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RESEARCH ARTICLE

PERSONAL HYGIENE AMONG SCHOOL GOING CHILDREN IN AURANGABAD CITY : A CROSS SECTIONAL STUDY

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Abstract

Introduction : Personal hygiene in the formative years plays a major role to promote healthy life in children. This study was performed to assess practicing behaviour in regard to basic hygiene practices like hand washing, bathing, tooth brushing etc. in school children of 5- 10th standard.

Methodology : A team of urban health training centre (UHTC), Govt. Medical College Aurangabad conducted a school health camp in a school in the field practice area of UHTC . Hygiene practices were marked on a scale of 0-10 , where a score of 8-10 meant good and score below 7 represented poor hygiene practices in school children.

Results : Out of a total 442 participants 50.22% male and 49.77% females . 179 students had a good hygiene practice (score 8-10). Factors significantly associated with hygiene behaviour were age, sex, class of participants, family size , and working status of their mother.

Conclusion : The hygiene practices in 59.51 % of the study sample are unsatisfactory. The parents and the school teachers, as constructive shapers of children's health behaviours, should play a responsible role in early education of children on personal hygiene.

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Introduction:-

Hygiene refers to practices associated with ensuring good health and cleanliness. Personal hygiene is the practice of maintaining cleanliness of one's own body, including bathing, washing hands, brushing teeth and wearing clean clothes. Good hygienic care as well as practices in terms of personal hygiene contributes to a large extent on factors relating to healthful living and prevention of hazards from diseases.^[1] Good hygiene is an important barrier to many infectious diseases, including the faecal-oral diseases, and it promotes better health and well-being.^[2]

A large fraction of the world's illness and death is attributable to communicable diseases.^[3] Infectious diseases still remain as a major public health problem worldwide; especially among school children.^[4] This trend is especially notable in developing countries where acute respiratory and intestinal infections are the primary causes of morbidity and mortality among young children.^[5] Sixty-two percent and 31% of all deaths in Africa and Southeast Asia, respectively, are caused by infectious disease.^[6] Diarrhoeal diseases, malaria and helminth infections force many

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school children to be absent from school. Helminth infections, which affect hundreds of millions of school-age children, can impair children's physical development and reduce their cognitive development, through pain and discomfort, competition for nutrients, anaemia, and damage to tissues and organs.^[7] Good hygiene practices can also reduce the incidence of diseases such as pneumonia, trachoma, scabies, skin, eye infections, etc. Maintaining good personal hygiene is necessary for physical, mental and social well-being.^[8]

The school age (6–12 years old) is a dynamic period of growth and development.^[9] Education and communication are important components of promoting hygiene and key to promote behavioural change within schools and communities by motivating, informing and educating children about good hygiene practices. Schools play a pivotal part in inculcation of good hygiene practices in young children.

A school health camp conducted in a government aided, co-ed school in the field practice area of urban health training centre (UHTC) of Government Medical College, Aurangabad, India by a team from UHTC at the request of the school authorities. Assessment of the basic hygiene practice of the school students and its association with selected factors have been explored in this paper.

Materials and Methods:-

The authorities of the UHTC were approached by the management of the Maratha High School, a government aided, co-ed school. At the request of the school management a three day long health camp was organised in the school premises in January 2018 for the students of classes 5th to 10th. Permissions from the parents/ guardians of the students had been obtained by the school administration prior to the health camp. All the students who were present on the day of the camp were included. Total 442 students were examined by a team from the UHTC lead by an assistant professor and aided by resident doctors and interns posted at the UHTC. Students without parental consent and absentees were excluded from the study.

Personal hygiene deals with practices that help school children in the maintenance and promotion of their health physically, emotionally, socially, and spiritually.^[10]

Hygiene practices pertaining to bathing, teeth brushing, hand washing before and after meals and defaecation were inquired for, and hair, clothes, nails, and skin were inspected. A marking system of 0-10 was used, with a cut off of 8. A score of 8-10 and below 7 represented good and poor hygiene respectively. Regarding practices of hygiene and sanitation among school students, a score=0 corresponded to "never practicing / incorrect practice"; a score=1, to correct practice". Bathing at least once a day with soap and brushing twice a day with a toothbrush and toothpaste were given 1 mark each. Handwashing with soap before meals and after defaecation was given 2 marks each, without soap was given 1, and no handwashing was given 0. In boys, favourable hygiene status of hair is defined by observing whether they are trimmed appropriately and are combed nicely while in girls, it was defined by observing whether they are combed and coiffure (carefully arranged in a special style). The cleanliness of the skin was assessed by observing whether the student had any mud-spattered or ink stains over their skin especially over upper, lower limbs and neck.. The clothes were assessed by observing whether they are clean, ironed and tugged neatly.^[11] The nails were assessed by observing whether they were trimmed and no dirt was accumulated underneath. 1 mark each was given appropriate clothes, nail, hair and skin hygiene. Menstrual hygiene was assessed in older females by asking for history of menarche and use of sanitary products during menstruation. Details regarding the family composition, type of family, parents occupation was collected from the office records and parental interviews. Data was tabulated on Microsoft Excel sheet and analysed using the SPSS software v. 16, trail version. P values <0.05 were considered significant.

Results:-

Out of 442 participants, 222 were male (50.22%) and 220 were female (49.77%), respectively. 36 participants had single parents, 34 were without a father and 2 without a mother. Table 1 shows the participant socio demographic details.

Table 1:- Socio-demographic characteristics of study participants (n=442).

Sr. no	Variable	Frequency	Percentage (%)
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1	Age (in years)		
	Below or equal to 10	29	6.56
	11-13	196	44.34
	14-16	210	47.51
	Above 16	7	1.58
2	Class		
	5 th -7 th	158	35.74
	8 th -10 th	284	64.25
3	Father's occupation		
	Unemployed	10	2.45
	Unskilled worker	193	47.30
	Semi skilled/skilled worker	110	26.96
	Shop owner/clerk	93	22.79
	Semi professional	2	0.49
4	Mother's working status		
	Working	215	48.86
	Home maker	225	51.13
5	Family size		
	Up to 5	247	55.9
	6-10	172	38.9
	Above 10	23	5.2
6	Type of family		
	Nuclear	309	69.9
	Joint	57	12.9
	3 generation	76	17.2

The participant responses regarding bathing, teeth brushing, handwashing practices, and observed hair, nail and cloth hygiene have been tabulated in Table 2 .

Table 2:- Distribution of personal hygiene practice of respondents.

Sr. no	Hygiene practice	Frequency	Percentage (%)
1	Bathing		
	Daily	374	84.61
	Not daily	68	15.38
2	Teeth brushing		
	Twice daily	60	13.57
	Once daily	323	73.07
	Any other response	59	13.34
3	Hair		
	Clean combed	365	82.6
	Dirty , uncombed	45	10.2
	Clean, uncombed	32	7.2
4	Handwashing before meals		
	Yes	397	89.8
	No	45	10.2
	With soap	274	69.02
	Without soap	123	30.98
5	Handwashing after defecation		
	Yes	435	98.4
	No	7	1.6
	With soap	391	88.46
	Without soap	44	9.94
6	Clothes		

	Clean	393	88.9
	Dirty	49	11.1
7	Nails		
	Trimmed, clean	293	66.3
	Untrimmed/ dirty	149	33.7
8	Skin		
	Normal and clean	338	76.5
	Unclean/ diseased	104	23.5

Of the total 220 female participants , 150 had attained menarche. Menstrual hygiene was assessed in these participants by asking their usage of sanitary products during menses. 108 (72%) females used sanitary napkins, 7 (4.6%) use cloth, and 35 (23.33 %) use either a cloth or napkin depending upon the availability during menses .

179 (40.49%) students had a good hygiene practice (score 8-10). The hygiene practices in 59.51 % of the study sample are unsatisfactory. The association of various factors with hygiene practices in study participants is shown in table 3. Age, sex , and class the participants were studying in, working status of the participant's mother and participant's family size were found to be significantly associated with hygiene practices.

Table 3:- Association of various factors with hygiene practices.

Parameter	Good hygiene practices (n= 179)	Poor hygiene practices (n= 263)	TOTAL (n = 442)	CHI SQUARE
Age				$X^2 = 9.3207$ $P = 0.025$
Below or equal to 10	6	23	29	
11-13	73	123	196	
14-16	95	114	209	
Above 16	5	3	8	
Class				$X^2 = 7.99$ $P = 0.004$
5 th - 7 th	50	108	158	
8 th - 10 th	129	155	284	
Gender				$X^2 = 21.804$ $P = 0.000$
Females	65	155	220	
Male	114	108	222	
Father's occupation				$X^2 = 3.842$ $P = 0.572$
Unemployed	5	5	10	
Unskilled	74	119	193	
Semi skilled	10	19	29	
Skilled	32	49	81	
Shop owner/clerk	43	50	93	
Semi professional	0	2	2	
Mothers working status				$X^2 = 5.9215$ $P = 0.014$
Working	100	115	215	
Homemaker	79	146	225	
Family size				$X^2 = 10.922$ $P = 0.004$
Up to				
5	116	131	247	
6-10	58	114	172	
Above 10	5	18	23	
Family type				$X^2 = 0.220$ $P = 0.896$
Nuclear	127	182	309	
Joint	23	34	57	
3 generation	29	47	76	

Discussion:-

The hygiene practices in the school going children in Aurangabad city were studied as a part of the school health camp conducted by the team of UHTC of GMC Aurangabad. School is important for cognitive, creative and social development of children.^[8] Children especially in the school going ages are impressionable and inculcation of good habits relating to personal hygiene in young ages can reduce morbidity and mortality in this age group and also influence the individuals health in the long term as they advance to adulthood. This responsibility is shared and falls on the shoulders of the parents and the education system .

84.61% participants bathed at least once daily with soap and water , similar results were found in a study conducted by Rekha Shekhawat, Vikram Sodha, Nikita Sharma And Mahesh Verma.^[12] Only 13.57 % brush their teeth twice. In a similar study conducted by Sahadat Hossain, Fahad Ahmed, Shakhaoat Hossain and Tajuddin Sikder in Dhaka, Bangladesh the practice was found in 15 % participants . Majority participants in both studies brushed at least once.^[13] Majority of the children had clean, combed hair, clean trimmed nails and wore clean clothes. A study conducted by Vivas, AP & Gelaye, Bizu & Aboset, Nigusu & Kumie, Abera & Berhane, Yemane & Williams, Michelle had similar findings.^[14] 89.8% of participants washed their hands before eating meals , but only 69.02% used a soap while doing so. The observed practice was better than that in a similar research undertaken by Sabita Meher, Ravi Nimonkar in Kolkata where handwashing practice was 69.3% and usage of soap was 55.4%. The same study reported that 84.1% of the participants washed their hands after defecation compared to 98.4 % in the current study.^[15] In a study conducted by Lal, B Suresh & Kavitha, G.^[16] practice of clean clothes was seen in 85 % of participants , the finding were corroborated in the current study where 88.9% of participants had good cloth hygiene .

The school class that the students belonged to , type of family (nuclear/joint/3 generation)they belonged to, and age of participants were found to be factors significantly associated with hygiene practices of the study participants by Deepak Anand, Shiv Prakash.^[17] ALBashtawy, Mohammed. also found age to be a significant factor .^[18] Age, family type and class were all found significant in the current study. Gender was also found to be significant, but in studies by Nitesh Mangal, Dilip Kumar L., K. A. Varghese, Meet Chauhan^[19] and Ravi Kant Sehgal, Rinku Garg, Sharmila Anand, Paramjit Singh Dhot, Parul Singhal.^[20] gender was not significantly associated with hygiene. In addition to the aforementioned factors, the association of family size (number of family members) and working status of the mother of the participants was also found to be statistically significant in this study, however previous research exploring the relationship of these factors with personal hygiene practices in school children is sparse and warrants further research.

Conclusion:-

The hygiene practices of majority of the school children participating in the current study were unsatisfactory. This emphasises a need for a more balanced education system that focuses on helping the children imbibe positive behaviours regarding personal hygiene early in their lives, through both formal and informal methods with a shared responsibility between the parents and the educators. There is a vast scope for improvement especially regarding dental hygiene. The relationship between the working status of mothers and the hygiene practices of their children needs to be further explored. Regular health camps and involvement of the medical and nursing fraternity in the health education for students, teachers, and parents can go a long way in promotion of positive hygiene behaviour among school children .

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Conflicts of interest:

None .

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