

Content available at: <https://www.ipinnovative.com/open-access-journals>

International Journal of Oral Health Dentistry

Journal homepage: www.ijohd.org

Original Research Article

Assessment of tobacco cessation activities in the dental settings- A short survey study of 114 responses

Yogashree Sonawane^{1,*}, Gulam Naviwala², Omprakash Yadav³, Prachi Sharda⁴¹An alumni of Texas A and M University, School of Public Health, College Station, Texas, USA²Directorate of Health Sciences, Mumbai, Maharashtra, India³An alumni of Parul Institute of Public Health, Parul University, Vadodara, Gujarat, India⁴An alumni of Tata Institute of Social Science, School of Health System Studies, Mumbai, Maharashtra, India

ARTICLE INFO

Article history:

Received 11-08-2022

Accepted 29-08-2022

Available online 19-12-2022

Keywords:

Tobacco

Cessation

Survey

Oral health

ABSTRACT

Background: A questionnaire survey designed for a population study to assess the tobacco cessation activities carried out in a dental setting.**Aims:** 1) To assess the approach followed by dental doctors toward tobacco cessation activities in the dental setting. 2) To understand the barriers (if any) faced by the dentists in conducting tobacco cessation activities.**Methods:** To achieve the aforementioned objectives, a cross-sectional research study was designed to gather information on the approach toward tobacco cessation in a dental setting. This questionnaire was further circulated through diverse WhatsApp groups and through posts on social media sites to obtain responses.**Results:** Although screening for tobacco-related habits in a dental setting is crucial, only around 40% of the survey respondents reported having “always” (5 out of 5 cases) screened for tobacco-related habits. Nearly 49% of the survey respondent, lacked basic tobacco-related IEC material like banners, posters, demonstration videos, or help books required for patient sensitization. About 64% of respondents reported that they had never attended any tobacco cessation workshops while around 85% of respondents were willing to attend tobacco cessation workshops in near future.**Conclusion:** The article highlights the role of dentists in the screening of tobacco-related habits. It emphasizes the need for improved IEC/BCC activities to curb the tobacco pandemic. Catering to training needs and sensitization of the dental workforce for effective management of tobacco cases is also being pinpointed. The development of exclusive guidelines or templates for screening forms a major crux of the study.This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.For reprints contact: reprint@ipinnovative.com

1. Introduction

During the last two decades, several types of research conducted have variably emphasized the fact that there exists a two-way relationship between systemic conditions and oral disorders. In addition, an improved understanding of oral diseases demonstrates clearly that many oral

disorders have multiple environmental, behavioral, and systemic risk factors for disease initiation and progression.¹ Same is the case with tobacco lesions, wherein screening oral cavities is of utmost importance for earlier diagnosis of tobacco-induced cancers.² Cancers due to tobacco use are preventable, and thus, it is important to pay attention to the increasing rates of tobacco usage for early intervention.³ The National Tobacco Control Program (2007-2008) has

* Corresponding author.

E-mail address: yogashree11thedentist@gmail.com (Y. Sonawane).

been launched in India, and constructive measures for tobacco control have already been put in place.⁴ Oral cavities serve as a natural mirror in identifying the initiation and progression of most of the tobacco-induced premalignant and malignant lesions.⁵ Thus, it is the sole duty of dental practitioners to assess the presence of any detrimental habit or any alteration in the otherwise healthy oral cavity that may be responsible for further progression into premalignant or malignant lesions. It is equally crucial to provide necessary treatment options either through self-intervention or referral at an early stage following this detection. As an attempt to understand the barriers faced by the dental community and to assess the practices followed by dental doctors towards tobacco cessation activities in their dental setting, the following survey was designed. This research intends to assess the approach of a routine dental practitioner (trained or otherwise) toward tobacco cessation activities in dental settings.

2. Materials and Methods

A cross-sectional research study was designed with the fabrication of a Google form questionnaire to gather information on the approach toward tobacco cessation in a dental setting by dental practitioners. The questionnaire included a series of questions firstly pertaining to the demographics of the population like the degree of respondents, their practice location, total experience or years of practice, etc. This was followed by basic questions related to tobacco screening, treatment modalities followed, routine practices, capacity building/ training needs, patient sensitization, etc. Identifying information like name, basic degree information, gender, practice location, and total years of experience was considered for future reference but was kept optional. This questionnaire was circulated through diverse WhatsApp groups and through posts on social media sites like Facebook to achieve responses across the country. A total of 114 responses were received through Google forms. The following responses were subjected to data cleaning and subsequent analysis using Microsoft Excel. Attempts to consider all responses from practicing dental doctors across the country were made in the survey. Multiple entries or more than one entry from the same person were excluded from the study. Also, the study attempted to not consider responses from students still studying for their dental bachelor's degree. No approval from the ethical committee was taken for this survey since this study did not involve any direct interaction with patients or any clinical intervention. Only the responses received through Google Forms were analyzed.

2.1. Demographics of population

Out of 114 data responses received, 105 entries were considered for analysis following data cleaning (Table 1).

Out of these 105 entries, about 73.33 % (n=77) entries were achieved from BDS (Bachelors of Dental Surgery) doctors while 26.66% (n= 28) entries were achieved from MDS (Masters of Dental Surgery) doctors. Most of the respondents practiced in areas like Mumbai, Navi-Mumbai, Vasai-Virar, Thane, and the outskirts of the Thane area (n=72) (Figure 1). The majority of the respondents (84.76%) reported having a practice in a private setting while 12.38% practiced in semi-private or government settings like at a college, hospital, trust, organized chains, etc. About 12 of the respondents (n=12) reported having practiced dentistry for more than 10 years while the majority of respondents had a practice of about 1 to 5 years.

Table 1: Demographics of the population

S.No.	Demographics of population	n=105	
		Number	%
1	Degree of the participants		
	BDS	77	73.33333
	MDS	28	26.66667
	Grand Total	105	100
2	Practicing location	Number	%
	Mumbai, Navi-Mumbai and Thane Areas	72	68.57143
	Out of Mumbai, Navi-Mumbai, and Thane but in Maharashtra	20	19.04762
	Out of Maharashtra but in India	7	6.666667
	Not mentioned/ Not answered	6	5.714286
	Grand Total	105	100
3	Practicing in a dental setting	Number	%
	Private Setting	89	84.7619
	Other than Private settings (College and hospital, Govt. Settings, etc.)	13	12.38095
	Not Answered	3	2.857143
	Grand Total	105	100
4	Total Experience of practice	Number	%
	1 to 5 years	60	57.14286
	Above 5 years to 10 years	30	28.57143
	Above 10 years to 15 years	8	7.619048
	Above 15 years	4	3.809524
	Not Answered	3	2.857143
	Grand Total	105	100

Source: - Microsoft excel table-original findings from the survey

3. Results

The survey questionnaire focused on different aspects of tobacco cessation activities like screening, patient sensitization, commonly followed approaches, and training needs assessment. As per the responses received, only around 40% of respondents reported having “always” (5

Table 3: Assessment survey questions - II

	Do you provide tobacco cessation advice in your clinic?	Number	%
Question pertaining to the approach/ practice followed	Always (5 out of 5 cases)	63	60
	Sometimes (3 out of 5 cases)	35	33.33333
	Rarely (1 out of 5 cases)	4	3.809524
	Never (0 out of 5 cases)	3	2.857143
	Not Answered	0	0
	Grand Total	105	100
	How long does your counseling session last?	Number	%
Question pertaining to the routine practice followed	10-15 mins	82	78.09524
	25-30 mins	19	18.09524
	35-40 mins	3	2.857143
	Not Answered	1	0.952381
	Grand Total	105	100
		Do you perform an oral biopsy of lesions in your clinical setting	Number
Understanding Barriers	Always (5 out of 5 cases)	7	6.666667
	Sometimes (3 out of 5 cases)	18	17.14286
	Rarely (1 out of 5 cases)	38	36.19048
	Never (0 out of 5 cases)	41	39.04762
	Not Answered	1	0.952381
	Grand Total	105	100
	Do you require extra support while performing a biopsy in a clinical setting? (For example: - Need for MDS, Oral Surgeon consult, special tools)	Number	%
Understanding Barriers	Yes	90	85.71429
	No	12	11.42857
	Not Answered	3	2.857143
	Grand Total	105	100

Source: - Microsoft excel table-original findings from the survey

Table 4: Assessment survey questions - III

	Have you attended any workshop on tobacco cessation?	Number	%
Capacity Building/Training Needs	Yes	37	35.2381
	No	68	64.7619
	Not Answered	0	0
	Grand Total	105	100
	Would you like to attend tobacco cessation workshop in the near future	Number	%
Capacity Building/Training Needs	Yes	90	85.71429
	No	15	14.28571
	Not Answered	0	0
	Grand Total	105	100

Source: - Microsoft excel table-original findings from the survey

was followed which included a combination of more than one intervention like counseling, usage of quit tobacco services, intervention through biopsy, or referral to the nearby hospital depending on a case-by-case basis. Around 60% of respondents reported, that they “Always” (5 out of 5 cases) provided tobacco cessation advice in their clinics. Counseling was carried out for many patients with the time of counseling being 10 to 15 mins for most cases. Oral biopsy was not commonly approached in a dental setting.

About 39.04% never carried out a biopsy in a dental setting while 36.19% rarely carried out an oral biopsy. This may be significantly related to the fact that 85.71% of respondent dentists accepted that they require extra support while performing a biopsy in a clinical setting. (For example: - A need for a MDS doctor or an Oral Surgeon consult, special tools, etc.) Nearly 64% of respondents reported that they had never attended any tobacco cessation workshops while 85% of respondents were willing to attend tobacco cessation

Table 5: 2 X 2 table -Workshop on tobacco vrs workshop in near future

Workshop on tobacco	Workshop in near future		
	Yes	No	Total
Yes	31	6	37
Row %	83.78%	16.22%	100.00%
Col %	34.44%	40.00%	35.24%
No	59	9	68
Row %	86.76%	13.24%	100.00%
Col %	65.56%	60.00%	64.76%
Total	90	15	105
Row %	85.71%	14.29%	100.00%
Col %	100.00%	100.00%	100.00%
	Point Estimate	95% Confidence Interval Lower	Upper
Parameters: Odds-based			
Odds Ratio (cross product)	0.7881	0.257	2.4174 (T)
Odds Ratio (MLE)	0.79	0.2541	2.5859 (M)
		0.2264	2.9589 (F)
Parameters: Risk-based			
Risk Ratio (RR)	0.9656	0.8151	1.1440 (T)
Risk Difference (RD%)	-2.9809	-17.3316	11.3697 (T)
(T=Taylor series; C=Cornfield; M=Mid-P; F=Fisher Exact)			
Statistical Tests		Chi-square	1-tailed p
Chi-square - uncorrected	0.1739		2-tailed p
Chi-square - Mantel-Haenszel	0.1722		0.676680054
Chi-square - corrected (Yates)	0.0156		0.678136563
Mid-p exact		0.339305759	0.900444918
Fisher exact 1-tailed		0.442219703	0.772302898

Source: - Analysis in epiInfo software

workshops in near future.

On plotting a 2 by 2 table, taking into consideration the variable as those who attended any kind of workshop on tobacco cessation against those who would be willing to attend workshops in the coming future, it was observed that out of 37 respondents who had already attended tobacco cessation workshops, 31 (83.78%) were willing to attend more workshop related to tobacco cessation in coming future, while 6 of them were satisfied with the workshop earlier attended. (Table 5) Similarly, out of 37 respondents who had attended the workshop, only 21 respondents (56.76%) accepted having tobacco-related IEC materials in their clinic. (Table 6)

4. Discussion

Screening is the first step towards the realization of any unhealthy oral health conditions. While screening for tobacco-related habits holds high significance, not many dental doctors seem to consider this seriously. This highly suggests a need for a standardized format of reporting/diagnosing while screening patients in a dental setting so that no important finding is missed. This standardization in the dental OPD format can be thought

over and developed by competent authorities like the dental associations or the dental councils and can be circulated amongst the dental community making it a mandate to obey. This will not only assure uniformity in the dental screening process all across the country but also assure the completeness of the screening process. With a standardized format, that includes screening questions on tobacco-related habits and lesions, other than dental health, there is a possibility for better and early diagnosis of tobacco-related illness.

Another sector of concern is the lack of community intervention efforts undertaken by the practicing dentist to include those beyond the reach of dental care. This is evident from the figures that around 62.85% of respondents in the survey never participated in dental cancer screening camps. Attempts should be made to enhance participation of the dental doctors in various community intervention activities for improving the reach of dental healthcare as a means to reduce dental health inequities.

In the coming decade, there has been a shift in the practices followed from initial referral to a multidisciplinary approach in a dental setting. It is good to see that most dentists are providing counseling and treatment per se.

Table 6: 2 X 2 table - Workshop on tobacco vrs IEC

Workshop On Tobacco	IEC		
	Yes	No	
Yes	21	16	37
Row %	56.76%	43.24%	100.00%
Col %	39.62%	30.77%	35.24%
No	32	36	68
Row %	47.06%	52.94%	100.00%
Col %	60.38%	69.23%	64.76%
Total	53	52	105
Row %	50.48%	49.52%	100.00%
Col %	100.00%	100.00%	100.00%
	Point Estimate	95% Confidence Interval	
		Lower	Upper
Parameters Odds-based			
Odds Ratio (cross product)	1.4766	0.6594	3.3063 (T)
Odds Ratio (MLE)	1.4711	0.6542	3.3453 (M)
		0.6121	3.5874 (F)
Parameters: Risk-based			
Risk Ratio (RR)	1.2061	0.8267	1.7596 (T)
Risk Difference (RD%)	9.6979	-10.1911	29.5870 (T)
(T= Taylor series; C= Cornfield; M= Mid-P; F= Fisher Exact)			
Statistical Test	Chi-square	1-tailed p	2-tailed p
Chi-square - uncorrected	0.9015		0.342372394
Chi-square - Mantel-Haenszel	0.8929		0.344681358
Chi-square - corrected (Yates)	0.5553		0.456155328
Mid-p exact		0.176223046	
Fisher exact 1-tailed		0.228232461	0.415249914

Source: - Analysis in epiInfo software

However, not much emphasis is being given to patient sensitization. Most patients involved in a tobacco habit are unaware of the consequences of tobacco intake. Thus, it is of importance that a dental setting possesses adequate IEC/BCC materials like posters, banners, help books, demonstration videos, etc. depicting the ill effects of tobacco and tobacco products consumption required for patient sensitization.

Motivation is a key factor for a patient to quit a tobacco habit. Maneuvering dedicated trained counselors for tobacco counseling might help provide better counseling and increase quit tobacco attempts. Barriers are faced by dentists while executing tobacco cessation activities in their dental settings. Most dentists have accepted the fact that they need support from a MDS doctor or oral consult while performing biopsies. Adequate education for upgrading the existing knowledge and skill set of a dentist is a must. There exists a need for rigorous coaching of the dentist so that they are more comfortable and efficient in their approach. Surgical procedures like biopsies are being avoided due to a lack of required tools and skillsets in general practice. A biopsy can be performed in the clinical setting if provided with adequate training and hence biopsy workshops should be held to encourage good biopsies. The majority of

respondents in this survey were untrained which highlights the need for capacity building and catering to the training needs of dental doctors for tobacco cessation activities that can be carried out in a dental setting. This might help build competencies and better the chances of dental care delivery.

The survey's findings are supported by other previously published publications as well. For instance, an article on tobacco cessation by Murthy et al named "Tobacco cessation services in India: Recent developments and the need for expansion"; emphasizes the need for tobacco cessation training and its incorporation into the curriculum as a way forward in India. A survey study on tobacco cessation activities by Chandrashekar et al named "Addressing tobacco control in dental practice: A survey of dentist's knowledge, attitudes, and behaviors in India, mentions similar findings about dentists needing formal training. A study by Parker et al on Attitudes, practices, and barriers in tobacco cessation counseling among dentists of Ahmedabad city suggests a requirement of formal training for tobacco cessation counseling. A similar study by Oswal K, et al. named Knowledge, Attitude and Practice of Tobacco Cessation Counselling among Dental Professionals in Maharashtra- An Opportunity for Health Promotion also highlights similar insights on this topic.

5. Limitations

This survey recorded very less responses as compared to the number of practicing dentists all over India. The reach of the survey was restricted to shares on WhatsApp groups. Thus, this study effectively portrays a snapshot of the population while more data on a larger scale is required to depict an accurate representation of the population. Secondly, the study was totally dependent on the responses that were received from the respondent taking into consideration that the respondent would have answered with honest replies. A disclaimer was included at the beginning of the survey encouraging the respondent to provide honest replies that would help authenticate the data.

6. Source of Funding

None.

7. Conflict of Interest

None.

References

1. Kunzel C, Lalla E, Albert DA, Yin H, Lamster IB. On the primary care frontlines: the role of the general practitioner in smoking-

- cessation activities and diabetes management. *J Am Dent Assoc.* 2005;136(8):1144–53.
2. Fedele S. Diagnostic aids in the screening of oral cancer. *Head Neck Oncol.* 2009;1:5. doi:10.1186/1758-3284-1-5.
3. Mishra GA, Pimple SA, Shastri SS. An overview of the tobacco problem in India. *Indian J Med Paediatr Oncol.* 2012;33(3):139–45.
4. National tobacco control programme. Available from: <http://ntcp.nhp.gov.in/>.
5. Axéll T. The oral mucosa as a mirror of general health or disease. *Scand J Dent Res.* 1992;100(1):9–16.

Author biography

Yogashree Sonawane, Public Health Practitioner

Gulam Naviwala, Medical Officer (Dental)

Omprakash Yadav, Public Health Practitioner

Prachi Sharda, Public Health Practitioner

Cite this article: Sonawane Y, Naviwala G, Yadav O, Sharda P. Assessment of tobacco cessation activities in the dental settings- A short survey study of 114 responses. *Int J Oral Health Dent* 2022;8(4):294-300.