



## CHANGING PATTERN OF SCHOOL MORBIDITIES: IS THIS THE RIGHT TIME TO INTERVENE? A SCHOOL HEALTH SURVEY

### Pediatrics

**Dr Rahul Gandhi** Assistant Professor, Department of Pediatrics, Adesh Medical College and Hospital, Mohri, Shahabad, Haryana, India

**Dr P.D Sharma\*** Professor, Department of Pediatrics, Adesh Medical College and Hospital, Mohri, Shahabad, Haryana, India \*Corresponding Author

### ABSTRACT

A child spends more time at school than anywhere else, except home. Schools are sacred since they provide an environment for acquiring skill. A great deal of research tells us that school can have a major effect on children's health, by teaching about health and promoting healthy behaviour. It is our duty to keep them healthy so that they can stretch their wings and fly high. Present study conducted in an urban school shows dental caries, refractory errors as emerging morbidities besides anaemia, malnutrition. Can the changing trend be attributed to changing life styles and is this the right time to intervene?

### KEYWORDS

### INTRODUCTION

A child spends more time at school than anywhere else, except home. Schools are sacred since they provide an environment for acquiring skill. A great deal of research tells us that school can have a major effect on children's health, by teaching about health and promoting healthy behaviour. It is our duty to keep them healthy so that they can stretch their wings and fly high.[1]

The School health services in India dates back to 1909, when for the first time medical examination of school children was carried out in Baroda city. During 5 year plans, many state government, have provided for school health and school feeding programs. World Health Organization also announced for global school health initiative in 1995.[2] A study carried out by Dongre *et al.* in Wardha Maharashtra, noted most common morbidities among school children as diarrhea, fever, upper respiratory tract infections (URTI) (56.6%) followed by scabies, pediculosis and dental caries (8.3%).[3] Research again indicates that healthy children have higher daily school attendance; learn better; take full advantage of every opportunity to learn and thus achieve higher academic excellence; and tend to maximize social relationships and interactions at school and at home, thus improving their chances of balanced development.

Hence, this study was planned with the following aims and objectives- Aim: (a) To study common health problems among school children; (b) to provide for specific recommendations, if any to improve health and personal hygiene.

### MATERIALS AND METHODS

A cross-sectional study was conducted in a secondary school in an urban area, after seeking permission from the school authorities, total 400 students from class nursery to 12<sup>th</sup> were examined. Age group ranged from 5 to 17 years. The team consisted of 1 pediatrician, assisted by junior resident (mbbs), qualified staff nurse and class teachers. Opportunity was also used to give health education regarding personal and dental hygiene to students as well as teachers. Data was entered in excel sheet and analysis is carried out by Statistical Package for the Social Sciences version 10.14.

The study detected total 225 students with morbidities, out of which 60.8% were boys and 39.2% were girls. The age of the study population ranged between 5 and 17 years. There is no statistically significant difference in mean age of boys and girls. Table 1 shows that out of the total 225 students, majority of them, 43% were suffering from dental caries, followed by 20% anaemia, followed by 9.3% having eye problems, 7.1% underweight, pain abdomen, skin problems, seborrhea, hair fall, poor nails hygiene. Anaemia was more common in boys 57.6%, as compared to 42.2% in girls. Refractory errors were also more common in boys. Overall boys had more morbidities than girls.

**Table 1 showing morbidity pattern observed among males and females students**

Morbidity	Male	Female	Percentage
Dental caries	62	35	43.1
Dental staining	2		
Tooth ache		2	
Anaemia	26	19	20
Refractory error	14	7	9.3
Squint		1	
Conjunctivitis		2	
Underweight	11	5	7.1
Overweight	5	5	4.4
Short stature	5	4	4
Pain abdomen	3	2	2.2
Skin allergy	2	1	
Hair fall		1	
White hairs	1		
Headache	2	1	
Oral ulcers	3	1	
Back pain	1	2	
Total	137	88	225

### DISCUSSION

School health surveys are the most ignored part of screening of common morbidities in children. Early screening of common morbidities by strengthening school health surveys regularly and ideally by specialist doctors, pediatricians, dentists, gynaecologists should be made mandatory by the government. School teachers should also be trained for detection of common dental or ocular ailments.

Health system is marching more towards commercialisation of its services with increasing and unaffordable costs everyday, but school health surveys is a cost effective and time saving method to detect early and various common morbidities in children which account for 33% of Indian population. This can hence give a better life to children.

In the present study, the major morbidities observed among the primary school children is, Dental caries (43%), anaemia (20%) followed by, eye problems, (9.3%), underweight and overweight 4.4%, pain abdomen, skin problems (pustules scabies), poor nails hygiene.

A study from Wardha suggests most common morbidities among children were URTI (56.6%), head lice (42.8%), scabies (38.6%) and dental caries (8.3%). The findings are different from the present study. [4] This difference in the morbidity pattern in Wardha study may be since it was conducted in the tribal area, while the present study is carried out in an urban school. An assumption can be made that the morbidity patterns are completely different in urban and rural primary school children.

A similar study conducted at Calcutta, showed pallor as a most common morbidity among the school children. [5] The present study

findings are to some extent coinciding with the study conducted by Harpal Singh in Central India, showing refractive error of 47.91% as major morbidity among school children.[6] The Calcutta study shows finding that personal hygiene in relation to skin (77.8%) was also common morbidity[5]

The present study concludes that morbidity pattern among school children has changed over a period of time with new morbidities such as dental problems, eye symptoms, headaches, myopia, pain abdomen, poor nails and hairs hygiene seen in increasing trend. Therefore, a need has definitely emerged to initiate periodic vision testing and dental examination by formal affiliation with an Ophthalmologist and a dental surgeon. In addition, school teachers should be appropriately trained for screening for vision testing and poor dental hygiene. Pain abdomen is also an upcoming regular problem in students which often leads to school missing. Common causes can be changing dietary patterns i.e. more junk foods, cold drinks, irregular and untimely and unbalanced foods, worm infestation due to poor hand washing and personal hygiene, not following routine distribution of deworming tablets at school levels by health authorities, poor vaccination status.

Routine checkups of nails, hairs, personal hygiene during assembly was missing in school and should be made a part of schedule. Although girls looked better dressed and nails were better trimmed, had less skin and hair problems than boys, but no comparative analysis was made in this study. The results also collaborate with study done by Mayavati et al in Pune.

Eye problems in form of frequent headaches, increasing spectacles, difficulty in reading blackboards, doubling of words, excess watering from eyes, are also on increasing trends. Cause can be increasing mobile usage, improper studying postures, and increase need of studying hours in today's competitive world, lack of regular visual acuity check ups. Regular eye check ups should be arranged at school level for early detection of myopia. Teachers should also be trained to analyse Snellen's chart. A chart should be displayed in every school.

Skin problems detected were pustules, scabies, fungal infections but on decreasing trends which can be attributed to daily bathing habits and increasing personal hygiene awareness among parents.

The study has a limitation of conducting in a single private school, but nevertheless gives sufficient evidence of changing trend of morbidities as the sample size is adequate. The interpretations of the present study can be strengthened by implementing routine school health checks with systematic data reporting and analysis on a regular basis and this we recommend as a policy change under National School health program.

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#### REFERENCES

1. Kishore J. 7th ed. New Delhi: Century Publication; 2007. National Health Programmes of India; pp. 390-1.
2. Park K. 19th ed. Jabalpur: Bhanot Publications; 2006. Textbook of Preventive and Social Medicine; pp. 235-7.
3. Dongre AR, Deshmukh PR, Garg BS. The impact of school health education programme on personal hygiene and related morbidities in tribal school children of Wardha district. *Indian J Community Med.* 2006;31:81-2.
4. Dongre AR, Deshmukh PR, Boratne AV, Thaware P, Garg BS. An approach to hygiene education among rural Indian school going children. *Online J Health Allied Sci.* 2007;6:2.
5. Deb S, Dutta S, Dasgupta A, Misra R. Relationship of personal hygiene with nutrition and morbidity profile: A study among primary school children in South Kolkata. *Indian J Community Med.* 2010;35:280-4. [PMC free article] [PubMed]
6. Singh H. Pattern of ocular morbidities in school children in central India. *Natl J Community Med.* 2011;