



A STUDY ON PERSONAL HYGIENE OF SCHOOL GOING AND NON-SCHOOL GOING CHILDREN IN AHMEDABAD DISTRICT, GUJARAT

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ABSTRACT

Introduction: The word "Hygiene" was came from the Greek word "hygies" (Hygiea- Goddess of Health) means Healthy, sound. Personal hygiene may be described as the principle of maintaining cleanliness and grooming of the external body. Failure to keep up a standard of hygiene can have many implications.

Methodology: Present study was conducted among 1378 school going and 697 non-school going children of 10 to 18 years of age during the period December 2012-December 2014

Result: Majority 24.86% of non-school going urban children have poor personal hygiene followed by 20.79% in non-school going urban children. Poor personal hygiene was seen just 9.77% of School going children of urban area and 13.43% in rural area. Statistic difference for poor personal hygiene among school going and non-school going children of urban area was highly significant

Conclusion: There were huge differences on overall occurrence of personal hygiene, it was found almost double among non-school children compare to school children. Non school children were the most vulnerable group.

Keywords: Personal Hygiene, Non-school, Children

INTRODUCTION

According to the World Health Organization, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The word "Hygiene" was came from the Greek word "hygies" (Hygiea-Goddess of Health) means Healthy, sound. Personal hygiene may be described as the principle of maintaining cleanliness and grooming of the external body. Failure to keep up a standard of hygiene can have many implications. Not only is

there an increased risk of getting an infection or illness, but there are many social and psychological aspects that can be affected. According to the Centers for Disease Control and Prevention, addressing the spread of germs in schools is essential to the health of our youth, our schools, and our nation. Good hygiene prevents the spread of germs. It also helps to give a good first impression to others. Regular routine personal care include washing and grooming of Hairs, Face & Skin, Teeth, Ear, Hands, Nails, Feet, etc. Personal hy-

giene including Clothing, Hair, Nail, Teeth (Dental caries), Ear, Nose. Health Practices including Hand washing, Foot care, Brushing, Bathing, Physical exercise. Bad personal hygiene and habits results in different sicknesses. Healthy habits are the integral part of personal hygiene. It is concerned directly with individuals and deals with personal cleanliness and health care.^{1, 2} Unhygienic condition morbidities includes viral hepatitis, cholera, typhoid, diarrhoeal diseases & food poisoning, Halitosis, tonsillitis, throat infection, Cold, influenza, sinusitis & LRTI, ear discharge, boils, dental carries, periodontal diseases, dandruff, lice infestation, scabies, & ring worm, fungal infection, Boils, scabies. Preventive strategies includes hand must be wash before food and after defecation, cleaning of tongue, brushing of teeth & rinsing of mouth, regular nasal irrigation, regular irrigation of auditory canal, brushing the teeth at least 2 or 3 times a day, sugar control & proper diet, regular bathing of hair with shampoo, regular washing of feet with soap & warm water, daily bathing habits, daily physical exercise.³ Essential and obligatory "five cleans" to be observed and practiced daily include cleaning hands before eating, cleaning mouth and teeth, cleaning food, cleaning water and clean environments. Most Indian and International studies have looked to School going children less emphasis is given to non-school going, hence there is scope to explore this area further.

Objectives of the study were to compare the personal hygiene of children in age group of 10-18 years among school and non-school children in the urban and rural areas of Ahmedabad district.

METHOD

The present study "A study on personal Hygiene of school going and non-school going children in Ahmedabad district was Cross - Sectional study carried out in urban and rural areas of the Ahmedabad during the period December 2012-December 2014.

Present study was conducted among 686 urban school going and 692 rural school going children of 10 to 18 years of age. As per the reports of the department of Secondary and higher education, the school dropout rate is as high as 51% boys and 53% in girls in the year 2003-04. So we have taken 697 non-school going children in urban and rural areas of Ahmedabad district. Total sample size =2075.

It comprise of School going children studying in 5th -12nd standard of Ahmedabad district in the age group 10-18 years of both sexes. Non- School going children were from the area near by the schools of Ahmedabad district in age group 10-18 years of both sexes. Informed consent was taken from the school principal for school going children and from the parent/guardian in case of non-school going.

RESULTS

Present study was conducted in urban and rural areas of Ahmedabad district. In urban area there were 1032 children. Out of them 686 were school going & 346 were Non School going children. In rural area there were 1043 children. Out of them 692 were school going & 351 were Non School going children.

Out of 2075 children 1644 (79.22%) regularly used soap for hand washing after visiting toilet among them majority 1293 (93.83%) were school children compare to 351 (50.36%) in non-school children. Statistic difference among school and non-school children was found highly significant. ($\chi^2 = 531.5$, $df = 1$, $p < 0.001$).

While 207 (9.97%) children used soap regularly for Hand washing before diet. Hand washing before diet with soap regularly practiced majority 155 (11.25%) by school children compared to 52 (7.46%) non-school children. Almost 60 (15.11%) of the non-school children never used soap for hand washing after toilet & 333 (83.88%) of the non-school children never used soap before diet.

Bathing was practiced regularly majority 1349 (97.89%) by school children compared to 585 (83.93%) in non-school children. Statistic difference among school & non-school children was found be highly significant ($p < 0.001$).

Teeth brushing was practiced regularly majority 1307 (94.85%) by school children compare to 410 (58.82%) among non-school children. Statistic difference among school & non-school children found to be highly significant ($p < 0.001$).

Foot care was practiced majority 1292 (93.76%) school children compared to 561 (80.49%) among non-school children. Physical exercise was practiced regularly majority 381 (54.66%) by non-school children and 502 (36.43%) among school children. [Table-1]

Table 1: Distribution of School Going and Non School Going Children of Urban and Rural Areas According to Practices Related to Personal Hygiene

Condition	Never practiced 0				Practiced sometime 1				Practice most of the time 2			
	Urban		Rural		Urban		Rural		Urban		Rural	
	School (n=686)	Non-school (n=346)	School (n=692)	Non-school (n=351)	School (n=686)	Non-school (n=346)	School (n=692)	Non-school (n=351)	School (n=686)	Non-school (n=346)	School (n=692)	Non-school (n=351)
Hand washing with soap												
Before diet	159(23.2)	161(46.5)	198(28.6)	172(49.0)	448(65.3)	159(45.9)	417(60.3)	154(43.9)	79(11.5)	27(7.8)	76(11.0)	25(7.1)
After toilet	3(0.4)	28(8.1)	5(0.7)	32(9.1)	28(4.1)	135(39.0)	49(7.1)	151(43.0)	655(95.5)	183(52.9)	638(92.2)	168(47.9)
Bathing	0(0.0)	3(0.9)	0(0.0)	4(1.1)	8(1.2)	51(14.7)	21(3.0)	54(15.3)	678(98.8)	292(84.4)	671(96.0)	293(83.7)
Teeth brushing	0(0.0)	27(7.8)	4(0.6)	38(10.8)	19(2.8)	96(27.7)	48(6.9)	126(35.9)	667(97.2)	223(64.4)	640(92.5)	187(53.3)
Foot care	0(0.0)	7(2.0)	8(1.1)	11(3.1)	17(2.5)	57(16.5)	57(8.2)	61(17.4)	665(96.9)	282(81.5)	627(90.6)	279(79.5)
Physical exercise	0(0.0)	9(2.6)	0(0.0)	7(2.0)	466(67.4)	142(41.0)	401(57.9)	158(45.0)	220(32.1)	195(56.3)	282(40.7)	186(53.0)

Figures in parentheses denote percentages distribution

Table-2: Distribution of School Going and Non School Going Children of Urban and Rural Areas According To State Of Personal Hygiene.

Condition	Unfavorable state				Favorable state			
	Urban		Rural		Urban		Rural	
	School (n= 686)	Non School (n=346)	School (n=692)	Non School (n=351)	School (n= 686)	Non School (n=346)	School (n=692)	Non School (n=351)
Uniform/ clothes clean	147 (21.43)	207 (59.83)	270 (39.01)	196 (55.84)	539 (78.57)	139 (40.17)	422 (60.99)	155 (44.16)
Hair clean/combed	89 (12.97)	164 (47.39)	133 (19.22)	152 (43.33)	597 (87.03)	184 (53.18)	559 (80.78)	199 (56.67)
Nails trimmed/clean	259 (37.76)	267 (77.17)	291 (42.05)	225 (64.10)	427 (62.24)	79 (22.83)	401 (57.95)	126 (35.90)
Clean hands, feet and skin	117 (17.05)	97 (26.04)	145 (20.95)	109 (31.05)	569 (82.94)	249 (71.96)	547 (79.04)	242 (68.95)
Clean Oral cavity	158 (23.03)	162 (46.82)	231 (33.38)	192 (54.70)	528 (76.97)	184 (53.18)	461 (66.62)	159 (45.30)

Figures in parentheses denote percentage distribution.

Table 3: Distributions of School and Non School Going Children of Urban and Rural Areas According To Their Personal Hygiene Status.

Urban	Rural		Total	Total			
School (n= 686)	Poor	67 (9.77)	School(n= 692)	Poor	93 (13.43)	School (n= 1378)	160 (11.61)
	Average	158 (23.03)		Average	179 (25.88)		337 (24.46)
	Good	461 (67.20)		Good	420 (60.69)		881 (63.93)
Non School (n=346)	Poor	86 (24.86)	Non School (n=351)	Poor	73 (20.79)	Non school (n=697)	159 (22.82)
	Average	115 (33.23)		Average	112(31.91)		227 (32.58)
	Good	145 (41.91)		Good	166(47.30)		311 (44.60)

Figures in parentheses denote percentage distribution

The results regarding personal hygiene a score 0 corresponded to "Unfavourable state"; a score=1, to "Favourable state" are shown in Table 2. In our study majority 539 (78.57%) school children of urban area were clean, followed by 422 (60.99%) in rural area. Majority 207 (59.83%) non-school children of urban area were dirty followed by 196 (55.84) in rural area.

In school children majority 597 (87.03%) children of urban area were practicing the healthy practice of hair combing, followed by 559 (80.78%) in rural area. While among non-school children Hairs of majority 164 (47.39%) in urban area were found unfavorable state followed by 152 (43.33%) in rural area.

In school going children 427 (62.24%) in urban & 401 (57.95%) in rural children's nails were clean and trimmed. While among non-school going children 267 (77.16%) in urban and 225 (64.10%) in rural children's nails were long or dirty.

In present study, the occurrence of dental carries was found to be majority 154 (43.87%) in non-school going rural children, followed by 144 (41.62%) in non-school going urban children. Overall occurrence of Dental caries was found to be 641 (30.89%). There were huge differences on overall occurrence of dental caries between non-school children 298 (42.75%) and 343 (24.89%) school children. Statistic difference for dental caries among school and non-school children was

found to be highly significant ($\chi^2 = 69.1$, $df=1$, $p < 0.001$).

In present study, in non-school children almost same 97 (26.30%) in urban and 109 (31.05%) in rural were found to have unhygienic condition of hands, feet and skin. Out of 2075 children studied, it was observed that majority 989 (71.77%) school children had healthy oral cavity compared to 343 (49.21%) in non-school children. [Table-2]

Therefore, overall, the maximum & minimum possible scores were 17 & 0, respectively. 0-6 denotes poor personal hygiene, 7-12 denotes average personal hygiene, and > 13 denotes good personal hygiene. Table 3 showed that majority 461 (67.20%) of school going urban children have good personal hygiene followed by 420(60.69%), 166 (47.30%) & 145 (41.91%) among School going rural, Non-school going rural & Non-school going urban children respectively.

Majority 86 (24.86%) of non-school urban children have poor personal hygiene followed by 73 (20.79%) in non-school rural children. Poor personal hygiene was seen just 67 (9.77%) of School children of urban area and 93 (13.43%) in rural area.

Poor personal hygiene among school children was found to 160 (11.61%) compared to 159 (22.82%) among non-school. Statistic difference for poor personal hygiene among school and non-school children was found to be highly significant ($\chi^2 = 44.6$, $df = 1$, $p < 0.001$).

DISCUSSION

There were huge differences on overall occurrence of personal hygiene, it was found almost double among non-school children 22.81% compare to school children 11.61%. Non school children were the most vulnerable group. Poor knowledge, poor living condition, lower socio economic status, poverty, lack of education being the probable reason for being the most vulnerable group.

Considering the area, poor personal hygiene was almost similar in urban 14.82% and rural 15.91% area. It is because in present study majority of children with poor personal hygiene were found among non-school children of urban area, and lowest in school children of urban area.

Considering personal hygiene majority 59.83% urban non-school children were dirty, majority 47.39% urban non-school children were found to

be unfavorable in hair combing, long and dirty nails were found 77.16% among non-school children in urban and 64.10% in rural. Occurrence of Dental caries was found to be 30.89%. Among non-school children it was higher 42.75% compare to school children 24.89%. While it was observed that majority 60.19% had healthy oral cavity along with healthy teeth and gums. Hands, feet and skin were found unhygienic condition higher among non-school children 31.05% in rural compare to 26.04% in urban.

Kunde Pallavi B, Adsul Balkrishna et al⁴, (2014) among school children in a Tribal area of Thane District, revealed that Uniform/clothes (53.9%), Hair (14.18%), Nail (53.9%), Hands & feet (26.95%) & Oral cavity (46.81%) were in unfavorable condition, which was much higher among school children than present study.

Similar type of observation were found by Soumya Deb, Sinjita Dutta et al⁵, (2012) among School Children in South Kolkata, study revealed that Uniform/clothes (17.39 %), Hair (14.2%), and Nail (10.9%), Hands & feet (20.6%) & Oral cavity (28.8%) were in unfavourable condition.

Panda P et al⁶ found prevalence of dental carries about 11.1% among rural school children in Ludhiana. Indra Bai et al⁷ reported the prevalence of Dental caries about 20.9% in school going children of Tirupathi city of Andhra Pradesh.

Out of 2075 children 79.22% regularly used soap for hand washing after visiting toilet while 9.97% children used soap regularly for Hand washing before diet. Majority 93.83% of school children used soap for hand washing after visiting toilet compare to 50.36% among non-school children. Hand washing before diet with soap regularly practiced majority 11.25% by school children compare to 7.46% by non-school children. Bathing was practiced regularly majority 97.89% by school children compare to 83.93% among non-school children. Teeth brushing was practiced regularly majority 94.85% by school children compare to 58.82% among non-school children. Considering Physical exercise, it was practiced majority 54.66% by non-school children compare to 36.43% school children.

Kunde Pallavi B, Adsul Balkrishna et al⁴, (2014) amongst School Children in a Tribal area of Thane District, revealed that 62.41% children wash their hand with soap before food, and 77.30%, children wash their hand with soap after attending toilets, 75.89% children takes bath daily, Teeth brushing was practiced regularly by 73.76% children.

Soumya Deb, Sinjita Dutta et al⁵, (2010) among School Children in South Kolkata, revealed that use of soap for hand washing at school was regularly practiced by 7.61% children; Hand washing after toilet was regularly practiced by 82.06% children. P.R.Walvekar⁸ observed that 64.80% children wash their hand with soap before eating and 64.80% wash their hands with soap after attending toilet.

CONCLUSION

There were huge differences on overall occurrence of personal hygiene, it was found almost double among non-school children compare to school children. Non school children were the most vulnerable group.

RECOMENDATION

In present study the Health status of the non-school children reveals a gloomy picture. So, we recommend that adolescents should be screened periodically for different morbidities and multi-sectoral community-based approach should be adopted to combat this serious public health issue.

Health Education sessions should be conducted in schools and in community to inculcate healthy eating habits and maintain Hygiene. Promotion of regular and periodical house to house drive to prevent school dropout by motivating the parents, highlighting the importance of basic primary education in life by the school betterment committee members. Care should be taken to improve the status of personal hygiene of these school children through co-ordinated primordial and primary

preventive measures like health education. But the onus also lies on teachers and parents. This kind of studies may provide a database towards the formulation of effective public health policies to combat the child health in India Adoption of slums by NGOs and other social workers/ groups to improve Health status of non-school children.

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