
Knowledge and Practice on Sanitation and Hygiene among Secondary-Level Students

- Ram Raj Pokhrel, PhD¹

Abstract

Sanitation and hygiene are essential components among the students to create a behavioral impact for living a healthy lifestyle. In this context, the study intends to investigate the knowledge and practice of sanitation and hygiene among the students in Shree Adinath Madhyamik Vidayala in Kirtipur municipality ward number six of Kathmandu Valley, where most of the students are from a middle-class background. The study employed quantitative and qualitative research, with an emphasis on exploratory and descriptive research designs. A total of 35 students in grade 10 of the school were the universe of the study and all these students were included in this study and the census methods were applied. The study indicates that students possess knowledge of hygiene conditions.

Key Words: sanitation, hygiene, knowledge, practice, and students

Introduction

It would be good to begin by introducing health and hygiene. Nepal welcomed the new constitution in 2015 and is underway the federal structure, which means the country will be divided on the basis of population, available resources, etc. for equal development all over the country. With the current structure, the Government of Nepal (GON) envisions scaling up the decentralization process and plans for the development of the country. From centralized to autonomous government, to empowering local people and ensuring the place of minorities backward and groups in the mainstream of development, federalism has brought high hopes for everyone.

¹ Dr. Pokhrel is an assistant professor of Patan Multiple Campus, T.U. Nepal

Another fact is that building these autonomous states and distribution of power, on a budget part can be very expensive for a developing country like Nepal. 25% population are living below the poverty line with USD 50 cents per day, 5 million people are undernourished and Nepal is prone to natural disaster as per the Borgen Project. Regardless, Nepal's GDP per capita has reached USD 1003.6, (CEIC,2018). This means that the country is increasing the amount of production, the economy is ascending and citizens have high income and spending capacity. But if we look at the living standard of the rural population which is 81% of the total have not been much affected. Many areas are still less prioritized in terms of development (World Bank,2017).

It would be good to include disciplinary works of literature. It has been six decades since Nepal has been focusing on Water Sanitation and Hygiene, which is one of the many important areas for human development (SDP,2017), but lacked a long-term development plan. this could be one reason behind Nepal as a country could not succeed in bringing together all the stakeholders from top to bottom level to achieve the target. It is the main basis for sustaining a healthy life. Good health may not be everything but without its other development is impossible. After the enforcement of the Sanitation and Hygiene Master Plan (SHMP) Water Sanitation and Hygiene have been prioritized by the whole nation. For that reason, the new constitution has envisaged and clearly mentioned that all citizens will have access to safe drinking water and sanitation (2nd Constituent Assembly,2015).

The sanitation promotion and activities in Nepal date back to the 1980s with the establishment of the Development of Water Supply and Sewerage (DWSS) along with the United Nations (UN) declaration of the International Decade of Drinking Water Supply and Sanitation. However, major effort on sanitation is found to have started in the early 90s with programs like Janata ko Khane Pani ra Sarasafai Karyakram, (JAKPAS), MPPW/ World Bank (1993-1996), Nepal National Sanitation Policy and Guidelines for Planning and Implementation of Sanitation Program, Rural Water Supply and Sanitation Fund Development Board which among others (Ministry of Urban Development, 2011).

Many donors like WB, ADB, Government of Finland have provided support for 2-3 decades to end the gap in water sanitation and hygiene. As specified by the Sanitation and Hygiene Master Plan, the toilet coverage nationwide was 62% before 2011. In 2015, it reached around 81% according to the DWSS report. The master plan largely focused on the open defecation-free idea

with universal access to toilets in both the urban and rural context, through the total sanitation approach. CLTS and SLTS have been mentioned as major hygiene and sanitation approaches in SHMP. Even though focused on community, the idea of CLTS is closely connected to children and schools, which is one of the most highly targeted areas in sanitation (Sanitation Update, 2018)

As stated in Rural Water Supply and Sanitation National Strategy and Policy (Ministry of Urban Development, 2009) water supply and sanitation improvement in schools will be given special emphasis in high-risk areas. The focused components in the document are; Separate child-friendly toilets for boys and girls and urinals for boys. A regular toilet cleaning campaign involving both teachers and students. Incorporation of health, sanitation, and hygiene education in the curriculum of all children's classes. A school contribution of at least 20% of the cost of toilet construction (including 1% in cash) and involvement of out-of-school children through a child-to-child approach for the extension of health, hygiene, and sanitation education

This explains that there is a huge need for sanitation hygiene infrastructure and strategy as well as implementation in the schools. The government of Nepal has been producing the policy documents but, there is a weakness and a huge gap in providing those facilities, the execution part is quite lagging. Another document Urban Water Supply and Sanitation Policy focused on the urban areas however, does not mention school (public or Private) sanitation hygiene plans or programs, even though the situation is alarming in the semi and urban areas (Ministry of Physical Planning and Works, 2009).

The DoE and the DWSS have historically led WASH in school efforts. Both the school sanitation and hygiene education (SSHE) and school-led total sanitation (SLTS) approaches introduced in Nepal in 2000 and 2005 respectively have institutionalized schools as the center of learning and motivation for sustained sanitation and hygiene behaviors. SLTS is a participatory and low-subsidy approach. It drives toilet construction, use, and maintenance through the application of a long-term behavior change and awareness campaign led by schools throughout Nepal. Changing sanitation practices is about changing the mentality of people, and thus improving sanitary practices. It is easier to change the mentality of young children who have fewer preconceptions about sanitation (UN-HABITAT, 2010).

The National Framework for Child-Friendly Schools for Quality Education has emphasized that there must be the necessary provision of safe drinking water, clean toilets, and drainage since this is the most important and fundamental aspect of a child-friendly environment (Ministry of Education, 2010).

The Constitution of Nepal (2015) stipulates access to drinking water and sanitation as a fundamental right of the citizens. Nepal is still falling behind in the list of developed countries because of its HDI (UNDP,2018). One of the core areas to influence the living standard is the progress in the area of water sanitation and hygiene since it is directly linked with life expectancy which means an increase in the number of schooling-age children. According to the Human Development Indices and Indicators (UNDP,2018) between 1990-2017 Nepal's life expectancy at birth increased by 16.3 years, which means years of schooling increased by 2.9 years and expected years of schooling increased by 4.7 years. Nepal's GNI per capita increased by about 111.6% during those years. Currently, Nepal's GNI per capita is USD 2730 (World Bank,2017)

In developing countries like Nepal, neither the government nor the general public have a proper understanding of the importance of sanitation and hygiene. Separate policies have not been formulated that concentrates on sanitation and hygiene situation solely and seriousness is not seen in implementing the ones that exists. As per the WASH experts, Nepal has good policies but is behind in implementation, it is also because of the frequently changing government and the absence of ownership in all areas, from the local to the central level.

Globally, about 1.7 million people die every year from diarrhea diseases, and 90% are children under 5 years old, mostly in developing countries. It also implies that 88% of cases of diarrheal diseases worldwide are attributable to unsafe water, inadequate sanitation, and poor hygiene (World Health Organization, 2017). The WHO data indicates that diseases associated with poor sanitation and unsafe water account for about 10% of the global burden of disease. 1/3 of child-related death in Nepal are due to poor sanitation and dirty water (CEAD), 2019) Simply by hand washing practice morbidity can be reduced by 43% and child mortality by 33% (UNICEF, 2017)

According to UNICEF, a gram of human feces has 10 million viruses, 1 million bacteria, and 12,000 parasites (UNICEF,2010). So, in the case of hand washing after defecation, various diseases will easily enter the human body. Diseases associated with poor sanitation are basically

diarrheal diseases, acute respiratory infections, undernutrition, and other tropical diseases. Besides diarrhea, open defecation also causes anemia and is a huge problem. Diarrhea may not necessarily kill but it makes the children more susceptible to a host of illnesses impacting school attendance, and economic productivity and drains family income.

The state of sanitation remains a powerful indicator of the state of human development in any community. Each year, more than 800,000 children under five die needlessly from diarrhea, more than one child a minute (United Nations, 2013). Poor sanitation and hygiene are the primary causes. The government of Nepal had set the target to attain full coverage by 2017 but it did not materialize 100%. Household toilet construction was the main target from the beginning thus institutional and especially school toilets have been under shadow.

This study is an attempt to verify the importance of sanitation and hygiene in government schools. Children are a good medium to spread knowledge because they can be the best triggers. The Community Led Total Sanitation (CLTS) movement in India and Nepal has well proven this fact. In the absence of basic sanitation and hygiene facilities, there is a high risk of school dropout leading to poor quality of education, health risks, and life ultimately. Nepal's government has prioritized school sanitation in its policies and plans with separate budgets but lagging behind on implementation. Shree Adinath Madhyamik Vidayala was chosen as the study area because it is a government school and they are facing challenges with basic facilities like clean water, not enough toilets per child, hygienic disposal of sanitary napkins, physically challenged school infrastructure, etc. similar to many other government schools in Nepal. This study is done with the assumption to bring the actual sanitation and hygiene scenario of Shree Adinath Madhyamik Vidayala. Thus, the study area of this research article was Shree Adinath Madhyamik Vidayala in Kirtipur municipality ward number six of Kathmandu Valley, where most of the students are from middle-class backgrounds as the information received.

Objectives

The general objective of this study is to identify the situation of sanitation and hygiene in Shree Adinath Madhyamik Vidayala. The specific objective of this research article is to identify the knowledge about sanitation and hygiene among the students.

Methodology

The research design for this study is both exploratory and descriptive. This study is exploratory in nature because it seeks to investigate the situation of sanitation and hygiene in Shree Adinath Madhyamik Vidayala. At the same time, this study is descriptive in nature since it seeks to give knowledge about sanitation and hygiene among the students. There are a total of 35 students in grade 10 of the school. This is the universe of this study. All these students are included in this study and the census method is applied.

Discussion and Analysis of the study

General characteristics of the respondents

The general characteristics of the respondents, and the students are as described. the features of the detailed information the respondents provide are significant as they reflect the features of the individual to identify their background. The demographic behavior consists of gender, age, family type, and religion to find out the knowledge and practice of the respondents in terms of sanitation and hygiene. Comparison between the information male and female distinction is essential.

The family types of the respondents

To understand the sanitation hygiene knowledge and practice of the respondents, it is important to understand their family background. The families exist of mainly migrated from other parts of the country, started a different kind of job, and temporarily settled because of the facilities of a city providing easy access to education.

Table No.1 : Type of Family

Respondent	Nuclear family	Joint family	Total
Male	9	4	13

Female	12	10	22
Total	21	14	35

Source: Field study 2023

Table 1 represents the distribution of nuclear family and joint family. The male constituents of nine students in a nuclear family and four students in a joint family. In the case of female twelve students belongs to the nuclear family and ten students belong to the joint family.

Age and Sex types of the respondents

The study has also categorized the respondents by age and sex. It has helped to further study the knowledge and practice of the respondent by sub-categorization.

Table 2: Distribution of the respondents by age and sex

Age	14	15	16	17	18	19	Total
Male	0	1	7	3	1	1	13
Female	2	4	11	4	1	0	22
Total	2	5	18	7	2	1	35

Source: Field study 2023

Table 2 represents the age group belonging to males including one in the fifteen age group; seven in the sixteen age group; three in the seventeen age group; one in the eighteen age group; and one in the nineteen age group. So, in total thirteen students of male are being representative. In the case of female students, two are in the fourteen age group; four in the fifteen age group; eleven in the sixteen age group; four in the seventeen age group; and one in the eighteen age group. In total twenty-two students of female students are respondents.

Religion types of the respondents

The respondents follow more than one religion; therefore, they have been categorized according to their religion.

Table 3: Distribution of the Respondents by Religion

	Hindu	Buddhist	Christian	Others	Total
Male	9	1	2	1	13
Female	14	4	3	1	22
Total	23	5	5	2	35

Source: Field study 2023

Table 3 represents the religion followed by the students which includes nine male and fourteen female students follow Hindu religion; one male and four female students follow Buddhist religion; two male and three female students follow Christian religion and one male and one female student follow other religions.

Knowledge and Practice in Sanitation and Hygiene

Sanitation facilities

The study reveals that there is a separate toilet for boys and girls in a school which includes 8 toilets for boys and 8 toilets for girls. But there are no separate toilets for staff or teachers. According to education regulations in Nepal, a school toilet has to serve 50 students utmost. For around 35 students, the facts reveal that the available toilets are enough for the available students. The school areas provide adequate facilities for the available sanitation facilities. For boys and girls students, the most commonly available facility in the school is the oriental toilet. It was observed that there is a regular supply of water in the school. Further, the well has been constructed for the availability of water. The school does have a separate septic tank for the sewage system.

Drinking water facilities

The school uses the well with a filter installed system for drinking water purposes. It is placed at the underground of the main building premises. It is the drinking water certified. The role of the cleaner is important when it comes to monitoring and maintaining the facility.

Cleanliness

School premises are clean. There was no littering on the school premises, classroom was neat and tidy. No marks or dirt on the walls of the corridor or classroom were observed. The students seem clean and tidy with clean uniforms, shoes, and tidy hair with a fingernail trimmed. Teachers

informed that the students are being aware of the necessity and knowledge of the hygiene and sanitation situation and its consequences.

Hand washing facilities

The school has a hand wash facility in an accessible area so that the student's frequency of cleaning hands is high along with soap facilities. No leakages were found in relation to the handwashing facility. The facility is being used by the teachers, staff, and students as well. While teaching and in other instances, one has to clean the hands especially so the easy access has definitely helped a lot to keep the hygiene in balance. In addition, the teacher is encouraging students to use the facility.

Knowledge of toilet use, waste disposal and practice.

The study reveals that there is a positive knowledge of proper toilet use among the students. The students do know about the importance of defecating in the toilet, as it directly relates to the spreading of disease through the flies.

Educational engagement in sanitation

The study reveals that the students are taught about sanitation and hygiene in school. The student spends a significant portion of their day at school and better WASH facilities and educational opportunities decrease the potential for disease transmission, in addition to addressing issues of dignity, particularly for female students. The student is not confined to the four walls of a classroom, the whole school could be a source of knowledge in maintaining hygiene.

Various tools are used as teaching methods; so educational aids such as announcements, information on the board, and teachers' instructions to display and share important information. The school does have clubs to promote sanitation and hygiene education amongst the students. The club comprises students as well as teachers to facilitate them. The club consists with taking different programs for maintaining hygiene conditions in classrooms and school premises; school cleaning campaigns; use of peer learning/educating tools, drama, quizzes, etc.

Waste management

There school seems to have a proper waste management system. The students are also being taught regarding the separation of waste of solid and liquid along with recycling and non-recycling

products; and degradable and non-degradable. So, the proper waste management system has been implemented by the school management.

Conclusion

Sanitation and hygiene are essential components among the students to create a behavioral impact for living a healthy lifestyle. The research work suggests that students possess knowledge of hygiene conditions. The school sanitation is just being in a state of satisfaction level but lacks adequate and comfortable positions. The problems include not having enough toilets and the problems include not having separate toilets for staff and students. The ratio of toilets to the number of girls is also not enough. This is as same condition of boys as well. The facilities of the toilet are oriented of using water poured and of flushing system.

The students have knowledge regarding the hygiene conditions and do follow the practices of hygiene situations. It is of student's goods situation of the criteria of the students do have the knowledge of hand washing after going to toilets before having meals and after urination and defecation. The school also had a soap day to celebrate the One Soap One Student concept on its uses. So, the clean and hygienic condition is being managed by the students of hygiene conditions.

Lack of facilities and poor hygiene conditions affect both girls and boys, although the poor conditions of sanitation have a greater effect on the health factors of the girls. Special care and need is essential to access safe, clean, separate, and private sanitation facilities in their schools. The girls having disposal of sanitary pads and access to waste disposal has given special care to the sanitation part of the school system.

The school management committee does play a significant role in the overall development of the school sanitation system and the hygiene conditions of the students. The system of own cleaning system of own involvement of cleaning classrooms as well as toilets and the school premises has been undertaken emphasizes on taking the responsibilities of the students upon taking up the practices of hygiene in the school premises. Furthermore, it makes them more alert and behavioral practices of the hygiene.

Furthermore, the continuous improvement in the sanitary system of the school is also being to an appreciation one. The construction of new toilets to separate for boys and girls is an important aspect. Further, the establishment of a well and installment of the filter of water for drinking water

is another step in creating a hygiene and sanitation system for the well-being to the students as well as to the teacher and staff.

The study reveals that students have of greater knowledge of using sanitation facilities for being in a state of hygienic conditions. Knowledge of hygiene has an interrelation of education interrelated with the economy. Maintaining the hygiene situation led to fewer diseases and a healthy lifestyle. Many of the student are found to be aware of basic hygiene and even teaching to their juniors are lacking and insufficient infrastructure and close monitoring from the school management.

Inadequate sanitation has been calculated to have a negative economic impact of 3% of GDP or more, World Bank (2017). Lack of proper sanitation may lead to economic stress. Some of the situations may of healthcare costs, loss of productivity, and decreased rate of education opportunities. A school with proper sanitation and hygiene facilities will retain a level of healthy students for living a better life. The knowledge of hand wash and the importance of the use of soap and water is being practiced by the students before eating foods and after urination and defecation which has led to the healthy lifestyle. Education which brings knowledge has to be continued as a lifestyle. Therefore, the study reveals there is a fulfillment of the research gap between knowledge and practice. The school management committee along with the staff and principals do realize that there is the ultimate necessity for improvement in the sanitation facilities. The existing condition is just for the running of fulfilling the ultimate running but for the future these are not the adequate requirement for updating and upgrading the system to the modern era. The different club's existence relates to further creating awareness, and practices on maintaining hygiene conditions along with maintaining the lifestyle as a part.

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