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Research Article

Morbidity pattern among school children of rural area of Obaidullaganj block of Raisen District of Madhya Pradesh

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ABSTRACT

Background: Morbidity status of children in rural areas in India has not significantly improved despite of constant efforts over last 30 years. School going children contributes about 20% of total population are most vulnerable for infection and malnutrition. A timely assessment and intervention can reduce the morbidity and mortality. To find out the prevalence of morbidity among school children. To study the pattern of morbidity among school children of rural area.
Methods: A field based cross sectional study was conducted for a period from July 2014 to September 2014 in randomly selected schools of rural area of Ashapuri and Dahod sub-centres of Obaidullaganj Block of Raisen District of Madhya Pradesh.
Results: In the present study the diseases of the oral cavity and anemia were the most common among school children followed by vitamin A deficiency and worm infestation. There is felt need to intervene in term of prevention of diseases through improvement in personal hygiene and nutritional status of children through school health program.
Conclusions: Most of the morbidities observed among the school children can be prevented and the health of the child can be enhanced by timely intervention. The school health program is proper means to diagnose and managed the health at its own level.

Keywords: School health, Nutritional status, Malnutrition, Intervention

INTRODUCTION

Health of the children is the future of the nation and countries biggest human investment. The health condition of the school going children of rural areas is still not improved. The quality of life of school children, by all standards continues to be poor. Surveys indicates that malnutrition, infectious diseases, intestinal parasites, Diseases of skin, eye and ear and dental caries are more prevalent in them.[1] The health status of children in our country is not satisfactory and the nutritional deficiencies are significantly prevailing in the country. Health-related factors such as deficient nutrition, physical and emotional abuse, and illnesses can lead to poor school performance.[2] The 5-16 years old children are on the threshold of adulthood and remain neglected a lot. Various types of government sponsored school health programs have been launched from time to time, but progress and achievements are very slow and incomplete and very often limited to the urban and few schools. In general, most of the morbidities associated with more than one infectious condition. It is critical to understand the proportion of child mortality that can be attributed to the combined occurrence of multiple conditions referred

to as co-morbidity. of rural areas is very unsatisfactory. Morbidities amongst school children vary from one place to another, can interfere with learning process and may hamper the educational process. The child's intellectual growth may also break up and the outcome handicap the child for life Mortality burden in this age group is comparatively low but the various morbidities poses a big threat. The extensive surveys have been carried out in the different part of the country revealed that the morbidity and mortality rates are comparatively higher in India.[3] The World Health Organization's Expert Committee on School Health Services noted as long as 1950 that "to learn effectively, children need good health".[4] The poor health of school going children with various nutritional deficiencies are among the causes of absenteeism and early dropout which can be prevented by promotion of nutrition, personal hygiene and proper health care through early diagnosis and treatment.[5] Keeping in view the present health scenario, the present study has been conducted to study the health status of primary school going children of rural area of Ashapuri and Dahod sub-centers of Obaidullaganj Block.

Objectives

1) To find out the prevalence of morbidity among school children.
2) To study the pattern of morbidity among school children of rural area.

METHODS

The present cross sectional field study was carried out from July 2014 to September 2014 in randomly selected primary schools of rural area of Ashapuri and Dahod sub-centre of Obaidullaganj Block, District Raisen of Madhya Pradesh. The study subjects were school going children. The study area was divided into four quarters for study purpose and a list of primary schools was obtained from District authorities. Two schools from each quarter were selected using simple random sampling technique. From these selected schools, a total number of 688 students studying from Grade I to V, who were present on the day of examination were enumerated in the study. The school children were examined for presence of different morbidities and the data was analyzed by various statistical tests.

RESULTS

A total of 688 children were examined and out of them 367 (53.3%) were boys and 321 (46.7%) were female. The maximum number of children (39.4%) were in the age group 9 to 10 years and minimum (12.6%) were in age group of 5 to 6 years. The same was the case in male and female children distribution.

In all 404 (58.72%) out of 688 children were found to be suffering with one or more morbid condition at the time of examination accounting a sickness rate of 58.7%.

Table 1: Distribution of children according to age and sex.

Age (Yrs)	Male (%)	Female (%)	Total (%)
5-6	46 (12.5)	41 (12.8)	87 (12.6)
7-8	102 (27.8)	113 (35.2)	215 (31.3)
9-10	152 (41.4)	119 (37.0)	271 (39.4)
11-12	67 (18.3)	48 (15.0)	115 (16.7)
Total	367 (53.3)	321 (46.7)	688 (100.00)

Table 2: Distribution of children according to morbidity.

Morbidity	Male	Female	Total
Present	228 (62.13%)	176 (54.83%)	404 (58.72%)
Absent	139 (37.87%)	145 (45.17%)	284 (41.28%)
Total	367 (100.00%)	321 (100.00%)	688 (100.00%)

It has been found that a total of 482 morbidities were found present in 404 sick children. Maximum children 31.83% were having morbidity associated with oral cavity including dental carries followed by Anemia (15.69%), vitamin a deficiency (6.25%), worm infestation (4.94%), scabies (4.06%), uri (3.77%), defective vision (0.58%), conjunctivitis (044%) and congenital malformation (0.15%).

Table 3: Distribution of children according to gender and morbidity (Multiple responses).

Type of morbidities	Male (n=367)	Female (n=321)	Total (n=688)
URI	17 (4.63%)	9 (2.80%)	26 (3.77)
Worm infestation	16 (4.35%)	18 (5.60%)	34 (4.94%)
Scabies	18 (4.90%)	10 (3.11%)	28 (4.06)
Diseases of oral cavity	99 (26.97%)	120 (37.38%)	219 (31.83)
Anemia	46 (12.53%)	62 (19.31%)	108 (15.69)
Vitamin A deficiency	25 (6.81%)	18 (5.60%)	43 (6.25)
Defective vision	11 (2.99%)	5 (1.55%)	16 (2.32%)
Defective hearing	1 (0.27%)	3 (0.93%)	4 (0.58%)
Conjunctivitis	2 (0.54%)	1 (0.31%)	3 (0.44%)
Congenital malformation of eye	1 (0.27%)	0 (0.00%)	1 (0.15%)

DISCUSSION

In the present study, 404 (58.72%) children were found to be suffering with one or more morbidity and of them 62.13% were male and 54.83% were female. These findings were lower as compared to similar study conducted by Panda et al[6], who observed 72.4% children were suffering from one or more illness of which 71% were boys and 74.5 % were girls. Ananthakrishnan et al[7] reported morbidity in 97% children with under nutrition (57.6%), anemia (57.1%), worm infestation (46.4%) and dental caries (27.9%) as the most common causes of morbidity. The sickness rate in the present study was found to be 58.72 with 1.4 morbidities per sick child. According to present study the maximum morbidities (28.20%) were the diseases of oral cavity. These morbidities were more in comparison to the findings of studies conducted by Anathakrishnan et al[7], reported 27.9%, Panda et al[6], reported 23.0%, Shakya et al[8], reported 19.8% and Singh et al[9], reported 1.07% in school going children. The higher morbidities related to oral cavity may be due to the fact that this study was conducted in rural areas where children are not much aware about oral hygiene. In the present study 15.69% children were suffering from anemia which is less than the finding of various studies Panda et al[6] (26.0%), Gangadharan et al[10] (25.25%). An another study by Nigudgi et al[5] reported the morbidity due to anemia was 8.18% in school going children in Karnataka, which was less than the morbidity reported in present study. In all these studies female children were found to be more anemic than males which is similar to the findings in the present study. Vitamin A deficiency was observed amongst 43 (6.25%) in our study which is quite higher than the observations made by Dambhare DG et al[11] (0.86%). In present study 4.94% children were affected by worm infestation which is less than the study conducted by Nigudgi et al[5] (216%). In present study, 26 (3.77%) children had upper respiratory tract infection which are similar to the findings of study done by Nigudgi et al,[5] who reported upper respiratory infection in 3.61% children. Cases with defective vision were 2.32% in the present study while in another study done by Madhu Gupta et al[12] reported the defective vision in 2.41% children.

CONCLUSIONS

Schools play a critical role in promoting the health and safety of young people and helping them establish lifelong healthy behavior patterns. Establishing healthy behaviors during childhood is easier and more effective health to improve each child's cognitive, physical, social, and emotional development. In the present study the diseases of the oral cavity and anemia were the most common among school children. There is felt need to intervene in term of prevention of diseases through improvement in personal hygiene and nutritional status of children through school health program. Most of the morbidities observed among the school children can be prevented and the health of the child can be enhanced by timely intervention. The school health program is proper means to diagnose and managed the health at its own level.

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