
State of Sanitation in Public Schools of Banke District: Practices and Challenges

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Abstract

The study aimed to assess the sanitary facilities and practices of public schools in Nepalgunj Sub Metropolitan. The study used a descriptive research design based on primary data from questionnaires. The data were analyzed using percentage and frequency tables. The results showed that the schools had concrete boundary walls, but lacked gardens and playgrounds. The water supply was adequate, but the purification was poor. Only 20% of the schools used purified water. The toilets were satisfactory, but 80% of them had no facilities inside. The waste disposal was haphazard and unmanaged. Only 20% of the schools cleaned their surroundings and classrooms daily. The study concluded that the sanitary facilities and practices were satisfactory, but not well managed. The schools had no plans or ideas for improving their physical plant. The study recommended that the government should include regular programs on sanitation in the curriculum and the schools should implement them properly.

Keywords: Sanitary facilities, water purification, waste disposal, school infrastructure

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Introduction

The sanitary is the key of the well being of any society of school because small children are like a blank sheet. They must be studied from different angles. They can be moulded in desired shape, if they are studied from page to page. It has been already mentioned that the status of health of a child affects his/her achievements and status of health is determined by the status of sanitary facilities that the child has. So, there is mutual relationship between sanitary facilities and good achievements. It is the same issue that the researcher wants to explore.

Sanitary is as a way of life. It is the quality of living style that is expressed in the clean home, the clean farms, the clean business, the clean neighborhood and a clean community. Being a way of life, it must come from within the people. It is nourished by knowledge and grows as an obligation and an idea in human relation" (Park, 2007). WHO-Geneva (1986), "Water supply and sanitary decade international action from health". An adequate supply of clean water is fundamental of individual family and community health statistic shows that about half of the world population without reasonable access to and adequate supply of water and that even more people are without proper means of sanitary. These two factors poor sanitary facilities, personal hygiene and household and directly responsible for in number causes of preventable disease. The most seriously affected are people living in rural areas and poverty stricken part in urban areas. The main obstacle to use and maintain the improved water supply and sanitary system is not quality of technology but the failure of unqualified human resource and management and organizational techniques including a failure to capture community interest.

Review of Literature

Lamichhane (2010) conducted a research on role of physical environment in creating healthful school living in public secondary school of Udaypur District. He found that only 20 percentage school had proper ventilation and lighting system, most of the schools (80%) were used window for ventilation purpose. In the study area 50% of school used incineration method, 40% school used dumping and composting and 20% schools used landfill site method to dispose the wastage. In that study area it was also found that 80% school were not managed drainage facility, 70% school had used raw water from, Tubel, 25% school used tap water. In that study most schools had been facing the problem of pure drinking water and supply of water in toilet.

Devkota (2014) conducted comparative study on health environment of public and private school in kirtipur municipality found that most of school had not been following scientific method for disposing waste. They had been incinerating and throwing the waste haphazardly in public area. They reported that the problem of waste disposing were land field, drainage facilities.

Mahato (2013) studied on sanitary practices and their management in university campus, T.U. Kirtipur. The main objective of the study was to find out the condition of sanitary practices

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and their management in University Campus T.U. the population comprises chief of the central department of the education. Random sampled procedure had applied for the collection of the study 100 students. Chairman of HPE and Department of education were selected as respondent's questionnaire and observation chart were main tools applied for the collecting necessary information. In this study the researcher found that the cleanliness condition of the classroom was found very poor ventilation and lightening of classroom was satisfactory but the campus had very poor water supply facilities. Latrine facilities were not properly managed. The condition of the building was satisfactory, campus had practiced waste removal classroom cleaning, toilet cleaning, keeping water clean etc. for sanitary management but due to lack of budget campus had not been able to provide better sanitary management.

Adhikari (2013) studied on sanitary facilities and its management in public secondary school of Khandabari municipality. He found that maximum (80%) schools are made by mud and stone; boundary wall of the school is very poor. Only 20% of the schools have their own sources of water also not found satisfactory although 40% of the school have more or less using filter. 60% schools have financial problem to manage pure drinking water and 40% have problem of water sources. The study reveals that 80% schools have toilet facility only one school has facilities in to the toilet. There is no any management of the waste disposal system in the school. There should be toilet facility in the school. One toilet for each 50 students should be made. Separate toilet for boys, girls and teacher is must.

Methodology

This study is limited 5 public schools on Nepalgunj Sub- Metropolitan City. Shambhu Nath Secondary, Sarswati Jabdi Secondary, Parwati Lower Secondary, Sarbajanik Primary number and Sarswati Primary Schools total numbers of students are 455, 396, 254,150 and 120 respectively. 100 students were selected from each school. The sampling process of this study was being carried in two stages. At first the researcher selected five public schools out of 30 located in Nepalgunj Sub- Metropolitan City by simple random sampling method. Automatically five headmasters are selected as respondent according to the nature of study. Total 100 students (out of 20 Students, 10 male and 10 female) from each school was selected randomly. Data about the physical facilities and its sanitary practice of schools are collected from the questionnaire which includes the water supply, school physical plant, waste disposal and latrine etc. Separate structure questionnaire for headmaster and students are used to obtain the information about physical facilities and sanitary management practice condition of the schools. For data collection procedure, the researcher submitted request letter of Mahendra Multiple campus to respondent schools for official authority, after getting authority from school administration the researcher was be visited the selected respondents. Before distribution of the questionnaire guideline and some clarification will gives by researcher. Separate interview schedule was given to headmaster and students of selected schools. After collecting the whole

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information through questionnaire, it was checked, verify manually to reduce possible errors and questionnaire be categorized in different relevant headings and sub headings. The collecting data be process and place in different tables and will be analysis in terms of percentage and frequency table. After data analysis, the interpretations were making accordingly with the help of review literature and observe facts.

Results and Discussions

Condition and Types of Toilet

Toilets are built in different ways. The purpose of building toilet is to keep the school environment clean and for the formation habit using toilet to the child. It is necessary to build the toilet for the defecation and urination. It is necessary to build permanent or temporary toilet in every school. There are various types of toilet. Borehole, pit latrine and water seal are the common types of latrine used in Nepal. Available water, land and financial resources are the basic fundamentals to build toilet. According to data the condition or types of toilet is maintain below in table 1.

Table 1

Types of Toilet

Types of toilet	No. of School	Percentage (%)
Water Seal	5	100.00

Above mentioned table 1 shows 100% school had water seal toilet. The findings of the study indicate that most of them had water seal toilet. Water seal latrine is easy to keep clean.

Facilities inside the Toilet

Water, toilet brush, shop, bucket etc. are the necessary materials of toilet facilities. It is necessary to clean the toilet otherwise there is possibility of spreading flies, germs and stool cause pollution. Supply of water is most important thing to keep toilet neat and clean. Following table 2 shows the reality of facilities inside the toilet.

Table 2

Facilities inside the Toilet

Condition	No. of School	Percentage (%)
Yes	1	20.00
No	4	80.00
Total	5	100.00

According to the data only one school had facilities in the toilet and 80% school had not facilities in the toilet. According to the study there were 20% water seal latrines although 80% of them had not facilities inside the toilet. If there are facilities inside of the toiler that indicates the cleanliness of the toilet, instead of these facilities keeping toilet is impossible.

Student Toilet Use Practice

There was found water sealed toilets and separate for the boys, girls and teachers in the study area but due to unavailability of water, it was found dirty. Such poor condition was also seen due to lack of sufficient numbers of toilets for students. Similarly excreta were detected in the open spaces around toilet area and backside of school building. Such practice in the environment undoubtedly causes different disease; and it also proves that there was low level of sanitation practice in students of study area. School administration was not paying attention about it, so very bad sanitation practice is going on.

Sources of Waste Product

The waste material refers to useless and unwanted materials that arise from student quantity for example waste paper, dust leaves of plant, plastic pipes, stone and bricks pieces are the prominent waste material of school table 10 shows the source of waste production in public school of Nepalgunj Sub Metropolitan City.

Table 3

Sources of Waste Product in Secondary Schools

Source	No. of School	Percentage (%)
Paper	5	100.00
Dust and mud	4	80.00
Leaves	3	60.00
Stone, pieces of damage furniture	1	20.00

It is seen from table 3 that piece of paper was dominating source of waste in secondary school. All the school's informed that piece of waste paper is the major sources of production of waste and these materials were generated by the activities of the student, about 80 % schools reported that dust and mud are also dominant sources of waste production. Leaves are reported as the other significant sources of waste production in schools. The role of leaves as waste material is mostly due to the natural factor rather than school activities.

Quantity of Everyday Waste Product in School

Wastages are such things which are thrown here and there without use. Wastage not only creates health problems but also gives threaten for civilization of the society. The amount of the waste is depending on number of student in the school, its garden and condition of the waste management system. If school is under the process of construction in such situation there is more amount of waste. Table 4 shows the quantity of waste production in schools.

Table 4

Quantity of Waste Product in School

Quantity (in kg)	No. of School	Percentage (%)
1-2 kg	1	20.00
2-3 kg	1	20.00
3-4 kg	2	40.00
4-5 kg	1	20.00
Total	5	100.00

According to the table 4, it is seen that 20% school produce one 1-2 kg., 20% produce 2-3 kg., 40% produce 3-4 kg., remaining 20% produce 4-5 kg. waste every day. The variation in the quantity of waste production is found mostly influenced by the condition building availability and condition of drainage, location of schools surrounding environment and poor management.

Methods of Waste Disposal

Most of the waste materials are harmful to health. It is therefore necessary to dispose them properly in proper place. There are various ways of waste dispose. Dumping, manure pit, incineration, reuse, recycle. Replace and reduce in amount are the common methods of waste disposal. Incineration is the method which creates environmental pollution so nowadays is not prescribed as common method. Reuse, recycle, replace and reduce which are called principle of 4 R's is common methods of waste disposal.

Findings indicate that there is not good provision of managing wastage. Throwing haphazardly creates the problems of breeding and spread of diseases in the surrounding community.

Classroom Cleaning Person

Classroom is the most important place where students live for whole day. Condition of the classroom plays important role on health and learning environment of the students. If classroom is well managed and clean it keep favorable environment for student instead of this classroom will be burden for students and teachers also. Daily cleanliness of classroom, keeping dustbin into the classroom are the ways of keeping classroom clean. Below given table 5 shows the responsible person for classroom clean.

Table 5

Classroom Cleaning Person

Description	No. of School	Percentage (%)
Peon	3	60.00
Students	1	20.00
Student and peon	1	20.00
Total	5	100.00

Table 5 shows that 60% school had managed peon to clean classroom, in 20% school students were responsible to clean classroom and in 20% school students and peon both were responsible for the cleaning of the classroom. According to the findings of the study we can conclude that there is participatory approach in class room cleaning. If it is happened knowingly, it would be long lasting otherwise in won't be continue and durable.

School Cleaning Time

To keep school neat and clean it should be cleaned time and again. Everyday activities of the students and nature process are also responsible factor to make environment dirty. Falling old leafs from the trees nearby the school creates the environment polluted. Classroom should be cleaned daily and surrounding can be clean alternative day. Actually cleaning time of the school is depends on the surrounding of the school, season of changing leafs by trees and classroom management. Following table 6 shows the actual situation of the cleaning time.

Table 5

The School Cleaning Times

Description	No. of School	Percentage (%)
Daily	1	20.00
Weekly	2	40.00
Sometimes	2	40.00
Total	5	100.00

Table 6 shows that 20% school clean their surrounding and classroom daily, 40% clean weekly and 40% clean sometimes. The researcher observed that the condition of classroom cleanliness is better where the classroom cleaned by joint effort of student and peon. According to the findings we can conclude that frequency of school cleaning is not good and it should be changed and schools should be cleaned daily.

Practice System of Water Supply

Water is life if it is pure and drinkable to health. So water supply practice system is very important for healthy school environment and for the creation of sound, safe and healthier body for brighter future. The researcher observed all five secondary school in the study area. It was found that most of the schools had poor water practice system. Though there was availability of water by different sources. Only few schools had managed the filtration of water but it was not enough for all member of the school, it was managed only for teachers. More schools had not facility of drinking water for the student; that they were compelled to go out of the school to drink water. It was matter of worried that there was no provision of bringing water by students on bottle or other types of pot.

Toilet Practice System

The researcher found that the number of toilet in school was satisfactory. But there was lack of water in toilet. Mostly student toilets were very dirty. Most schools complained that they have not budget to build toilet. Lack of economic source and helper is another problem to manage toilet in appropriate way. The researcher had asked questions about toilet practice system as well as importance of it to school personnel; most of them were unknown about it. The student toilet ration was not maintained. Most of the toilet had not door, ventilation, sufficient lighting system. Some girls reported that it created great. In menstruation time they had to go bushes instant of toilet. It is due to the poor management system of the schools administration. It affects the schools as well as surrounding environment. There was lack of water inside the toilet in most of the schools and the pan of toilet found jammed due to use of paper and leafs to weep anus.

School Plant Management/Condition

The school management should create better environment in the classroom. Classes should small ventilated, well-furnished door and windows, clean environment and availability of teaching learning materials. In the Nepalgunj Sub Metropolitan City public school have such types of facilities. Some schools clean classroom by themselves.

Main Problem faced by School for Sanitary Practice

Sanitary practice is one of the most important factors to create healthful school environment. Lack of adequate personnel in the school, lack of budget and interest of the school personnel are common problem faced by school for its improvement. Keeping dustbin, construction of toilet and provision of pure drinking water are the common activity of sanitary practice. Community support, reduce political influence and motivation for the school personnel are the common solutions for better practice of any school. The main problems faced by school to sanitary practice are as below in table 7.

Table 7

Main Problem faced by School for Sanitary Practice

S.N.	Description	No. of School	Percentage
1	No. of toilet facilities		
2	No. water facilities	3	60.00
3	No. Boundary wall		
No community help on sanitary practice			
Government has not managed sufficient fund to sanitary management		2	40.00
	Total	5	100.00

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Table 7 shows that 60% schools had been facing problem toilet facilities, water supply, boundary wall student as well as teacher coordination and remaining 40% had been facing the problem of no community help on sanitary practice. Government had not provided sufficient fund to sanitary practice. According to the findings we can conclude that additional support from various agencies is required for appropriate management of the wastage.

Conclusion

After the research on sanitary facilities and its practice, the overall condition of sample schools building, boundary wall, toilet facilities and water source were found satisfactory but not well managed of these things. There was lack of land for garden and playground so some sports like, long jump, volleyball, football and running had not played. Water supply system were satisfactory but purification practice was very poor of study area. The researcher found condition of toilet facilities were satisfactory because there were water seal toilet in all sampled schools but inside facilities of toilet were very poor and dirty there were had not tap/water, soap and any other facilities.

Finally, classroom sanitation and condition of source of water in sampled schools were found satisfactory after observation; classrooms were seen being cleaned by students; so students and school family were found a bit conscious about classroom sanitation. But waste disposal practice system and cleanliness of toilet were very deteriorating as waste materials were thrown haphazardly and toilet were not cleaned properly; this condition indicates the carelessness in sanitation practice in general.

Thus, few of sanitary facilities and its practice were satisfactory, but most of the practices were discouraging and this fact easily proves that they had low level of conscious on importances of sanitary facilities and its practices. Existing policies about school health program should be amend and implement strictly by Ministry of Education.

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