



A STUDY ON HEALTH HYGIENE AMONG SCHOOL CHILDREN IN RURAL FIELD PRACTICE AREA OF AJIMS MANGALORE IN KARNATAKA: INDIA.

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Abstract: The Millennium Development Goals have firmly established the issues of “water, sanitation, and hygiene” on the global agenda. Neglect of hygiene goes a long way in explaining, why water and sanitation programmed have often not brought the expected benefits. Public health importance of hand washing as well as its importance in reduction in some of the communicable diseases such as diarrhea and acute respiratory infection (ARI) has been highlighted in many studies. Main Aim and Objectives of the study include to Study the hygiene status among rural school children and to assess the school Water and Sanitation condition. A school based cross sectional study regarding personal hygiene and school sanitation was carried out at randomly selected four rural schools out of eight located in AJIMS field practice area pane-Mangalore. The study was carried out by using pre-tested semi structured questionnaire as well as interview cum observation. Out of 500 children examined 63.4% had good personal hygiene 9.6% had fair personal hygiene and 27% had poor personal hygiene. Out of the total, 31% of Children had Caries. 15% had fully blocked Wax in the ear. 21% had coated tongue. 11% had skin infections. This Indicates that more stress on personal hygiene practices like Oral Hygiene to avoid bad breath, trimming of nails, regular cleaning of ears, Washing of hands body and hair etc; frequently at regular bases in schools.

Keywords: Health, Hygiene, School, Children

INTRODUCTION

Hygiene is a science that deals with the promotion and preservation of health. The term Hygiene is reference to Hygieia the Greek goddess of health cleanliness and sanitation. Thus the origin of preventive medicine is dated back to 460-136 BC the classic period of Greek Medicine.⁽¹⁾

Hygiene is very important for living a healthy life free from diseases. Poor hygiene practices and inadequate sanitary conditions play major roles in the increased burden of communicable diseases within developing countries. Majority of the health problems affecting school children are preventable by promotion of hygienic practices through proper health education by the teachers, who are the first contacts. Hygiene plays a vital role in preventing some of the common communicable disease which spread mainly through water, food, personal contact and surrounding environment. Many diseases spreading from Virus, Bacteria, and Protozoa microorganisms can be prevented, if we practice good hygiene. Teaching children the importance of good hygiene can install habits, which will improve their health for a lifetime. Beginning healthy hygiene habits at a young age will help your older children transition into adult hygiene routines.

The importance of school health has been acknowledged across countries since the beginning of 20th century.⁽²⁾ School health services have tended to focus on nutritional support and clinical assessment. These inputs are absolutely necessary, but so is the need to assess the state of personal hygiene, which is directly or indirectly related to the above-mentioned factors, especially in a developing country like India.

In year 2004, the government of India has started a Total Sanitation Campaign (TSC) to ensure School Sanitation and Hygiene Education (SSHE) which emphasizes skill based child to child hygiene education for behavior change among school going children.⁽³⁾
<http://www.ojhas.org/issue24/2007-4-2.htm>

The millennium development goals have firmly established the issues of “water, sanitation, and hygiene” on the global agenda. Neglect of hygiene goes a long way in explaining why water and sanitation programs have often not brought the expected benefits. Public health importance of hand washing as well as its importance in reduction of communicable diseases such as diarrhea and acute respiratory infection (ARI) has been highlighted in many studies. This study is a humble attempt to assess the hygiene status of school children.

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Aims and objectives:

1. To study the hygiene status among rural school children.
2. To assess the school water and sanitation condition

MATERIALS AND METHODS

A school based cross sectional study was conducted among primary school children of 6-14 years of age from May to July 2011, in randomly selected four rural schools out of eight schools located in AJIMS field practice area pane-Mangalore.

A pilot study was conducted during July 2010 to august 2010 and the pilot study result showed 45 % of children were suffering from one or the other morbidity. With this assumption the following sample size with an acceptable error of 10% level of significance works out, using formula $n = 4pq/d^2$ a sample size of 488 was calculated thus a total of 500 students were included in the study.

Assessment of personal hygiene was done by scoring system, data was collected on important hygiene aspects like hair, skin, oral, nails, etc., and depending on the scores different grading was done as good (>8) fair (6-8) and poor (<5). Data was collected using pre-tested semi structured questionnaire as well as interview cum observation. Data was tabulated and analyzed with frequency distribution using appropriate test of significance.

RESULTS

The study comprised of a total 500 children between 6-14 years of age with predominance of Girls 267 (53.4). About 53.4% of children belonged to Muslim community, Followed by Hindu (44.6%). Majority (40.4%) of children belonged to class II of Socio-economic classification. All schools had separate toilets for girls and boys; provision of clean drinking water facilities was available.

Table: I revealed age and sex wise distribution of study population, it indicated that out of 500 subjects studied majority of the students were in age group of 12-14 years (36%) followed by 9-11 years age group (34%) and 6-8 years age group (30%). Among girls majority were in the age group of 9-11 years (36.33%) were as among boys majority were in the age group of 12-14 years (36.05%).

Table.I: Age and sex distribution of study population

AGE IN YEARS	GIRLS	BOYS	TOTAL
6-8	74 (27.72)	76 (32.62)	150 (30)
9-11	97 (36.33)	73 (31.33)	170 (34)
12-14	96 (35.96)	84 (36.05)	180 (36)
TOTAL	267 (53.4)	233 (46.6)	500 (100)

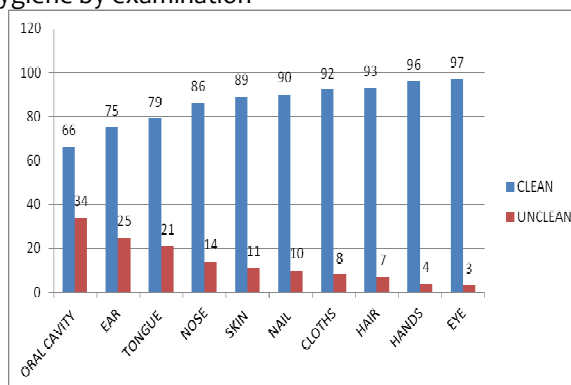
It was observed from Table: II that according to grade, out of 500 children examined 63.4% had good personal hygiene 9.6% had fair personal hygiene and 27% had poor personal hygiene. It was found that 65.9% of girls had good personal hygiene compared to boys (i.e. 60.5%).

Table.II: Sex wise distribution of students as per their personal hygiene status

SEX	GOOD	FAIR	POOR	TOTAL
GIRLS	176 (65.9%)	23 (8.6)	68 (25.5)	267 (53.4)
BOYS	141 (60.5)	25 (10.7)	67 (28.8)	233 (46.6)
TOTAL	317 (63.4)	48 (9.6)	135 (27)	500 (100)

Figure: 1 illustrated the detail hygiene status of school children on examinations. It was observed that, majority of 170 (34%) had bad oral hygiene like halitosis(bad breath) oral thrush, followed by 25% with unclean external or internal ear of which 60% had impact wax, 21% had unclean tongue in the form of coated tongue, 14% had unclean nose , 11% had unclean skin, 10% untrimmed /presents of dirt in the nails, 8% had unclean cloths, 7% had uncombed dirty hairs, 4% had unclean hands and 3% had discharge eyes.

Fig.1: Distribution of study subjects as per personal hygiene by examination



The table: III indicated that 111 (22.2%) subject were having none of the morbidity. The most common morbidity was Dental Problems present in 162 (32.4%) of study subjects followed by vitamin deficiency in 84 (16.8%), Skin disease in 55 (11%), Respiratory infection in 46 (9.2%), ENT Problem in 45 (9%), eye disease in 41 (8.2%), gastro intestinal in 35 (7%) and others in 38 (7.6%) subjects.

Table.III: Age wise distribution of morbidity (n=500)

Morbidity	AGE GROUPS			Total (n=500)
	6-8 (n=150)	9-11 (n=170)	12-14 (n=180)	
Normal	33 (22.00)	36 (21.17)	42 (23.33)	111 (22.2)
Dental Problems	57 (38.00)	54 (31.76)	51 (28.33)	162 (32.4)
Vitamin Deficiency	40 (26.66)	21 (12.35)	23 (12.77)	84 (16.8)
Skin Diseases	13 (8.66)	29 (17.05)	13 (7.22)	55 (11)
Respiratory Infection	15 (10.00)	14 (8.23)	17 (9.44)	46 (9.2)
ENT Problem	18 (12.00)	16 (9.41)	11 (6.11)	45 (9)
Eye Diseases	8 (5.33)	15 (8.82)	18 (10.00)	41 (8.2)
Gastro intestinal	14 (9.33)	13 (7.64)	8 (4.44)	35 (7)
Others	15 (10.00)	11 (6.47)	12 (6.66)	38 (7.6)

$$\chi^2 = 25.887 \quad df=16 \quad p < 0.05$$

Among children with dental problems majority had (53.33%) caries teeth and (37.5%) tartar, while the common skin manifestations were scabies (26.66%), pyoderma (16.66%), and louse infestation (10%).

In the age group of 6-8 years the morbidity pattern was more compared to other age group except eye disease 18 (10%) which was more in 12-14 years, and skin disease 29 (17.05%) was more in 9-11 years. The difference between the age group in case of vitamin deficiency and skin disease was found statistically significant.

DISCUSSION

Hygiene refers to practices associated with ensuring good health and cleanliness. In broader term, hygiene is the maintenance of health and healthy living. Thus hygiene ranges from personal hygiene (i.e. proper living habits, cleanliness of body and clothing, healthful diet, a balanced regimen of rest and exercise), through domestic sanitary (i.e. preparation of food, cleanliness, and ventilation of the home) up to occupational hygiene (measures that minimize occupational disease and accident) and public health which includes supervision of water and food supply, containment of communicable disease, disposal of garbage and sewage, control of air and water pollution.

School age children form a substantial proportion of the World's population, numbering about 24% of population of the developing world⁽⁴⁾ and about 15% of the industrialized world⁽⁵⁾ School age is a critical time in the development of human beings and the school setting provides a strategic point of entry for improving child health, self-esteem, life skills and behavior.⁽⁵⁾

In the current study, it was found that 65.9% girls had good personal hygiene compared to boys 60.5%, about 28.8% of boys had poor personal hygiene, compared to girls 25.5%. The difference between boys and girls was statistically significant. Similar findings was observed by Soumya Deb, Sunitta Dutt, their study revealed that personal hygiene among girls was significantly better as compared to boys.⁽⁶⁾

The common unhygienic status observed in our study were 34%, 25%, 21%, had bad oral hygiene, unclean ears, unclean tongue respectively. In the study done by soumya deb the most common unhygienic practices were dirty nails, followed by bad oral hygiene and unclean hands and feet i.e. 38%, 29%, 20% respectively⁽⁶⁾. In a study done by oyibo on knowledge and practice on basic personal hygiene the result of physical inspection of the children revealed that, 17.9%, 45.2% and 57.4% of them had dirty hair, dirty uniform and dirty nails respectively⁽⁷⁾. A similar pattern was noted in our study 7%, 8% and 10% of them had dirty hair, dirty uniform and dirty nails respectively.

In our study, out of 500 students 111 did not have any morbidity, where as in study done by Shanthi Ananthakrishna out of 1349 students only 40 did not have any disorder indicating a better health status of the current study group maybe due to better personal hygiene. Shanthi Ananthakrishnan also stated that, the reported morbidity among school children as per several studies conducted in India included malnutrition (10.0-98.0%), dental ailments (4.0-70.0%), worm infestation (2.0-30.0%), skin diseases (5.0-10.0%), eye diseases (4.0-8.0%), and anemia (4.0-15.0%).⁽⁸⁾ Where as in our study dental diseases were followed by vitamin deficiency may be due to poor dental hygiene observed in the study group. In a study done by oyibo on Knowledge and practice on basic personal hygiene; their knowledge on different aspects of oral hygiene indicate 81% knew about rinsing mouth after meal is good, cleaning teeth prevents tooth decay was known among 69% and 39% knew it freshens the breath⁽⁷⁾. Current study dental problem was more among the age group of 6-8 years accounted to 38%, similar finding was found by Gupta et al., revealed that, in primary school children Dental caries is the disease accounted by 16.84%⁽⁹⁾ followed by other diseases.

CONCLUSION

The schools provide an excellent opportunity for health services to reach in cost efficient way through school health services. In the study, 31% of Children had Caries. 21% had coated tongue, 15% had fully blocked Wax in the ear and 11% had skin infection. This Indicates that more stress on personal hygiene practices like Oral Hygiene daily brushing cleaning of tongue and flossing teeth to avoid bad breath,

trimming of nails, regular cleaning of ears, Washing of hands body and hair frequently etc at regular bases in schools.

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