



Comparison of School Health Services among Private and Government Owned Schools of Belgaum

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Authors' contributions

This work was carried out in collaboration between all authors. Author DK did the study design and wrote the protocol. Authors DK, SSB, MDM and SMK did the statistical analysis and literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: Children are the creators and the shapers of tomorrow and school marks an important early milestone in the child's life long journey of intellectual and psychological development.

Objective: To assess the school health services in government and private schools of Belgaum.

Methodology: This cross sectional study was conducted at 3 Primary Health Centres and 3 Urban Health Centres in Belgaum. All the government and private schools were selected and necessary data of child school health services was collected based on criteria recommended by Indian Academy of Pediatrics.

Results: Of the total schools, 53.76% of schools provided hygienic drinking water, 64% of the schools did not have adequate toilet facilities, 30% of schools did not have adequate ventilation and lighting, 34.40% of schools did not have playground and 90% of schools did not have safe and proper transportation facility. When private and government schools were compared private schools were better in providing services like safe and proper transportation, properly ventilated and illuminated class rooms, where as kitchen facility was available more in government schools

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($p < 0.05$).

Conclusion: We found that none of the schools met all the 10 criteria. Although 50% of them followed 4 to 5 criteria.

Keywords: School health services; private schools; government schools; Indian Academy of Pediatrics.

1. INTRODUCTION

Children between the ages of five-seventeen years are school children and they constitute nearly 20-25% of population [1,2]. They are the creators and the shapers of tomorrow and school marks an important early milestone in the child's life long journey of intellectual, social and psychological development. So school and its immediate environment must offer basic minimum standards to encourage and facilitate the main objectives of child friendly school.

The challenges in education are not simply getting children into school, but also improving the overall quality of schooling and addressing the threats to participation. The growing school children are vulnerable to communicable disease such as tuberculosis, rheumatic fever, diarrheal diseases as well as non communicable diseases such as malnutrition, dental, visual and hearing defects etc [3]. So, school health services should provide need based comprehensive services to students, teachers and other personnel in the school to promote and protect their health, prevent and control the diseases. Unfortunately schools are not well organized in our study area because of peculiar rural and economic problems, non availability of medical personnel in village, ever growing number of schools and such other conditions. Hence the present study was planned to assess the school health services in government and private schools of Belgaum.

2. MATERIALS AND METHODS

2.1 Study Design

The present study is a Descriptive study.

2.2 Study Period

September 2013 to June 2014.

2.3 Study Area

Study was conducted in three primary health centres (Kinaye, Handignur, Vantamuri) and three urban health centres (Ramnagar,

Ashoknagar, Rukmininagar) which come under the field practice area of Department of Community Medicine Jawaharlal Nehru Medical College Belgaum.

2.4 Study Setting

All the schools under the study area that is 133 schools under the three primary health centres and 53 schools under the urban health centres of field practice area of Department of Community Medicine Jawaharlal Nehru Medical College Belgaum were chosen for the study.

Informed consent and permission was taken from the Heads of the school for the study. Assent was taken from all the study participants.

2.5 Study Variables

Parameters such as location, classroom, ventilation and lightening, water supply, latrine, urinals, availability of eating facilities, availability of first aid, play ground were assessed. The information was obtained by enquiring school authorities that is headmaster of schools and school teachers and by inspection of school premises.

2.6 Study Instrument

Pretested and predesigned questionnaire was used. The questionnaire was designed based on criteria recommended by IAP (Indian Academy of Pediatrics) [4,5].

The criteria for assessment of school health services were:

- 1) No physical punishment
- 2) No excess baggage
- 3) Safe and proper transportation to school
- 4) Hygienic drinking water
- 5) Clean kitchen or a place where children can bring and eat house food
- 6) Minimum 4 games periods in one week
- 7) Properly ventilated and illuminated classrooms
- 8) Periodic health check-ups and health related lectures

- 9) Facility for first aid in emergency
10) Adequate number of toilets.

2.6 Statistical Analysis

Using SPSS version 19 applying chi square test.

3. RESULTS

In the present study 37 schools were private schools and 149 schools were government schools (Table 1). When availability for environmental facilities was surveyed, all the schools were easily approachable to the students. Majority of the schools that is 143 (76.89%) of schools had adequate space in class room, 153 (82.80%) of schools did periodic white wash and 132 (70.97%) of schools had adequate lighting and ventilation for the class room. Of the total 100 (53.76%) schools had adequate water supply, 122 (65.60%) had playground, 73 (39.25%) had adequate urinals, 62 (33.33%) had adequate latrines, 53 (30.10%) had kitchen and only 20 (10.75%) of schools provided transport to children (Table 2).

Table 1. Distribution of schools in the study area (n=186)

Schools	Number	%
Private	37	19.8
Government	149	80.2
Total	186	100

With respect to provision of health appraisal services in the schools, all the 186 schools provided medical examination, immunization services and health education to students in the school. Of the total 186 schools, only 124 (66.70%) had first aid kit facility in the school (Table 3).

Table 2. Environmental facilities available in schools (n=186)

Environmental facilities	Availability		Non-availability	
	No	%	No	%
Locality (Easily approachable)	186	100.00	0	0.00
Water supply	100	53.76	86	46.24
Adequate space in class room	143	76.89	43	23.11
Periodic white wash	153	82.80	33	17.74
Lightening and ventilation	132	70.97	54	29.03
Toilet facility				
a) Latrine	62	33.33	124	66.67
b) Urinal	73	39.25	113	60.75
Play ground	122	65.60	64	34.40
Kitchen	56	30.10	130	69.90
Transport	20	10.75	166	89.00

When 37 (19.80%) of private and 149 (80.20%) of government schools were compared for provision of school health services based on criteria recommended by Indian Academy of Pediatrics. Among private schools 16 (43.20%) of them and 4 (2.70%) of government schools provided safe and proper transportation. Among private schools, 35 (94.60%) and 97 (65.00%) of government schools provided properly ventilated and illuminated class rooms and 2 (5.40%) of private schools and 54 (36.20%) of government schools provided kitchen in schools. This difference was statistically significant ($p < 0.05$).

Whereas significant difference for the criteria such as physical punishment, excess baggage, provision of hygienic drinking water, availability of minimum 4 game periods, periodic health check up, availability of first aid kit in schools, availability of toilets (urinals/latrines) was not found between private and government schools (Table 4).

4. DISCUSSION

This study gives an insight into the priority issues of school health services in private and government schools in India. As the school is the most common means through which every society prepares its young for the future, establishing efficient school health services is crucial for addressing several gaps in child health and development. Children spend a significant proportion of their time in schools and its environment facility definitely carries a bearing on their well being. Child friendly schools aim to develop a learning environment in which children are motivated and able to learn [6].

Table 3. Health appraisal services in the school (n=186)

Health appraisal services	Available		Non-available	
	No	%	No	%
Medical examination	186	100.00	0	0.00
Immunization	186	100.00	0	0.00
First aid kit	124	66.70	62	33.33
Record maintenance	186	100.00	0	0.00
Health education	186	100.00	0	0.00

Table 4. Comparison of school health services in private and government schools

Criteria school health services	Private n=37		Government n=149		P value
	No	%	No	%	
1. No physical punishment	37	100.00	149	100.00	1.000
2. No excess baggage	14	37.80	38	25.57	0.135
3. Safe and proper transportation	16	43.20	4	2.70	0.001
4. Hygienic drinking water	26	70.30	98	65.80	0.603
5. Minimum 4 game periods	33	89.20	129	86.60	0.881
6. Properly ventilated and illuminated class rooms	35	94.60	97	65.00	0.001
7. Periodic health check ups	37	100.00	148	99.30	1.000
8. First aid kit	28	75.70	96	64.40	0.194
9. Toilets					
a) Urinal	15	40.80	58	38.90	0.85
b) Latrine	14	37.80	48	32.20	0.516
10. Availability of kitchen	2	5.40	54	36.20	0.001

Majority of the schools had adequate space in the class rooms, had periodic white wash and provided adequate lighting and ventilation for the class rooms, only 53.76% of schools had adequate water supply, 65.60% had play ground and only 30% of schools had adequate urinals, latrines and kitchen. Only 10% of schools provided transport to children. According to Ministry of Human Resource Development, Government of India, 45.9% schools in India are without toilets [7]. A study done in Mysore and Mangalore showed that more than 50% of schools had adequate water supply similar to our study [8,9].

In our study, health appraisal services like medical examination, immunization, health record maintenance, health education was available to all the school children. Another study conducted in Udupi district showed only 60% private and 85% government schools had periodic health checkups and health education. In our study first aid facility was available in 66.7% of schools which is more than study done in Udupi [10].

When private and government schools were compared for provision of school health services based on criteria recommended by Indian

Academy of Pediatrics, private schools were better in providing services like safe and proper transportation, properly ventilated and illuminated class rooms, where as kitchen in school was available more in government schools ($p < 0.05$). The availability of kitchen in government schools could be due to availability of government sponsored mid day meal programme in these schools. Significant difference for the criteria such as physical punishment, excess baggage, provision of hygienic drinking water, availability of minimum 4 game period in a week, periodic health check up, availability of first aid kit in schools, availability of toilets (urinals/latrines) was not found between private and govt. schools ($p > 0.05$). These differences in school health services in private and government schools may be because of more government schools were chosen for the study.

In a study conducted in Madhya Pradesh showed that only 50% of private schools had safe drinking water, 65% had adequate light and ventilation which was comparatively better than government schools. School health committee in 1961 in India recommended that all the schools should be child friendly by providing all the aspects of school health services both in private and government schools [3,4].

5. CONCLUSION

We found that none of the schools met all the 10 criteria. Although 50% of them followed 4 to 5 criteria. Hence there is need for emphasis to make schools a friendly place to promote child's physical, mental and social development. So the present study can help the government to set standards to certify schools as child friendly.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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