Personal Hygiene Practices and Morbidity Pattern among A Tribal Primary School Children Of Maharashtra

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Abstract

Background: Scholastic performance of the child depends upon the overall health of the child. **Methods:** A cross sectional study was conducted among 162 tribal school children. **Results:** Prevalence of anaemia was 54.9%. Second most common morbidity was dental caries (31.48%) followed by underweight (27.77%) Head louse infestation was common among girl students. **Conclusions:** Most common morbidities present among primary school children of a tribal school were anaemia, dental caries, underweight and refractive errors. Girl students had better hygiene than boys.

Keywords: *Personal hygiene, morbidity, tribal, primary school*

Introduction

The first school health check up service was started in 1909 in Baroda city of Gujarat.[1] School going children should be healthy physical as well as mentally. If the health is sound then only they can devote their full time to studies. Unhygienic conditions make them vulnerable to various diseases. Morbidities among the school going children lead to absenteeism from the school. Sometimes it leads to school dropout also.

Provision of better health and free elementary education are enshrined in the constitution of India as the rights of the children .Health Education has important role in the improvement of the hygiene among the school children. Health education should be part of the routine teaching hours in the school. Students have less morbidities, if they are better in their hygiene status. Various strategies are launched to improve the hygiene among the school children. School sanitation and hygiene education (SSHE) is included in Surva Siksha Abhiyan (SSA).[2] School should promote water sanitation and hygiene (WASH) strategy to improve the hygiene among the students.[3]

Objectives:

1. To assess the personal hygiene practices of tribal school children

2. To study the morbidity pattern among school children in a tribal school

Methodology

Study setting:

The study was conducted in a tribal school in one district of Maharashtra.

Study Period: Study was conducted from November 2019 to January 2020

Study design: Cross sectional study (descriptive study)

Inclusion criteria: students studying in 1st to 4th standard of a tribal school

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Sample Size: Total on roll students from 1st to 4th standard were 177. 162 students were present on the day of school health check up, so 162 school children were included in the study. 89 boys and 73 girls were included in the study.

Sampling method: Convenience sampling

The study was conducted as a part of school health check up programme in a tribal school of Maharashtra. Students from the 1st to 4th standard were included in the study. Detailed examination of the school children was done by the faculties and residents of the Community Medicine department. Questions were asked regarding their personal hygiene practices. After the interview health education session was conducted regarding personal hygiene.

Preformed, pretested, pre-structured questionnaires were asked regarding their personal hygiene. Questionnaires were designed in local language. Face to face interview was conducted. Questions were asked regarding their hairs and nails cleaning, brushing of teeth, use of clean uniform, washing of hand after defecation, daily bathing and use of footwear.

The study was approved by the institutional ethics committee. Permission was taken from the head of the school for conducting health check up. All the data was kept confidential.

Statistical analysis: Statistical analysis was done by using R software version 3.6.1.

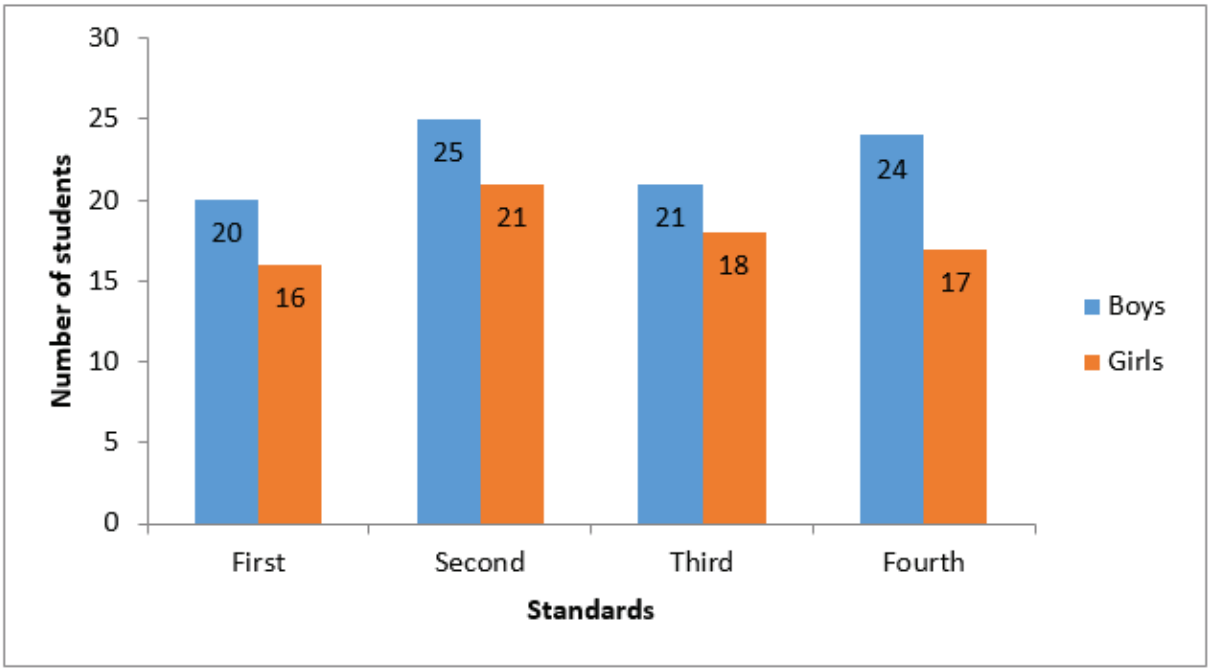

Figure 1: Standard and sex wise distribution of students

Results: Hygiene among the girl student was better than boys. [Table 1]The most common morbid conditions among primary school children attending tribal school were anaemia (54.93%) followed by dental caries (31.48%), underweight (27.77%) and refractive errors (14.81).[Table 2]

Table No.1 : Personal hygiene practices among primary school children (n=162)			
Practices	**Boys (%)**	**Girls (%)**	**Total (%)**
Hair clean and combed properly	70 (78.65)	58 (79.45)	128 (79.01)
Nails clean and trimmed	72 (80.90)	65 (89.04)	137 (84.57)
Clean hands and feet	74 (83.15)	68 (93.15)	142 (87.65)
Clean teeth and oral cavity	69 (77.53)	63 (86.30)	132 (81.48)
Clean uniform	63 (70.79)	68 (93.15)	131 (80.86)
Use soap for washing hands after defecation	85 (95.51)	71 (97.26)	156 (96.30)
Use toothbrush/toothpaste/tooth powder for brushing of teeth	82 (92.13)	69 (94.52)	151 (93.21)
Brush teeth daily	89 (100)	73 (100)	162 (100)
Takes bath daily	87 (97.75)	73 (100)	160 (98.77)
Barefoot walking	9 (10.11)	3 (4.10)	12 (7.40)
Washing of hairs with shampoo (head bath)	71 (79.78)	59 (80.82)	130 (80.25)

Table No. 2: Morbidities among school children (n=162)			
Morbidity	**Boys 89 (%)**	**Girls 73 (%)**	**Total (%)**
Anaemia	46 (51.68)	43 (58.9)	89 (54.93)
Injuries	8 (8.98)	2 (2.74)	10 (6.17)
Worm infestation	7 (7.86)	3 (4.10)	10 (6.17)
Fever	3 (3.37)	1 (1.37)	4 (2.47)
Refractive errors	14 (15.73)	10 (13.69)	24 (14.81)
Conjunctivitis	1 (1.12)	0 (0)	1 (0.62)
Underweight	24 (26.97)	21 (28.77)	45 (27.77)
Ear discharge	2 (2.25)	1 (1.37)	3 (1.85)
Skin problems	11 (12.36)	9 (12.33)	20 (12.35)
Dental caries	29 (32.58)	22 (30.14)	51 (31.48)
Louse infestation	2 (2.25)	15 (20.55)	17 (10.49)
Diarrhoea	2 (2.25)	0 (0)	2 (1.23)
Cough and Cold	12 (13.48)	7 (9.59)	19 (11.73)

Discussion

This study was conducted as a part of school health check up. 162 students consisting of 89 boys and 73 girls were included in the study. Students from 1st to 4th standard were included in the study. [Figure 1] On the day of health check up 15 students were absent. Morbid conditions affect the attendance of the students.

Assessment of the hygiene practices was done using questionnaire. 79 % of the student's hair were clean and combed properly. 84% student's nails were clean and trimmed. 80% students were with clean uniform. 20% of the students do not wash their hairs regularly with shampoo. Head lice infestation is common among the girl students. All the students brush their teeth regularly. Seven percentages of the students do not wear footwear regularly. Prevalence of worm infestation was 6.17%. Worm infestation may be one of the causes for high prevalence of anaemia. 81% student's teeth were clean. Seven percentage students do not use brush and toothpaste/tooth powder to brush their teeth. Boys have better hygiene status than girls found in a study conducted in Lahore also 94% have satisfactory hygienic status.[4] 64% school children do not use soap to wash their hand in Angolela, Ethopia.[5] Health education has positive impact on hygiene status of the students. Before imparting health education, hygiene status of the students was poor among the students in a school in Lucknow.[6] Hence, health education has a very vital role in the schools.

Prevalence of anaemia among the student was 54.93%. Anaemia was the most common morbid condition present among the students. Second most common morbidity was dental caries. Some students do not brush their teeth regularly. Teeth were dirty in 19% students. Fluorine deficiency causes dental caries. 27.77% of the students were underweight according to their age. Refractive error was present among 14.81% students. Refractive error affects visibility and consequently leaning capabilities of the students. Hence correction of refractive error should be done on priority basis so that it will not affect scholastic performance of the student. Some teachers may be trained to check refractive errors of the students.

Louse infestation was present in 20.55% girl students. Some girl students do not wash their hairs regularly with shampoo. 20% girl's hairs were neither clean nor properly combed.12% students were having skin problems. Prevalence of worm infestation was 6.17%. Prevalence of cough and cold was 11.73%. Girl students were better in hygiene practices than boys.

Most common morbidities are anaemia, worm infestation and dental caries found in a study conducted in urban slum area of Hyderabad among school children aged 4 to 15 years. They also noticed poor hygiene among school children.[7] Girl's student knowledge regarding personal hygiene is better than boys in a school situated in slum area of Kolkata. In the same study, prevalence of lice and worm infestation is 40% and 45% respectively.[8] Girls are better performer in hygiene. Most common morbid conditions present in the students are dental caries (65%), upper respiratory tract infection.[9] Dental caries (38.9%) and worm infestation are commonly present among the rural students of Odisha. Only 10% students have poor hygiene status.[10] Skin and dental diseases are common among tribal children above five years of age in Mysore district of Karnataka.[11] Malnutrition, dental caries, worm infestation, skin diseases are common among school children.[12] 84% boys and girl students are malnourished in a tribal school of Thane district of Maharashtra. In the same study other most common morbidities are anaemia and dental caries.[13] 26.5% school children are malnourished in a school of a south India. Dental caries is present in 47% of the students found in the same study.[14] Personal hygiene was better among girl students and most common morbidities were anaemia and worm infestation.[15] Dental caries is common among urban school children than tribal and rural. Prevalence of dental caries among tribal school children is 15%.[16]

Unhygienic practices are common among tribal school children. It is one of the reasons for high prevalence of morbidities among them. It may lead to school absenteeism and affect academic performance.

Conclusions

Anaemia, dental caries and malnutrition were the most common morbid conditions present among primary school children of a tribal school. Hygiene status of the girl students was better than boys.

Recommendations:

Regular school health check up camp should be conducted to detect morbid conditions so as to reduce school absenteeism and improve their scholastic performance.

Conflict of Interest: None

Funding: Nil

Ethical Clearance: obtained from institutional ethics committee.

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