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THE COMPARISON OF ORAL HEALTH PROBLEMS WITH OTHER HEALTH PROBLEMS IN URBAN SCHOOL CHILDREN OF 10-14 YEARS.- A GROUP SCREENING.

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ABSTRACT:
The overall health, well being, education, learning abilities, development of children, families and communities can be affected by oral health .However in the developing nations the importance of oral health in comparison to general health is minimal. Hence the present study was considered to evaluate and compare the oral health problems in relation to general health problems of the same children by a group screening method. A total of 592 children in the age group of 10-14 years were selected from class 6- class 10, the focus initially was on General Health screening, Vision Screening, oral health screening, tonsillar and auditory screening of students. Among these children 296 indiviulas were apparently healthy with no undiagnosed health aliments; the remaining children were having some health problems. In the present study 50% of children were apparently healthy, 19.9% had oral health problems, which was considerably higher than other health problems. In the present study the comparison of oral health problems occurence with general health problems shows statistically insignificance, In the present study the comparison of oral health problems occurrence with tonsillar, auditory and vision problems shows statistically significance. Based on these findings it can be suggested that in urban school children the undiagnosed oral health problems is higher than any other health aliments, which recommends promoting awareness on the oral health and importance of regular dental check up.

KEYWORDS: Respiratory Diseases, Ophthalmologist and Opthomometrist, Gum Diseases

INTRODUCTION

Oral health is an integral part of the general health, The overall health, well being, education, learning abilities, development of children, families and communities can be affected by oral health .However in the developing nations the importance of oral health in comparison to general health is minimal. In many countries, a large number of children and parents and caregivers have limited knowledge of the causes and prevention of the most common oral diseases. Similarly, the schoolteacher's oral health knowledge has also not been satisfactory[1].

There is a considerable population of children in the developing nations is being affected by tooth decay and most of the time their proper treatment is not considered and last priority was given due to limited access to oral health services[2]. It has also become clear that causative and risk factors in oral diseases are often the same as those implicated in the major general diseases (WHO, 2003)[3]. Though there has been considerable improvement in the oral health of children in the last few decades, dental caries (tooth decay) still remains one of the most commonly occurring oral health problems in the children all over the globe.

The lack of availability and affordability of oral health services had lead to increase in severity of the disease but also increases the cost of treatment and care. There is no single country that claims to have caries free children[4]. It is clear that cultural beliefs and social taboos play a major role in the perception of the causes of dental decay and gum diseases. In India, a very less percentage of mothers have received proper advice on oral care of the children from dentists or health care workers[5]. There are various studies and policies emphasizing on the identification, prevention and treatment on general health aliments of child like BMI evaluation, Respiratory diseases, cardiac diseases and other systemic evaluation like vision screening, tonsillar screening and hearingscreening [6-10]. However there is minimal literature on the comparison of the dental health status in relation to the general health status of the same children, in order to evaluate and draw the conclusion on the knowledge and attitude of child,

Table.1: The distribution of undiagnosed health problems in children.

Apparently Healthy	Over Weight	Under Weight	Oral Health Problems	Tonsillar and auditory problems	Vision Problems	Other general health problems	Total
296	40	23	118	57	27	31	592

Table.2: The distribution of already diagnosed health problems in children

Apparently Healthy	Treated/ undergoing treatment for general Health problems	Treated/ undergoing treatment for oral Health problems	Treated/ undergoing treatment Tonsillar and auditory problems	Treated/ undergoing treatment for Vision Problems	Children with no health problems
296	73	47	14	68	94

parents and care givers on dental health in relation to general health. Hence the present study was considered to evaluate and compare the oral health problems in relation to general health problems of the same children by a group screening method i.e. oral health screening and inclusion of other specialties of health care like pediatrics for general health, Ophthalmology for vision screening, ENT for tonsillar and hearing screening.

Materials and Methods

Materials

A total of 592 children in the age group of 10-14 years were selected from class 6- class 10, who are students of Delhi Public School, Nacharam, and Hyderabad. These children were screened by a group of doctors from HEAL trust, Hyderabad. These children and school was selected to focus the study on urban area and better psychological maturity, socioeconomic status rather than poor.

Methodology

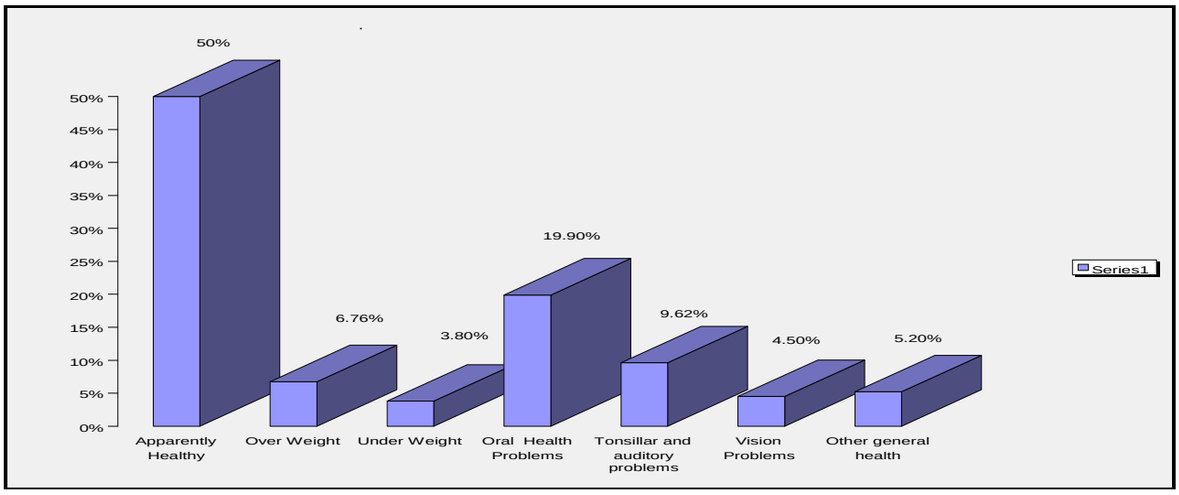
Based on administrative, logistic, social and medical reasons, it is envisaged under the program to focus initially on General Health screening, Vision Screening, oral health screening, tonsillar and auditory screening of students. The children with significant findings and who are in need of investigations were further referred to the higher centres. General Health screening of children was done with the help of qualified pediatricians and paramedical staff of HEAL Trust. This screening includes Growth and development assessment by evaluation of the height and weight of the child. Growth charts [7] are used to compare his height and weight with those of other children of the same age. Based on the evaluation the child was categorized into overweight or malnourished. Basic general health examination was done for detection of other health aliments like respiratory, cardiac, skin etc….

Vision screening of children was done with the help of qualified ophthalmologist and opthomometrist and paramedical staff of HEAL Trust. The goal of all vision screening is to detect poor vision or risk factors that interfere with vision and normal visual development Photoscreening is a vision screening technique used to screen for amblyogenic factors, such as strabismus, media opacities, and significant refractive errors, in 1 or both eyes in children.[11,12]

Tonsillar screening was done by clinical examination by using a tongue depressor and Conventional audiometry, in which students are instructed to raise their hand (or point to the appropriate ear) when they hear a tone, is the commonly used procedure. The whole Procedure was taken care by ENT specalists[13].

Oral health screening was done by a group of dental specialists, the various aspects of oral health problems like, dental caries, periodontal problems, orthodontic problems were evaluated by using oral health evaluation proposed by WHO[14] after the evaluation patients already treated and undergoing treatment were excluded.The children who are either already diagnosed and treated for the common health problems like dental caries, vision, tonsillar and auditory problems or undergoing the treatment for the same were considered as apparently healthy, the required information was drawn from the school health records of the children and history. The present study was aimed at considering the existing problems, hence the health already treated or undergoing treatment was considered as apparently healthy.

The oral health problems were compared with other general health problems individually by using a student paired T test.



Graph. 1. The percentage distribution of health problems

Results

A total of 592 children were examined between 6-10 th standard of the school. Among which 353 were boys and 239 were girls. Among these children 296 indiviulas were apparently healthy with no undiagnosed health aliments; the remaining children were having some health problems. The distribution of these health problems were presented in the **Table I.** The percentage distribution of these findings is presented in the **Graph 1.**

. In the present study 50% of children were apparently healthy, 19.9% had oral health problems, which was considerably higher than other health problems. The general health problems were 15.20%, other problems were remaining.

Among the 296 children who were considered apparently healthy were either already diagnosed and treated for the common health problems like dental caries, vision, tonsillar and auditory problems or undergoing the treatment for the same the distribution of treated health aliments were presented in the **Table. II.**

In the present study among the 118 children with oral health problems 47 children had exclusive dental decay 28 children had exclusive orthodontic problems 4 children had exclusive gingival and periodontal problems. Remaining 39 children had combintaion of 3 problems.

In the present study the comparison of oral health problems with general health problems shows statistically insignificance i.e. (p value1.012). The occurrence of the general health problems like obesity and underweight was similar to the oral health problems.

In the present study the comparison of oral health problems with vision problems shows statistically significance i.e. (p value0.0024) i.e. the un diagnosed oral health problems were more common than vision problems.

In the present study the comparison of oral health problems with ENT problems shows statistically significance i.e. (p value0.04) i.e. the un diagnosed oral health problems were more common than tonsillar and auditory problems

Discussion

In our present study the socioeconomic status plays a major role, i.e. Children and parents with higher socioeconomic status have minimal unidentified and unattended general health problems, vision and tonisllar and auditory problems at the given age group [15]. These findings are in accordance with our present study findings. However the oral Health problems were considerable 19.90% of total population which is in accordance with previous studies[16].

The age group of 10- 14 years were considered because of their psychosocial Maturity for the better understanding and cooperation during the study period particularly for subjective responses needed during vision and auditory function screening[8,9].The findings of the present study shows the unattended systemic health problems are 15.20% whereas the oral health problems were 19.90%.

In the comparison of oral Heath problems with general health problems was not significant thus can be attributes due to increase incidence of obesity in high socio economic group of children[17]. In the present study the general health screening involves a wide range of problems like respiratory, cardiac, skin etc, hence the collective incidence was high, and so the occurrence was similar to the oral health problems.

In the present study the comparison of oral health problems with vision problems shows statistically significance and it is also recognized that diagnosed children with vision problems who are undergoing

treatment are considerable high. Based on these findings it can be suggested that awareness of the parents, children and caregivers in regard to opthamological health problems is higher than oral health problems, this can be supported by various studies[18,19.]

In the present study the comparison of oral health problems with tonsillar and auditory problems shows statistically significance i.e. (p value0.04) i.e. the un diagnosed oral health problems were more common than tonsillar and auditory problems. These findings can be presumed due to the tonsillar retrogression is seen already by this age[20]. The diagnosed problems are already under treatment or undergoing treatment.

CONCLUSION

Based on the present study , the socioeconomic influence on the overall child health is very high. In comparison to the oral health problems the occurrence of other health aliments is considerably less .The awareness and identification of other health problems is high in urban school children in comparison to the oral health problems. Which recommends promoting awareness on the oral health and importance of regular dental check up

References:

1. Petersen PE, Nyandindi U, Kikwilu E, Mabelya L, Lembariti BS, Poulsen VJ. Oral Health Status and Oral Health Behaviour of School Children, Teachers and Adults in Tanzania. Technical Report. Geneva: WHO, 2002.
2. World Health Organization. Global Oral Health Data Bank. Geneva: WHO, 2001.
3. World Health Organization. World Oral Health Report 2003. Geneva: WHO, 2003.
4. World Health Organization. Oral Health Promotion: An Essential Element of a Health Promoting School. WHO information series on Oral Health (document eleven). Geneva: WHO, 2003. WHO/NMH/NPH/ORH/School/03.3
5. Parkash H, Shah N. National Oral Health Care Programme: Implementation Strategies. India. 2001; pp20.
6. Child Development Special Issue: Raising Healthy Children January/February 2011;Volume 82, Issue 1, pages 66–81,
7. Khadgawat R, Dabadghao P, Mehrotra RN and Bhatia V. Growth charts suitable for Indian children. Indian Pediatrics 1998; 35:859-865.
8. Desai S, Desai R, Desai NC, Lohiya S, Bhargava G, Kumar K. School eye health appraisal. Indian J Ophthalmol 1989;37:173-5
9. Eurof Griffliths FRCS DLO, Incidence of ENT problems in general practice.Journal of the Royal Society of Medicine 1979;72;740-742.
10. Philip C Hannaford, Julie A Simpson, Ann Fiona Bisset, Adrian Davis, William McKerrow and Robert MillThe prevalence of ear, nose and throat problems in the community: results from a national cross-sectional postal survey in Scotland Family Practice , 2005; 22(3): 227-233.
11. Atkinson J, Braddick OJ, Durden K, Watson PG, Atkinson S. Screening for refractive errors in 6 to 9 month-old infants by photorefraction. Br J Ophthalmol. 1984;68:105–112. http://dx.doi.org/10.1136/bjo.68.2.105
12. Day SH, Norcia AM. Photographic detection of amblyogenic factors. Ophthalmology. 1986;93:25–28.
13. Brooks D N, Hearing Screening: A Comparative Study of an Impedance Method and Pure tone. Scandinavian Audiology, 1973;2(2):67-72. http://dx.doi.org/10.3109/01050397309074999
14. Petersen PE. The World Oral Health Report 2003: continuous improvement of oral health in the 21st century - the approach of the WHO Global Oral Health Programme. Community Dent Oral Epidemiol 2003 31(1):3-24. http://dx.doi.org/10.1046/j..2003.com122.x
15. Planning Commission, Government of India. Tenth Five Year Plan 2002-2007. Volume II
16. David J, Wang NJ, Astrøm AN, Kuriakose S Dental caries and associated factors in 12-year-old schoolchildren in Thiruvananthapuram, Kerala, India. Int J Paediatr Dent. 2005;15(6):420-8. http://dx.doi.org/10.1111/j.1365-263X.2005.00665.x
17. Shabana Tharkar and Vijay Viswanathan Impact of Socioeconomic Status on Prevalence of Overweight and Obesity among Children and Adolescents in Urban India. The Open Obesity Journal, 2009;1:9-14. http://dx.doi.org/10.2174/1876823700901010009
18. Murthy GVS, Gupta S, Ellwein LB, et al. refractive error in children in an urban population in New Delhi. Investigative Opthalmology and Visual Science. 2002; 43: 623-631
19. Kalikivayi V, Naduvilath TJ, Bansal AK, Dandona L. Visual impairment in school children in Southern India. Indian J Ophthalmology. 1997; 45:129-13.
20. Nave H, Gebert A, Pabst R. Morphology and immunology of the human palatine tonsil. Anat Embryol (Berl). 2001 Nov;204(5):367-73. http://dx.doi.org/10.1007/s004290100210

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