

Knowledge and Practice Regarding Environmental Sanitation of School Childrens

Vedamurthy R¹, Neha Suyal²

¹Associate Professor, Faculty of Nursing, SGT University Shree Guru Gobind Singh Tricentenary University, Gurgaon, Haryana, ²Nursing Tutor, Akal College of Nursing, Eternal University, Baru Sahib, Sirmaur, Himachal Pradesh, India

Abstract

The environment is one of the major determinants of the health of an individual, family, and community. People's health is affected by the quality of the place they live and work, the air they breathe, the water they drink and the food they consume, etc. Therefore, this study was performed to assess the knowledge and practice regarding the environmental sanitation of school childrens in the selected school of Haldwani Uttarakhand. **Objectives** are to assess the knowledge & practice and find out the correlation between knowledge and practice of school-going children regarding environmental sanitation. **Methodology**- The study was acquired as a descriptive design. 50 students of 12-16 years were selected by a simple random sampling technique. Structured questionnaires and self-reported practice questionnaires were used for data collection. **Result**-the Results showed that out of 50 samples 42% of student had inadequate knowledge, 54% had moderate knowledge and 4% had adequate knowledge level of environmental sanitation and in practice area 2% of student had inadequate, 6% had a moderate level, 92% had an adequate level of practice. The correlation between knowledge and practice is 0.145543 regarding environmental sanitation. Thus the study was concluded that the students having less knowledge of environmental sanitation but the practice level is good.

Keywords: Knowledge, Practice, School Children, School Environment Sanitation.

Introduction

A school is an establishment designed to provide learning spaces and a learning environment for the student's teacher under the leadership of the teachers. A school is a place that not only provides education to children but also a learning environment. After stepping out of the house it plays a vital role in the development of a child. It includes cognitive as well as the creative development of the child.¹ The environment denotes the

physical-biological and social world in which the system or man exists. It is the total of all external conditions and influences on the developmental cycle of biotic elements over the earth's surface. The environment indicates all of the internal and external conditions, circumstances, and influences surrounding or affecting the development and behavior of a person or group.² Sanitation is the process of maintaining the cleanliness and health of the premises, including the provision of a sewer system and a clean water supply. Sanitation systems are designed to care for human health by providing a hygienic environment that will stop the transmission of disease, mainly through the fecal-oral route.¹ A Healthy school environment can be created if there is a regular supply of safe water proper means of collection removal and disposal of waste matter, regular cleanliness, and sanitation condition good lighting.³ School environment sanitation and health facilities are an important public

Corresponding author:

Neha Suyal

Nursing Tutor, Akal College of Nursing, Eternal University, Baru Sahib, Sirmaur, Himachal Pradesh, India, Pin code-173101

Mail id -nehakabadwal94@gmail.com

Contact details -(+91-7906546658)

health issue.⁴ A survey among school children in various part of India revealed that about half of the ailment found are related to unsanitary conditions and lack of personal hygiene and recent reports also showed that 22 percent did not have appropriate toilets for girls, 58 percent of preschools had no toilet at all and 56 percent of preschools had no water on the premises.⁵

Objective-

1. To assess the knowledge of school children regarding school environment sanitation.
2. To assess the practice of school children regarding school environment sanitation
3. To find out the correlation between knowledge and practice of school children regarding school environment sanitation

Operational definition

Knowledge -In this study, it refers to correct responses of children to the items listed in the questionnaires to school environmental sanitation on safe drinking water supply, food hygiene, toilet facilities, and waste disposal.

Practice -In this study, it refers to practices performed by school children regarding school environmental sanitation like maintaining a clean classroom, drinking safe water, hand washing before and after having food, and after using urinal and toilet, proper disposal of waste.

School Children-In this study it refers to the school-going children studying in 8 and 9 standards.

School Environment Sanitation –In this study it refers to the cleanliness maintained in the school environment such as physical structure, safe drinking water supply, food hygiene, toilet facilities, and waste disposal.

Variable –

Research variable- knowledge and practice among school children regarding school environment sanitation.

Demographic variable- Age, Gender, Standard of

study, Religion, Father education, Mother education, Father occupation, Mother occupation, Type of family.

Methodology

- **Research Approach:** Quantitative research was found suitable for the study.
- **Research Design:** Descriptive research design was adopted for the study.
- **Setting for the study:** The study is to be conducted in the selected school Nawar Khera in golapar. Haldwani
- **Population:** School going children of golapar.
- **Sample:** Children who are aged between 12-16 years going to school.
- **Simple Size:** The estimated sample size is 50.
- **Sample Technique:** For the data collection as per the study objective we select between 12–16 years by simple random sampling technique in the school of Golapar.

Inclusion criteria –

- Children age between 10-16 years.
- Children who are available during the study period.

Exclusion criteria-

- Children who are sick during data collection.

Development and Description of the Tool:

The tool used for the study consist of three section-

Section 1- Socio-demographic data.

Section 2- Structured knowledge questionnaires.

Section3- Self-reported practice questionnaires.

Section -1: Socio-Demographic data

This section consists of student age, gender, religion, the standard of a student, mother education, father education, mother occupation, father occupation, type of family.

Section-2: Knowledge Questionnaire

This section consists of 23 structured questionnaires to assess the knowledge of school-going children regarding school environment sanitation. The structured knowledge questionnaires were assessing knowledge of five areas. each area consists of 5 questions except food hygiene.

1. General concepts
2. Knowledge regarding water facilities in the school.
3. Knowledge regarding food hygiene in school.
4. Knowledge regarding toilet facilities in the school.
5. Knowledge regarding waste disposal in school.

Section -3: Practice Questionnaire

This section consists of 10 self-reported practice questionnaires to assess the practice of school-going children regarding school environment sanitation.

Plan for data analysis-

The analysis was performed:

- Descriptive statics i.e., frequency and

percentage were used for demographic variables, knowledge, and practice regarding environmental sanitation.

- Co-relation formula is used to co-relate between knowledge and practice regarding environmental sanitation.

Results

Section –I

Socio-demographic variables

The most of the Students 70% belongs to age 13-15year, 66% were girls, 60% students studying in 7-8th standard, 100% students belong to Hindu religion, 64% students father were educated similarly 66% students mother also educated, 66% students father were employed, 80% students mothers were nonemployed and 58% students belong to a joint family.

Section II

Knowledge level of school-going regarding environment sanitation

This section deal with the description of a knowledge questionnaire of school-going children regarding environmental sanitation.

Table1 - Mean % of knowledge questionnaire

[N-50]

Sl. No	Category	No of question	Mean	Mean %	SD
1	General concepts	5	3.26	65.2%	1.175
2	Water sanitation	5	2.58	51.6%	0.904
3	Food hygiene	3	1.8	60%	1.144
4	Toilet facility	5	3.38	67.6%	1.141
5	Waste disposal	5	1.98	39.6%	1
Total		23	13	56.52174	3.675623

Table 2- Knowledge level percentage of the student

[N-50]

Knowledge level	Frequency	Percentage
Inadequate Knowledge	21	42%
Moderate Knowledge	27	54%
Adequate Knowledge	2	4%

Practice level of school-going regarding environment sanitation**Table-3 Mean, Mean % and SD of practice questionnaire on environmental sanitation**

[N-50]

Sl. No	Category	No of question	Mean	Mean %	SD
1	Practice questionnaire	10	9.58	95.8%	1.144463

Table4- Practice level percentage of students

[N-50]

S.no	Practice Level	Score	Frequency	Percentage
1	Inadequate	≤ 5	1	2%
2	Moderate	6-8	3	6%
3	Adequate	9-10	46	92%

Section IV-**The co-relation between knowledge and practice regarding environmental sanitation**

This section deal with the description co-relation between knowledge and practice regarding environmental sanitation.

Table 5- Co-relation between knowledge and practice level.

[N-50]

Category	Mean %	Co-relation
Knowledge	56.52174 %	0.145543
Practice	95.8%	

The Result- The result shows the correlation between knowledge and practice regarding environmental sanitation is very low 0.145543.

Discussion

India has made quick development in ending open defecation throughout the United States that is having a massive impact on enhancing water, sanitation, and hygiene (WASH). only a few years ago, in 2015, most of India's population of around 568 million people suffered the humiliation of defecating in fields, forests, bodies of water, or another public area due to lack of access to toilets. India alone accounted for 90 percent of the people in South Asia and half of the 1.2 billion people in the world that defecated in the open.⁵ A lack of handwashing infrastructure and sources in school areas also have unpleasant effects on school-going children. It can enhance the spread of diseases among students. Maximum of the schools did not have handwashing facilities.⁶ So the School is key for the cognitive, creative, and social development of children. A child learned the advantage of sanitation and high-quality hygiene behavior in the school. Only that child is the medium for carrying those messages far away from the school walls, bringing lasting improvement not only to his or her health and wellbeing but also to that of the family and the wider community.⁶

By 2019, according to the most recent estimates, the number of people without access to toilets has reduced significantly by an estimated 450 million people. A wonderful achievement, only feasible because of the *Swachh Bharat Mission* (SBM) (Clean India Campaign), led by the great Prime Minister of our country. UNICEF has been a bigheaded partner of the *Swachh Bharat Mission*.⁵

Possibly the most important lesson from experience is that School Sanitation and Hygiene Education is an 'approach to life' rather than an academic subject that can be taught with a focus on theory and written examinations.⁷

After these statics, the author correlates the finding with other areas. Because in every area we need to neat and clean. So the best and fundamental education is stared at the school however our study focuses to assess

the knowledge and practice regarding the environmental sanitation of school children.

Findings related to the knowledge level of school-going regarding environment sanitation-

The findings of the present study were consistent with the study conducted by Shilunga Anna P. K. (2018) conducted a descriptive study to assess the Knowledge, attitudes, and practices of primary school learners on sanitation and hygiene practices Ohangwena region. The objective of the study is to assessing and describing the knowledge, attitudes, and practices of primary school learners towards sanitation and hygiene; the sample size is 450 learners which were grade five, six, and seven primary school learners. The majority of these learners (42.3%) who did not have the correct knowledge were in the lower grades, 5 and 6. The analysis showed that 62.9% knew. In the practice area, 92.2% of learners confirmed that they did, correct practice and the remaining 7.8% did not do so the result indicated that younger learners in lower school grades, have poorer knowledge, attitudes, and practices towards hygiene and sanitation than older learners irrespective of their gender, school circuits or location. This is a sound conclusion because, as learners become grown-up, they become more aware and take precautions about hygiene and sanitation issues.⁸

The findings of the present study were consistent with the study conducted by Joseph N, Bhaskaran U, Saya GK, Kotian SM, Menezes RG (2012) Environmental sanitation and health facilities in schools of an urban city of south India. The objective of the study is to assess the school environment, sanitation, and health-related facilities and to compare the availability of these facilities between government, aided, and private schools. the result shows that Out of the 30 schools surveyed, four were government, 12 were aided and 14 were private schools. Overcrowding was seen in one-third of schools. More than a quarter of schools had no water purification facility. No periodically Water storage space units were cleaned. Toilets were not adequate in 10(33.3%) and not separated for boys and girls in 8(26.7%) schools. This was concluded that a maximum number of schools in urban area were found to be falling short of several essential requirements regarding sanitation and health facilities which need to be rectified.⁹

Limitation

The study was limited to a part of India and involves only the school children. The sample size is limited to 50. And the result cannot be generalized because of individual differences and biases.

Recommendations

This study can be conducted in large sample size and community areas also.

We can compare the knowledge and practice regarding environmental sanitation.

We can also access knowledge and awareness regarding the government program related to sanitation.

We can also conduct a hygiene training program for the students and community people.

Conflict of Interest: There is no conflict of interest among the authors.

Conclusion

This study offers insights into the level of knowledge and practices of learners towards sanitation and hygiene that if addressed may positively impact hygiene promotion and practices in primary schools. Our study shows the knowledge and practice level in school-going children in Haldwani. Based on a study finding in the level of knowledge and practice out of our total population we find that the student has 42% inadequate 54% moderate and 4% Adequate knowledge level in Practice level 2% has Inadequate, 6% Moderate and 92% Adequate.

Ethical clearance- Taken from ethical committee of the institute

Source of Funding- Self

References

1. Explain about the school, sanitation, waste disposal, toilet facility, and drinking water. Available from; <https://enm.wikipedia.org/wiki/>.

2. Swarnkar Keshav;Text book of community Health Nursing ;Third edition. Published by N.R.Brothers Indore page no.139-140
3. Understanding school environment/ Texas school guide .Available from: <https://texaschoolguide.org/understand>.
4. UNICEF a manual on school sanitation and hygiene water, environment and sanitation technical guideline series no.si sep 1998.
5. <https://www.unicef.org/india/what-we-do/water-sanitation-hygiene>
6. Luby S.P., Halder A.K., Huda T.M., Unicomb L., Johnston R.B. Using child health outcomes to identify effective measures of handwashing. *Amer. J. Trop. Med. Hyg.* 2011;85:882–892. doi: 10.4269/ajtmh.2011.11-0142.
7. Snel M. School Sanitation and Hygiene Education. Thematic Overview Paper IRC International Water and Sanitation Centre Delft, The Netherlands. 2003. p. 8. Available from: http://www.schoolsanitation.org/Resources/Readings/IRC_TOP_SSHE.pdf [last assessed on 2009 Sep 23] [date of citation June, 2003]
8. UNICEF India - Education - School sanitation and hygiene education - Rajasthan.htm. Available from: http://www.unicef.org/india/education_233.htm [last assessed on 2009 Sep 23]
9. Shilunga APK, Amukugo HJ, Mitonga KH. Knowledge, attitudes and practices of primary schools learners on sanitation and hygiene practices. *Int J Community Med Public Health* 2018;5: 3197-3204. Available from: <https://www.ijcmph.com/index.php/ijcmph/article/view/3287>.
10. Joseph N, Bhaskaran U, Saya GK, Kotian SM, Menezes RG. Environmental sanitation and health facilities in schools of an urban city of south India. *Ann Trop Med Public Health* 2012;5: 431-5 Available from: <https://manipal.pure.elsevier.com/en/publications/environmental-sanitation-and-health-facilities-in-schools-of-an-u>