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Dental Science



SCHOOL ORAL HEALTH PROGRAMS IN INDIA: CURRENT STATUS REGARDING PROMOTION AND PREVENTION OF ORAL HEALTH AMONG SCHOOL CHILDREN.

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ABSTRACT Dental diseases are a significant public health menace having a substantial impact on the quality of life which in turn affects the daily performance and general life satisfaction. The adult manifestation of most of the dental diseases can be traced back to childhood and adolescence. It is essential to catch such habits and modify such behavior which can have long term effects on the child's dental as well as overall health. Such is initiative Of School Oral Health Programs. This article examines the need for oral health education in schools as well as new initiatives taken by government of India

KEYWORDS:

India, a developing country, faces many obstacles in providing oral health needs. In 1940, the prevalence of dental caries in 5 and 12-year-old school children in India was 55.5% and it rose to 68% in the 1960s and climbed to 89% in the subsequent years.1 The majority of the Indian population resides in rural areas and more than 40% is constituted by children. Indians of all age group experience high caries; however, a huge burden of untreated decay and negligible filled teeth exist among children.²

Schools are thought to be the most favorable environment to impart oral health education to children. At the global level, approximately 80% of children attend primary schools and 60% complete at least four years of education.3 School is a crucial platform for imparting knowledge. It not only contributes to an individual's education but also to their long term health and health-related behavior.⁴

An individual has a greater receptivity toward shaping the behavior during childhood. School has been considered as a foundation to address a child's health due to their ability to reach children and their families.5 School oral health education programs have been producing positive results in improving the overall health of the child.⁶

Though efforts have been made to improve the current scenario by Government of India like national oral health policy with national pit and fissure sealant programe.7 Indian school textbooks have basic and adequate information on oral health8 but the efforts for school oral health promotion in India seem to be in initial stages; however, attempts are being made toward oral health education and promotion through various School oral health programs(SOHP).

NEED FOR ORAL HEALTH PROMOTION IN INDIA

Oral disease can lead to pain and tooth loss , a condition which reflects the appearance , quality of life , nutritional intake and eventually growth of the child.9 Tooth decay and gum disease are the most prevalent conditions in human populations. Other conditions like trauma erosion are increasing day by day. High consumption of tobacco and tobacco related products have been on rise in school going population.³

In 1986 the World Health Organization (WHO), initiated the concept of Health Promoting School through the Ottawa Charter for Health Promotion.10 It is an established fact students who report good health also perform better in school. Additionally, schools could indeed provide efficient means of educating young pupils. Researchers highlighted that schools could further promote the better understanding of what health means, how to achieve it, and how it contributes towards social and economic development.¹¹

Although dental caries in schoolchildren has shown a declining trend in many industrialized countries in the past few decades, dental caries is on a rise in most developing countries, especially those where promotive and preventive programs have not been initiated or implemented. According to a National Oral Health Survey and Fluoride Mapping by the Dental Council of India (2004), 51.9% of children aged 5 years, 53.8% of 12-year old, and 63.1% of 15-year old had dental decay.¹²

Tooth loss in adult life may also be attributable to poor periodontal health. Severe periodontitis, which may result in tooth loss, is found in 5–20% of most adult populations worldwide. Furthermore, most children and adolescents worldwide have signs of gingivitis. Aggressive periodontitis, which is a severe periodontal condition affecting individuals during puberty and which may lead to premature tooth loss, affects about 2% of youths.¹³

Quality of life can be affected due to appearance of teeth caused by defects and color of tooth enamel. Enamel defects are rising in some countries. In India, it has been reported that over 32% of 12-15-year-old children have some forms of enamel defects and opacities, regardless of whether the area is fluoridated or non-fluoridated. Incidence of dental trauma is increasing, as reported by Kumar et al, who reported in a group of 963 school children, 14.4% (139) had at least one tooth with trauma. Of this population, males and females accounted for 16.2% (77) and 12.7% (62), respectively. Permanent maxillary central incisors were the most commonly affected teeth. Control measures, environmental changes, and education play a crucial role in the prevention of injuries children's environments.¹⁴

Routine dental check-ups for children are important for early diagnosis and treatment of dental problems. Under a reform of Israel's National Health Insurance Law in 2010, free dental services were offered to children up to age 12. It was observed that mothers' sociodemographic status and oral health beliefs affected their decision to take their children for dental check-ups. After the reform, the frequency of children's dental check-ups significantly increased among vulnerable populations. Therefore, the reform has helped reduce gaps in Israeli society regarding children's dental health.¹⁵

Oral disease is one of the costliest diets and lifestyle-related diseases. The cost of treating dental decay alone can easily exhaust a country's total health care budget for children. However, the cost of neglect is also high in terms of its financial, social, and personal impacts.¹³

In most developing countries, investment in oral health care is low. In these countries, resources are primarily allocated to emergency oral care and pain relief. Oral health on school education and learning

Early tooth loss caused by dental decay can result in failure to thrive, impaired speech development, absence from and inability to concentrate in school, and reduced self-esteem.

SOHP IN INDIA

Colgate's "Young India" Bright Smiles, Bright Futures School Dental Health Education Program Since the inception of the program in 1976, the Company has been delivering oral health education to children, in partnership with the Indian Dental Association (IDA) through their network of committed dental professionals, by reaching out to influencers – like school teachers and the Anganwadi workers in the community to promote preventive oral care education.

Children between the age group of 6 to 14 years, studying in primary schools, are taught good oral hygiene habits, the right techniques of brushing with the use of a tooth model and a toothbrush, the importance of night brushing through an interactive module where the importance of a good mouth cleaning regimen is strongly instilled in them. At the end of the program, each child is given a 'Dental Health Pack' consisting of a toothpaste and a basic toothbrush, along with attractive charts depicting valuable oral care information in order to encourage these children to brush twice a day and take care of their oral care hygiene. School teachers are trained and provided with a 'Teacher's Guide' to help them instill good oral care habits on an on-going basis. The Teacher's Guide is a detailed booklet that pictorially shares details of a tooth's anatomy, stages of decay, and the causes of gum diseases to help them advocate the importance of healthy teeth.

Colgate Bright Smiles, Bright Futures has so far touched the lives of 162 million plus school children between the age of 6 - 14 years across schools in urban and rural India since the inception of the program. In the year 2018-19 alone, Colgate Bright Smiles, Bright Futures reached 11.5 million children across the country.¹⁶

School Dental Program "Neev"

The School Dental Program "Neev" is an ongoing project across Government Schools run by Govt. of NCT of Delhi in Delhi State as a Pilot Project. The Dental Team along with the Mobile Dental Clinic would draw a district plan which would cover different schools round the year. The primary intention is to Promote oral health through Dental Health Education and organize dental check up/ Screening, provide Primary and Secondary Dental care through Mobile Dental Clinic in the Schools and make necessary referrals for advanced care available at Maulana Azad Institute of Dental Sciences.

The Program would be run for one year during which it would cover all the Public funded schools in any one District, Delhi State (at least 50 schools) and include all children from Class 6th to Class 10th along with training and involving teachers, school authorities and parents as team members. Collaborating ultimately into the existing Health Care system at the school level.

The total expected annual expenditure for the program is Rs. 2, 00, 00,000/-covering more than 80,000 School Children in the One District of the State.

Currently the project is under review by the Department of Health and Family Welfare and would be sent to Department of Finance for final approval. This project has been supported by School Health Scheme, which a public program run by the Govt. of Delhi. The Rules and regulations for selection of manpower has been already been approved by the Committee and Recruitment will be done centrally. The Standard Operating Procedures (SOP's) have been formalized procedure wise and the staff would be trained to maintain and follow the SOP's and maintain all records. The process of obtaining the list of Schools and coordinators has been initiated and necessary permissions are been sorted.¹⁷ National Oral Health Program (NOHP), AIIMS, New Delhi

Initiation of the Pit and Fissure Sealant Pilot Project in 2017 in collaboration with 12 dental colleges and institutes with a target to seal 53,750 permanent molars in children 6-14 years of age to prevent dental caries.¹⁸

Guinness world record for toothbrushing by KISS(Kalinga institute of dental sciences) The most people brushing their teeth simultaneously is 26,382, and was achieved by Indian Association of Public Health Dentistry - IAPHD, Colgate-Palmolive India Limited and Kalinga Institute of Social Sciences - KISS (all India) in Bhubaneshwar, Odisha, India, on 7 November 2019. The event was organized with the aim of promoting dental hygiene and development of life long oral care habits.¹⁹

Future Recommendations for School Dental Health Program in IndiaThe following recommendations should be incorporated in school health program in India.20

1. The government should incorporate dental surgeons in school health programs to give lecture on oral health, oral hygiene, plaque control, oral and dental diseases, oral cancer or smokeless tobacco use and hazards counseling and topical fluoride application.

2. Compulsory fitness regarding oral and dental health should be made mandatory for class promotion.

3. Dental Surgeons play an important role in recognizing child abuse in school set up. Dentists should evaluate child abuse cases and child abuse cases will present clinically as physical abuse, neglect, sexual abuse and emotional abuse.

The straight path to accomplish the above goals is achieved through strong support from policy makers and professional support from dental surgeons working in public and private sector in India.

Conclusion:

There is a dearth of published literature that demonstrates the impact and effectiveness of school-based dental health education (DHE) programmes in India and it is one of the most neglected activities in the field of public health. Studies focusing on the impact have an important role in the further development of these kinds of interventions. Until and unless, the impact of a program on the targeted population is not determined, the success of the program cannot be assessed.

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