

# Availability and helpful environment of school health services in Rawalpindi and Islamabad region

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## Author's Contribution

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## ABSTRACT

**Objective:** To assess the status of health services and environment in the public and private schools of Rawalpindi and Islamabad.

**Methodology:** A cross sectional study was conducted at Islamabad Medical and Dental College, Islamabad from April to September 2017. A survey was done in the schools of Rawalpindi and Islamabad through a questionnaire, distributed to the school heads and/or administrators. The study outcome was measured in terms of status of school health services and health environment. Out of the total list of government, private and semi government schools the number for visit and interview was selected systematically. Data was entered and analyzed by using SPSS 20 version.

**Results:** Overall 60.1% schools had a health team. Health teams were found in 47.6% of government, 58.3% of private and 80.0% of semi government schools. Only 42.4% had received any health-related training for students or personnel in the schools, 28.3% schools had presence of doctor while 30.9% had a nurse. Safe drinking water and adequate washroom facility was available in majority of schools along with playing area and proper lighting and ventilation condition.

**Conclusion:** School health services are very poor at the schools in Rawalpindi and Islamabad region. There is lack of health training for students and staff with only 42.4% getting it.

**Keywords:** School health services, environment, healthy learning.

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## Introduction

School health program (SHP) is an important component of the overall health care delivery system of any country. In developing countries where infant and early childhood mortality is high its importance cannot be overemphasized.<sup>1</sup> Schools play a critical role in the health and well-being of youth and good services provided at school level means more students have access to healthy food, better physical fitness activities. According to School Health Policies and Practices Study a nationwide improvement in the measures related to nutritional

policies, physical education and tobacco policies has been witnessed.<sup>2</sup>

Health systems in schools help in providing emergency care for illness or injury at school, ensures that all students get appropriate referrals to health care providers, monitor for and control the spread of communicable disease, provide education and counseling in a variety of health and wellness topics, serve as a medical resource in the development of policies and procedures in the school<sup>3</sup>. Many students are at risk for not succeeding in school because their chronic illness may interfere with

their attending school. Doctors and nurses at schools support their attending school and help reduce interruptions to their learning. They also identify and provide plans and treatments for students<sup>4</sup>. School health program emphasis is directed towards prevention of disease and promotion of health utilizing health services, health counseling, and health education. The Convention of the Rights of the Child now ratified by most countries give Governments the political responsibility to endorse and monitor clear health related policies. Dental caries is one of the most prevalent chronic diseases affecting children. There is a high prevalence of dental caries in children from low socio-economic status backgrounds.<sup>5</sup> School based health care (SBHCs) is filling a gap in health care needs for many of many children. They provide services to an underserved population of children and adolescents, focusing on provision of health services and the promotion of health through population-based education programs. Schools with SBHCs are finding that significant physical, mental, and dental health issues are being addressed during the school day, allowing children to remain in school. The mission of SBHCs to contribute to the health of children by providing access to primary health care and preventive health care services is being actualized.<sup>6</sup>

A previous study from Nigeria reported the almost 92% head teachers in schools were unaware of school health services and could not give any basic information about this program.<sup>7</sup>

School health services, many adolescents' first point of contact with health systems, need to be better exploited. Their links with community services should be strengthened and they should take an integrated approach to health promotion. A WHO/Europe survey showed that action is needed to improve access to and the quality of school health services; to improve workforce knowledge and skills through specialized training programmes; and to involve families, care providers and teachers more actively in school-based health promotion programmes.<sup>8</sup> Previous evidence reveals that health appraisal at schools is very poor, specially, in the under developed and developing countries. The present study aimed to assess that status of school health services and overall health environment at public and private schools of Rawalpindi and Islamabad.

## Methodology

It was a cross sectional survey carried out in the private and government schools of Rawalpindi/Islamabad. The total duration of study was 6 months from April to

September 2017. The sample size was based on the assumption and previous statistics that 92% schools lack health appraisal services.<sup>7</sup> With a confidence level of 95% and alpha error of 5% the calculated sample size was 113 schools in the region of Rawalpindi and Islamabad. A list of government and private schools in the study area was taken from the education departments of both districts. Out of the total list of government, private and semi government schools the number for visit and interview was selected systematically. The heads of the schools were called for their time and permission to answer the questionnaire and physical observation of school health facilities. Those who agreed on phone were then physically visited by the researcher. The number of schools for survey was selected on the basis of list provided by education department as there were more private schools than government or semi government facilities in this region.

All the questionnaires were responded by head of school or their representatives. The gathered information regarding status of overall availability of health system in schools also included additional information regarding the status of health of pupil. Thus, all male and female students from class one to ten who were attending the selected schools at the time of visit were randomly observed just to get an overall idea of personal hygiene and health environment, however, this information was not recorded in the questionnaire. Schools with mental retarded pupil were excluded from the study.

A self-developed questionnaire was used for data collection. The questions included base line characteristics i.e. type of school, availability of health facilities and health services, composition of health teams whether a doctor or nurse, routine checkup of pupil and staff, immunization status, oral hygiene, playing area and class room size, washrooms, ventilation, training of staff in health and first-aid and availability of emergency medication in the schools. A pilot study was done to test the questionnaire and the final version was amended in the light of the pilot study. Ethical clearance was received by the institutional ethics committee at Islamabad Medical and Dental College, Islamabad. A verbal consent was taken on phone and also before administration of questionnaire. The researcher visited each school herself while the interviews were assisted by a surveyor/research assistant.

The primary outcome was measured in terms of overall practices of school health services in surveyed schools. Data was entered in software SPSS version 20. Frequencies and percentages of categorical variables were calculated.

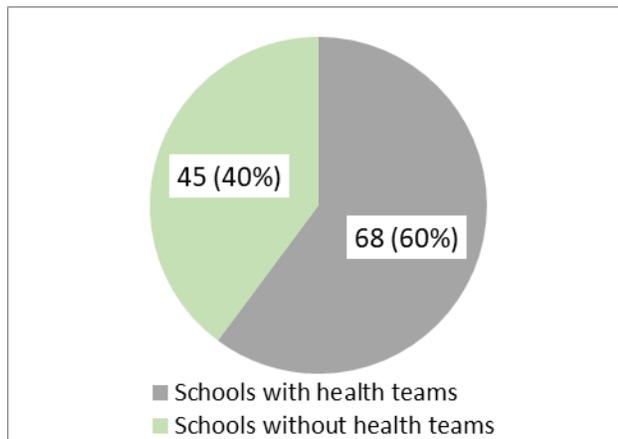
## Results

In this study a total of 113 schools were surveyed, a structured questionnaire was administered to the heads of schools or other responsible officials. School types are shown in Table I.

There were a total of 68 (60.1%) schools with health teams. Of the government schools, 10 (47.6%) had health teams, of the private schools 42 (58.3%) had health teams whereas of the semi government schools, 16 (80.0%) had presence of health teams. (Figure I)

**Table I: Type of school in the study (n=113)**

	No of schools	%age
Government	21	18.6%
Private	72	63.7%
Semi government	20	17.7%



**Figure I: Presence of health teams in the surveyed schools (n=113)**

Further in the study, the health teams and health environment of schools was assessed. There were 32 (28.3%) schools with a doctor and 35 (30.9%) had a nurse present. When asked whether the school personnel get medical checked ups regularly, 55 (48.6%) replied in agreement. When asked whether immunization record of students is checked, 41 (36.2%) replied 'yes' they do so. Similarly, majority 93 (82.3%) said that signs of ill health are picked up in children by the teacher in daily morning inspection. Of the total 113 schools, 95 (84.0%) had a playground for physical activity of students. Another, 77 (68.1%) respondents said that the class size is 10<sup>2</sup> feet for 40 students. Of the total, in 54 (47.7%) schools the eye sight of students was examined every year. Similarly, 108 (95.5%) and 106 (93.8%) said their class rooms are properly lighted and ventilated respectively. Majority 68

(60.1%) said their desk types are negative whereas majority 106 (93.8%) of the respondents mentioned that safe drinking water is available in their school. Of the total, 87 (76.9%) mentioned that adequate washroom facility is available and 97 (85.8%) said that first aid care is available. Only 48 (42.4%) said that any medical education or training of teaching staff and students has been conducted in their schools whereas 106 (93.8%) mentioned that emergency medicine is available in their schools. (Table II)

**Table II: Status of health teams and health environment in the studied school (n=113)**

	No. of schools	%age
Composition of health teams?		
Doctors	32	28.3%
Nurses	35	30.9%
Regular medical checkups of school personnel?	55	48.6%
Immunization record of students	41	36.2%
Signs of ill health picked in children in morning inspection?	93	82.3%
Playground for the physical activity of students	95	84.0%
Class size 10 <sup>2</sup> feet for 40 students	77	68.1%
Eye sight examination of the student held per year	54	47.7%
Class rooms properly lighted	108	95.5%
Class rooms properly ventilated	106	93.8%
Type of desk is used in class room		
Negative	68	60.1%
Positive	26	23.0%
Neutral	19	16.9%
Provision of safe water supply	106	93.8%
Washrooms adequate for the students	87	76.9%
First aid and emergency care	97	85.8%
Health education training held for teacher and student	48	42.4%
Important medicines available in the school	106	93.8%

## Discussion

This study identifies a very bleak condition of school health programmes in public and private schools of twin cities of Rawalpindi and Islamabad and adjoining areas. There were less than two third schools with a health team, and only around one forth schools had presence of a doctor or nurse. A slightly more than one third schools had conducted a health training for students and personnel. Less than half of studied schools had routine medical examination going on, and only around one third have the trend of checking immunization record at

enrollment. When the schools were assessed according to their type, it was noted that private schools were better in maintaining school health team as compared to government, whereas semi-government schools were found better than both private and government schools in having presence of health teams in their institutes. Previous studies have found a similar status of school health programmes as the current study has seen. Kuponiyi et al from Nigeria witnessed that more private schools had health teams than the government, they also noticed that less than half have had training in health at schools and only one third have presence of nurses or health professional at schools.<sup>8</sup> Many other studies also found that health staff i.e. doctors or nurses are necessary for physical and mental support of pupils, however, they are rarely available in many schools irrespective of developed or underdeveloped regions.<sup>9,10</sup>

Evidence suggests that very few schools conduct training in health for its staff and pupil.<sup>11,12</sup> This fact has been highlighted by the current results as well with just over one third schools doing so. In this regard, Ofovwé GE et al found that none of the head teachers had adequate knowledge of School health program with 93.1% from private compared to 48.3% from public schools having poor knowledge in their study.<sup>13</sup> Training of school personnel in school health programme, specially dealing an emergency and managing first aid is very crucial for smooth running of an educational institution which can only be improved with opportunities of continuous training and advocacy. Moreover, picking any visual or physical impairment in the school improves the lives of the pupil by timely and adequate management.<sup>14,15</sup>

In the current study despite the fact of poor status of school health system usage, the health environment for students and personnel was found reasonably adequate. There was a large majority of schools who were having inspection of health condition of students in morning assembly and also had first aid medication available, similarly, majority of schools had a playground for physical activity and had safe drinking water supply. Almost, all schools were found to have adequate ventilation and lighting conditions. Around two thirds schools had adequate size of class rooms for students and three fourth of them had adequate washroom facility. Many other studies also witnessed that health inspection in the class or morning assembly is done routinely in majority of schools as witnessed by more than 90% in this study.<sup>4,8</sup> The current study showed a poor health appraisal regarding immunization status inquiry at

admission in schools. Previous studies have also witnessed very poor health appraisal services at schools and have suggested proper maintenance of school health programmes.<sup>16,17</sup>

Majority of the health problems affecting school children are preventable by promotion of personal and oral hygienic practices through proper health education by the teachers, who are the first contacts.<sup>18</sup> One of the key message of school health programmes is promoting preventive measures through advocacy, in this regard the school's overall and specifically health related environment may be well maintained by the school authorities which can only be achieved if the personnel themselves are trained and sensitized in school health initiatives. Dedicated and school specific health teams have crucial role in promoting the mental and psychological capacity of those students who need these aids and may avert a lifelong weakness and dependency.<sup>11</sup>

Though authorities have maintained a reasonable health environment in most of the current studied schools, the level of services seems very poor. This is resulting in overall unhealthy atmosphere for pupils and risking others of getting affected by numerous communicable diseases. All the stake holders specifically the Ministry of Health should plan and implement viable school health programmes so that health services at schools may be improved. As without this there is chance of spread of outbreaks which may hinder the learning process of students and they may lag behind from their fellows.

Through proper health screening and filtering at schools, the government can reduce the already burdened health care infrastructure and services and save unnecessary costs at personal and national level. Plus, the health learning environment will lead to produce a more prosper citizen, thus, communities would benefit by this initiative and cash strapped nations like Pakistan can gain at large via an adequately fit and productive manpower.

## Conclusion

The status of health care services is found very poor at the schools of Rawalpindi and Islamabad. Though to some extent the necessary health environment has been maintained at most schools but implementation of health services has not been primary priority. There is need of more extensive school health education program, and training of teachers is need of the hour. Moreover, care should be given to improve the pitiable state of personal hygiene at schools.

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