

Estimation and Evaluation of Relative Awareness About Prevention of Oral & Periodontal Diseases Between General Dental Practitioners In Ghaziabad City, India

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ABSTRACT

Aim: Oral and particularly periodontal diseases are very common and it is expected that with the early exposure to oral health care measures, the relative occurrence of Oral and Periodontal diseases will be diminished. Here we have planned to estimate the awareness of oral and periodontal diseases amongst dental practitioners in Ghaziabad city, India.

Material and method: The study was planned to be executed on cross-sectional survey model wherein a concise survey was completed among the general dentists in Ghaziabad city, India. A total of 40 practitioners were targeted by using methodology of random sampling. Final sample including in the survey was total 40 practitioner with age of 30-33years, 34-40years, >40years.

Results: The statistical analyses were performed and the study results evidently showed that most of the practitioners in Ghaziabad city had moderate knowledge (41.5%), followed by good knowledge (38.7%) and poor knowledge (19.8%) about periodontal anomalies. The overall outlook for avoidance of dental problems was positive in roughly everyone (83.9%).

Conclusion: The present cross sectional survey based study concluded that practitioners in Ghaziabad city, India had comparatively good outlook regarding oral treatment. Though, a self-possessed conception and lack of awareness about occurrence of dental and periodontal problems was observed.

Keywords: Awareness, Oral, Practitioners, Periodontal.

INTRODUCTION

A dental practitioner is usually known as a primary care medical personal who deals with the health care of general populations. Dental diseases are possibly the most common disease in the world. Even though oral and periodontal issues have been reported from prehistoric times, the relative occurrences of these diseases have increased severely. The accurate causes of oral/periodontal diseases are unclear but attributed to the oral habits with other multifactorial concerns. Oral health is

considered as one of the most crucial part of general body health. Efficient chewing and mastication is deemed necessary to ensure optimal levels of essential nutrients for the body. Oral cavity also acts as a reservoir that shelters numerous microorganisms therefore it sometimes called as single window entry gate for microbial infections.¹⁻² With the initiation of advanced technology and access to information to obtaining the oral health attitudes and practices, it might be possible for the practitioners to obtain adequate knowledge and thus incorporate those practices in their daily

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clinics. Because mankind is largely dependent on machines these days, people are somewhat ignoring their oral health. It is necessary to create awareness about oral hygiene. As we all know that oral diseases are mostly preventable, it is expected that with the early exposure to oral health care activities, the occurrence of oral diseases will be lowered.³⁻⁴ As we all know the people visit general dental practitioners for their oral health care needs it is therefore these professionals who notice dental problems very first.⁵⁻⁸ If the practitioner discriminates and promotes good preventive habits, dental diseases can be largely checked. Also what we usually look for is a good communication among practitioners and must encourage group practice with one another. Oral prophylactic measures must be incorporated in each and every social awareness programs. The aim of our study is to determine the awareness of Prevention of oral and periodontal diseases amongst general dental practitioner in Ghaziabad city.

MATERIAL AND METHODS

Health is a universal human necessity for all age groups. Optimal oral health is a critical entity in attaining good general health. The mouth is considered as the mirror of the body and the gateway to good health. Therefore, this study was executed among the general dental practitioner in Ghaziabad city wherein the list of practitioner in Ghaziabad was attained from the society of general practitioner of city. There were 243 registered in this society out of this, 53 were not actively practicing, rest remaining was 190. One in every five was chosen via random sampling method. Total sample size was restricted to 45, out of this 5 of them not reverted to our study. Sample finally including in the survey was total 40 practitioner with age of 30-33years, 34-40years, >40years. Both the gender was including Male- 30 (75%) & Female- 10 (25%). After receiving the written consent of the selected practitioner, they were asked to complete the questionnaire.⁸ The questionnaire had queries to estimate their details, understanding about oral/periodontal diseases, outlook toward its prevention and practice norms and opinions. Scorings were provided to each question according to their weightings. The maximum score was given to the correct answer and minimum was given to the incorrect answer.

Statistical Analysis and Results

This study was conducted on 40 general dental practitioners, in which majority has 3-12 years of individual practice, attending >35 patients per day. Both the gender was evaluated including Male- 30 (75%) & Female- 10 (25%) (Table 1). [Graph 1] 55.2% of them felt that periodontal diseases occur due to bad oral hygiene.⁹⁻¹¹ All the values and observations were tabulated and sent for statistical evaluation using statistical software SPSS software version 21 (IBM Inc., Armonk, NY, USA). A total of 33.5% of the subjects agreed on the fact that fetus can be infected by oral bacterial flora via mother's blood circulation. However, 92.7% of the subjects have the same opinion that fluoride supplements and dental sealants prevent dental problems. Near about 70.6% of the practitioners felt that mechanical plaque control must start after few teeth have erupted. (Table 2) On the other hand, 84.8% agreed on genuine estimation of dental diseases. 75.3% have the same opinion that counseling about prevention must be a part of patient concern. Almost 92.4% of them agreed to have a role in promoting oral health and 59.7% of them felt that the current syllabus in post graduation is not sufficient for boosting oral health awareness. (Table 3) Our study indicates that most of the practitioners in Ghaziabad city had moderate knowledge (41.5%), followed by good knowledge (38.7%) and poor knowledge (19.8%) about periodontal problems. [Graph 2] Practice guidelines and opinions of practitioners in the survey were moderate 62.6% in about more than half, followed by poor (24.7%), and followed by good (12.7%). [Graph 3] The attitude for prevention of dental caries was positive in roughly everybody (83.9%). [Graph 4]

DISCUSSION

Good oral health is an essential to attain good general health. Many a time, parents believe that since deciduous teeth will any way exfoliate, it is not importance to waste time/ money on providing treatment for primary teeth in children.⁹⁻¹⁰ A practitioners is a primary care physician who deals with the medical care of patients. Because dental problems are mostly preventable, it is assumed that early engagement of preventive measures can possibly reduce the incidence and prevalence of

Table 1: Personnel Detail of Practitioners.

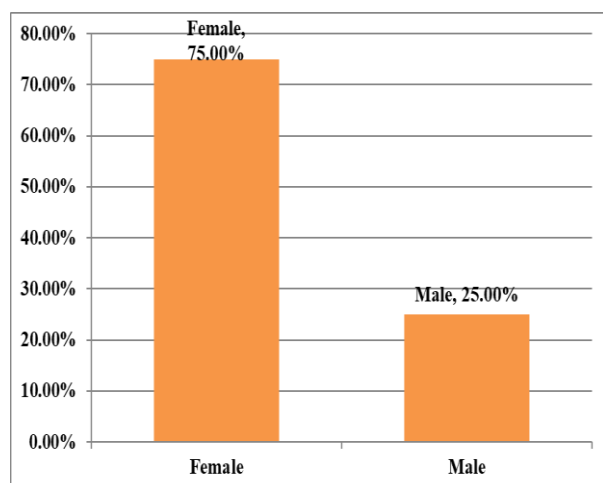
Age group	30-33 years	33-40years	>40 years
	29.1%	40.8%	30.1%
Years in Practice	<3 years	3-12years	>12 years
	34.4%	34.5%	30.1%
Type of Practice	Private	General hospital	Teaching/Practice
	60.3%	27.3%	12.4 %
Number of Patients per day	<15 Patients	15-30Patients	>30Patients
	7.6%	29.7%	62.7%

Table 2: Knowledge about dental diseases.

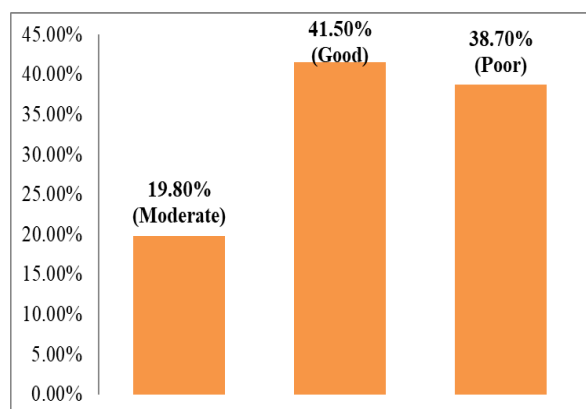
Parameters	True	False
Occurrence of periodontal disease	55.2%	44.8%
Bacterial transportation to mother & child	33.5%	66.5%
Effectiveness of Fluoride therapy	92.7%	7.3%

Table 3: Outlook Evaluation.

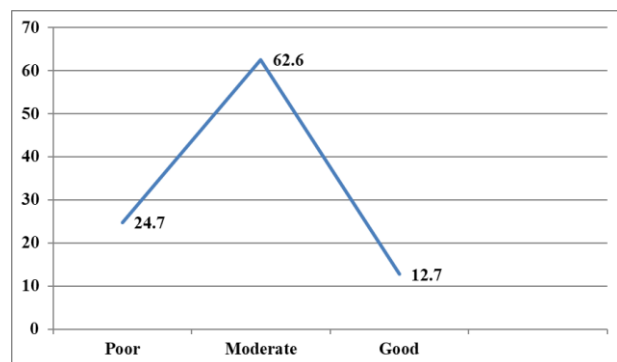
Parameters	Yes	No
Your participation in promoting oral health	92.4%	7.6%
Evaluation of dental diseases must be included in routine practice	84.8%	15.2%
Counseling on prevention of dental diseases must be a part of patient care	75.3%	24.7%



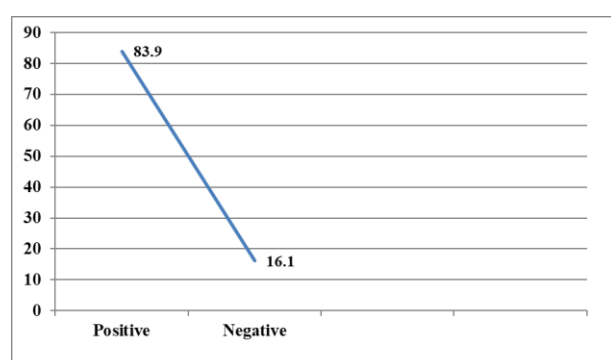
Graph 1: Study Population According to Gender.



Graph 2: Division of the Study Population According to Knowledge of practitioners about oral & periodontal diseases.



Graph 3: Divisions of the Study Population According to Practice norms and opinions about oral and periodontal diseases.



Graph 4: Allocation of the Study Population According to Attitude of practitioners about prevention of oral and periodontal diseases.

oral diseases.¹¹⁻¹³ A practitioner must know the requirement of treatment and perpetuation of milk teeth for a healthy permanent dentition which matches with our findings where practitioners agreed that milk teeth are important. Prakash et al noticed that 46% of pediatricians and 62% of family physicians were not sure that white spots or lines on tooth surfaces were the first signs of tooth decay.¹⁴ This lack of knowledge was explained by Davey et al who found that less than 25% of pediatricians had received oral health education in medical schools.¹⁵⁻¹⁶ About 86.2% of the practitioners felt that 1 year would be ideal for the first dental visit.

Dental environment of a young child is complex because their mothers' and/or caregiver's dental knowledge, practices, beliefs and attitudes, affect the child's oral condition.¹⁷ There is an adequate amount evidence to show that poor oral hygiene can originate dental problems. Over estimation of the attitude and practices to provide more desirable

response and inability to use open ended questions to probe participants' responses for greater detail. Nevertheless, it's worth mentioning that oral health is an integral part of the overall health. Practitioners must be competent in issues of oral health and disease if they are to fulfill their role as professionals dedicated to the health of patient. Volpato et al and Maguire et al showed Sealant application as a preventive measure to trim down the risk for dental caries, particularly among children and adolescents who are at higher risk for caries.¹⁸⁻¹⁹ Oral disease has implications outside the mouth and can result in serious problems with other chronic diseases.²⁰⁻²² Gandara et al and Balaban et al also pointed out that practitioners collect very little education on oral health during their medical education/training and several barriers exist to incorporating oral health into practice. Despite these facts, opportunities exist to both increase knowledge and overcome the barriers to incorporating oral health into daily practice.²³⁻²⁵

CONCLUSION

In Indian culture particularly in rural setups there is low level of oral health awareness and dental visits. Our study results clearly indicate that dental practitioners think that they have an important role in the promotion of oral health. Usually unawareness regarding oral diseases acts as an obstacle in prevention of such conditions. Our study results also concluded that pediatricians in Ghaziabad city had good outlook and practices, but had moderate knowledge and lacked proper awareness about dental/periodontal diseases.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES

1. Nankar M, Walimbe H, Ahmed Bijle MN, Kontham U, Kamath A, Muchandi S. Comparative evaluation of cariogenic and erosive potential of commonly prescribed pediatric liquid medicaments: An *in vitro* study. J Contemp Dent Pract. 2014;15(1):20-5.
2. Hinze ES, Casamassimo PS, Seale NS, McIlroy M, Kerins CA, McWhorter AG. Relative value of oral

- health in well-child care: A survey of pediatricians in Texas and Ohio. *J Dent Child (Chic)* 2014;81(2):84-90
3. Benoit V, Petersen PE, Seydou O. Oral health status of children and adults in urban and rural areas of Burkina Faso, Africa. *Int Dent J* 2004;54:83-9.
4. Dileep CL, Basavaraj P, Jayaprakash K. A survey on Knowledge, attitude and practice about oral hygiene among teachers in Kanpur city. *J Ind Assoc Pub Heal Dent* 2006;8:57-9.
5. Ganesh SA, Bhatt PK, Jyothi. Initial impact of Health education programme on oral health, knowledge and awareness among 15year old children of government high school, sarakki, Bangalore. *J Ind Associ Pub Heal Dent* 2007;10:57-65.
6. Guidelines on oral health care for pre-school children: Oral Health Division, Ministry of Health Malaysia August 2003.
7. US preventive services task force recommendation. *Am J Prev Med* 2004;26:326-9.
8. Yahya BN, Solmaz S. The knowledge, approach and function of paediatricians in prevention of caries in Tehran. *J Indian Soc Pedod Prev Dent* 2004;22:148-53.
9. Schafer TE, Adair SM. Prevention of dental disease. The role of the paediatrician. *Pediatr Clin North Am* 2000;47:1021-42.
10. Murthy GA, Mohandas U. The knowledge, attitude and practice in prevention of dental caries amongst paediatrician in Bangalore: A cross sectional study. *J Indian Soc Pedod Prevent Dent* 2010;28:100-3.
11. Brice DM, Blum JR, Steinberg BJ. The aetiology, treatment, and prevention of nursing caries. *Compend Contin Educ Dent* 1996;17:92-8.
12. Matee M, van't Hof M, Maselle S, Mikx F, van Palenstein Helderman W. Nursing caries, linear hypoplasia, and nursing and weaning habits in Tanzanian infants. *Community Dent Oral Epidemiol* 1994;22:289-93.
13. Wyne AH, Adenubi JO, Shalan T, Khan N. Feeding and socioeconomic characteristics of nursing caries children in a Saudi population. *Pediatr Dent* 1995;17:451-4.
14. Prakash P, Subramaniam P, Durgesh BH, Konde S. Prevalence of early childhood caries and associated risk factors in preschool children of urban Bangalore, India: A cross-sectional study. *Eur J Dent*. 2012;6:141-52.
15. Davey AL, Rogers AH. Multiple types of the bacterium *Streptococcus mutans* in the human mouth and their intra-family transmission. *Arch Oral Biol* 1984;29:453-60.
16. Berkowitz RJ, Jones P. Mouth-to-mouth transmission of the bacterium *Streptococcus mutans* between mother and child. *Arch Oral Biol* 1985;30:377-9.
17. American academy of Paediatrics policy statement. *Pediatrics* 2003;111:1113-5.
18. Volpato LE, Palti DG, Lima JE, Machado MA, Aranha AM, Bandeca MC, et al. When and Why Parents Seek Dental Care for Children under 36 Months. *J Int Oral Health*. 2013;5(4):21-5.
19. Maguire A, Baqir W, Nunn JH. Are sugars-free medicines more erosive than sugars-containing medicines? An *in vitro* study of paediatric medicines with prolonged oral clearance used regularly and long-term by children. *Int J Paediatr Dent*. 2007;17(4):231-8.
20. Guideline on Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Treatment for Infants, Children, and Adolescents. American Academy of Pediatric Dentistry Reference Manual. 2009 < www.aapd.org/media/Policies_Guidelines/G_Periodicity.pdf > (Accessed Dec 11, 2017).
21. Köksal E, Tekçiçek M, Yalçın SS, Tuğrul B, Yalçın S, Pekcan G. Association between anthropometric measurements and dental caries in Turkish school children. *Cent Eur J Public Health*. 2011;19:147-51
22. Costa CC, Almeida IC, Costa Filho LC. Erosive effect of an antihistamine-containing syrup on

- primary enamel and its reduction by fluoride dentifrice. *Int J Paediatr Dent*. 2006;16(3):174–80.
23. Gandara B, Truelove E. Diagnosis and management of dental erosion. *J Contemp Dent Pract*. 1999;1(1):1–17.
 24. Balaban R, Aguiar CM, da Silva Araújo AC, Dias Filho EB. Knowledge of paediatricians regarding child oral health. *Int J Paediatr Dent*. 2012;22:286–91.
 25. Prakash P, Lawrence HP, Harvey BJ, McIsaac WJ, Limeback H, Leake JL. Early childhood caries and infant oral health – Pediatricians and family physicians knowledge, practices and training. *Paediatr Child Health*. 2006;11:151–7.