

Healthy School Environment and its Impact on Students' Health: A Case from Community Schools at Pokhara Metropolitan City

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Abstract

A healthful school environment plays a vital role in students' health. The study aims to assess the status of healthful school living, and its impact on students' health in Pokhara Metropolitan City using the descriptive and analytical study design. We choose 120 samples randomly from 12 clusters of the Resource Center of District Education Coordination Unit, Kaski. Five boys and five girls were selected from class nine or ten randomly. The interview schedule was used to collect data from the students and an observation checklist was used to find out the real situation. The majority [10 out of 12] schools had volleyball courts but the students practiced games once a week in the sports meet program only. It was found that the schools had canteen facilities with limited services; only certain snacks were available. The highest 37.7 percent of the students were found commonly suffering from headaches. Similarly, 16 percent of the students experienced laziness due to the lack of fresh air in the class, whereas 10 percent of them felt difficult to see due to long-distance or deem light in the classroom. Only 8.7 percent of the students felt tired and nearly six percent had fever and vomiting. Some other problems were diarrhoea, abdominal pain, nausea, obesity, difficulty breathing, and sore throat that were under five percent. The management should consider that physical facilities according to the students' level and interests will make the student feel comfortable and help them to be healthy and wise.

Keywords: Community school, Games and sports, Healthful school environment, School health programme

Background of the study

Health is a basic human right and prioritized worldwide as a social goal. For being healthy, individuals should stay in a hygienic environment. A healthful school environment is based on the slogan that healthy children are possible in a healthy school.

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School is an educational institution where knowledge, attitude and practice are shared and attempts are made towards making the children and students cleverer, skillful and good citizens. Of the two major types of school, community schools, which are also called public schools, are funded by the government, and the institutional ones are privately run in terms of finance and management. As per the Constitution of Nepal 2015, and the federal government structure, all the three levels of governments – federal, provincial and local – are responsible for the operation and management of basic and secondary education as well (Chikanbanjar, 2017; Bom, 2020). Public schools are operated with government funds. Community schools are divided into three subtypes: firstly, community-aided schools are the type of community schools where all the expenses are paid by the government. Secondly, community-managed schools are those schools where all the expenditures are paid by the government but managed by the community. Thirdly, community unaided schools are those schools where some or few expenditures are paid and increase paying gradually (Bom, 2020). Whatever may be the system, sound children in sound schools is a key consideration.

A school can play a vital role in achieving child health. Every school must have a sound and healthful environment. To create a sound and healthful environment schools should consider healthful school living. Franklin (1995) advocated a “healthful situation.” and for students, teachers and staff to be healthy, physical exercise is needed. Similarly, in schools with healthful environment, school nurses and physicians help in broad-based programs of medical inspections. In the healthy school environment how pupils and teachers live not only affects their health but a laboratory for learning health-related knowledge, attitude and practice is also provided. The major indicators of a healthy school environment are whether schools are dirty or clean, whether food is appetizing or distasteful, whether physical facilities are cheerful or dreadful, whether facilities and equipment are safe or dangerous, whether the school is located in an appropriate area or not, etc. The school environment affects the health of the pupils and school personnel (Anderson, 1972).

Healthful school living is essential for the all-round development of students, teachers, and staff. This implies cleanliness inside and outside of the school, fresh air and water, management of physical facilities, safe playground, clean latrine, school tiffin or canteen facilities, and good human relationships. Healthful school living is the condition where students get a good adjustment and experience relief. This helps to create good intellectual and safe environments. Therefore, the major emphasis is on the participation and

contribution of all the stakeholders in planning and implementing school health programmes (Serchan & Upreti, 2018).

A healthful school environment is one of the major aspects of a school health programme. Both physical and mental environments are highly essential for good learning as well as to be healthy. Most of the parents like those schools that have good healthful school environment. From the experience and with the above-related literature it is observed that, in the context of Nepal, most public schools have not been managed in a proper way. Many problems can be observed in the schools, chiefly, poor toilet facilities, unhygienic conditions, dust and other wastage scattering in the school area, unsafe drinking water, poor classroom cleanliness, paucity of ventilation and lighting for reading. Students and teacher relations were not highly appreciative. All these aspects affect the health of the students and staff, so the school family should always be aware of managing a good healthful school environment.

A healthful school environment should be appropriate for health and learning. Both physical and mental environments should be improved for the betterment of health and learning. Before improving the physical environment, the situation should be identified so the researcher wants to find out the conditions of a healthful school environment and its impact on students' health. The site for this research is delimited to Pokhara Metropolitan City. The main objective of the study was to analyze the healthful school environment in the secondary schools of the selected site. The specific objective of this study was to assess the impact of a healthful school environment on students' health.

Review of literature

The researcher has regarded as the guidelines for the survey of healthful school living from Anderson (1995), particularly while making the tools. He has pointed out the following aspects to be considered.

- i. Play ground: Adequate space, supervised by the teacher, and can all students be involved.
- ii. Activity room: Clean, well-ventilated, well lighted.
- iii. Classroom: Cleanliness and neatness, well-ventilated, well-lighted, adequate class size, chalkboard appropriate, sitting furniture appropriate as the level, appear ease and relaxed.
- iv. Light: Window face correctly and clean, the color of the room, distribution of natural and artificial light, possible to adjust light if needed.

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- v. Heat and ventilation: Temperature between 66 to 71-degree Fahrenheit, temperature keeping, clean and fresh air
- vi. Water supply and drinking use: Approved by health officials, bacterial test, fountains and facilities neat and clean, solid waste disposal and drainage system.
- vii. Lunchroom: arranged most efficiently, neat and clean, sanitary methods in handling and serving. Inspected each week, hygienic and scheduled food items, pride of students.
- viii. Toilet rooms: Adequately ventilated and lighted, clean and orderly, toilet paper, washbasin with soap and roller paper or towel, responsibilities to clean.
- ix. Safety and first aid: Regular safety inspection, hazards reduced, safety promotion program, traffic safety program, organize first aid, well-equipped first aid cabinet.

Similarly, Giri (2057 B.S.) pointed out the following aspects to be considered while planning the physical environment.

- i. Building: The school building should be single-storied, south facing with sufficient ventilation.
- ii. Water supply: Water sources; means (pipelines), reservoirs, and drinking pots should be safe and clean.
- iii. Waste disposal: First of all, disposal should be classified into organic and inorganic. After that, all organic waste should be settled down by dumping and inorganic waste should be recycled.
- iv. Nutrition: In the nutrition aspect, cooking, cooking utensils and the kitchen (cafeteria) should be clean and the ingredients should be hygienic.

Tom (2019) emphasized the health of the school family. Health is the first and most important aspect of good achievement so the school environment should be healthy. A healthy school environment emphasizes that healthy students have achieved the best academic performance, good social relations, engagement in community organization, and community development. Healthy students are sound in extracurricular activities. For making healthy students, school needs to provide nutritious school meals, offering a variety of fresh fruits/vegetable choices with sufficient time to have, and daily exercise through *yoga*, physical training, playing games, and sports, drills, etc. On the other hand, to run school activities effectively the school needs to be well-equipped

with physical facilities. Facilities like courts, playgrounds, swimming pools, gymnasium, and yoga center should be well developed to match the students' number, student age and sex.

Methodology

This study was based on descriptive research design. Quantitative study design was followed in the research. The data were collected simultaneously and the information was collected from the selected secondary schools from Pokhara Metropolitan City of Kaski district. Twelve schools were selected from 12 clusters randomly among 72 secondary schools. The cluster built on the previous resource center of the District Education Coordination Unit (DECU) Kaski. At least six secondary schools were included in forming one cluster. In one class from classes, 9 and 10 and five boys and five girls were chosen randomly. Altogether, there were 120 samples from the students.

The study used an interview schedule and observation checklist as the tools for data collection. The questions were related to playground, classrooms, light and ventilation, water supply and sanitation, lunchrooms, restrooms, and safety and first aid cabinet. The researcher used a rating scale as a tool of data collation to assess the physical facilities of the schools. The interview schedule and rating scale were pretested for validation in two public schools of Annapurna Village Municipality. For the authenticity, the researcher took an authorized letter from the Faculty of Education, T.U. Along with that letter the researcher visited the schools. The researcher established good relations with them and informed them the purpose of visiting the schools. Then the researcher took interviews and observed to fill out the observation sheet. Primary data were taken from the students with the help of an interview schedule. The data from the interview were crosschecked through observation. After collecting the data from the observation sheet and interview schedule, those data were analyzed in a descriptive manner. Data analysis was performed using Statistical Package for Social Science (SPSS). For the convenience to the readers, we presented the data in tables, charts, and figures. Confidentiality was maintained throughout the research process.

Results and discussion

Healthful school living is one of the important aspects of a school health programs. The researchers only took the data from the physical facilities of the schools and their impact on the students' health. The results from the interview schedule and the observation sheet were presented and discussed in this section.

Basic characteristics of the selected schools

Demography is the systematic and scientific study of human populations. It is the main concern of their size, structure, and development. Quantitative aspects or general characteristics were studied. The main events studied in demography are birth, death, migration disease, disability, and the population of different levels in the schools, entry and exit from education and employment, etc. Here demographic structure in schools refers to students (boys and girls), male and female teachers as well staff at the time of the study.

Table 1
Number of students, teachers, and staff

Particulars	Male	Percentage	Female	Percentage	Total
Students	4285	47.56	4724	52.43	9009
Teachers	211	50.84	204	49.15	415
Staff	39	59.09	27	40.90	66
Total	4535	100	4955	100	9490

There were 9009 students, who were studying in the twelve selected secondary level community schools of Pokhara. Among them 47.56 percent of students were boys and the rest 52.43 percent were girls. The female students outnumbered the male, most probably, because daughters get sent to public schools and sons to private schools. On the other hand, the males outnumbered the females among the teachers and the staff. The average number of students, teachers, and staff in a school was 750, 35 and 6 respectively. Overall, the number of females is higher than that of the males, though male teachers and staff outnumbered the females.

Facilities in the schools

The physical environment of the school is also called the investment for quality education that creates psychological attachment too so all the stakeholders should think about the development of physical facilities to their age, interest and level. The relationship between the teachers, the students and the staff fell under the mental environment. The researchers' concern was to find out the situations of the facilities in the school premises.

Table 2
Responses to Different Questions Related to School Facilities

Responses	No	Yes	Total
<i>Satisfaction from school environment</i>			
Frequency	27	93	120
Percent	22.5	77.5	100.0
<i>Interest in games</i>			
Frequency	7	113	120
Percent	5.8	94.2	100.0
<i>Play games inside school</i>			
Frequency	14	106	120
Percent	11.7	88.3	100.0
<i>Satisfaction from playground</i>			
Frequency	53	67	120
Percent	44.2	55.8	100.0
<i>Use of school water</i>			
Frequency	9	111	120
Percent	7.5	92.5	100.0
<i>Use of school canteen</i>			
Frequency	23	97	120
Percent	19.2	80.8	100.0
<i>Problematic school environment</i>			
Frequency	76	44	120
Percent	63.3	36.7	100.0
<i>School is responsible to the problems</i>			
Frequency	79	40	120
Percent	65.8	33.3	100.0

Nearly one quarter (22.5 percent) of the students were not found satisfied with the school environment. They were further asked why they were not satisfied. More than one-third of the students (36.7 percent) were dissatisfied with their school environment. Nearly half of them (42.2 percent) were dissatisfied with the playground, and 19.2 percent of the students were dissatisfied with the school canteen, either. Only 7 percent were dissatisfied with the drinking water. It showed that the problems were not properly managed. As a recommendation, the school facilities should be managed to match the students' age, sex, interest, physical and mental development as the recommendation of engineers, public health inspectors, designers, health educationists, and so on.

Games and sports played by students

Around 94 percent of the students were interested in games. Games and sports make the person goal-oriented. Therefore, the school should manage their time for the game and sports. It was reported that only 88 percent of the students played games inside their schools. They did not have the chance of playing games in the schools. Most of the school grounds were found in the middle of the building. As a result, the students could not play even if they had leisure time due to the disturbance of the class. The selected schools did not have regular basic classes or practical activities for physical education. That is why, the students had not taken enough exercise in an urban area like Pokhara. They were observed to be obese, possibly leading to diseases in the future. The students were asked whether they played games, and, if so, what they played. Table 3 shows the name of the game they played.

Table 3
Games and sports played by students

S.N,	Game Played	Responses		Percent of Cases
		Number	Percent	
1	Volleyball	57	25.8%	48.7%
2	Basketball	14	6.3%	12.0%
3	Table tennis	6	2.7%	5.1%
4	Badminton	26	11.8%	22.2%
5	Football	48	21.7%	41.0%
6	Kabaddi	26	11.8%	22.2%
7	Kho Kho	14	6.3%	12.0%
8	Cricket	10	4.5%	8.5%
9	Field games	11	5.0%	9.4%
10	Handball	9	4.1%	7.7%

It is seen that one quarter (25.8%) of the students played volleyball. Similarly, 21.7 percent of the students played football. Likewise, 11.8 percent of them took part in badminton and *kabaddi* whereas only 6.3 percent of them took part in basketball and *kho-kho*. On the other hand, only 5 percent took part in high jump, long jump and other games that were played on the sandpit. Handball and cricket were played by 4 percent and 4.5 percent respectively. The smallest number of the students (2.7%) played table tennis. The students liked to play different types of games but the schools could not manage the playing situation.

Only 56 percent of the students were satisfied with their playground. The other 44 percent of them who were not satisfied with the playground asked what changes they recommended. According to their recommendation, the school should trim the grass; make the ground plain; store stones; and other construction materials in the corners should be cleared. Some suggested that the ground should be well marked and a separate court for the separate games and sports would be good. The ground or court was in the middle of the school, so it could not be used in the leisure period because if some them played games the rest of them would feel disturbed.

Reasons for not not playing the games

The students were asked the reasons not to take part in games and sports. Some students did not like playing games and sports because their parents did not like them to spend their time on games. Their parents thought that the children might be addicted to games and sports if they were given playing opportunities. Some students thought that they would be poor in academic performance if they took part in games and sports.

Figure 1: Reasons for not playing

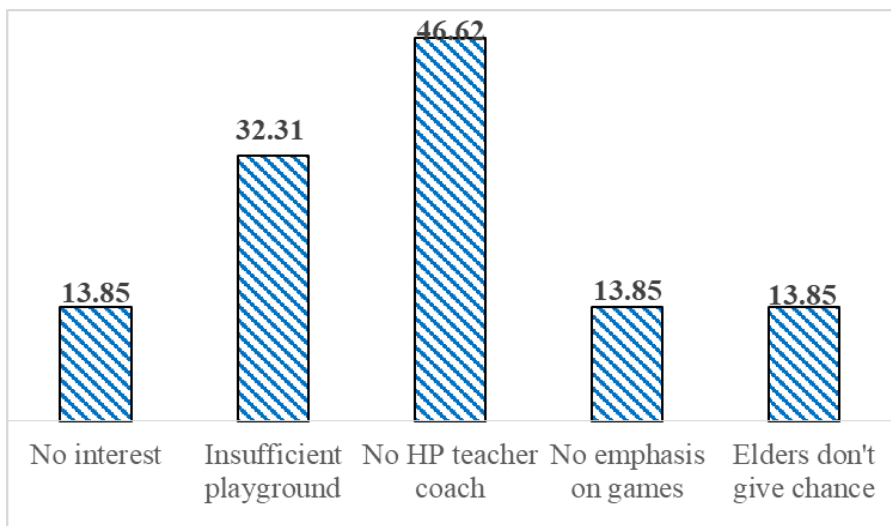


Figure 1 shows that 13.85 percent of the students, did not take part in sports and games for their own complaints. Their major complaint was that the school did not avail the games and sports they liked, and also that they did not get opportunities because of the dominance of the seniors. Likewise, 31.31 percent

of them said that the school did not have a proper playground to play different games. Nearly half of the schools (44.62 percent) had no HP teacher. This situation is in contrast with what Anderson (1972) notes, "Health and physical teacher or coach is needed to arouse interest in games in the students. The teacher needs to supervise and coach the students to their interest and capacity."(p.445).

Problem faced by the students

The schools and the students faced many problems. The students were asked if they used drinking water that their schools provided. Almost 92.50 percent responded that they did but the rest of the students (7.5 percent) said that they used water from elsewhere. Some of them carried boiled water from their homes. Some used boiled water as per their parents' advice. The students were also asked if they felt any problems due to their school environment. More than one-third 36.7 percent of students felt some problems due to their school's environment.

Table 4
Problem Faced by Students

Problem Faced	Number	Percent	Percent of Cases
1. Diarrhea	1	1.4%	2.3%
2. Vomiting	4	5.8%	9.1%
3. Headache	26	37.7%	59.1%
4. Fever	4	5.8%	9.1%
5. Abdominal pain	2	2.9%	4.5%
6. Nausea	1	1.4%	2.3%
7. Obesity	2	2.9%	4.5%
8. Laziness	11	15.9%	25.0%
9. Difficult to Breathe	2	2.9%	4.5%
10. Difficult to See	7	10.1%	15.9%
11. Sore Throat	3	4.3%	6.8%
12. Tiredness	6	8.7%	13.6%

Forty-five students had 69 responses regarding this issue. The highest percent (37.7 %) was occupied by headaches. Similarly, 16 percent of the students experienced laziness. Likewise, 10 percent of them felt difficult to see due to long-distance or deem light, or difficulty in their eyes themselves. Only 8.7 percent of the students felt tired. Nearly 6 percent of them had fever and vomiting. Some other problems were diarrhoea, abdominal pain, nausea, obesity, difficulty breathing, and sore throat, which were under 5 percent. One-

third of the students were sure that the school was responsible for the problems, which needed to be timely addressed.

Nearly a quarter (22.5%) of the students were not satisfied with their school environment. However, 94 percent of them were interested in games; they did not have chance to play for many reasons, chiefly, the insufficiency of the playground. Only around 12 percent of the students could play games inside the playground. In the two schools, the students could play inside their school after their classes finished. Although nearly half (44%) of them were not satisfied. The schools, except one, did not have any policy towards it except. It was found that each school had a canteen but providing limited services, minimum staff and poor sanitation. As a result, some health problems have occurred. One-third (33.3%) of the students claimed that the school should respond to the health problems and should address them in time.

Conclusion

In summary, females outnumbered males in the selected schools and those schools did not have adequate physical facilities. A healthful school environment has influenced the stakeholders such as students, teachers, and staff directly and indirectly. Insufficient playing court and ground, playing equipment, playground in the middle of the building were the major reasons for the stakeholders' dissatisfactions and not playing games. Most of the public schools were supported by different agencies, NGOs, and INGOs, which is why their infrastructure was good, but they need to maintain the concern of the students. Almost all of the schools used euro-guard water but they required to change the filters from time to time as the technician advised them. The canteen appeared to be insufficient and needed to be expanded as per the student ratio. Students liked the variety of food items but the canteen only prepared a kind of food items a day and need to prohibit selling junk food items from the canteen. One out of the students were unhappy with the school environment. The students had several health issues because of the school environment. Therefore, it is recommended that the school management committee should manage the facilities in line with the number of students, their level, age, sex and maturation level, etc.

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