

School Health Services and its Practices in Public and Private Schools of Rawalpindi District

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ABSTRACT

Objective: To assess the school health services in public and private schools of Rawalpindi district.

Subjects and Methods: A comparative cross-sectional study was conducted in 50 public and private schools of Rawalpindi district for a period of 3 months. Consecutive sampling was done with inclusion criteria of only those teachers who had minimum two years of teaching experience in that particular school were included in the study. Participants were interviewed using a structured, interviewer administered questionnaire and a checklist. Data were entered and analyzed on SPSS version 20.0.

Results: Among 50 selected schools, 10% were pre-schools, 28% primary schools and 68% were high schools. Regarding clean drinking water, 64% schools were using filtered water, 14% unfiltered, and 2% mineral water. In 60% schools, water was chlorinated. First aid provision in case of emergency was available in 96% of schools. Only in 24% of schools, sick room was available. First aid was given by teachers in most of the schools.

Conclusion: Adequate health education on different aspects including nutrition is provided by most of schools. Majority schools provide health services including provision of first aid but there is lack of placement of health professionals and periodical inspection of students. Maximum number of schools have congested classrooms, uncomfortable seating and shortage of washrooms.

Key words: Healthy Environment, Medical Assessment, Private Schools, Public Schools, School Health Services

Author's Contribution

¹ Conception, synthesis, planning of research and manuscript writing Interpretation and discussion

^{2,3} Data analysis, interpretation and manuscript writing, Active participation in data collection.

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Introduction

Many schoolchildren face significant health challenges resulting from familial, environmental or risk-taking behaviors. These health risks are often interrelated and may share common underlying determinants that can adversely affect the child's ability to learn. Thus, there is need for comprehensive health services within premises

of schools.¹ School health services is a branch of preventive medicine which deals with medical inspection of school children and their health protection, primarily in the environment of school.² Medical inspection in school was first instituted in France in 1837 and this was followed by other countries.³ WHO global school health initiative

was launched in 1995.⁴ WHO promotes school health programs as a strategic measure to prevent important health risks among youth and to engage the education sector in efforts to change the educational, social, economic conditions that affect risk.⁵

An international study showed that school health services are existent, but its implementation is suboptimal in both private and public schools. Significantly more private schools had treatment facilities within school premises ($P=0.001$).⁶ A study in Nigeria showed that 36.4% schools had health personnel, 98.5% schools performed routine inspection of the students, and 18.2% schools requested pre-admission medical examination. About 75.8% schools administered first aid to injured /ill children, health records were present in 15.1% schools. There was no school nutrition program in any of the schools. Only 32% schools had been visited by the school health team in the preceding year.⁷ The concept of health services in schools in Pakistan originated in 70s. Recently, School Health Program has been launched in Pakistan, which has four basic pillars: School health environment, School health education, School health services, School nutrition program.⁸ An effective school health programme can be one of the most cost-effective investments, a nation can make to simultaneously improve education and health. The present study was planned to assess the school health services present in different schools of Rawalpindi district. The results of this study will help the concerned authorities to bring about the change in the current scenario, as health of school children though not directly related to main reason of child mortality but significantly affect child morbidity.

Subjects and Methods

A comparative cross-sectional study was conducted in 50 schools (34 private, 15 governments and one Semi government schools) of Rawalpindi district for the duration of 3 months. Consecutive sampling was done including those teachers who had minimum of two years of teaching experience in that particular school. Principals /coordinators of school were excluded as their response could be biased. Participants were interviewed using a structured, interviewer administered questionnaire and an observational checklist. Informed consent was taken prior to answering questionnaire. Anonymity was ensured to

the participants. Data were computed, processed and analyzed on SPSS version 20.

Results

Among total of 50 schools, 10% were pre-schools, 28% primary schools and 68% were high schools. There were up-to 1500 students in 66% schools, 1501-3000 in 20% schools and more than 3000 in 14% schools. In 42 out of 50 schools, playgrounds were present. Space per capita & number of students to washroom ratio is shown in figure 1 and figure 2 respectively. In 88% of school's source of light in classroom was both from tube lights and sunlight and in rest 12% only tube lights. Seating arrangement of classroom showed that plus desk was noted in 32% cases, Minus desk in 34% and zero desk in 34%. Windows was the medium of ventilation in most of the schools (32%) followed by combination of windows and exhaust fans (28%). Regarding clean drinking water, filtered water was being used in 32 of the schools, while 14% & 2% were using unfiltered and mineral water respectively. In routine, 60% schools water chlorination was done before consumption. First aid box availability was observed in majority (96%) of schools, while sick room existed in only 24% of schools. In most of the schools 1st Aid was given by teachers (as shown in figure 3). Availability of transport in case of emergency was observed in most (98%) of the schools. Significant association was found between health education on different issues and schools.($p=0.043$).

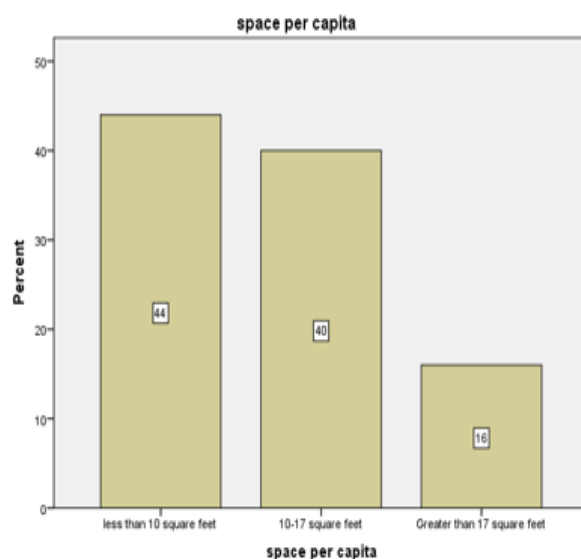


Figure 1: Space per capita in each classroom

According to the survey, large number of schools educate their students on various health issues along with the promotion of healthy food eating behaviors. General hygiene of students was regularly checked in 96% schools. As a matter of concern more than half of the schools have never done medical inspection of students, however in 8% of schools medical assessment was done only at the time of admission, showing significant association between medical inspection of students and type of school ($p=0.009$).

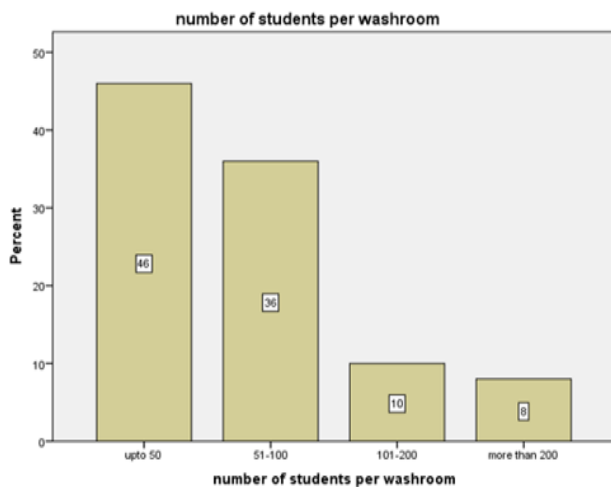


Figure 2: Ratio of students to washroom

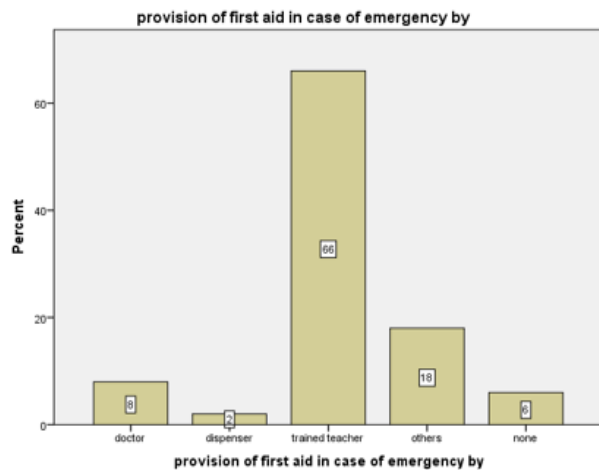


Figure 3: First aid provider in case of emergency

Discussion

The significance of a good and well-designed school health program (SHP) as an element of Primary Health Care in the general development of children and the citizenry of a state cannot be over emphasized. School

health services make one of the key constituents of the SHP and upkeep the wellbeing of the schoolchildren. Effective school health services enable early detection and diagnosis with quick intervention with the intention of preventing mortality and lessen morbidity. Our research showed that 84% schools have playground which is compared to another study conducted in Bangladesh revealing that 86% of schools hold playground.⁹ This result shows that school administrations are aware of the importance of the fact that healthy body is directly related to healthy mind which can be facilitated only by providing proper play areas for physical activity. Majority of schools in our study had the facility of first aid, and only 26% of schools had sick room. In case of emergency, first aid is provided by teachers in 66% of schools, by doctor in 8%, by dispenser in about 2%, and by others in 18%, 6% had no provision of first aid in case of emergency. Parallel findings were reported in a study in New Zealand where there was 100% availability of first aid in schools, and they had a bigger figure (20%) of health professional e.g. doctor for medical care provision.¹⁰ Lack of health professionals in our school setups indicates that we being developing country have less resources so most of the schools are unable to provide a full time doctor on regular basis in schools.

In our study, it was illustrated that all schools had adequate lighting through bulbs and tube lights, and most of the schools had windows too, which served as an additional source of light. Comparable results were noticed in a study conducted in Hyderabad reporting that 97.4% of schools were provided with electricity.¹¹ This shows the consensus of all school administrations on the fact that provision of light is the basic necessity for quality reading and writing in the classrooms; and most of them had windows too, so in case of load shedding, sunlight can be used for this purpose. It was revealed in this study that only 46% of schools provide one washroom for up to 50 students, 82% of schools provide one washroom for up to 100 students. Median student to toilet ratio is 55 in our study. Similarly, a study in Nicaragua shows median student to toilet ratio 73 in urban areas.¹² According to WHO recommendations, these should be at-least one washroom for 50 students.¹³ These results indicate lack of proper planning before construction along with the fact that toilet facility was neglected, or may be because most

of the private schools buildings are not primarily meant for school purpose, these are taken on rent and converted into schools, so the number of classes and students increase but number of toilets remain the same as their construction require proper water supply and drainage system.

About 82% respondents of our study belonged to co-educated schools; among these 68% have gender-separated toilets. Corresponding results were appreciated in the study in Nicaragua, where the percentage was 49% in urban areas.¹² A significant proportion of schools still do not have gender-separate toilets which could be due to lack of awareness or ignorance of owners and administration, it is highly recommended to have separate washrooms to avoid many social problems. Conferring to our research, 84% of schools provided filtered drinking water, 2% used mineral water. Contrary to this, a study conducted in government schools of Sindh showed that only 21% of schools provided filtered water to students.¹¹ This difference could be because of the fact that majority of the schools in our study were private as compared to government schools, where school administration receives heavy fees from students and in return at-least provide safe drinking water so as to ensure good health of students. Our study shows that 38% of schools provide periodical medical inspection of students, and 8% at the time of admission. A study in Nigeria showed 12% (7%public, 17% private) of schools arrange for periodical medical inspection.¹⁴ Again the reason could be the lack of resources to afford a school health team to inspect schoolchildren.

Conclusion

Most of the schools provide health services including provision of first Aid and conveyance to health care facility in case of emergency but there is lack of placement of health professionals and periodic assessment of students. Majority schools have congested classrooms, uncomfortable seating and shortage of washrooms. Qualified persons should provide professional development opportunities for physical education, nutrition services and mental health of students. Adequate health education on different aspects including nutrition is provided by most of school.

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