

Preventive Dental Care Knowledge, Attitude, And Practice: A KAP Study

Dr. Puneet Kumar¹, Dr. Chandni Batra^{2*}

1. Professor, Department of Public Health Dentistry, Santosh Dental College & Hospital, Santosh Deemed to be University, Ghaziabad.
2. Reader, Department of Oral Medicine, Diagnosis & Radiology, Santosh Dental College & Hospital, Santosh Deemed to be University, Ghaziabad.

***Dr. Chandni Batra - Corresponding Author**

ABSTRACT

Objective: The study's objective was to assess the private dental practitioners in Ghaziabad city's knowledge, attitudes, and preventative dental practices.

Materials and Methods: A self-administered, closed-ended, and structured questionnaire with 40 items was used to conduct a descriptive cross-sectional study. The sampling frame of the study consisted of a total of 162 available private dental practitioners from the IDA list of Ghaziabad city, of which 104 participated. The software packages IBM SPSS Statistics version 25.0 and Microsoft Excel were used to statistically analyze the data gathered. Pearson's test and the Chi-square test were used for statistical evaluation.

Results: This questionnaire survey included 104 dental practitioners in total, with 54.2% of them being female. The likelihood of remineralization in initial carious lesions was generally understood by dentists in 87.57% of cases. The mean was determined to be 14.47 ± 2.59 for age under 30 and 15.75 ± 2.39 for age over 30. The results were found to be very significant ($P = 0.011$) when knowledge was compared in respect to age distribution.

Conclusions: The majority of dentists adopted preventive practices in their practices and had excellent attitudes toward preventive dentistry.

Keywords: Preventive dentistry, Oral, Knowledge, Attitude, Private practitioners.

INTRODUCTION

All efforts to prevent dental diseases and disorders, or to stop the effects of a person's oral diseases and disorders, can be summed up as preventive dentistry. These initiatives include primary prevention, which is the term for any action taken before to the onset of a disease or problem that is preventable. [1] Primary prevention is extremely important in dentistry, particularly in pediatric dentistry. Dental practitioners share a significant responsibility for early screening, rapid referral, and treatment since using preventive measures can help avoid future difficulties. This knowledge must be applied to dental practice. [2]

The most significant global health burdens in the past have been thought to be periodontal disease and dental caries. Currently, the distribution and severity varies around the globe and even within a single nation or region. Epidemiological data indicate that the prevalence of dental caries has decreased in the majority of developed countries in recent years. It has been hypothesized that this decline is a result of a number of factors, including the use of fluoride, improved oral hygiene practices like brushing and flossing, dietary modifications, and specific

dental office procedures like routine examinations with diagnostic radiographs, scaling and polishing, fluoride applications, and sealants. [3] Dental care in India now focuses mostly on the conservative management of existing disorders, despite the fact that the majority of oral diseases are avoidable. [4] The World Health Organization advised poor nations to prioritize directing dental care toward prevention and health promotion when establishing or enhancing oral health programs. It is crucial to comprehend what dental professionals know and feel about caries prevention and how they employ caries preventative measures since they play a vital role in delivering preventive services, teaching patients, and buying relevant items. [6] Dentists frequently check for early indications of oral illness, such as periodontal disease, dental caries, and other abnormalities in the mouth's soft tissues. The adoption of preventive strategies in primary dental care is supported by a wealth of research, although these approaches are not always effectively applied [7]. [5] To carry out a successful preventive practice, it is necessary to have a better understanding of practice patterns, which will aid professional dental associations in focusing their continuing education efforts and in encouraging the use of various preventive therapies that are supported by evidence. [2]

As a result, this study was carried out to evaluate the understanding, attitude, and application of preventive dentistry among private dental professionals in the city of Ghaziabad.

MATERIALS AND METHODS

A descriptive cross-sectional study was conducted in Ghaziabad city, using a 40-item self-administered, closed-ended pre-structured questionnaire. The questionnaire was divided into two sections, which collected the information as follows:

Section A assessed the demographic details of the respondents— gender, age, qualification, specialty, type of practice, and years of experience in the profession.

Section B was made up of 30 questions which focused on knowledge-based (20) questions regarding preventive care options, attitude-based (5) questions eliciting what the dentists feel about such strategies, and practice-based (5) questions to judge whether they incorporate these strategies in their daily practice.

All the 30 questions in Section B were closed-ended where the respondents were expected to put a tick sign against Yes/No options. The purpose of the study and the procedure to fill up the questionnaire was explained to the participants.

The survey questionnaire was tested for reliability, for which, Cronbach's alpha value came out to be 0.72. Informed consent was taken before participation in the study. Institutional Ethical Committee clearance was taken before the study. The self-completed questionnaire was distributed to 163 dentists practicing in Gurugram city, list of which was obtained from the Indian Dental Association (IDA) office of the city. Out of 163 registered dentists, 105 (64.4%) questionnaires were collected back, with two rounds of follow-ups. Questionnaire responses were tabulated using Microsoft Excel and were then analyzed using Statistical Packages for the Social Sciences (SPSS), version 25.0 software (SPSS Inc., Chicago). Results were expressed as number and percentage of respondents for each question. The test for significance to find out the association between various variables was done using Chi-square test. $P \leq 0.05$ was considered statistically significant. The confidence interval was set to 95%. Pearson's correlation test was performed to find out the correlation between knowledge, attitude, and practice mean scores.

RESULTS

The current cross-sectional self-administered questionnaire survey included IDA registered private dental practitioners from the city of Ghaziabad. Total of 105 private dental experts were included in the study. 47 (44.8%) and 58 (55.2%) of the participants were over the age of 30.

Table 1: Demographic characteristics of the survey respondents and their practice profile

Characteristics	Frequency (n)	Percent (%)	Total
Gender			
Females	57	55.2	104
Males	47	44.8	
Age ranges			
<30 years old	57	55.2	104
>30 years old	47	44.8	
Qualification			
BDS	48	46.7	104
MDS	56	53.3	
Practice type			
General	71	68.6	10
Specific	19	18.1	
Mixed	14	13.3	

The

participants were 58 women. 48 (46.6%) were BDS and 56 (53.3%), respectively, qualified as MDS. Public health dentists made up just 1% of MDS; prosthodontists and periodontists made up the bulk. Regarding 68.6% of them [Table 1], those who practiced general dentistry did so, those who performed specialties did so, and the rest did both. The mean±SD was determined to be 14.14 ± 2.45 for knowledge, 4.20 ± 0.648 for attitude, and 4.37 ± 0.678 for practice [Table 2].

Table 2: Overall mean knowledge, attitude, and practice score

Score	Mean±SD
Knowledge	14.14±2.45
Attitude	4.20±0.648
Practice	4.37±0.678

Table 3: Relation of mean knowledge, attitude, and practice score with age group, gender, and qualification

	Mean±SD		
	Knowledge	Attitude	Practice
Age group			
<30 years	14.47±2.569	4.24±0.69	4.4±0.884

>30 years	15.75±2.449	4.16±0.82	4.33±0.878
t-test value	2.496	0.608	0.431
P-value	0.011*	0.545	0.668
Gender			
Female	14.02±2.517	4.26±0.718	4.5±0.724
Male	14.3±2.686	4.13±0.786	4.2±1.02
t-test value	0.551	0.871	1.731
P-value	0.583	0.386	0.087
Qualification			
BDS	12.598±2.529	3.33±0.747	3.33±1.029

In Table 3, the mean scores for knowledge, attitude, and practice are compared by age group, gender, and qualification. The results were determined to be statistically significant (P = 0.011), and the mean age knowledge was found to be 14.47 ± 2.569 for those under 30 and 15.75 ± 2.449 for those over 30. [Table 4] illustrates the relationship between mean knowledge, attitude, and practice as determined by the Pearson's test.

Table 4: Pearson’s correlation among mean knowledge, attitude, and practice score				
Parameters being correlated	n	Correlation (r)	P value	
Attitude score and practice score	105	0.064	0.352	
Knowledge score and practice score	105	0.315	<0.001*	
Knowledge score and attitude score	105	0.101	0.04*	

*Highly significant results. Pearson’s test

DISCUSSION

The burden of disease can be reduced and quality of life improved through oral health promotion and prevention. Early and regular preventive care, fluoride, and sealants are examples of preventive dental interventions that are cost-effective in lowering disease burden and related costs. The key to avoiding dental diseases and maintaining good oral health is prevention. The duty for this element of dentistry falls on people, professionals, and society at large. Dentists are in a unique position to support their patients in developing good oral health habits and reducing the burden of oral illness. [4] A significant aspect that may affect a dental professional's decision to use preventive dental care is how they feel about it. This feeling may also affect how effectively they can persuade patients to obtain preventive care. [5]

In order to ascertain dental professionals' knowledge, attitudes, and practices about preventive dental care, the current study was carried out. This questionnaire survey included 104 dental professionals in total, with women making up 55.2% of the participants. Contrary to other research in this field, which found that females were more favorable toward preventative dentistry than males, the gender difference of our study participants did not appear to alter knowledge, attitude, or practice in this area. [8,9]

In line with a study conducted by Sushanth et al. (69.1%), 59 of the respondents (56.19%) showed awareness and understanding of sugars that are good for your teeth. [3] A study on dentists in Ontario [11] revealed that while they had a lot of information, they lacked awareness and a positive outlook. Furthermore, a study carried out in Saudi Arabia revealed that pediatricians' knowledge, attitude, and behavior were insufficient. [12] Contrary to this conclusion, our study found that practitioners had a greater degree of knowledge, attitude, and practice about preventative dentistry. However, because to variations in the target population, these results cannot be truly compared to those of the current study.

Higher values were found for postgraduate practitioners compared to undergraduates when comparing knowledge and practice in relation to qualification ($P=0.001$) [Table 3]. The findings of a study conducted by Patil and Sahu were comparable. [2] This outcome demonstrates the value of field-specific training and expertise.

Overall, the findings point to favorable knowledge and attitude as well as effective use of sealants, topical fluoride, and various preventative orthodontic procedures. These findings were in contrast to those of a study by Kervanto-Seppälä [13] and a review [14] of clinical notes from 50 general dentists in the United Kingdom, which indicated that sealants were not being used to their full potential. Similar findings were found in a study conducted by Riley [15], who estimated that 69% and 82%, respectively, of people use topical fluoride and sealants.

Dentists must stay current in order to keep up with the rapidly advancing scientific knowledge in the field of dentistry. Dentists will be better equipped to decide what is best for the health of their patients if they have accurate information. [3]

CONCLUSIONS

Our study came to the conclusion that private dental practitioners in Ghaziabad City have high attitudes and knowledge about preventive dentistry, and the majority of them incorporate preventive dental treatment into their regular dental procedures. Our study indicates that additional investigation would be required to evaluate the result and impact of such interventions. Governmental organizations and professional organizations should exert more effort to educate patients about the advantages of preventative actions.

REFERENCES

1. Lin TH, Hsieh TU, Horowitz AM, Chen KK, Lin SS, Lai YJ, et al. Knowledge and practices of caries prevention among Taiwanese dentists attending a national conference. *J Dent Sci* 2010;5:229-36.
2. Gerrie NF. A definition of preventive dentistry. *J Public Health Dent* 1969;29:60.
3. Patil RU, Sahu A, Kambalimath HV, Panchakshari BK, Jain M. Knowledge, attitude and practice among dental practitioners pertaining to preventive measures in paediatric patients. *J Clin Diagn Res* 2016;10:ZC71-ZC75.
4. Sushanth VH, Kalra DD, Kumar NP, Prashant GM, Bhate P, Imranulla M. Assessment of

- knowledge, attitude, and practice regarding preventive options in oral care among dentists in Davangere city, Karnataka: A cross-sectional study. *Dent Med Res* 2015;3:20-5.
5. Nagarajappa R, Sanadhya S, Batra M, Daryani H, Ramesh G, Aapaliya P, et al. Perceived barriers to the provision of preventive care among dentists of Udaipur, India. *J Clin Exp Dent* 2015;7:e74-9.
 6. Arheiam A, Bankia I, Ingafou M. Perceived competency towards preventive dentistry among dental graduates: The need for curriculum change. *Libyan J Med* 2015;10:26666.
 7. Close K, Rozier RG, Zeldin LP, Gilbert AR. Barriers to the adoption and implementation of preventive dental services in primary medical care. *Pediatrics* 2010;125:509-17.
 8. Khami M, Murtomaa H, Razeghi S, Virtanen JI. Attitude towards preventive dentistry among Iranian senior dental students. *J Dent (Tehran)* 2012;9:189-95.
 9. Ghasemi H, Murtomaa H, Torabzadeh H, Vehkalahti MM. Knowledge of and attitudes towards preventive dental care among Iranian dentists. *Eur J Dent* 2007;1:222-9.
 10. Riley JL, Richman JS, Rindal DB, Fellows JL, Qvist V, Gilbert GH, et al. Use of caries-preventive agents in children: Findings from the dental practice-based research network. *Oral Health Prev Dent* 2010;8:351-9.
 11. Togoo RA, Al-Rafee MA, Kandyala R, Luqam M, Al- Bulowey MA. Dentists' opinion and knowledge about preventive dental care in Saudi Arabia: A nationwide cross-sectional study. *J Contemp Dent Pract* 2012;13:261-5.
 12. Sabbagh HJ, El-Kateb M, Al Nowaiser A, Hanno AG, Alamoudi NH. Assessment of pediatricians dental knowledge, attitude and behavior in Jeddah, Saudi Arabia. *J Clin Pediatr Dent* 2011;35:371-6.
 13. Lewis DW, Main PA. Ontario dentists' knowledge and beliefs about selected aspects of diagnosis, prevention and restorative dentistry. *J Can Dent Assoc* 1996;62:337-44.
 14. Kervanto-Seppälä S, Pietilä I, Meurman JH, Kerosuo E. Pit and fissure sealants in dental public health - application criteria and general policy in Finland. *BMC Oral Health* 2009;9:5.
 15. Tickle M, Milsom KM, King D, Blinkhorn AS. The influences on preventive care provided to children who frequently attend the UK general dental service. *Br Dent J* 2003;194:329-32.