

Impact Of School Health Education Program On Hygienic Practices Followed By School Going Children Of Prayagraj District

Prachi Srivastava (Research Scholar)

Department of Home Science, NGB(DU), Prayagraj.

Email ID: prachiabhi29@gmail.com

Dr. Shikha Khare (Supervisor)

Head, Department of Home Science, NGB(DU), Prayagraj

Abstract

Personal hygiene plays main role to uphold healthy life. This study was performed to evaluate the current level of knowledge and practicing behavior among school going children in regard to hand washing, bathing, tooth brushing, and taking care of nail and hair. **Materials and Methods:** A cross-sectional descriptive study was conducted on 200 primary school students of Prayagraj district (U.P.). All the students were interviewed with a structured questionnaire (pretest). A short documentary of good and bad personal hygiene was shown on projector and explained the benefits of good personal hygiene behavior. Again same structured questionnaire was given (posttest). **Results:** Most of the students belonged to the 6-9 years age group. The knowledge of the students regarding general body cleanliness was 77% in posttest as compared to 38% in pretest. Keeping the finger nails trimmed was considered as a part of personal hygiene by 59% of students. Knowledge about rinsing mouth with water is good for oral hygiene is seen only in 41.5% students. Covering mouth with elbow while sneezing was seen in 77% of students. Only 52.5% of students accepted that washing the hair is part of personal hygiene (pretest) while 85.5% (posttest) children were aware of this fact. Practice regarding change of clothes was on alternate day in 50.5% of students. Most of the students were found washing their hair once a week (60.5%) and 85% students were washing hands before meal. **Conclusion:** Overall trend of knowledge and practice about personal hygiene was in poor condition among students at the time of pretest. Posttest results were highly satisfactory.

Keywords: Healthy life, hand wash, personal hygiene, school children

Introduction

The word hygiene originates from the name of the ancient Greek goddess of healthy living Hygeia. Hygiene refers to practices associated with safeguarding health and healthy lifestyles.[1]. The key to human health resides for the most part in the environment in which they live. In fact, much of human ill health can be attributed to adverse environmental factors that pose a continuing threat to human health. Poor hygienic practices can lead to communicable diseases primarily in developing countries. The school is a place that offers not only an education for the children, but also an educational environment. The foundations of lifelong responsibility for the maintenance of personal hygiene are laid down in childhood, which is important for a healthy childhood, for a healthy adulthood, and for the development of positive values about health and the use of health services. The current inadequacy of the knowledge base hinders the development of improved strategies for improving the maintenance of personal hygiene, which is of great importance to decrease the burden of communicable diseases in the developing countries. With the above background, this study was undertaken with the following objectives:

1. To find out the current knowledge and practices regarding personal hygiene among primary school children
2. To identify any misconception among them regarding the maintenance of personal hygiene.
3. To educate and promote good personal hygiene behavior among them.

Materials and Methods

A school based cross-sectional descriptive study was done on school children of 6–9 years age group studying in schools of urban areas of Prayagraj district for 3 months. Non probability purposive sampling technique was used. Total sample of the study consisted of 200 school children.

Inclusion criteria

School children:

- Between the age group of 6 and 9 years (3rd – 5th std)
- Available at the time of data collection

- Willing to participate in the study.

Exclusion criteria

School children: Not in the age group of 6–9 years.

Method of data collection

We communicated the objectives of the study to the students and teachers, and participation was completely voluntary. Study participants provided oral consent before participating, and there was a 100% participation rate. Each student was interviewed using a structured questionnaire in a room specifically devoted for this study. Briefing was done regarding the questionnaire provided to the students and they were asked to mark the responses. Questionnaire was given to assess the current level of knowledge (pretest). A brief health education session along with the documentary regarding personal hygiene was conducted for the parents, class teachers and students after completion of the pretest. Again, new set of similar questionnaire was given (posttest session). School teachers were asked to help the students in understanding the questions in pretest and posttest. Questionnaire consisted of two parts:

- Part-I

Demographic profiles of school children such as age, sex and income group.

- Part-II

Questionnaire based on Knowledge and practices of personal hygiene.

Operational definition

Knowledge: It refers to the correct responses of school children regarding personal hygiene as measured by self-administered questionnaire.

Practice: It refers to the activities performed by school children in relation to personal hygiene to promote hygiene behavior.

Personal hygiene: Personal hygiene deals with practices that help school children in the maintenance and promotion of their health physically, emotionally, socially, and spiritually.

Data analysis: Data were analyzed using the Microsoft office excel 2007. Chi-square test was used to make categorical comparisons.

Results

Table 1: Socio economic and demographic Profile

Parameters	Variables	N (%)
Age Group (Years)	6-7	73 (36.5)
	8-9	127 (63.5)
Sex	Male	113 (56.5)
	Female	87 (43.5)
Religion	Hindu	101 (50.5)
	Muslim	87 (43.5)
	Other	12 (6)
Income Group	LIG	58 (29)
	MIG	142 (71)

Out of 200 students, majority of the students were in age group of 8-9 years (63.5%) followed by 6-7 years age group (36.5%). Among 200 students, male and female students were 56.5% and 43.5%, respectively. Maximum students were Hindu (50.5) followed by Muslim (43.5) and other.

Table 2: Knowledge about personal hygiene

Parameters	Variables	Pre	Post
Using soap to wash hands after going to toilet	Yes	144 (72)	182 (91)
	No	56 (28)	18 (9)
χ^2 (cal) = 23.94 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			
Wash hands before eating	Yes	133 (66.5)	180 (90)
	No	67 (33.5)	20 (10)
χ^2 (cal) = 32.44 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			
Personal hygiene is all about general body	Yes	76 (38)	154 (77)

cleanliness	No	124 (62)	46 (23)
χ^2 (cal) = 62.24 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			
Cleaning your teeth with toothpaste and brush prevents tooth decay	Yes	104 (52)	182 (91)
	No	96 (48)	18 (9)
χ^2 (cal) = 74.64 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			
Rinsing your mouth with water after meal is healthy for your teeth	Yes	83 (41.5)	158 (79)
	No	117 (58.5)	42 (21)
χ^2 (cal) = 58.71 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			
Covering mouth with elbow while sneezing	Yes	154 (77)	190 (95)
	No	46 (23)	10 (05)
χ^2 (cal) = 26.91 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			
Keeping fingernails trimmed regularly	Yes	119 (59.5)	168 (84)
	No	81 (40.5)	32 (16)
χ^2 (cal) = 29.61 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			
Washing the hair regularly is part of personal hygiene	Yes	105 (52.5)	171 (85.5)
	No	95 (47.5)	29 (14.5)
χ^2 (cal) = 50.911 χ (tab)= 3.84 d.f. = 1 *Significant (At 5 % level of Significance)			

Knowledge that using soap to wash hands after going to toilet was found in 72% of children in pretest while 91% agreed this in post test. Only 66.5% children wash their hands before eating while after education it is increased to 90%. Knowledge about personal hygiene is about general body cleanliness was found in 38% of children in pretest while 77% agreed this in posttest. 52% children in pretest knew that cleaning teeth with toothpaste and brush prevents tooth decay; in posttest 91% agreed its importance. Only 41.5% rinse their mouth with water after meal while after imparting education 79% agreed to this. It was found that 77% children in pretest covers their mouth while sneezing and 95% children in posttest improve their habit. Fingernails were trimmed regularly by 59.5% children while this was improved in post test by 84%. Only 52.5% of children knew that washing hair regularly is a part of personal hygiene.

Table 3: Hygiene Practices

Variables		n(%)
Bath frequency	Daily	60 (30)
	Alternate	125 (62.5)
	Occasionally	15 (7.5)
Wash or change clothes	Daily	82 (41)
	Alternate	101 (50.5)
	Occasionally	17 (8.5)
Brushing teeth	Daily	154 (77)
	Twice	38 (19)
	Occasionally	8 (4)
Wash hair	Daily	23 (11.5)
	Weekly	121 (60.5)
	Twice weekly	56 (28)
Washing hands	Before meal	85 (42.5)
	After defecation	91 (45.5)
	Both time	24 (12)

62.5% of students were taking bath alternate day and only 30% of students were taking daily. Practice regarding change of clothes was on alternate day in 50.5% of students.77% students used to brush daily. Most of the students were found washing their hair once a week (60.5%) and 45.5% students were washing hands after defecation followed by 42.5% students wash their hands before meal.

Discussion

Children represent the largest segment of our population and intend to be the focus of family, school, society and government. Man's health is primarily determined by the environment in which he lives. In fact, much of man's ill health can be traced back to harmful environmental variables that are always a threat to his health. Because healthy children grow into healthy and

strong individuals who can actively engage in a nation's developmental activities, children are truly the foundation of a civilization. Children's access to sanitary practices varies greatly throughout regions, according to national health policy [2], which advocates for voluntary child health promotion. Overall, 60 percent of youngsters in developing nations had adopted appropriate hygiene and self-care behaviors as a result of excellent health education provided by teachers and health care professionals. [3].

Hand washing before and after defecation was shown to be significantly increased ($p < 0.05$) in the current study. The understanding of how to wash hands with soap grew significantly ($p < 0.05$). Studies undertaken at the national and international levels backed up our findings. Our findings were comparable to those of White C et al in Colorado, who found that in the control group, hand washing increased considerably [4], Greene LE et al findings that reported increase in use of soap for washing hands before eating and after defecation in Western Kenya and was statistically significant [18]. Our findings were similar to those of Aiello AE et al in the United States, who found that hand washing knowledge increased [5], Reilly CEO et al in Western Kenya, who found that hand washing knowledge increased and was statistically significant [6], and Riaz M et al in Bangladesh, who found that hand hygiene knowledge increased and was statistically significant [7].

Brushing knowledge increased in our study and was statistically significant ($p < 0.05$). Our findings were backed up by studies conducted by Lee A et al in Hong Kong, where tooth brushing knowledge increased and was statistically significant at health education intervention schools [8], Siwach M in Panipat, India, where tooth brushing knowledge increased and was statistically significant [9], and Dongre AR *et al* in Maharashtra, India, where the concept of clean teeth increased significantly [10].

In our survey, we discovered that 38 percent of participants knew about general body cleanliness and 59.5 percent knew that keeping fingernails trimmed and clean demonstrates good hygiene. In a study done by Khatoon et al., [11] found that in pretest, 53.8% had knowledge about general body cleanliness and 62.0% had knowledge that keeps fingernails trimmed and clean shows good hygiene. Regarding the oral hygiene it was seen in our study that 41.5% rinse their mouth after having meal and 77% covers their mouth while sneezing. Similar

study was done by Ansari and Warbhe [12] in which maximum students cover their mouth while sneezing either by elbow or handkerchief.

Only 30% of students in our study took a bath every day, whereas Ansari and Warbhe [12] discovered that roughly 81 percent of students took a bath on a regular basis, with only 3% having a bath every other day and 16 percent taking a bath twice a day.

In this study, 77 percent of students wash their teeth once a day, whereas only 38 percent brush twice a day. According to Ansari and Warbhe [12], 31% of students clean their teeth twice a day, which is considered typical practise. Students in the third percentile used to wash their teeth every other day. Only 1% of students used to clean their teeth on a daily basis. Schoolchildren were studied by Manjunath and Kumar [13]. According to the report, 68 percent clean their teeth before going to bed and 31.8 percent brush their teeth in the morning.

In the current survey, 60.5 percent of students washed their hair weekly and only 11.5 percent washed it every day. According to Ansari and Warbhe [12], 47 percent of students cleaned their hair everyday, 25 percent washed every other day, and 29 percent washed their hair once a week school children were studied by Vivas et al. [14]. According to the poll, 21% of people said they hadn't washed their hair in at least 14 days.

In our survey, 42.5 percent of pupils washed their hands before eating and 45.5 percent washed their hands after defecation. The majority of pupils in a research conducted by Vivas *et al.* [14] in Angolela, Ethiopia, reported washing their hands before meals. The percentages of children who said hand washing before eating was important and preferred were 99.7 percent and 98.8 percent, respectively. These high percentages are consistent with the large percentage of youngsters who wash their hands before eating (99.0 percent). According to Oyibo [15], 76.1 percent of kids wash their hands before eating.

Conclusion

School hygiene education is essential for decreasing the rates of communicable diseases. Children are more receptive to learning and are more likely to develop healthy behaviours at an earlier age. They can also be agents of change by disseminating what they learned at school to their families and community members. Unhygienic condition is one of the major causes of

illness. According to a recent study by WHO, because of the lack of cleanliness and sanitary conditions, there is a loss of Rs. 6500 annually for each Indian. The Swachh Bharat Mission is trying to address this loss and ease the burden on existing health facilities, which will help boost our Indian economy [17].

Recommendations

Future research on knowledge, attitudes and practices should specifically assess students' attitudes to hygiene, availability of water, and sanitation facilities at home and at school, and the reasons behind hand washing. Improved comprehensive knowledge about these issues should be used to develop low cost, but highly effective programs that will significantly attenuate the burden of transmissible disease among school children [15].

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