

# Assessment of Health and Hygiene Parameters in Educational Institutions: A Case Study of District Anantnag, Jammu and Kashmir

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**Citation:** Sajad Hussain Mir, Gulzar Ahmad Dar, Nazir Ahmad Najar (2024) Assessment of Health and Hygiene Parameters in Educational Institutions: A Case Study of District Anantnag, Jammu and Kashmir, J Public Health Hygiene Safety 6(1): 103

**Received Date:** June 01, 2024 **Accepted Date:** July 01, 2024 **Published Date:** July 05, 2024

## Abstract

A comprehensive study was conducted across educational institutions of District Anantnag (Jammu and Kashmir) to ascertain the available parameters essential for maintaining health and hygiene among school children. A total of 41 educational institutions were randomly selected from all the 12 zones of District Anantnag, focusing on essential elements such as safe drinking water, sanitation, and hygiene practices. The findings revealed significant gaps in maintaining effective health and hygiene in schools, with 61.9% of schools lacking a school health team and 65.8% facing challenges in water purification methods and equipment maintenance. Additionally, 31.7% lack proper sanitation facilities, 73.2% lack facilities for menstrual hygiene and 26.8% schools do not engage in regular cleaning activities. Furthermore, the study highlights concerns related to dietary habits, as 43.9% of schools do not observe food or fruit days to promote healthy eating instead of junk food, and a substantial 92.7% fail to adhere to mandatory guidelines for laboratory testing of midday meals. Community involvement, crucial for holistic development, is found to be lacking in 39% of schools. However, the awareness programmes regarding anti-smoking (97.6%), drug abuse (97.6%), personal hygiene (95.1%), consumption of balanced/nutritious diet (90.2%) and avoidance of junk food (85.4%) is commendable.

The identified health and hygiene parameters are crucial determinants influencing both the quality and equity of learning experiences for school children. The study underscores the need for urgent attention and intervention to address these deficiencies, promoting a healthier and more conducive learning environment for students.

**Keywords:** School health; hygiene practices; sanitation; menstrual hygiene; community involvement; District Anantnag

## Introduction

School health is all about working hard to create and manage services in the school and the community. These services are directed to maintain physical, social, emotional and mental well-being of every student so that they stay healthy in a good environment. In order to have a thorough understanding of physical health, there is dire need to create awareness regarding fitness and development of body besides healthy and hygienic eating habits. Social health pertains to the interaction between individuals including the environment that results in team work spirit and develops satisfactory personal relationships. The ability to control, express and manage emotions appropriately comes under the purview of emotional health. A mentally healthy person possesses the capability of overcoming routine day to day stresses which in turn renders him/her to work in a productive and fruitful manner. This type of healthy mental balance enables him/her to contribute productively to the community. According to a report of UNICEF, WHO and World Bank in 2001, effective school health programmes make schools child-friendly and thereby enhance the quality and equity of education. Health and education are therefore interconnected and interdependent. If children are not healthy, they can't learn well. Similarly, if children are not educated, they can't be healthy.

In 2020, the Ministry of Education and the Ministry of Health and Family Welfare started the School Health Programme (SH-P). The goal is to help students gain more knowledge, develop positive attitudes, and learn life skills. This way, they can make informed, responsible, and healthy choices. They also introduced the School Health and Wellness Ambassador Initiative (SH-WAI), planning to train two teachers in each government and government-aided school. These ambassadors will conduct training sessions for students and be there to answer their questions.

According to Burgers (2000), hygiene education promotes healthy habits among school children and prevent a number of diseases that are associated with contaminated water and improper sanitation. World Health Organization conducted a study in 1998 and reported mortality associated with contaminated water that include 2,219 from diarrhoeal diseases, 1,110 from malaria, 15 from Intestinal worm infestation, and 15 from dengue.

The Sustainable Development Goal for 2030 urges investment in clean water and sanitation. This aligns with the National Education Policy 2020, which emphasizes integrating WASH (Water, Sanitation and Hygiene) skills in early foundational years (3-8 years) for a healthy learning environment. The School Sanitation and Hygiene Education (SSHE) approach not only focuses on water supply, hand washing and waste disposal but also behavioral practices to create a healthy school environment and prevent illnesses caused by dirty water and poor sanitation [11]. By fostering personal, water, food, domestic, and public hygiene in schools, contribution of larger global and national initiatives for cleaner and safer environments for all can be achieved.

Anantnag district in Kashmir division was chosen for the study on health and hygiene parameters in schools due to its demographic diversity, potential health and hygiene challenges, existing data gaps, representative educational context, and the potential for generalizability of findings. These factors collectively make it a suitable case study area to investigate and address issues related to school health and hygiene.

## Materials and Methods

**Study Area:** Educational institutions (Middle stage & Secondary stage) from 12 zones of District Anantnag (Kashmir Division) were selected for the current study.

**Sample Size:** A total of 41 educational institutions representing all the 12 zones of District Anantnag were selected for carrying out the provision of health and hygiene parameters available to the school children. The questionnaire used in the study on

health and hygiene in Anantnag schools included questions about sanitation facilities, water purification methods, availability of soap in washrooms, availability and accessibility of first aid kits, awareness programs on anti-smoking, harmful effects of consumption of junk food and drug abuse, education on menstrual hygiene, involvement of parents in student health, and personal hygiene awareness etc. Additionally, establishment of school health team for maintaining health and hygiene facilities was ascertained in the current study. Responses were categorized into options using qualitative scales to assess the status and needs of each parameter effectively.

**Statistical Analysis:** The retrieved copies of questionnaire were subjected to statistical analysis using Statistical Package for the Social Sciences (SPSS) for proper analysis.

**Results:** The data collected from 41 educational institutions representing all the twelve zones of District Anantnag (Jammu and Kashmir) is presented in Table I and II.

School health team is responsible in ensuring healthy environment within and outside the school, promoting positive health among the school children, awakening health consciousness in children, educating and counselling staff, and parents about harmful substances besides maintaining a comprehensive health record system which is not yet formed in 61% of the schools of District Anantnag.

**Table 1:** Showing some important health and hygiene parameters in schools of District Anantnag

Parameter	Yes	No
School health team	39%	61%
Mid-Day Meal inspection by School Head	97.6%	2.4%
Laboratory Testing of Mid-Day Meal	7.3%	92.7%
Celebration of food day in schools	56.1%	43.9%
Education regarding balanced diet	95.1%	4.8%

The findings further reveal that provision of proper sanitary facilities is present in 68.3% of the surveyed schools. Furthermore, soap dispensers are available in 85.4% of schools, while water purification equipment is accessible in 34.1% of schools. However, facilities for menstrual hygiene are found in only 26.8% of the schools. On a positive note, regular cleaning is maintained in 73.2% of the schools surveyed.

The research findings shed light on the commendable awareness programmes implemented within schools regarding various health-related issues. Notably, anti-smoking awareness stands at an impressive 97.6%, followed closely by programs addressing drug abuse (97.6%) and personal hygiene (95.1%). Moreover, significant attention is directed towards educating students about the importance of balanced nutrition, with 90.2% of schools featuring programs on this topic. While the focus on discouraging junk food consumption is slightly lower at 85.4%, it still reflects substantial efforts in promoting healthy dietary habits.

In terms of preparedness for emergencies, the availability of first aid kits is notable, with 95.1% of schools equipped accordingly. However, the presence of designated personnel responsible for maintaining these kits is found in 68.3% of schools, suggesting room for improvement in ensuring consistent upkeep.

**Table II:** Showing health and hygiene parameters in sample schools of District Anantnag

Parameter		Frequency	Percent	Valid Percent	Cumulative Percent
Proper Sanitation Facilities	Valid	1	2.4	2.4	2.4
	No	12	29.3	29.3	31.7
	Yes	28	68.3	68.3	100.0
	Total	41	100.0	100.0	
Provision of water purification Apparatus/methods including its regular maintenance	Valid	1	2.4	2.4	2.4
	No	26	63.4	63.4	65.9
	Yes	14	34.1	34.1	100.0
	Total	41	100.0	100.0	
Availability of Soaps/Soap dispensers in washrooms	Valid	1	2.4	2.4	2.4
	No	5	12.2	12.2	14.6
	Yes	35	85.4	85.4	100.0
	Total	41	100.0	100.0	
Awareness Programmes on anti-smoking and Drug Abuse	Valid	1	2.4	2.4	2.4
	No	-	-	-	
	Yes	40	97.6	97.6	100.0
	Total	41	100.0	100.0	
Availability of first aid kits in easily accessible locations	Valid	1	2.4	2.4	2.4
	No	1	2.4	2.4	4.9
	Yes	39	95.1	95.1	100.0
	Total	41	100.0	100.0	
Designated person responsible for maintaining and restocking first aid kits	Valid	1	2.4	2.4	2.4
	No	12	29.3	29.3	31.7
	Yes	28	68.3	68.3	100.0
	Total	41	100.0	100.0	
Awareness program regarding the harmful effects of consuming junk food	Valid	1	2.4	2.4	2.4
	No	5	12.2	12.2	14.6
	Yes	35	85.4	85.4	100.0
	Total	41	100.0	100.0	

Regular physical activity programmes/sports activities	Valid	2	4.9	4.9	2.4
	No	4	9.8	9.8	31.7
	Yes	35	85.4	85.4	100.0
	Total	41	100.0	100.0	
Facilities in place to support menstrual hygiene for female students	Valid	1	2.4	2.4	2.4
	No	29	70.7	70.7	73.2
	Yes	11	26.8	26.8	100.0
	Total	41	100.0	100.0	
Education provided on menstrual hygiene and the availability of sanitary products	Valid	1	2.4	2.4	2.4
	No	23	56.1	56.1	58.5
	Yes	17	41.5	41.5	100.0
	Total	41	100.0	100.0	
Involvement of parents and community members in maintaining the health of students	Valid	1	2.4	2.4	2.4
	No	15	36.6	36.6	39.0
	Yes	25	61.0	61.0	100.0
	Total	41	100.0	100.0	
Awareness programs about personal hygiene, including the importance of trimming nails	Valid	1	2.4	2.4	2.4
	No	1	2.4	2.4	4.9
	Yes	39	95.1	95.1	100.0
	Total	41	100.0	100.0	

The engagement of students in physical activities is encouraging, with 85.4% participating regularly, while an impressive 97.6% are involved in both indoor and outdoor games. This underscores the importance placed on promoting an active lifestyle among students.

Furthermore, collaboration between schools and the community in maintaining health is evident in 82.9% of cases, reflecting a collective effort towards fostering a healthy environment beyond the school premises. These findings collectively highlight the proactive measures taken within schools to prioritize the health and well-being of students, while also identifying areas for further enhancement in promoting comprehensive health and hygiene practices.

## Discussion

School health and hygiene is an important component for providing healthy and safe environment within and outside the school. According to a study, the number of Food Borne Diseases case are expected to rise by 150-177 million annually by 2030. In a joint initiative by Ministry of Education and Ministry of Health and Family [4], School Health Programme (SHP)

was launched to enhance knowledge and life skills among school children so that they develop positive attitude in maintaining good health and hygiene practices. According to this programme two teachers would be designated as health and wellness ambassadors who would take all necessary measures in promoting healthy atmosphere in schools by addressing all the genuine concerns related to health and hygiene maintenance among school children.

School health team/club comprising of teachers, parents and health officials are responsible for health promotion services. In the current study 61.9% of schools lack a school health team in district Anantnag.

To maintain good health, a child not only requires intake of healthy food but also awareness regarding the useful effects of consumption of balanced food and avoidance of junk food. Besides, the Mid Day Meals provided to the school children is meant to ensure provision of all the necessary nutrients required for the overall development of the body. According to Global Burden of Disease Study (2016), poor diet is linked to one in five deaths worldwide, with low intake of healthy foods being the leading risk factor for mortality. In the current study, 85.4% of schools provide awareness regarding harmful effects of junk food, 90.2% of schools provide awareness regarding balanced diet and 56.1% schools celebrate food day to inculcate positive dietary habits among school children. Poor diet hinders growth and even undermines intellectual performance. The inspection of Mid-Day Meals by school heads is done routinely by 97.6% of sampled schools and laboratory testing of Mid-Day Meals is done by only 7.3% sampled a school which is discouraging. In a recent study on Mid-Day Meals, 75% of the teachers of sampled schools reported problems of storage of materials, the quality of food served, cooking and availability of safe water for cooking and drinking purposes [6]. Kim, children still fail to meet recommendations for the amount of both fruit and vegetables they should eat daily.

### **Potential Barriers and Challenges**

1. **Lack of Comprehensive Health Record System:** The absence of a structured health record system in 61% of schools in Anantnag district could hinder effective monitoring and continuity of health initiatives.
2. **Inadequate Menstrual Hygiene Facilities:** With only 26.8% of schools providing facilities for menstrual hygiene, there is a critical need to address this gap to ensure dignity and health among female students.
3. **Low Accessibility to Water Purification Equipment:** At 34.1%, the availability of water purification equipment poses a challenge to ensuring safe drinking water in a significant number of schools.
4. **Maintenance of First Aid Kits:** While 95.1% of schools have first aid kits, the lack of designated personnel for their upkeep (68.3%) could undermine their effectiveness during emergencies.
5. **Variability in Physical Activity Participation:** Although 85.4% of students participate in physical activities regularly, efforts are needed to engage the remaining students to promote a universally active lifestyle.

### **Strategic Approaches/Recommendations**

1. **Establishment of Comprehensive Health Record Systems:** There is dire need to implement standardized procedures for maintaining health records across all schools, supported by training and resources for school health teams.
2. **Improvement of Menstrual Hygiene Facilities:** Sufficient funds and resources need to be allocated to schools so as to ensure adequate facilities for menstrual hygiene, including disposal mechanisms and access to sanitary products.
3. **Enhancement of Water Purification Infrastructure:** Installation and maintenance of water purification systems is to be done on priority basis in schools lacking this infrastructure.

4. Training and Designation of Personnel for First Aid Kits: Training regarding health and hygiene be provided to staff and staff members be designated for regular inspection, restocking, and maintenance of first aid kits.
5. Promotion of Inclusive Physical Activity Programs: Diverse physical activities that appeal to all students, including those less inclined towards traditional sports need to be introduced. Involvement of community in organizing sports events and fitness programmes need to be encouraged.
6. Improving Interdepartmental Coordination: Enhancing interdepartmental coordination between Health and Education sectors is crucial to integrate health promotion initiatives into school policies effectively. This approach aims to streamline communication, align resources, and foster collaborative efforts for comprehensive student well-being.

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