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MORBIDITY AND NUTRITIONAL STATUS OF THE SCHOOL GOING CHILDREN IN NCT, A PERI URBAN AREA.

Medical Science

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ABSTRACT

Background: In India, children under 15 years of age constitute about 40% of the population. Nutrition among this age group is of vital importance as ill health leads to imbalance both in physical and mental growth. Hence this study was taken up to assess the nutritional status of school going children.

Methods: Study design: cross-sectional study. Sample technique: purposive sampling. Data collection: by interview method. Anthropometric measurements were recorded. New WHO growth chart standards were considered in assessing stunting, underweight, thinness and obesity among these children. Data analysis: SPSS software version 19.

Results: A total of 320 children from government school were enrolled in the age group of 7- 14 years. Among them 36 (11.25%) were underweight for their age and gender. In these 19 (11.37%) were boys of whom 60% of them were 10 years of age. 67 (52.4%) were girls, among whom we found 27 (62.2%) were 10 years.

Conclusions: Malnutrition among children is a major public health problem in India. The present study will be useful for the policy makers to formulate various strategies and health care programmes of the population concern to combat the issue.

KEYWORDS

INTRODUCTION

There is recent achievement of economic progress in India but it has failed to secure a better nutritional status of school going children. This parameter is reflected in the standard of living of a population, whether its basic needs is met, as adequate food and healthcare. Class 3rd to class 5th children (a Phase of transition from childhood) occupies an important stage of life in human beings. This is a period of rapid rate of growth. Otherwise peak rate of growth exceeded only during the fetal life and early infancy[1].

In most of the countries the main health indicator used by health planners have been mortality rates. Pre-adolescent have the lowest mortality among the different age group so that it is considered as low priority. Otherwise some studies have shown that the prevalence of malnutrition and anaemia is high in this age group[2-3].

MATERIALS AND METHODS: - The present study was conducted in Jan- Feb 2014 in Periurban area of NCT in south MCD Najafgarh Primary schools. In Primary South MCD schools, children of age group 6 to 14 years were taken randomly from class I to class V. Regular visit was scheduled by the team for Health check-up. Inform consent was taken by Head of School& Health services Najafgarh.

The students were examined by Medical and Paramedical group consisting of a Doctor as leader and Nurses along with school teachers. Information was collected regarding any health problems in the past or at present. After that measurements were taken.

AGE- This was documented from admission register of School.

HEIGHT- Height in centimetre was marked on the wall with the help of measuring tape. All the children were asked to remove the shoes (foot wear) and stand with heels together and head positioned so that line of vision was perpendicular to body. A measuring scale was brought down to the topmost point on the head. Height was recorded nearest to 1 centimetre.

WEIGHT- A bath room weighing machine was used. Zero error was checked and removed regularly. Cloths were not removed because

adequate privacy is not available (however all students are in school dress). Weight was recorded nearest to the 1kg. All the data was entered into computer word excel sheet.

ANAEMIA- Each student examined for anaemia clinically by examining conjunctiva, tongue, and palm by the Doctor / Para clinical staff.

OTHERS- Each of them was asked for any problem with eye, ear, nose, etc. and looked for general examination/ condition fo skin, hair, nail etc.

RESULT- We have enrolled those students who present on the visiting day for health check-up in the School. All children came from Local area (Peri urban). All anthropometric measurements were routinely taken by health care professionals. About 320 students examined on the same day. Out of them 153 (47.8%) were girls and 167(52.18) were boys between age 7 years to 14 years.

DISCUSSION

In our study among 320 children were taken in the age group of 7-14 years. Among them 167 (52.18%) boys and 153 (47.8%) were girls. Among them 51 girls (33.33%) and 69 boys(41.31%) were found to be anemic. 10 (6.53%) girls and 8 (4.79%) boys were found with eye problems. Only 2 boys presented with ear discharge. 7 boys (4.57%) and 11 girls (6.58%) had skin problems like severe itching or rashes. 17 girls (11.11%) and 19 boys (11.37%) were found underweight as per comparision with WHO standards of BMI. 11 girls (7.18%) and 13 boys (7.78%) were found to be lice infestated. 9 girls (5.88%) and 13 boys (7.78%) were having caries, tooth pain and other dental problems. Joshi et al in a similar study found that among 786 students, 26% of the students were found to be undernourished and 13% were stunned, 12% wasted and 1% included both stunted and wasted.1 In our study we found 594 (63.7%) among 932 children were stunted for their age and gender. Whereas prevalence of severe stunting was seen in 318 (34.1%) among them 134 (29.1%) were boys and 184 (39.1%) girls. Moderate stunting was seen in 276 (29.6%) children among them 140 (30.4%) boys and 136 (28.9%) girls. Whereas Hasan et al found that overall prevalence of malnutrition in the school children was

found to be 52% (260).2 Prevalence of malnutrition among boys was 53.85% and girls was 49.25%, stunning was more in boys as compared to girls (41.47% vs. 38.81%). In our study overall prevalence of underweight was 11.25% and underweight was highest seen in age group of 10 years which was around 15.43%. Fazili in their study showed that overall prevalence of underweight of 19.2% highest seen in 6 year old males was 21.5% and stunting 12 year males highest of 28.5% prevalence, prevalence of thinness was lowest in 13 year old females of 14.2% and highest in 13 year old males of 47.1%. In our study we found among these 320 children, 91 children were moderately underweight for their age and gender, among them 25 children were 10 years old. Severe underweight was seen in 65 children, among them 25 children belonged to 10 years of age. Dolla found that 59.8% of the children weight for age were under weight

(<median-2SD) and 26.2% children had very low body weight which were <-3SD of the standard.

CONCLUSION

Malnutrition among children is a major public health problem in India. From our study it is seen that undernourishment among girls in the age group of 10 years was more as compared boys. Stunning among adolescent is of concern, especially girl children, hence providing community health education would reverse the problem. The present study shows the magnitude of stunning and thinness which is still a nutritional problem. The result of present study will be useful for the policy makers in their endeavor to formulate various developmental strategies and health care programmes for the population concern to combat the issue.

1.Nutritional status of school going children

SEX	Underweight	Percentage(Sex)	Normal weight	Percentage(sex)	Total	Percentage
Girls	149	97.4	4	2.6	153	48
Boys	152 (1 OW)*	91.0(0.6)	14	8.4	167	52
Total	302	94.4	17	5.3	320	

*1Boy –Over weight (OW).

2. Morbity pattern among school going children

	Girls	Percent	Boys	Percent	Total(A)	Percent
Anaemia	51	33.33	69	41.31	120	37.5
Eye problem	10		8		18	
Ear problem	0	0	2		2	
Skin Problem	7		11		18	
Malnutrition	17		19		36	
Dental/Oral						
Lice Infestation	11		13		24	
Total	153		167		320	

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