

Study on Personal Hygiene among School Adolescent in Kanchanpur, Nepal

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Abstract— Inadequate access to safe water supply, improper environmental sanitation, and personal hygienic practices negatively impact on public health. Improper water quality and lapses in personal hygiene cause diarrhea, dysentery, hepatitis and parasitic diseases and malnutrition among children. School children are most susceptible to water, sanitation, and personal hygiene. The present study was undertaken to determine the status of personal hygiene among school adolescent and infrastructures managed by school administration for safe hygienic practices in Bhimdatta Municipality, Mahendranagar, Nepal. Altogether 256 male and female adolescents of 10-19 years were included in the study. Data was collected from selected schools located in the municipal area using a standard set of interview. The data analysis was carried out using statistical tools of the SPSS program (version 2016). The reason may be academic excellence and strong administrative desire to strengthen the knowledge of students. On the other hand, public schools run by the government are financially strong and equipped with physical facilities; however, due to weak administration the performance of public schools could not have improved as per the target. In conclusion; physical infrastructures and utility arrangements, particularly the availability of safe drinking water and sanitation status in the schools of Bhimdatta Municipality is not adequate. But, the situation in private school is comparatively properly managed than the public schools.

Keywords: Personal Hygiene, Sanitation, Water, School

I. INTRODUCTION

Personal hygiene is one of the pivotal parts of life and necessary for a healthy lifestyle. The word hygiene derives from the Greek word “Hygieia” which means the spirit of health purity, sanitation and cleanliness.¹ Therefore, personal hygiene considered in the broad category of health, such as the face, hand, oral, hair, nail, and feet hygiene. Improper personal hygiene increases the risk of communicable diseases.¹ Most of the health-related problems affect school going children due to improper personal hygienic practices. Such health related problems can be controlled and prevented by promoting proper personal hygiene through awareness and proper health education strategies by school teachers and administrative staff.

Personal hygiene practice is one of the best approaches to control communicable diseases which spreads through water, food, personal contacts and microorganisms such as viruses, bacteria, and protozoa.¹ Globally, 2.5 billion people are living with improper personal hygienic practices.² It is estimated that personal hygiene prevailed among under developing countries instead of developed one.³ School going children are susceptible to disease or infection neglect the

primary personal hygienic practices due to lack of knowledge.⁴

Personal hygiene and sanitation facility available in schools in Nepal is not satisfactory. According to a report published by the department of education, the Government of Nepal, Ministry of Education, only 80 percent of the community schools have toilets, and, of these, only 65 percent have separate facilities for girls.⁵ However, the ratio of toilets to students is 1:127, although the ratio, according to a nationally determined standard, should be 1:50. Furthermore, only 65 percent of community schools have separate toilets for girls. According to a UNICEF report⁶, an estimated 50 percent of adolescent girls in secondary schools during 2010 were absent during menstruation because of the inadequate toilet and menstrual hygiene facilities in the schools. Inadequate water, sanitation and hygiene facilities in many schools lead to greater absenteeism, especially among girls⁷. The objective of this study was to determine the status of personal hygiene among school adolescent and infrastructures managed by school administration for safe hygienic practices in Bhimdatta Municipality, Mahendranagar, Nepal.

II. RESEARCH METHODOLOGY

A. Study area

Bhimdatta Municipality in the Kanchanpur district was the study area of this research. The Kanchanpur district expands from 28° 38' to 29° 28" Northern latitudes and 80° 03' to 80° 33" Eastern Longitudes.⁹ The district is situated at the end of the west most part of province and country on the corner of the south-west. Geographically the district is on the Terai (flat geographical region) but the northern part of the district has some higher altitudes of elevation. The highest elevation of the district is 1528 m and lowest is 176 m. The district, with Bhimdatta municipality as its district headquarters, covers an area of 1,610 km² and population of 171,304.¹⁰



Fig. 1: Map of Bhimdatta Municipality.

B. Sample Size

Adolescents group between the age of 10 to 19 years, both male and female studying in schools were the study population. The sample size was 256 including male and female respondents of secondary level classes (class 9 - 12) registered in public (08) and private (08) schools. The samples were randomly collected, where sixteen respondents were selected from each school located in Bhimdatta Municipality. Participants were selected using the lottery method of simple random sampling. Altogether sixteen participants were selected from each school. The sample size was calculated using the following formula.

$$\text{Sample size } (n) = \frac{Z^2pq}{e^2}$$

Here; n = Sample size,

Z = 1.96% confidence interval,

e = Permissible error

$$n = \frac{(1.96)^2 \times 0.80 \times 0.20}{(0.05)^2}$$

Since, eighty percent of government schools have improved water and sanitation facility⁸.

p = 80% (0.80)

q = 1 - p

= 1 - 0.80

= 0.20

Confidence Level (z) = 1.96

Permissible error (e) = 0.05

Hence,

$$n = \frac{3.8416 \times 0.16}{0.0025}$$

$$n = \frac{0.614656}{0.0025}$$

$$n = 245.8624$$

This is the calculated value of the sample size.

However, the size of the sample increased to 256 on taking an equal number of male and female (8:8 male and female) participant from selected sixteen schools. The data was collected using interview schedule prepared in the standard format, and focus group discussion.

III. RESULTS

Altogether 256 adolescents from different schools in the Bhimdatta municipality of Kanchanpur district participated in the study. Among the participants, 128 were male and 128 were female. The profile of the participant with frequency is presented in table 1.

Variable (participant's profile)	Frequency (N)	Percentage	
Age group	10-14	59	23.04
	15-19	197	76.95
Religious group	Hindu	249	97.26
	Christian	07	2.73
Caste	Brahmin	69	26.95
	Kshetri	117	45.70
	Janajati	51	19.92
	SC	19	7.42

Table 1: Profile of Respondent (N=256).

As shown in the table I, the maximum participants (76.95%) were 15-19 years old. Similarly, 97.26 percent of

participants represented the Hindu community, and the participation from Christian adolescent was 2.73%. Among the participants from different castes; the representation of Kshetri was maximum (45.7%), followed by Brahmin (26.95%), Janajati (19.92%), and SC (7.42%) students.

Personal hygienic practices	Frequency	Percentage
Material of hand wash after defecation		
Detergent	59	23.00
Liquid soap	196	76.60
Water only	1	0.40
Times of nail cutting		
Once a week	207	80.90
In two week	25	9.80
Only when I feel difficulty	24	9.40
Times of hair washing		
Daily	173	67.60
In an alternative day	70	27.30
Once a week	13	5.10
Times of bathing		
Daily	145	56.60
In an alternative day	92	35.90
Once a week	19	7.40
Times of clean the eye and ear		
Daily	208	81.20
In an alternative day	30	11.70
Once a week	18	7.00

Table 2: Personal Hygienic Practices

Participant's behavior and practice evaluated to determine the personal hygienic status of the adolescent is presented in table II. As shown in the table (table II), most of the participants (76.6%) use liquid soap for hand wash. Similarly, 80.9% of adolescent answered they cut their nail once in a week, 67.6% clean the hair daily, 56.6% replied that they take a bath every day, and more than 81% clean eye and ear regularly.

Water supply	Public		Private		Total	
	N=12	%	N=12	%	N=25	%
Regular	8		8		6	
Regular	77	61.6	106	82.8	183	71.5
Sometimes	26	20.31	17	13.3	43	16.8
No water	23	17.96	00	0.00	23	8.98
Other source	02	1.60	05	3.90	07	2.73

Table 3: Water Supply in Schools (N=256)

The water supply situation in the schools was not uniform. As shown in the table III, 71.48% participants responded that the water supply situation was regular in the schools. Similarly; 16.79% respondents answered, the water was available sometimes and another fraction of the participant (8.98%) replied, the water supply is not accessible and depended on other sources.

The situation of water supply was better in private schools than in the public one. Here, 82.81% participant answered the water supply is regular; whereas, it was 61.6% in the public schools.

The situation of sanitation leading to clean the toilet is different between public and private schools (Fig. II).

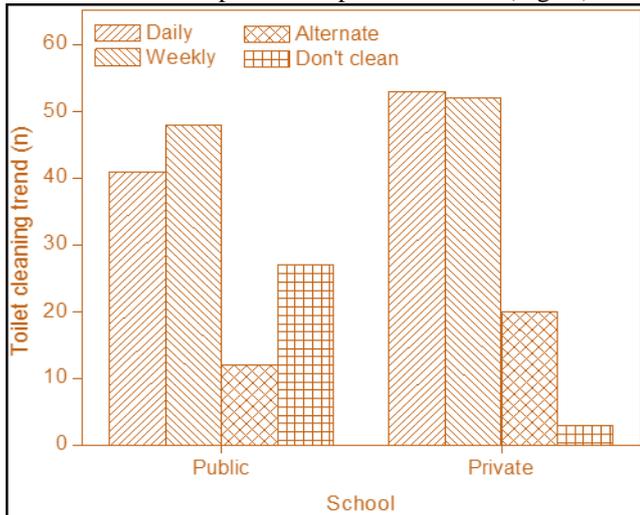


Fig. 2: Toilet cleaning routine in schools (n=256)

As shown in the figure II, 41.4% participant of the private school answered, the toilet was cleaned every day. Nevertheless, the answer received from the participants of public school was 32.03%. A similar trend was obtained with the variable; whether the toilet is cleaned weekly or alternate day. In response to the variable “don’t clean”, most of the participants from public schools answered (21.09%) the toilet was not cleaned in their school. However, it was 2.34% for private school.

The knowledge, practice, and behavior of participant on personal hygiene during menstruation were evaluated where 128 female adolescent were included in the study.

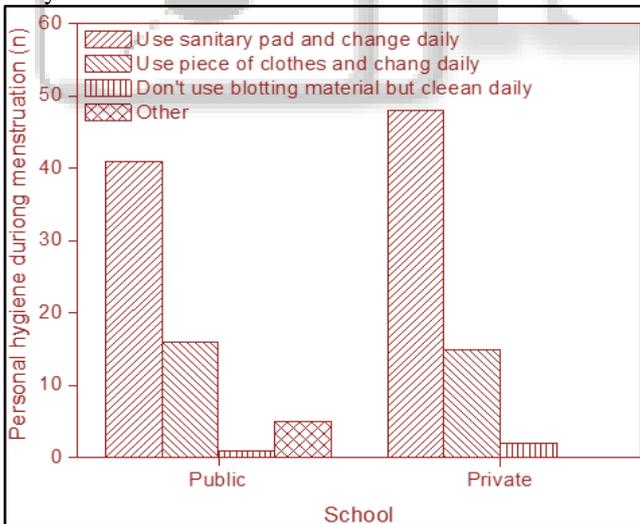


Fig. 3: Personal hygienic practice during menstruation.

Most of the respondents from the private school (47 out of 64) replied, only those who manage personal hygiene use the sanitary pad and change daily. Fifteen respondents answered, they use a piece of clothes and clean regularly while, only 02 participants answered, they don’t use any blotting material but clean regularly. The response of the participant from public school (64 participants) was also similar, but the frequency of the answer is less than the answers given by the respondents from the private school (Fig. III).

Variable (improve menstrual hygiene)	Participant’s response			
	Public (N)	%	Private (N)	%
Educating the people	26	20.3	51	39.8
Implementation of law	10	7.8	03	2.3
Change itself	23	17.9	10	7.8
Don’t know	05	3.9	00	0.0

Table 4: Knowledge to Improve Menstrual Myth (N=128)

Most of the participants were aware of menstruation and personal hygiene during the period. In response to the question, 51 participants of private schools answered that education may be the key parameter to improve the existing situation of menstruation and related hygienic practices. The response of the participants from public school is also in a similar pattern but the frequency of the answer is significantly less than the answer received from the participant of private school (table IV).

The views expressed by participants may be an effective tool to improve menstrual hygiene and change misperception and believe about menstruation.

IV. DISCUSSION

Personal profile of the participant shows that the population of school going children from the Kshetri community is maximum followed by Brahmin, Janajati, and Scheduled Castes (SC) people. Religiously, the participation of adolescents from the Christian community comes after the Hindu. This indicates Kshetri and Brahmin are aware of the importance of education.

Personal hygienic practices of the participants reflect the knowledge they have gained on the subject matter. Of the 256 participants, most of the respondents (76.6%) replied they wash their hand using the liquid soap. Similarly, 23% of participants also use detergents to sanitize their hand before to do any household activities. A similar pattern of the response was obtained on other variables of personal hygiene related activities such as nail cutting, hair cleaning, bathing, and cleaning of eye and ear. The result reveals that students are aware of personal hygiene.

Water is one of the important matters required to maintain personal hygiene. Water supply situation in the schools is satisfactory. Again, the situation is significantly improved in private schools. This reflects the managerial skill of school administration and sensitivity towards the importance of water for personal hygiene.

Sanitation status with regard to cleaning the toilet in private school was effective. The reason in the difference in the sanitation of the toilet between private and public schools is due to the lack of seriousness on public health concern and also belong to the family background of the student as well.

Menstrual hygiene is also important, particularly for female adolescent. The practice followed by female adolescent during the period shows that the students in private school were aware and sensitive about menstruation and personal hygiene. This shows that the students has understood about menstruation and are self-conscious about misperception of the menstrual period. The reason again may be due to the excellent academic environment and regular guidance and monitoring by the teachers in the private

schools. This shows that the government supported schools are not so sensitive towards personal hygiene of adolescent.

V. CONCLUSIONS

The overall performance of the adolescent of private schools with regard to personal hygiene and hygiene-related practices are satisfactory. The infrastructures managed by school administration and the knowledge acquired by adolescent in private schools about personal hygiene are the major findings of the study. Public schools are still lacking behind the performance related to personal hygiene and related activities. Although, public schools are rich in the resources because they are supported by the government, however, due to inadequate management the public schools are unable to perform better result. The findings of the study show that personal hygiene in private school is comparatively significant than the public school. The utility services such as regular water supply, neat and clean classrooms, and hygienic toilets are properly managed in private schools. Menstrual hygiene and knowledge related to menstruations are not adequate in the entire region.

VI. RECOMMENDATIONS

- 1) Personal hygiene related curriculum should be included in the school level courses.
- 2) Extracurricular activities should be conducted focusing on personal hygiene in school.
- 3) School administration should manage personal hygiene related structures.
- 4) Effective programs should be conducted to aware the people about misperception of menstruation and menstrual hygiene.

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Nil

VIII. CONFLICTS OF INTEREST

The authors declare no conflict of interest

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