

Prevalence of Dental Caries Among Chennai Population

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Abstract:

The aim of the study is to assess the prevalence of dental caries among people in Chennai. A descriptive cross-sectional study was planned to assess the status and prevalence of dental caries. A total of 200 patients will be examined, among age group between 20-50 years. Hence, the present study is undertaken to assess the dental caries prevalence among the Chennai populations. There is a need of continuous monitoring and implementing preventive and restorative programs regarding dental caries. Henceforth, this survey has been undertaken.

INTRODUCTION :

Dental caries is the major oral health condition in developing countries, affecting 60-90% of the school children and the vast majority of adults.^[1] In India, the prevalence of dental caries is reported to be 50-60%.^[4] Most of the Indian studies that have been published focused on school children^{[5],[6],[7],[8],[9],[10],[11]} and only a few studies have been done among adults.^{[12],[13]} The World Health Organization recommends basic oral health surveys in five selected age-groups (i.e., 5 years, 12 years, 17-18 years, 35-44 years, and 65-74 years)^[14] in order to estimate the magnitude of the problem and to plan intervention activities. Therefore, keeping in mind the paucity of literature on dental problems in adults and the public health importance of dental caries, this study was planned to provide some information on the oral health needs of the adult population.^[15]

Despite great successes in improving the oral health of populations globally, problems still remain in many communities around the world, particularly among the underprivileged groups in developing countries. Dental caries and periodontal diseases have historically been considered an important component of the global disease burden. Both can be effectively prevented and controlled through a combination of community, professional, and individual actions. Early detection of disease is, in most cases, crucial to control of the oral condition.

MATERIALS AND METHODS:

This study was carried out in the Saveetha Dental College among the outpatients of different age groups and gender. The study was conducted among 200 patients. All the data was compiled and subjected.

A pre-tested questionnaire^[15] consisting of questions on personal details, oral hygiene practices, dental problems, and care-seeking behavior was used in the survey.

Based on the patients knowledge and awareness regarding dental caries and oral hygiene, the study was carried out.

RESULT:

AGE DISTRIBUTION OF STUDY PARTICIPANTS : (TABLE 1)

Age -group	No.of individuals with dental caries(%)	No. of individuals without dental caries(%)	Total(%)
5-15	4(40)	6(60)	10(8.3)
16-25	19(39.5)	29(60.4)	48(40)
26-35	26(44.8)	32(55.1)	58(48.3)
36-45	33(63.4)	19(36.5)	52(43.3)
46-55	4(28.5)	10(71.4)	14(11.6)
56-65	3(27.2)	8(72.7)	11(9.1)
66-75	3(50)	3(50)	6(5)

SEX DISTRIBUTION OF STUDY PARTICIPANTS : TABLE 2

Gender	No.of individuals with dental caries(%)	No. of individuals without dental caries(%)	Total
Male	36(41.8)	50(58.1)	86(71.6)
Female	56(49.1)	58(50.8)	114(64)
Total	92(46)	108(54)	200(100)

STUDY DISTRIBUTION BASED ON OCCUPATION : (TABLE 3)

Occupation	No.of individuals with dental caries(%)	No. of individuals without dental caries(%)	Total
Professional	23(47.9)	25(52.08)	48(52.3)
Non-Professional	30(44.1)	38(55.8)	68(34)
Others	39(46.4)	45(53.5)	84(42)
Total	92(46)	108(54)	200(100)

STUDY DISTRIBUTION BASED ON RESTORATION: (TABLE 4)

No.of individuals with restoration	(%)	No. of individuals without restoration (%)	(%)	Total	(%)
72	36	128	64	200	100

DISCUSSION :

The study was taken to access the prevalence of dental caries among the Chennai population and to bring awareness among every individuals regarding the oral hygiene.

Table 1 age group distribution was taken similar to the “study Prevalence of dental caries among adults and elderly in an urban resettlement colony of New Delhi done by Binod Kumar Patro, B Ravi Kumar, Anil Goswami, Vijay Prakash Mathur, Baridalyne Nongkynrih et al.

The prevalence of dental caries in the age-group of 36-45 years in the present study was found to be 63.4%, which is lower than that reported in the WHO Oral Health Country Profile (94%).^[16] However, the results were found to be higher than that found in a study conducted by Doifode *et al.*^[17] in Nagpur (48.6%) and by Chakraborty *et al.*^[18] in Siliguri (57.03%) Since the study report was higher ,hence certain measures have to be undertaken such as regular visit of dentist to maintain the oral hygiene; brushing twice a day; initial stages of caries can be prevented by scaling; and also preventive and restorative treatment can be done to prevent deep caries.

The prevalence of dental caries in the age-group of 60 years and above in this study was 77.7%. This was seen to be higher than that reported in Nagpur (31.5%)^[16] and in Delhi (64.2%) in the elderly age-group.^[12] A study from South India among the elderly reported a mean DMF index of 13.5,^[13]

In sex distribution of study population ,it was found out that female had 49.1% of dental caries which was more than male 41.8% of dental caries.

REFERENCE:

1. Available from: <http://www.who.int/mediacentre/factsheets/fs318/en/index.html>. [Last accessed on 2007 Apr 24].
2. Grossi SG, Genco RJ. Periodontal disease and diabetes melitus: A two-way relationship. *Ann Periodontol* 1998;3:51-61.
3. The World Oral Health report 2003.
4. Naseem Shah. Oral and dental diseases: Causes, prevention and treatment strategies: Burden of disease, National Commission on Macroeconomics and Health; 2005. p. 275-98.
5. Vecher BR. Dental Survey of school children in Amritsar. *J Indian Dent Assoc* 1952;24:2-8.
6. Dutta A. Study on the prevalence of periodontal and dental caries amongst school going children. *J Indian Dent Assoc* 1965;37:12-5.
7. Saravanan S, Madivanan I, Subashini B, Felix JW. Prevalence pattern of dental caries in the primary dentition among school children. *Indian J Dent Res* 2005;16:140-6.
8. Mahejabeen R, Sudha P, Kulkarni SS, Anegundi R. Dental caries prevalence among preschool children of Hubli: Dharwad city. *J Indian Soc Pedod Prev Dent* 2006;24:19-22.
9. Acharya S. Dental caries, its surface susceptibility and dental fluorosis in South India. *Int Dent J* 2005;55:359-64
10. David J, Wang NJ, Astrom AN, Kuriakose S. Dental caries and associated factors in 12-year-old schoolchildren in Thiruvananthapuram, Kerala, India. *Int J Pediatr Dent* 2005;15:420-8.
11. Mahesh Kumar P, Joseph T, Varma RB, Jayanthi M. Oral health status of 5 years and 12 years school going children in Chennai city: An epidemiological study. *J Indian Soc Pedod Prev Dent* 2005;23:17-22.
12. Shah N, Sundaram KR. Impact of socio-demographic variables oral hygiene practices oral habits and diet on dental caries experience of Indian elderly: A community-based study. *Gerodontology* 2004;21:43-50.
13. Thomas S, Raja RV, Kutty R, Strayer MS. Pattern of caries experience among an elderly population in south India. *Int Dent J* 1994;44:617-22.
14. Oral Health Surveys, Basic Methods. 4th ed. 1997.
15. Prakash H, Duggal R, Mathur VP, Petersen PE. Manual for multi-centric oral health survey. DGHS, MoHFW, GOI, WHO: India; 2004-05.
16. CAPP country profile. Available from: <http://www.whocollab.od.mah.se/searo/india/data/indiacar.html>. [Last accessed on 2007 Apr 24].
17. Doifode VV, Ambadekar NN, Lanewar AG. Assessment of oral health status and its association with some epidemiological factors in population of Nagpur, India. *Indian J Med Sci* 2000;54:261-9.
18. Chakraborty M, Saha JB, Bhattacharya, Roy A, Ram R. Epidemiological correlates of dental caries in an urban slum of West Bengal. *Indian J Public Health* 1997;41:56-67.