

PRACTICE AND BARRIER IN TOBACCO CESSATION COUNSELING AMONG DENTISTS IN CHENNAI

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ABSTRACT

INTRODUCTION: Tobacco use is one of the leading causes of disease and mortality in the United States. Tobacco is responsible for one-fifth of all deaths worldwide in India. In India, smoking causes 700,000 deaths per year, and all forms of tobacco usage cause 800,000-900,000 deaths each year. The dentist's role in assisting people in quitting smoking has been recognised. The present study was conducted to know the practice and barriers in tobacco cessation among dentists of Chennai city.

MATERIALS AND METHODS: A set of 13 questionnaires was formulated and distributed among the study population. The participants were asked to fill a questionnaire. The survey was done in an online forum. A total of 100 validated entries were collected. Data was entered into Microsoft Excel 2007 and analysed in SPSS V20. Associations between categorical variables were determined using Chi-square. $P < 0.05$ was considered statistically significant.

RESULTS:In our study it was found that 46 % participants were male ; 54 % were female. 50 % have completed their undergraduate and 50 % were postgraduate. 63 % were teaching professionals ; 37 % were private practitioners . 46 % of the participants think that it is necessary to ask patients if they have tobacco usage habits . 52 % think that it is necessary to advise patients to quit tobacco. 67 % participants explain the benefits of tobacco cessation to patients. 43% participants discuss specific strategies to stop tobacco usage. Around 32 % participants think that it is important to keep patients on follow up. 30 % participants think that some patients might not turn up for further treatments if they insist on stopping tobacco usage. 27 % of the participants think that dentists' time can be much better spent doing things other than trying to reduce tobacco use in patients.

CONCLUSION: This study identified practices, and perceived barriers in tobacco cessation counselling among dental practitioners in Chennai. The most common problem faced was patient indifference and a lack of training. Tobacco cessation should be reinforced in the classroom so that it can be carried over into clinical practise afterwards. Furthermore, a suitable environment should be provided for them to properly counsel the patient.

Keywords : tobacco counselling, practise, barrier, counselling, dentists, Innovative analysis

INTRODUCTION:

Tobacco use is one of the leading causes of disease and mortality in the United States. Tobacco is responsible for one-fifth of all deaths worldwide in India. In India, smoking causes 700,000 deaths per year, and all forms of tobacco usage cause 800,000-900,000 deaths each year. ¹ Tobacco use is also a leading cause of a variety of oral diseases and conditions, including discoloured teeth and restorations, taste derangements, halitosis, periodontal diseases, poor wound healing, oral precancerous lesions, and oral cancer, which vary from moderate to life-threatening.^{2,3}

Because no single health-care professional can reach all smokers, smoking cessation and prevention will require the united efforts of all health-care workers. The dentist's role in assisting people in quitting smoking has been recognized.^{4,5}

The effectiveness of dental practitioners' smoking cessation services is extensively documented. According to numerous studies, the dental office is an ideal and effective site for spreading the message about quitting smoking. The current research and practise recommendations are followed by offices that provide tobacco use cessation services.^{6,7}

Smoking dental patients require local resources to assist them in quitting. A dentist who recognises a patient as a smoker owes it to the patient to tell them of their options. Then, if their patients want to quit smoking, physicians can recommend them to smoking cessation clinics. Not all smokers are ready to give up the habit. Some people haven't even considered quitting. Others may consider stopping but are unsure of how to proceed. Members of the dental team can assist patients in moving from precontemplation to contemplation to action by asking questions and offering suggestions.^{8,9}

The 5 A's model consists of the following:⁷

Inquiring about smoking and the desire to quit , Educating people about the need of quitting , Identifying the reasons for quitting ,assisting the patient in quitting by providing proper assistance; and Organizing follow-up assistance

Doubts about knowledge and skills in assisting patients to quit smoking, lack of confidence in their own ability to help their patients quit, doubts about their effectiveness in giving quitting advice, anticipated negative reaction from patients, uncertainty about their role in smoking cessation, and lack of resources are all barriers that prevent dentists from incorporating tobacco cessation into practise.^{2,10-14}

Our team has extensive knowledge and research experience that has translate into high quality publications ^{15-23 24 25 26,27 28 29 30-34}

MATERIALS AND METHODS:

This was a descriptive cross-sectional questionnaire survey which was conducted among registered dental practitioners who either had BDS or MDS degrees. Participants were selected based on a simple random sampling method.

The questionnaire of 13 questions based on practise and barriers faced by the dentists in tobacco cessation counselling was distributed among the participants. The survey was done in an online forum and 100 valid entries were collected. Demographic information, practice and barriers in tobacco cessation counselling were asked.

SPSS version 18.0 was used to evaluate the data, which was imported into Microsoft Excel 2007 (SPSS Inc., Chicago, USA). Numbers and percentages were used to express all categorical variables. Chi square test was used to evaluate association between categorical variables. Statistical significance was defined as a P value of less than 0.5.

RESULTS AND DISCUSSION

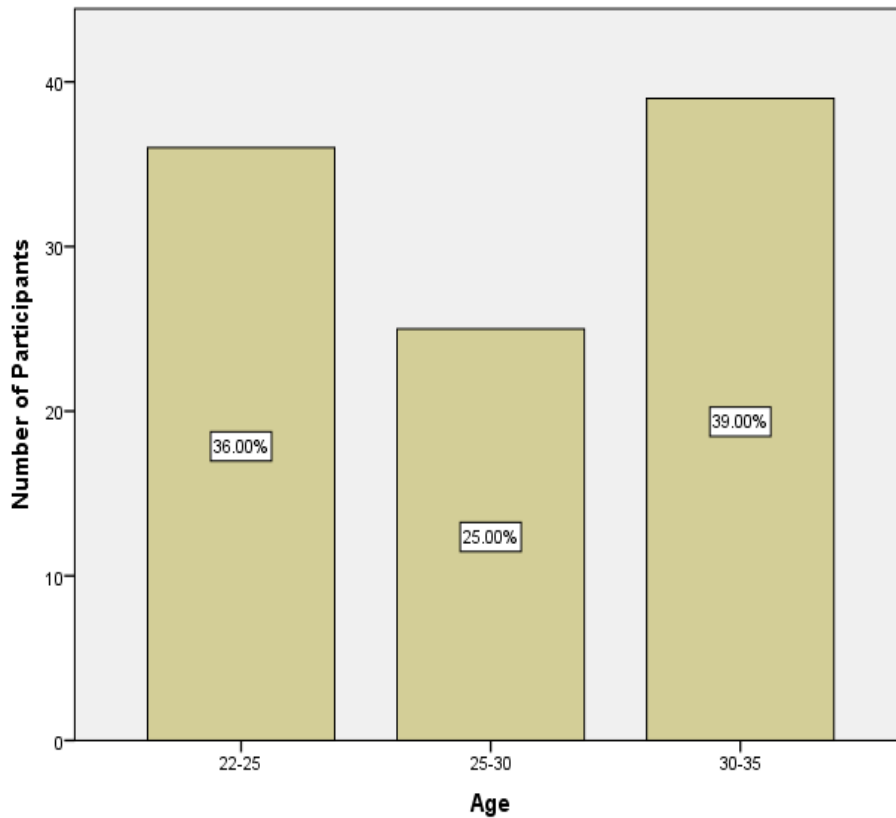


Fig.1: Shows the age wise distribution of the study population . X axis represents the age group of the participants and Y axis represents the number of participants . It is observed that the majority of the participants belonged to the age group 30-35 yrs.

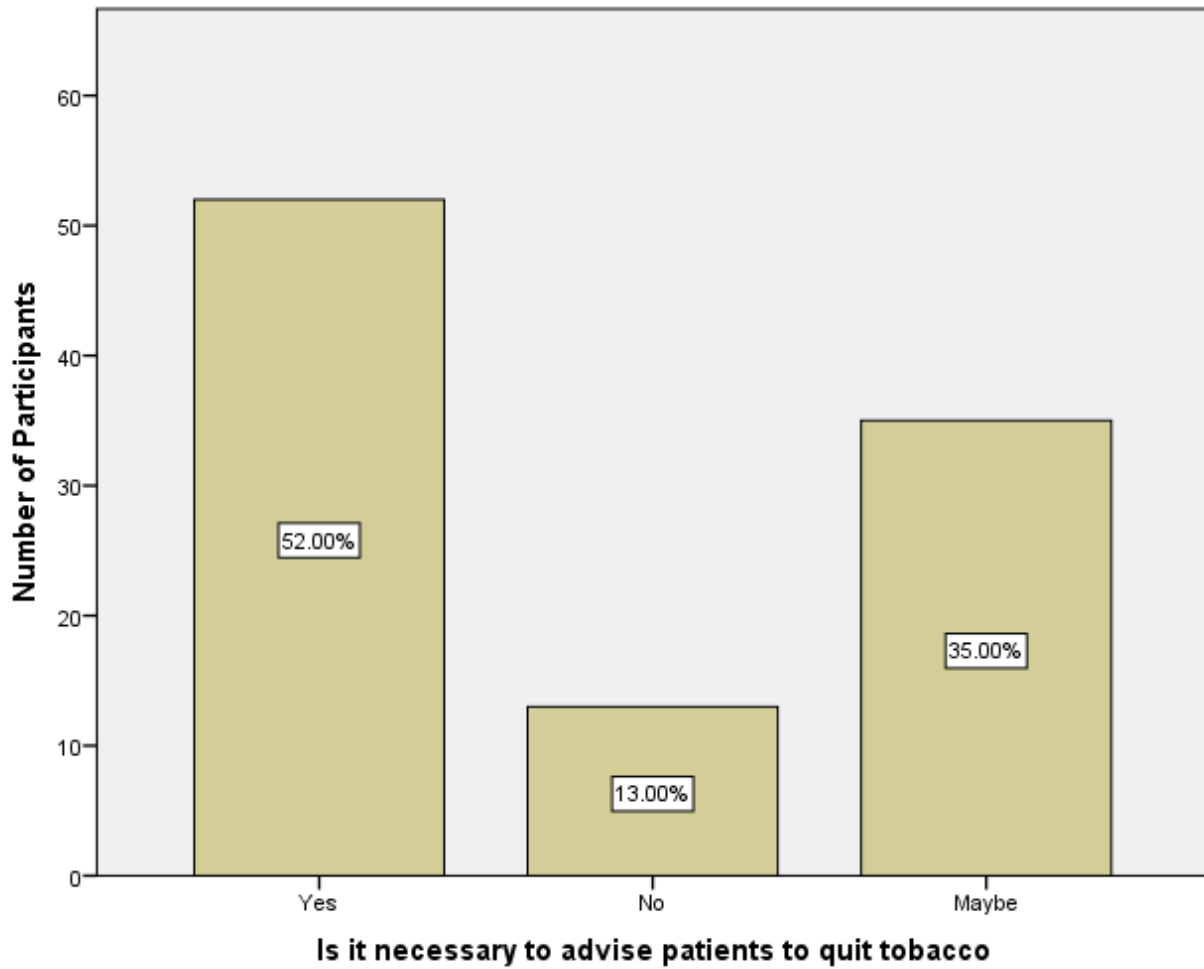


Fig.2: Shows the participants practise about tobacco cessation . X axis represents the response for the practise about tobacco cessation among the study participants and y axis represents the percentage of participants. This figure indicates that 52% of the dentists were aware about tobacco cessation.

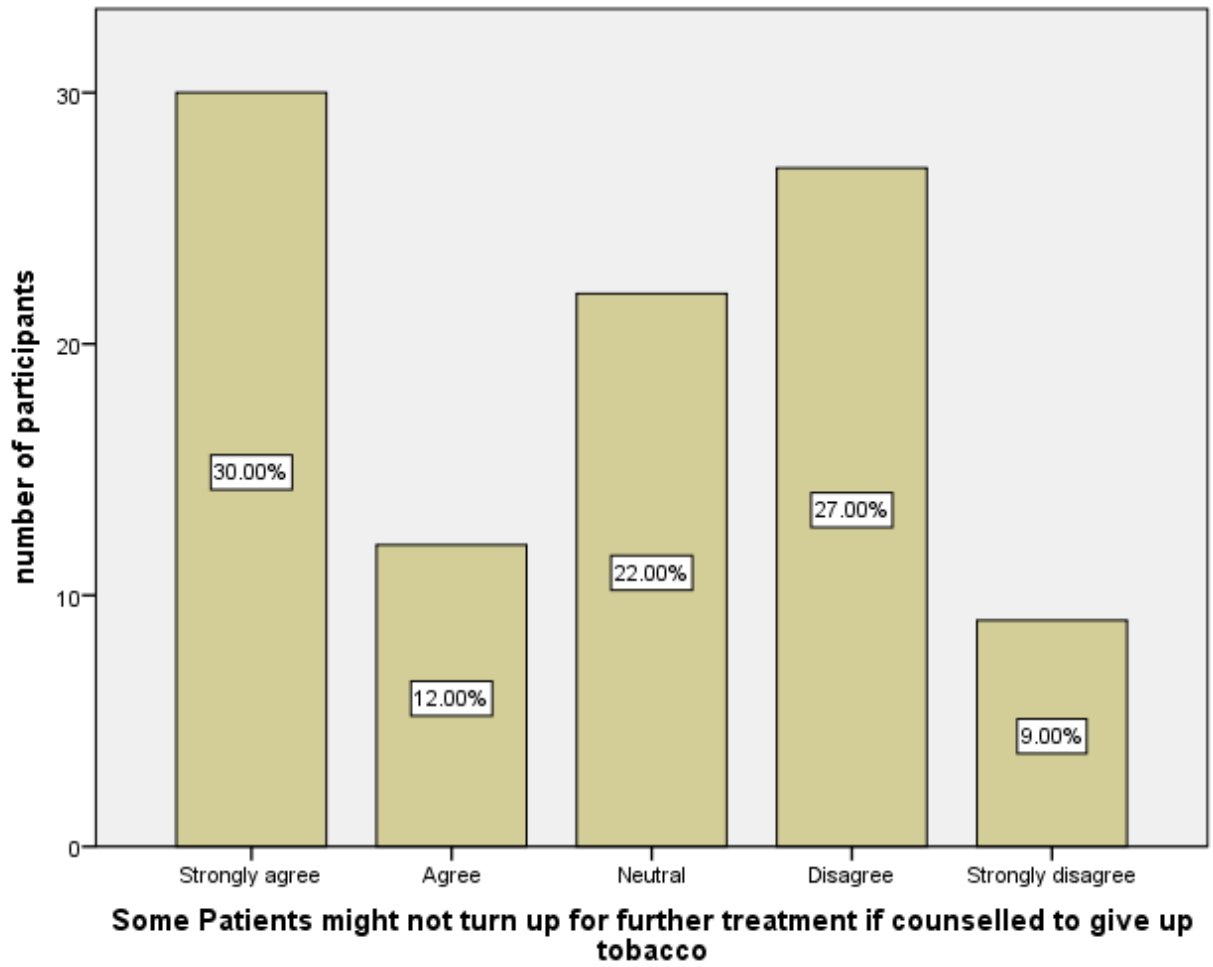


Fig.3: Shows the barriers dentists face while giving tobacco cessation counselling. X axis represents the choices for the question about the barriers and Y axis represents the percentage of responses. This figure indicates that 30% of dentists responded that patients might not turn up for further treatment if they are advised to quit tobacco.

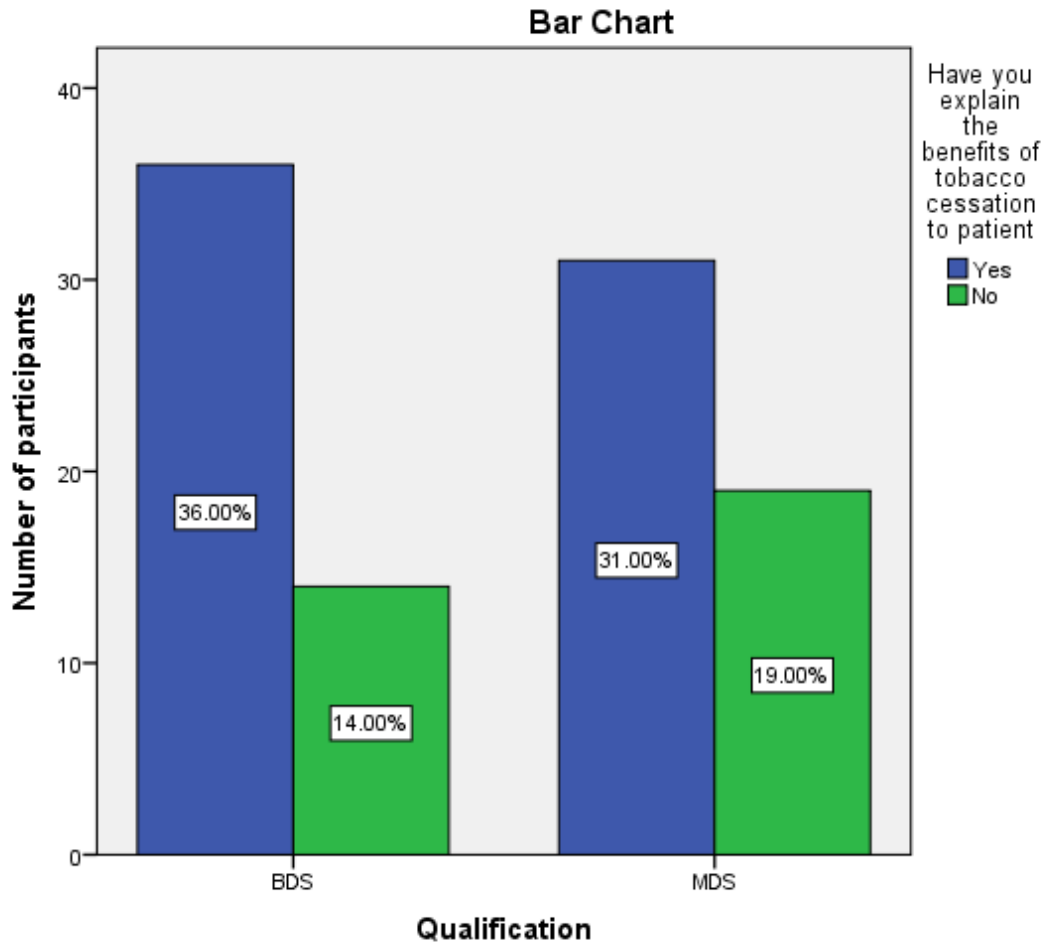


Fig.4: Shows the association between qualification and responses of the participants whether they explain the health benefits of stopping tobacco usage . X axis represents the qualification and Y axis represents the percentage of responses for the question whether they explain the health benefits of stopping tobacco usage . Blue colour denotes yes and green colour denotes no. 36% of BDS graduates and 31% of MDS graduates responded that they explain the health benefits of stopping tobacco usage to their patients. Only 14% of BDS graduates and 19 % of MDS responded that they didn't explain about the health benefits of tobacco cessation. It was evident that the majority of the study population were aware about the importance of explaining the health benefits of tobacco cessation to patients. Pearson's chi square test was done and p value 0.01(p<0.05), statistically significant.

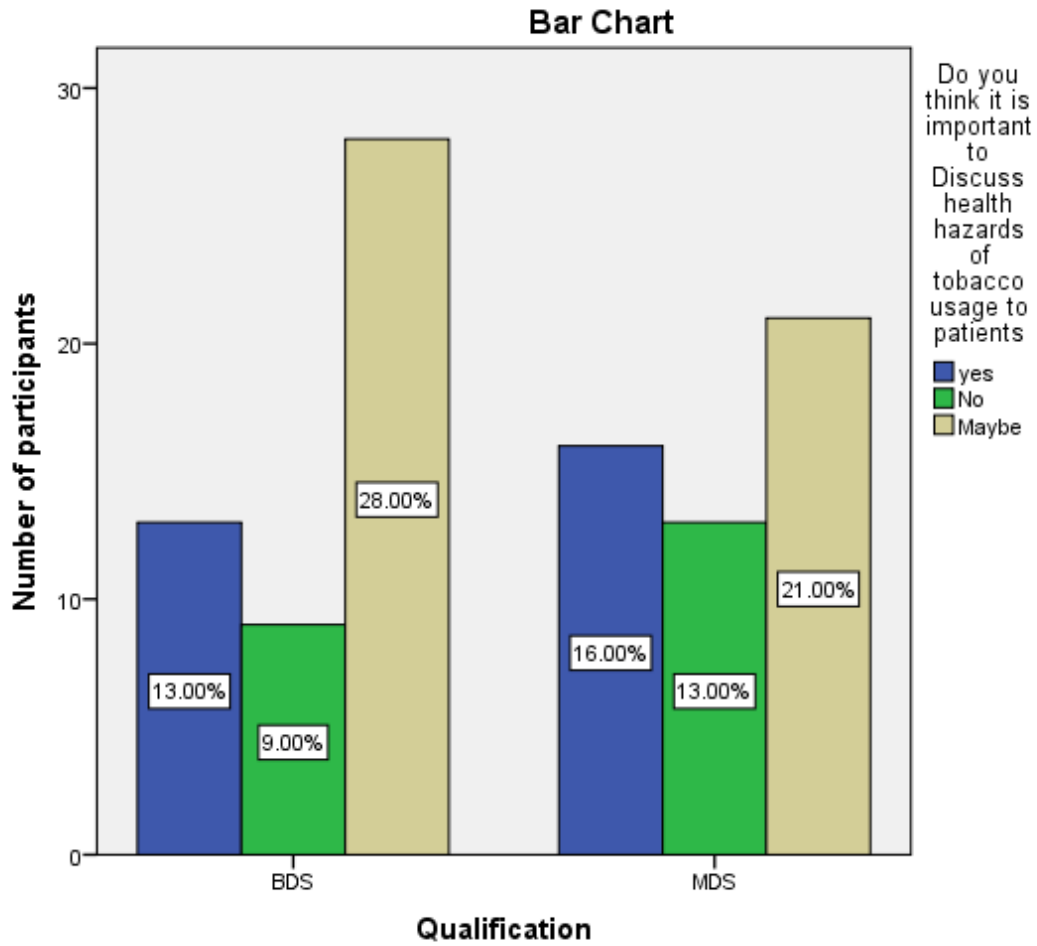


Fig.5: Shows the association between qualification and responses of the participants whether they think it is important to discuss health hazards of tobacco usage to patients . X axis represents the qualification and Y axis represents the percentage of responses for the question whether they think it is important to discuss health hazards of tobacco usage to patients. Blue colour denotes yes, green colour denotes no and brown colour denotes maybe. 13% of BDS graduates and 16% of MDS graduates responded that they discuss the health hazards of tobacco usage to their patients. Only 9% of BDS graduates and 13 % of MDS responded that they didn't explain about the health hazards of tobacco usage. It was evident that the majority of the study population were aware about the importance of explaining the health hazards of tobacco usage to patients. Pearson's chi square test was done and p value 0.03($p < 0.05$), statistically significant.

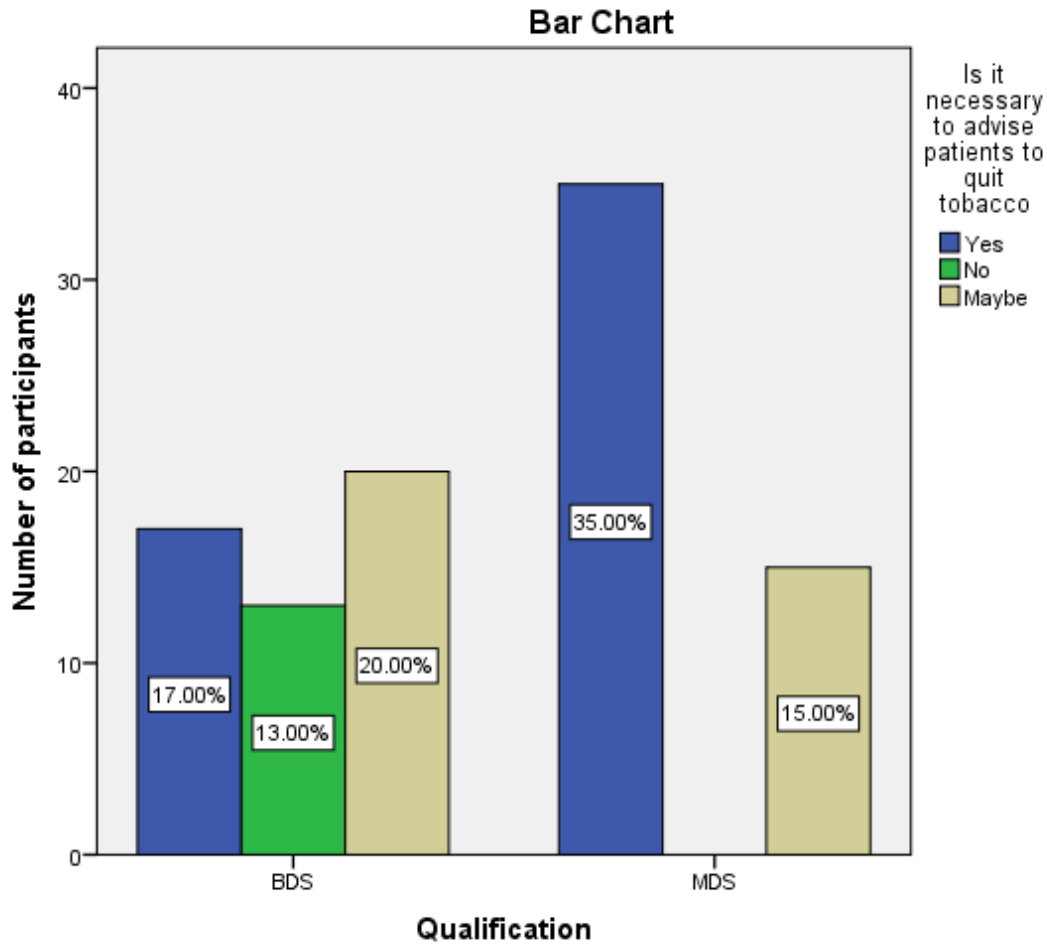


Fig.6: Shows the association between qualification and responses of the participants whether they think it is important to advise patients to quit tobacco usage. X axis represents the qualification and Y axis represents the percentage of responses for the question whether they think it is important to advise patients to quit tobacco usage. Blue colour denotes yes, green colour denotes no and brown colour denotes maybe. 17% of BDS graduates and 35% of MDS graduates responded that it is important to advise patients to quit tobacco usage. Only 13% of BDS graduates responded that it is not important to advise patients to quit tobacco usage. It was evident that the majority of the study population were aware about the importance of advising patients to quit tobacco usage. Pearson's chi square test was done and p value 0.01($p < 0.05$), statistically significant.

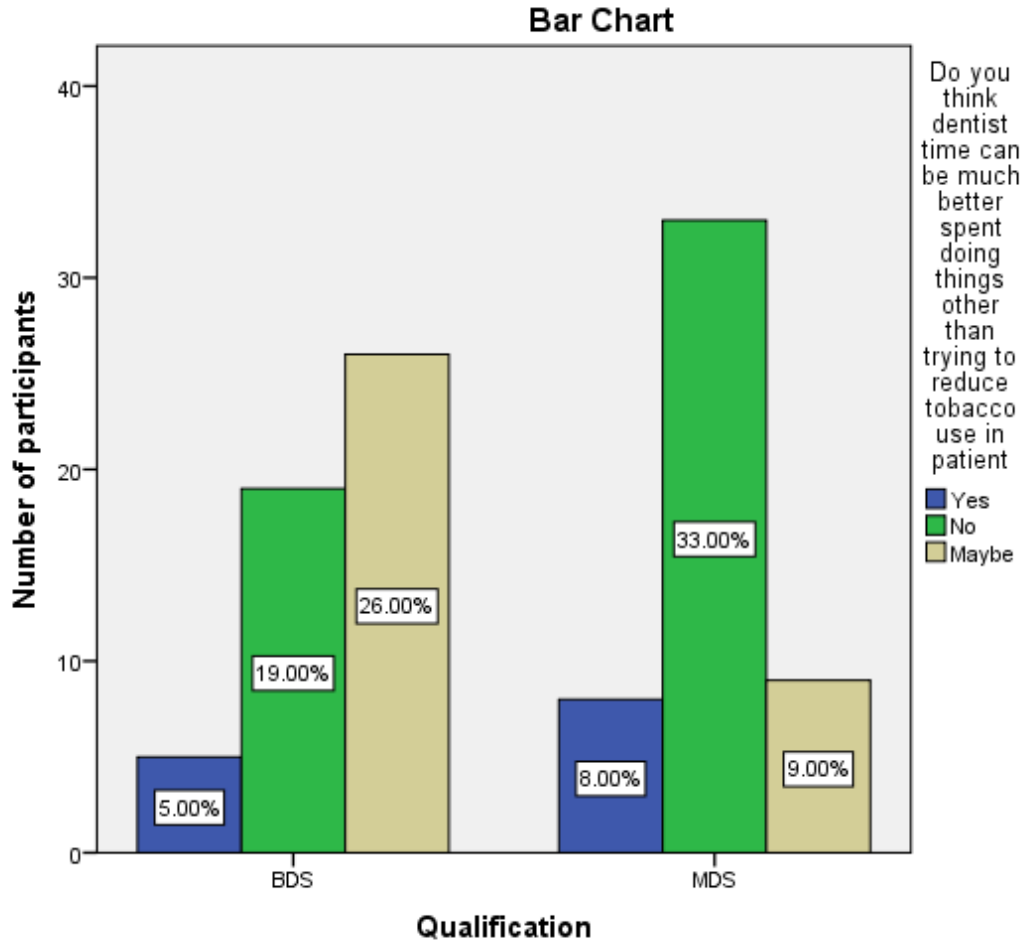


Fig.7: Shows the association between qualification and responses of the participants . X axis represents the qualification and Y axis represents the percentage of responses for the question whether they think dentists time can be much better spent doing things other than trying to reduce tobacco usage in patients. Blue colour denotes yes, green colour denotes no and brown colour denotes maybe. 19% of BDS graduates and 33% of MDS graduates responded that it is not a waste of dentists time to give tobacco cessation counselling . Only 5% of BDS graduates and 8 % of MDS responded that it is a waste of dentists time to give tobacco cessation counselling. It was evident that the majority of the study population were aware about the importance of tobacco cessation counselling. Pearson’s chi square test was done and p value 0.02(p<0.05), statistically significant.

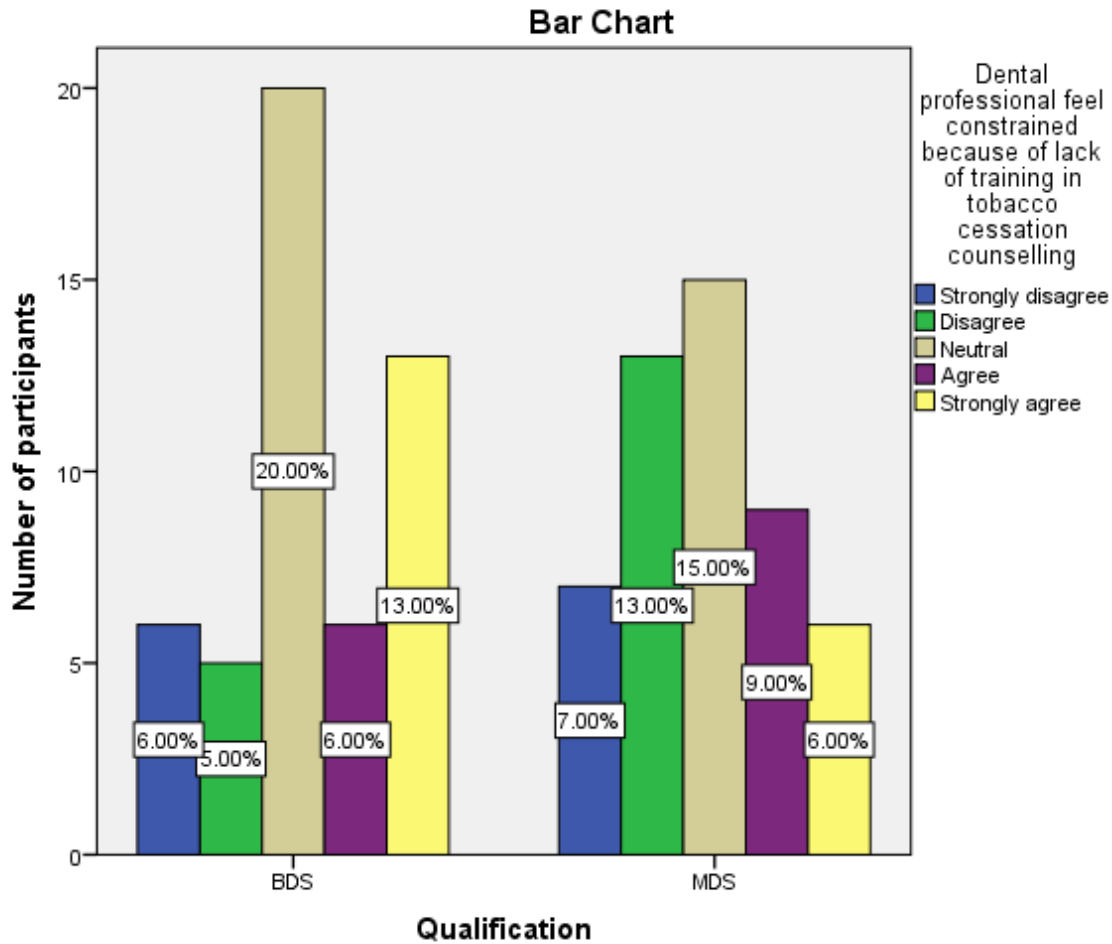


Fig.8: Shows the association between qualification and responses of the participants for the question whether dentists feel constrained because of lack of knowledge in tobacco cessation counselling. X axis represents the qualification and Y axis represents the percentage of responses for the question whether dentists feel constrained because of lack of knowledge in tobacco cessation counselling. Blue colour denotes strongly disagree, green colour denotes disagree, brown colour denotes neutral, purple colour denotes agree and yellow colour denotes strongly agree. 13% of BDS graduates and 6% of MDS graduates responded that they feel constrained due to lack of knowledge. 6% of BDS graduates and 9 % of MDS responded that they feel constrained due to lack of knowledge. It was evident that the majority of the study population feel constrained due to lack of knowledge in tobacco cessation counselling. Pearson’s chi square test was done and p value 0.1(p>0.05), statistically insignificant.

In our study it was found that 46 % participants were male ; 54 % were female. 50 % have completed their undergraduate and 50 % were postgraduate. 63 % were teaching professionals ;37 % were private practitioners . 46 % of the participants think that it is necessary to ask patients if they have tobacco usage habits . 52 % think that it is necessary to advise patients to quit tobacco. 67 % participants explain the benefits of tobacco cessation to patients. 43% participants discuss specific strategies to stop tobacco usage. Around 32 % participants think that it is important to keep patients on follow up. 30 % participants think that some patients might not turn up for further treatments if they insist on stopping tobacco usage. 27 % of the participants think that dentists' time can be much better spent doing things other than trying to reduce tobacco use in patients.

The goal of this cross-sectional study was to analyse dentists' practises, and perceived impediments in Chennai.

The dentistry profession has a significant role to play in the cessation and prevention of smoking. In the current study, general dentists' attitudes toward taking responsibility for smoking cessation were largely positive. The findings were similar to those of several other studies conducted in other parts of the world^{2,4,12,13} in which dentists considered it was their job to assist their patients in quitting smoking or preventing tobacco use.

In terms of gender, girls outnumber males in dentistry in India, which is reflected in their positive attitude, although there was no substantial difference in practise. These findings were consistent with those of three other studies^{35,36}, however Naziya et al.³⁷ found that females had a higher practise score than males.

In terms of qualification, there was no statistically significant difference in practise ratings. This could be due to a lack of training and understanding, as well as a lack of desire on the part of the patient, as seen by their perceived barriers. This was consistent with previous research^{35,38}, but Shaheen et al.¹¹ found that dentists with a Bachelor of Dental Surgery degree had higher mean scores for the domain item "beliefs about consequences."

Shah et al.³⁸ showed no statistically significant difference between private, academicians, and both in an Indian study. Dentistry is a profession, and no one profession can give the best patient care on their own. Tobacco quitting, on the other hand, is more difficult due to the distribution of work responsibilities. Counseling is regarded as a minor activity. Dentists who work alone have a pleasant mood and high practise scores, which can be related to the thorough care they deliver. In the United Arab Emirates, however, a study³⁵ found no statistically significant difference between solo and group practise. Dentists with greater clinical experience are more likely to encounter patients with oral diseases connected to tobacco use, and they appear to value both preventive and therapeutic care equally,³⁹ which explains their more positive attitude and higher practise score. This result matched that of a previous study.⁴⁰

Along with the dentists' positive attitudes, various challenges to providing smoking cessation counselling to patients were found. The main impediments found were a lack of time, a lack of understanding, and a fear of patients leaving the clinic. For those attempting to implement them, a lack of time proved a key stumbling block. Lack of time was cited by 54.3 percent of dentists as a key impediment to the adoption of smoking cessation therapy. The finding is alarming because it is widely accepted among dental professionals that tobacco use has a direct impact on the oral cavity, including the link between tobacco use and oral cancer, oral lesions, and periodontal disease, as well as the link between tobacco use and an increased incidence of dental caries. Many studies have identified a lack of time as a major barrier for dentists who are unable to incorporate tobacco cessation activities into their practises.^{2,10,41}

Another roadblock for dentists was a lack of information. According to a study conducted among Kelantan dentists (Malaysia), the lack of confidence could be due to dentists' lack of competence in smoking intervention.² 37.1 percent of dentists stated that they lacked information on the subject to some extent. The study's findings were consistent with previous research that indicated a lack of information as a primary obstacle to dentists assisting their patients in quitting smoking.^{41,42}

Another barrier to receiving smoking cessation advice from the patient was the patient's fear of leaving the clinic. If a patient is counselled extensively for cigarette cessation, 35.8% of dentists fear that the patient would abandon the ongoing treatment or stop treatment altogether. According to a study conducted by Ibrahim and Norkhafizah², 52.4 percent of dentists believe that if patients are urged to quit smoking, they will leave the clinical set.

FUTURE SCOPE :

Large study population .

To create awareness among the dental professionals as well as dental students on tobacco cessation counselling.

CONCLUSION

This study identified practices, and perceived barriers in tobacco cessation counselling among dental practitioners in Chennai. The most prevalent roadblock faced was patient indifference and a lack of training. Tobacco cessation should be reinforced in the classroom so that it can be carried over into clinical practise afterwards. Furthermore, a suitable environment should be provided for them to properly counsel the patient.

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CONFLICT OF INTEREST-

All the authors declare that there was no conflict of interest in the present study.

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REFERENCES

1. Amit S, Bhambal A, Saxena V, et al. Tobacco cessation and counseling: a dentists' perspective in Bhopal city, Madhya Pradesh. *Indian J Dent Res* 2011; 22: 400–403.
2. Ibrahim H, Norkhafizah S. Attitudes and practices in smoking cessation counselling among dentists in Kelantan. *Archives of Orofacial Sciences* 2008; 3: 11–16.
3. Sham ASK, Cheung LK, Jin LJ, et al. The effects of tobacco use on oral health. *Hong Kong Med J* 2003; 9: 271–277.
4. Wyne AH, Chohan AN, Al-Moneef MM, et al. Attitudes of general dentists about smoking cessation and prevention in child and adolescent patients in Riyadh, Saudi Arabia. *J Contemp Dent Pract* 2006; 7: 35–43.
5. Seffrin JR, Stauffer DJ. Patient education on cigarette smoking: the dentist's role. *J Am Dent Assoc* 1976; 92: 751–754.
6. Brothwell DJ, Armstrong KA. Smoking cessation services provided by dental professionals in a rural Ontario health unit. *J Can Dent Assoc* 2004; 70: 94–98.
7. Fiore M. *Treating Tobacco Use and Dependence*. U.S. Department of Health and Human Services, Public Health Service, 2000.
8. Monaghan N. What is the role of dentists in smoking cessation? *Br Dent J* 2002; 193: 611–612.
9. Prochaska JO, DiClemente CC. Transtheoretical therapy: Toward a more integrative model of change. *Group*

Dyn 1982; 19: 276–288.

10. Albert D, Ward A, Ahluwalia K, et al. Addressing tobacco in managed care: a survey of dentists' knowledge, attitudes, and behaviors. *Am J Public Health* 2002; 92: 997–1001.
11. Chestnutt IG, Binnie VI. Smoking cessation counselling--a role for the dental profession? *Br Dent J* 1995; 179: 411–415.
12. Clover K, Hazell T, Stanbridge V, et al. Dentists' attitudes and practice regarding smoking. *Aust Dent J* 1999; 44: 46–50.
13. Stacey F, Heasman PA, Heasman L, et al. Smoking cessation as a dental intervention--views of the profession. *Br Dent J* 2006; 201: 109–13; discussion 99.
14. Trotter L, Worcester P. Training for dentists in smoking cessation intervention. *Aust Dent J* 2003; 48: 183–189.
15. Mathew MG, Samuel SR, Soni AJ, et al. Evaluation of adhesion of *Streptococcus mutans*, plaque accumulation on zirconia and stainless steel crowns, and surrounding gingival inflammation in primary molars: randomized controlled trial. *Clin Oral Investig* 2020; 24: 3275–3280.
16. Samuel SR. Can 5-year-olds sensibly self-report the impact of developmental enamel defects on their quality of life? *Int J Paediatr Dent* 2021; 31: 285–286.
17. Samuel SR, Kuduruthullah S, Khair AMB, et al. Impact of pain, psychological-distress, SARS-CoV2 fear on adults' OHRQOL during COVID-19 pandemic. *Saudi J Biol Sci* 2021; 28: 492–494.
18. Samuel SR, Kuduruthullah S, Khair AMB, et al. Dental pain, parental SARS-CoV-2 fear and distress on quality of life of 2 to 6 year-old children during COVID-19. *Int J Paediatr Dent* 2021; 31: 436–441.
19. Samuel SR, Acharya S, Rao JC. School Interventions-based Prevention of Early-Childhood Caries among 3-5-year-old children from very low socioeconomic status: Two-year randomized trial. *J Public Health Dent* 2020; 80: 51–60.
20. Vikneshan M, Saravanakumar R, Mangaiyarkarasi R, et al. Algal biomass as a source for novel oral nano-antimicrobial agent. *Saudi J Biol Sci* 2020; 27: 3753–3758.
21. Chellapa LR, Rajeshkumar S, Arumugham MI, et al. Biogenic Nanoselenium Synthesis and Evaluation of its antimicrobial, Antioxidant Activity and Toxicity. *Bioinspired BiomimNanobiomaterials* 2020; 1–6.
22. Samuel SR, Mathew MG, Suresh SG, et al. Pediatric dental emergency management and parental treatment preferences during COVID-19 pandemic as compared to 2019. *Saudi J Biol Sci* 2021; 28: 2591–2597.
23. Barma MD, Muthupandiyani I, Samuel SR, et al. Inhibition of *Streptococcus mutans*, antioxidant property and cytotoxicity of novel nano-zinc oxide varnish. *Arch Oral Biol* 2021; 126: 105132.
24. Muthukrishnan L. Nanotechnology for cleaner leather production: a review. *Environ Chem Lett* 2021; 19: 2527–2549.
25. Muthukrishnan L. Multidrug resistant tuberculosis - Diagnostic challenges and its conquering by nanotechnology approach - An overview. *Chem Biol Interact* 2021; 337: 109397.
26. Sekar D, Auxilia PK. Letter to the Editor: H19 Promotes HCC Bone Metastasis by Reducing Osteoprotegerin

- Expression in a PPP1CA/p38MAPK- Dependent Manner and Sponging miR- 200b- 3p. *Hepatology*. Epub ahead of print 2021. DOI: 10.1002/hep.31719.
27. GowhariShabgah A, Amir A, Gardanova ZR, et al. Interleukin-25: New perspective and state-of-the-art in cancer prognosis and treatment approaches. *Cancer Med* 2021; 10: 5191–5202.
 28. Kamala K, Sivaperumal P, Paray BA, et al. Author response for ‘Identification of haloarchaea during fermentation of *Sardinella longiceps* for being the starter culture to accelerate fish sauce production’. Epub ahead of print 13 May 2021. DOI: 10.1111/ijfs.15183/v3/response1.
 29. Ezhilarasan D, Lakshmi T, Subha M, et al. The ambiguous role of sirtuins in head and neck squamous cell carcinoma. *Oral Dis*. Epub ahead of print 11 February 2021. DOI: 10.1111/odi.13798.
 30. Sridharan G, Ramani P, Patankar S, et al. Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma. *J Oral Pathol Med* 2019; 48: 299–306.
 31. R H, Hannah R, Ramani P, et al. CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo[a]pyrene. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology* 2020; 130: 306–312.
 32. J PC, Pradeep CJ, Marimuthu T, et al. Prevalence and measurement of anterior loop of the mandibular canal using CBCT: A cross sectional study. *Clinical Implant Dentistry and Related Research* 2018; 20: 531–534.
 33. Wahab PUA, Abdul Wahab PU, Madhulaxmi M, et al. Scalpel Versus Diathermy in Wound Healing After Mucosal Incisions: A Split-Mouth Study. *Journal of Oral and Maxillofacial Surgery* 2018; 76: 1160–1164.
 34. Mudigonda SK, Murugan S, Velavan K, et al. Non-suturing microvascular anastomosis in maxillofacial reconstruction- a comparative study. *Journal of Cranio-Maxillofacial Surgery* 2020; 48: 599–606.
 35. Bangera D, Takana M, Muttappallymyalil J. Tobacco cessation: attitude and practice of dentists in Northern United Arab Emirates. *East Mediterr Health J* 2018; 24: 419–426.
 36. Razavi SM, Zolfaghari B, Doost ME, et al. Attitude and practices among dentists and senior dental students in iran toward tobacco cessation as an effort to prevent oral cancer. *Asian Pac J Cancer Prev* 2015; 16: 333–338.
 37. Naziya KB, Sakthi DS, Arumugham IM, et al. Knowledge, attitude, and practice about barriers to tobacco intervention services among dental students in Chennai, Tamil Nadu. *Journal of Advanced Pharmacy Education & Research/ Apr-Jun [Internet]*; 7, https://www.speronline.com/japer/Articlefile/c/22_JAPER_45_2017_20171031_V1.pdf (2017).
 38. Shah S, Rath H, Sharma G. Knowledge, attitude and practices of institution-based dentists toward nicotine replacement therapy. *Indian J Dent Res* 2017; 28: 629–636.
 39. Alajmi B, Abu-Hammad O, Al-Sharrad A, et al. Tobacco cessation support among dentists: A cross-sectional survey in Saudi Arabia and Kuwait. *TobPrevCessat* 2017; 3: 121.
 40. Mitra DK, Pawar SD, Mandal A, et al. Attitudes of dental professionals toward tobacco use. *J Indian Soc Periodontol* 2015; 19: 317–321.
 41. Inada HI. *Bibliography of Translations from the Japanese Into Western Languages from the 16th Century to 1912*. Sophia University, 1971.
 42. Hu S, Pallonen U, McAlister AL, et al. Knowing how to help tobacco users. Dentists’ familiarity and

compliance with the clinical practice guideline. *J Am Dent Assoc* 2006; 137: 170–179.

43. Kumar, S. (2022). A quest for sustainium (sustainability Premium): review of sustainable bonds. *Academy of Accounting and Financial Studies Journal*, Vol. 26, no.2, pp. 1-18

44. Sehgal.P, Kumar.B, Sharma.M, Salameh A.A, Kumar.S, Asha.P (2022), Role of IoT In Transformation Of Marketing: A Quantitative Study Of Opportunities and Challenges, *Webology*, Vol. 18, no.3, pp 1-11

45. Nandal, N. Impact of product innovation on the financial performance of the selected organizations: A study in indian context. *Psychol. Educ. J.* 2021, 58, 5152–5163.

Malik, R., Nandal, Naveen and Gupta, Prakhar. (2021), The Impact of online shoppers to price and quality: a survey study in Delhi-NCR, *Efflatounia*, 5 (2), pp. 376 – 389.