

Original Research Article

Knowledge and practices regarding personal hygiene among primary school children

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ABSTRACT

Background: Childhood plays a crucial role in moulding an individual personality and also helps in preventing various communicable and non-communicable diseases. Poor health among school children mainly results from lack of knowledge and adoption of unhealthy practices. Therefore, they should be taught regarding importance of personal hygiene in order to maintain good health. The present study was designed to assess the knowledge and practices regarding personal hygiene among primary school children in selected schools of Rishikesh, Uttarakhand, India.

Methods: A cross-sectional study was conducted with a sample size of 150 primary school children in selected schools of Rishikesh, Uttarakhand, India. Students were selected using disproportionate stratified random sampling technique over a period of two and a half months. The assent and consent were taken from the children and their mothers. A self-structured questionnaire was used to assess the knowledge and practices regarding personal hygiene among primary school children. The questionnaire focussed on ten different aspects of personal hygiene like brushing of teeth, bathing, hair wash, nail cutting, hand washing, clean clothes, wearing foot wear, and ear, food and water hygiene.

Results: The mean age group for children was 10.04 ± 0.904 years. The results showed that girls were more knowledgeable regarding personal hygiene and also practiced better personal hygiene practices as compared to boys. The educational status of mother played a positive factor in improving knowledge and practices regarding personal hygiene.

Conclusions: Periodic screening of health problems along with health education should be given to primary school children in order to improve their personal hygiene and thereby leading to a healthy life.

Keywords: Knowledge, Practices, Personal hygiene, Primary school children

INTRODUCTION

The foundation of a healthy lifestyle mainly relies on the education and practices that are adopted during childhood because a healthy childhood leads to a healthy adulthood. Childhood plays an important role in moulding an individual personality and also for development of positive values about health and various health services.¹ Children are rising stars of our country; therefore, health and well-being of our country mainly depends upon health and well-being of children. The children

compromise one third of total population and are most vulnerable group. There are about 200.6 million children in the age group of 6-12 years globally, out of which 40% are in India.² Thus they need to be inculcated with good healthy practices so that they can contribute to a healthy nation and will help to foster our country. Maintaining personal hygiene is an important aspect of an individual because it acts as barrier from predisposing him to various illnesses. If individuals are taught this basic concept at younger age, it can influence their health and ultimately productivity and economy of nation at large.³

At the beginning of 20th century, major cause of child mortality in age group of 5 to 14 years was due to many infectious diseases which mainly resulted from lack of personal hygiene.⁴ Therefore, maintaining good personal hygiene helps to prevent development and spread of infection. Deb et al reported in their study that children who maintained good personal hygiene were adequately nourished and were free from any kind of morbidity.⁵ The factors that influence positive hygiene behavior include knowledge and awareness regarding personal hygiene. Majority of minor ailments in children can be prevented by adopting primordial preventive strategies and educating the children periodically.⁶

UNICEF highlights importance of school sanitation and hygiene and has stated that various communicable diseases have led to morbidity and mortality of children. School are the most important places of learning and teaching in areas concerned to personal hygiene and serve as a central place in community. In a survey conducted in India, studies have stated that half of minor ailments in school going children are mainly due to unsanitary condition and lack of personal hygiene.⁷

Children behave what they learn from environment. It has been proved by various researches that childhood is the most important period of learning, so healthy habits must be taught during this period. Good personal hygiene practices can have far reaching effect in future life and health of children as well as in community in which they reside. School premises can serve as an important ground for imparting health education regarding personal hygiene as they hold a central place in communities. The benefits of personal hygiene are not only confined to school age children but also to their families, communities and whole nation. Various benefits of good personal hygiene include lower morbidity and mortality rates among children, better nutrition, cleaner environments, social development and better learning and retention of children in school.⁸

The aim of this study is to assess the knowledge and practices regarding personal hygiene among primary school children from grade 3 to grade 5.

METHODS

Type of study

The study type was of community based cross sectional research study.

Place of study

The study was conducted at Nirmal Ashram Deepmala Pagarani public school, Rishikesh, Uttarakhand, India.

Duration of study

The duration of study was of two and a half months.

Study population

The population was primary school children of class 3rd, 4th and 5th standard.

Sample size and sampling technique

The sample size was calculated based on previous studies using Raosoft software. The sample size calculated was 150.

School was selected using simple random sampling technique from five primary schools in Rishikesh which were found in its proximity from AIIMS institute and feasibility of estimated sample size. It was done by using lottery method.

After selecting schools, list of students of 3rd, 4th and 5th standard were made.

Sampling technique for selecting sample was disproportionate stratified random sampling. Children were divided into three strata, as children studying in 3rd, 4th and 5th standard. Out of them, 50 students from each strata were selected for the study.

At the end, a total of 150 children were selected.

Inclusion criteria

Primary school children studying in 3rd, 4th and 5th standard and children who were present at time of data collection and willing to participate in research study were included in the study.

Exclusion criteria

Children who were sick at time of data collection were excluded from the study.

Data collection tools, ethical considerations and pilot study

Tools of data collection comprised of socio-demographic profile of child, structured knowledge questionnaire, and checklist for assessment of practices regarding personal hygiene. The level of knowledge was subdivided in categories like poor, fair, good and excellent knowledge while the level of practices was categorized into poor, average and good practices. The validity and reliability of tool was assessed before implementation in final study data collection.

The ethical consideration was obtained from ethical committee of all India institute of medical sciences, Rishikesh, Uttarakhand, India. A written permission was taken from the school authorities before conducting research study. A written consent was taken from children's mothers and assent was obtained from children

regarding their willingness to participate in research study.

The pilot study was conducted at Foothill academy senior secondary co-educational day school, Rishikesh, Uttarakhand, India among primary school children studying in class 3rd, 4th and 5th Std. for a period of one week in month of October, 2018 with sample size of 15 children.

Procedure for data collection

The main study was conducted for a period of two and half months i.e., November- January 2018-19. The nature and purpose of study was explained before conducting the study. The questionnaire was developed in both Hindi and English language based on participant's understanding. The knowledge questionnaire was filled by primary school children whereas the practice's checklist was filled by their mothers.

Analysis of data

The data was analysed using descriptive and inferential statistics.

RESULTS

Socio demographic details of children

The mean age group was 10.04 ± 0.904 . The majority of children were males (57%) as compared to females (43%). The socio-demographic details of children are shown in Table 1.

Knowledge and practices regarding personal hygiene among primary school children as per the findings shown in Table 2, 83% had fair knowledge regarding personal hygiene with mean score of 24.39 ± 2.305 . Majority of mothers (95%) reported that their children had "average" personal hygiene practices with mean score of 105.27 ± 9.80 .

Table 3 reveals pre-test mean knowledge score and rank order as per domains of personal hygiene. As per the findings, the topmost domain of personal hygiene about which children had more knowledge was wearing clean

clothes with mean \pm SD of 2.77 ± 0.511 and mean percentage of 92.22% in control group. The children had least knowledge regarding ear hygiene with a mean \pm SD of 0.93 ± 0.396 and mean percentage of 46.66% in control group.

Table 4 reveals mean practices scores and rank order as per domains of personal hygiene. As per findings, topmost practiced domain of personal hygiene was wearing clean clothes with a mean \pm SD of 6.78 ± 0.804 and mean percentage of 84.75% followed by wearing footwear while going outside home (mean \pm SD: 3.38 ± 0.482 and mean percentage of 83.66%). The least practiced domain of personal hygiene was hand washing with mean \pm SD: 20.75 ± 2.764 and mean percentage of 47.24%.

Association between knowledge and practices regarding personal hygiene with selected socio-demographic variables of primary school children.

A statistically significant association was found between age, gender, grade/ class, educational status of mother and previous information regarding personal hygiene with knowledge score. As age of child increased there was an increase in knowledge level regarding personal hygiene. The girls were more knowledgeable regarding personal hygiene as compared to boys. The higher the class of study of child, the more knowledgeable he/she was regarding personal hygiene. The more the educational status of mother, the more the child was knowledgeable regarding personal hygiene. In addition, if child received previous education on personal hygiene had better knowledge than those who didn't receive education.

A statistically significant association was found between age, gender, grade/ class, educational status of mother, number of siblings, previous information regarding personal hygiene with practices score. As age and class of study of child increased, their frequency of good personal hygiene practices increased concurrently. The girls performed better personal hygiene practices as compared to boys. The more the educational status of mother, better personal hygiene practices were performed by children. The children who had less number of siblings and received previous information regarding personal hygiene performed better personal hygiene practices.

Table 1: Socio-demographic variables of primary school children, (n=150).

Demographic variables	Total	Percentage (%)
Age (years)		
8	08	5
9	31	21
10	61	41
11	47	31
12	03	2
Gender		
Male	85	57
Female	65	43

Continued.

Demographic variables	Total (n=150)	Percentage (%)
Educational status of father		
Higher secondary	22	15
Graduate and above	128	85
Educational status of mother		
No formal education	06	4
Primary education	09	6
Higher secondary	53	35
Graduate and above	82	55
Religion		
Hindu	146	98
Sikh	04	2
Type of family		
Nuclear	103	69
Joint	47	31
Monthly income (Per capita income) * (INR)		
6574 and above	96	64
3287-6573	54	36
Number of siblings		
0	20 (13.3)	13.3
1	107 (71.3)	71.3
2	23 (15.3)	15.3
Previous information regarding personal hygiene		
Yes	33	22
No	117	78
If yes, then from whom?		
Parents	33	11
Others	-	-

*As per revised B. G. Prasad social classification 2018 based on per capita income monthly limit

Table 2: Knowledge and practices regarding personal hygiene among primary school children, (n=150).

Variables	Score	F (%)	Mean±SD
Level of knowledge			
Poor	≤20	23 (15)	18.61±1.699
Fair	21-30	124 (83)	24.39±2.305
Good	31-35	03 (2)	31.33±1.528
Excellent	36-40	-	-
Level of practices			
Poor	44-110	8 (5)	86.25±1.49
Average	111-143	142 (95)	105.27±9.80
Good	144-176	-	-

Table 3: Pre-test mean knowledge scores and rank order as per domains of personal hygiene, (n=150).

Domains of personal hygiene	Total	Mean (%)	Rank
	Mean±SD		
Clean clothes	2.77±0.511	92.22	1
Wearing footwear	1.82±0.299	91.00	2
Bathing	2.47±0.642	82.44	3
Food hygiene	2.47±0.620	82.22	4
Nail cutting	2.12±0.542	70.66	5
Hand washing	3.28±0.403	65.60	6
Hair wash	2.31±0.777	59.33	7
Brushing teeth	1.13±0.672	56.66	8
Water hygiene	6.40±1.400	53.22	9
Ear hygiene	0.93±0.396	46.66	10

Table 4: Pre-test mean practices scores and rank order as per domains of personal hygiene, (n=150)..

Domains of personal hygiene	Total		
	Mean±SD	Mean (%)	Rank
Clean clothes	6.78±0.804	84.75	1
Wearing footwear	3.38±0.482	83.66	2
Food hygiene	8.23±1.346	68.38	3
Water hygiene	5.43±0.810	68.00	4
Nail cutting	10.13±1.002	63.41	5
Bathing	14.95±1.994	62.33	6
Brushing teeth	19.81±2.046	61.93	7
Ear hygiene	4.93±0.961	61.83	8
Hair wash	10.16±1.147	50.83	9
Hand washing	20.75±2.764	47.24	10

DISCUSSION

The present study showed significant association between gender and knowledge and practices scores regarding personal hygiene among primary school children. in both interventional and control group. Majority of girls (82.86%) had better knowledge regarding personal hygiene as compared to more than half of boys (62.02%). These findings are consistent with studies of Motakpali et al who conducted a cross-sectional study to assess personal hygiene status among primary school children at Mangalore, Karnataka. Findings revealed that girls (65.9%) had good knowledge regarding personal hygiene as compared to boys (60.5%) ($p<0.05$).⁹ A similar cross-sectional study was conducted by Seenivasan et al to assess health hygiene status among primary school children in Chennai, which revealed that girls performed better hygienic practices as compared to males.¹⁰

The present study showed significant association between score of knowledge and practices of children regarding personal hygiene with educational status of mothers ($p<0.05$). These findings are consistent with studies of Sarkar, who conducted a cross-sectional study to assess knowledge, attitude and practices regarding personal hygiene among children and found a statistically significant association between practices of personal hygiene among primary school children and literacy status of their mothers ($p<0.01$).¹¹

In current study, it was noted that there is a statistically significant association between age of child and practices score regarding personal hygiene ($p<0.05$). These findings are consistent with Ahmadu et al, who conducted a cross-sectional study to assess personal hygiene and found that personal hygiene improved with age of child at $p<0.01$ level.¹²

CONCLUSION

Periodic screening of health problems along with health education should be given to primary school children in order to improve their personal hygiene and thereby leading to a healthy life.

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