hygiene, Animation, Children, Primary school, Knowledge

1. Introduction

Childhood is the foundation of manhood. Personal hygiene is the basic concept of cleaning, grooming and caring for our bodies and it includes practices that lead to cleanliness, health preservation and good personal appearance. Majority of the health problems affecting school age children are preventable by the promotion of hygiene practices through proper health education. UNICEF (2013) reported that survey among school children in India revealed that about half of the ailments are related to lack of personal hygiene. Also, it is generally recognized that childhood is the best time for children to learn hygiene behaviours.

Lack of hygiene practices and inadequate sanitary conditions play major roles in the increased burden of communicable diseases within developing countries. Census of India (2010) in Maharashtra revealed that in India, one child dies every 17 seconds due to easily preventable causes. UNICEF (2008) reported that India is the second most populous country in the world with a population of 1.03 billion. Among them 400 million were children who aged one year to 18 years. Food Safety Association of India (2009) estimated that around 5.5 million people are affected with food borne diseases due to unhygienic food handling. National Health Survey (2009) reported that every year, more than 164 million absentees due to illness in schools which was caused by improper hygiene.

Childhood is the best time to learn about hygiene and sanitation. In today's society, children are exposed to media from a very young age. Teaching with colorful pictures of the topic to be covered will catch their attention soon. Hence the researcher felt to assess the effect of animated presentation on personal hygiene among children.

2. Objectives

The following objectives were made based on the study. They are

- 1) Assess the level of knowledge on personal hygiene among children in both the experimental and the control group.
- 2) Assess the effectiveness of computerized presentation on knowledge on personal hygiene in the experimental group.
- 3) Associate the pre test and post test level of knowledge on personal hygiene with the selected demographic variables.

3. Methods

The aim of the study was to assess the effectiveness of animated presentation on knowledge on personal hygiene among primary school children.

Research Design: Quasi experimental design was used in this study to assess the effectiveness of animated presentation on knowledge on personal hygiene among primary school children.

Setting: The study was conducted at Government Primary School at Chettipedu village and Kuthambakkam Village. Children studying in fourth and fifth standards at Kuthambakkam Government Primary School were the experimental group, children studying fourth and fifth standards in Chettipedu Primary Government School were the control group.

Population: All the fourth and fifth standards children studying in primary schools were the target population.

Sample: From the selected Government Primary Schools in Tiruvellore, the children who were studying fourth and fifth standards were selected as the sample of the study.

Sample Size: The sample size for this study was 100. Out of them 50 children studying fourth and fifth standards at Kuthambakkam Government Primary School were selected as experimental group and 50 children studying fourth and fifth standards at Chettipedu Government Primary School were selected as control group.

Sampling Technique: The samples were selected by using probability method, random sampling technique (Touching assigned random numbers).

Criteria for Sample Selection: The inclusion criteria were children who were studying in the fourth and fifth standards at Government Primary School, children aged between eight to ten years, children who could understand Tamil or English, and both male and female children. The exclusion criteria were children who had visual and auditory problems, children who were sick at the time of data collection and children who were not willing to participate.

Instrument: The tool was developed after consultation with nursing expert and extensive literature review. The instrument used for the study contains the following, they were Section I - Demographic data consist of child's age, sex, education, type of family, number of sibling in the family and food habits and Section II - Structured interview questionnaire on personal hygiene consists of 24 multiple choice questions. For correct answer, the score was given as 'one' and for the wrong answer the score was given as 'zero'. The total score was 24.

Score Interpretation: The scores were categorized as follows; they were below 50% - Inadequate Knowledge, 50 – 75% - Moderately adequate knowledge and above 75% - Adequate knowledge.

4. Results and Discussion

Out of 100 children 50 were intervention group and 50 were control group. The frequency and percentage distribution of demographic variable among children in experimental and control group were showing that 27(54%) of them in the experimental group and 25 (50%) of them in the control group were 8 years of age. Regarding the gender of the child 22 (44.0%) of the child in the experimental group and 28(56.0%) of them in the control group are males and 22(44.0%) of the child in the experimental group and 28(56.0%) of them in the control group were females.

Regarding family type 38(76%) of them in the experimental group and 36(72%) of them in the control group belongs to joint family and 12(24%) of them in the control group and 14(28%) of them belongs to nuclear family. Regarding the number of the living child 6(12%) of the people in the experimental group and 5(10%) of them in the control group were having one child and 24(48%) of the people in the experimental group and 26(52%) of them in the control group having two children.

Table 1: Frequency and percentage distribution on personal hygiene of pre and post test level of knowledge on personal hygiene among children in experimental and control group

Level of Knowledge	Experimental group (n=50)				Control group (n=50)			
	Pretest		Post test		Pretest		Post test	
	No.	%	No.	%	No.	%	No.	%
Inadequate knowledge	43	86	4	8	42	84	41	82
Moderately adequate knowledge	5	10	34	68	5	10	6	12
Adequate knowledge	2	4	12	24	3	6	3	6

Table 1 reveals the distribution of pre and post test level of knowledge on personal hygiene among children in experimental and control group. In experimental group during pre test 43(86%) of them had inadequate knowledge and 5(10%) of them had moderately adequate knowledge on personal hygiene. In control group during pre test 42(84%) of them had inadequate knowledge and 6(12%) of them had moderately adequate knowledge on personal hygiene. In experimental group during post test 34 (68%) of them had moderately adequate knowledge and 12(24%) had adequate knowledge on personal hygiene. In control group post test 41(82%) of them had inadequate knowledge, 6(12%) of them had moderately adequate knowledge on personal hygiene.

In experimental group the pre-test mean was 30.25 with standard deviation 10.23 and post test mean was 32.42 with standard deviation 10.85. In control group the pre-test mean was 32.42 with standard deviation 10.85 and post test mean was 39.67 with standard deviation 7.3.

Table 2: Paired 't' test knowledge on personal hygiene among control group and the experimental group (n=50)

Level of Knowledge	Experimental group n=50			Control group n=50		
	Pretest	Post-test	Mean Differen	Pretest	Post-test	Mean Differen
Mean	30.25	10.23	20.02	32.42	10.85	21.57
SD	10.23	9.11	1.12	68.58	9.11	59.47
't' test	t = 24.203 P=0.000 ***			t = 5.408, P=0.000 ***		

Table 2 reveals the effectiveness of computerized presentation on level of knowledge on personal hygiene in the experimental and in the control group. The paired 't' test knowledge score in experimental group the pretest value was 24.203 which was statistically significant at the level of $P < 0.001$. The paired 't' test score value of control group was 5.408 which was statistically significant at the level of $P < 0.001$.

The chi-square test revealed that there was no significant association between knowledge level and the selected demographic variables in experimental and control group at the level of $P < 0.05$.

The study findings were supported by Olivia.P. et.al.,(2010), a cross sectional study in Ethiopia among 1-6 grade 669 school children on knowledge, attitude and practice regarding personal hygiene by interview method. The study reported that 52% of students have adequate knowledge on personal hygiene, 99.0% students practice hand washing before meals but only 36.2% using soap ,48.2% only practice hand washing after defecation. The study

underscored the need for hand washing and hygiene education in the schools.

Meenakshi(2010) who conducted study on effectiveness of child to child teaching approach on knowledge and practice regarding oral hygiene among school children in Kerala. Study report showed that level of knowledge was unrelated to child's age, education but female children are more knowledgeable than male children. The result of the current and the supportive study showed that there was no association between the selected demographic variables and level of knowledge in both the experimental and the control group.

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