Knowledge of Tobacco Cessation Center establishment in Dental Colleges among postgraduate students and interns of Private Dental College of North Gujarat: a survey.

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Abstract

Introduction:

Objectives: Knowledge of tobacco cessation center establishment in Dental Colleges among Postgraduate Students and Interns of Private Dental College of North Gujarat using validated questionnaire.

Methodology: A descriptive cross-sectional survey was conducted among Postgraduate Students and Interns of Private Dental College of North Gujarat. Survey comprised of Two parts: Part I – Demographic data, Part II- Pretested questionnaire of Knowledge of tobacco cessation center establishment in Dental Colleges. Data was tested in SPSS 20.0 software and Chi square test was applied to test the significance level. Level of significance was set at $p \leq 0.05$.

Result: Out of 90 postgraduate students, 83 were participated in the study. For better comparison same number of inters were randomly selected for the study. Postgraduate students (43.73%) were having more knowledge as compared to intern students (34.46%) which was statistically significant.

Conclusion: It was concluded that postgraduate dental students were having more knowledge regarding tobacco cessation center establishment as compared to interns. Education of TCC guidelines and its functions among Dental students should be improved by all Dental Colleges to fulfil the aim of Government of India.

Key words: Knowledge, Tobacco, Tobacco Cessation Center.

Introduction

The meaning of health has evolved over time. Keeping up with the biomedical concepts, the primitive definitions of health focused on the body's ability to function properly. Health was seen as a state of normal function that could be disrupted from time to time by diseases. World Health Organization defined heath as "a state of complete physical, social and mental wellbeing and not merely an absence of disease or infirmity".[1]

Tobacco is the one of the most causative factor of death in the world today, it has been estimated that more than eight million death will occur due to Tobacco by 2030.[2] Smoking alone is responsible for more deaths every year than fire accidents, AIDS, alcohol, road traffic accidents, cocaine, murders and suicides combined.[3]

The habit of smoking is considered a true drug addiction and is widespread all over the world.[4] A person with early age is most likely to get attracted toward smoking habit and become an addict for the rest of his or her life due to various multifactorial wrong belief like conscious of their personality, styles and making up their role models. Various study outcomes confirm that smoking is a potential risk factor for health, causing increased morbidity and mortality that could be prevented.[5]

Enhancing the knowledge of smokers about the oral and dental problems caused by direct or indirect exposure to cigarette smoke can significantly encourage them to quit smoking habit.[6]Despite many tobacco control actions being performed around the world, tobacco consumption still constitutes a global public health burden that brings huge losses to the economy and society. Smoking has a considerable influence on oral health, therefore dentists should be at the front line worker of anti-smoking strategies and play an important role in tobacco cessation by providing necessary information about tobacco use and the consequences on oral health outcomes.[7,8]

A Tobacco Cessation Center is defined as fixed premises where qualified health care professionals/counsellors provide tobacco (smoke & smokeless form) cessation therapy to help patients in their attempts to quit the habit. The therapy can involve individual or group counselling and may include the dispensing of pharmacological aids, if the center is registered and equipped to do so. It was mandatory to start Tobacco Cessation Centers in every Dental college in India as per guidelines given by Government of India, Ministry of Health and Family Welfare, Directorate General of Health Services, National Oral Health Programme / National Tobacco Control Programme.[9] The Goal of Government of India to reduce the mortality and morbidity produced by Tobacco products. (TCC) Hence, present study was conducted to assess the knowledge of tobacco cessation center establishment in India between Interns and Post graduates of Private Dental College of North Gujarat.

Material and Methods:

A descriptive Cross-sectional pilot study was conducted from April 2024in interns and Post graduate students of Private Dental College of North Gujarat. All the available interns and Post graduate students who will to give consent was included in the study. Google form was prepared with all questions with two parts: part I had Demographic Profile and part II had questionnaire regarding establishment of Tobacco Cessation Center establishment in Dental Colleges. Ethical clearance was obtained from Ethical Board of relevant Institutes. All

questions was taken from Establishment of Tobacco Cessation Centers in Dental Institutes – An integrated approach in India given by Government of India, Ministry of Health and Family Welfare, Directorate General of Health Services, National Oral Health Programme / National Tobacco Control Programme (Operational guidelines 2018). We had included 10 questions from guidelines. Right answer was given one point and wrong answer was given 0 point for each questions.All points of each question were added and obtained score will be converted in percentages for knowledge score. Data was tested in SPSS 20.0 software.Chi square test and Fisher Exact testwere applied to test the significant level. Level of significance was set at $p \leq 0.05$.

Result:

Table 1: Distribution of the study subjects based on academic qualification

Groups	**Number**	**Percentages**
Interns	83	50%
Postgraduate	83	50%

Out of 90 postgraduate students, 83 were participated in the study. For better comparison same number of inters were randomly selected for the study. (Table 1)

Table 2: Distribution of the study subjects based on knowledge between Postgraduates and intern students

Knowledge regarding Tobacco Cessation Center Establishment	**Interns n(%)**	**Postgraduates n(%)**	**Total n(%)**	**P Value**
Operational Guidelines of Establishment of Tobacco Cessation Center in Dental Colleges was given in which year?	56 (67.5%)	56 (67.5%)	112 (67.5%)	1.000**
How many minimum staff members are required for Tobacco Cessation Center in Dental Colleges?	5 (6%)	32 (38.6%)	37 (22.3%)	≤0.001*
Who is eligible as incharge of Tobacco Cessation Center in Dental Colleges?	14 (16.9%)	67 (80.7%)	81 (48.8%)	≤0.001*
How much area is required for individual counselling in Tobacco Cessation Center in Dental Colleges?	40 (48.2%)	36 (43.4%)	76(45.8 %)	0.553**
Which is not a requirement for Tobacco Cessation Center in Dental Colleges?	10 (12%)	38 (45.8%)	48 (28.9%)	≤0.001*
How many BDS staff are required for Tobacco Cessation Center in Dental Colleges?	41 (49.4%)	24 (28.9%)	65 (39.2%)	0.007*
Which supporting staff is mandatory for Tobacco Cessation Center in Dental Colleges?	28 (33.7%)	23 (27.7%)	81(48.8 %)	≤0.871*

How many chain referrals are required in TCC?	5 (6%)	29 (34.9%)	34(20.5 %)	≤0.001*
How many Carbon monoxide monitor are required in TCC?	24 (28.9%)	16 (19.3%)	40(24.1 %)	0.147**
How many patient details is required to store in Carbon monoxide monitor as per Tobacco Cessation Center guidelines in Dental Colleges?	33 (39.8%)	42 (50.6%)	75(45.2 %)	0.160**

Level of Significance P ≤ 0.05, * Significant, ** Non Significant

As per the guidelines of Govt. of India, three staff members (One incharge, One BDS staff and one medical social worker) are required in Tobacco Cessation Center in Dental Colleges. Postgraduate students (38.6%) were aware having more knowledge regarding this as compared to intern students (6%) which was statistically significant. As per guidelines, any person with MDS degree in Public Health Dentistry or Oral Medicine and Radiology is eligible as incharge of TCC. Postgraduate students (80.7%) were aware having more knowledge regarding this as compared to intern students (16.9%) which was statistically significant. As per guidelines, three chain referrals are required in TCC. Postgraduate students (34.9%) were aware having more knowledge regarding this as compared to intern students (6%) which was statistically significant. (Table 2)

Table 3: Distribution of the study subjects based on overall knowledge (in percentages) between Postgraduates and intern students

Education level	**Knowledge in percentage**		**P Value**
	Mean	**SD**	
Interns	34.46	13.09	**0.001***
Postgraduate students	43.73	20.16	

Level of Significance P ≤ 0.05, * Significant, ** Non Significant

Postgraduate students (43.73%) were having more knowledge as compared to intern students (34.46%). Statistically, significant difference was observed in knowledge score between interns and postgraduate students. (Table 3)

Discussion

Recognizing the very importance of tobacco cessation, 13 tobacco cessation clinics (TCCs) were started in 2002 by the Ministry of Health and Family Welfare, Government of India, with the support of the World Health Organization, and increased subsequently to 19 to provide tobacco cessation interventions to Indian population. The objectives of these clinics were to focus cessation strategies for smokers and smokeless tobacco users, to generate experience in tobacco cessation interventions and find out the feasibility of scaling up these intervention strategies. In the first five years, 34,741 tobacco users attended these clinics.[10]

Tobacco cessation needs to go beyond the health sector. The recent successful tobacco intervention carried out by teachers in the Indian State of Bihar is excellent example of tobacco cessation intervention outside the health sector. The intervention comprised educational efforts, tobacco control policies and cessation support. Among teachers in the intervention group the quit rate of 20 per cent was significantly higher compared to the five per cent in the control group.[11]

Unfortunately situation is very dismal in India regarding role of public health care/ physicians in tobacco cessation of patients. Studies have shown that only 22.5% of medical students acquired knowledge about tobacco cessation during their medical curriculum. (DDDD--25) Also the study highlights lack of knowledge among physicians about tobacco cessation techniques and drugs like Nicotine gums. [12] A study conducted in Bangalore found that 25% of PG residents were unaware of Nicotine Replacement Therapy.[13]

Education of health professionals is needed to occur both within the governmental health system as well as in the private sector. It is important to ask every patient visiting any health facility about tobacco use as it has been observed that few physicians ask their patients about tobacco use.[14] A major lesson from the study is that it is possible to establish effective tobacco cessation services in diverse health settings with optimal use of existing infrastructure and minimal support. It is also evident that follow-up is a very important component of care to ensure better outcome. There is a need to build awareness regarding the availability and benefits of tobacco cessation services. Educating the community about the benefits of tobacco cessation interventions is likely to improve retention in tobacco cessation programmes.[15]

A Tobacco Cessation Center is defined as fixed premises where qualified health care professionals/counsellors provide tobacco (smoke & smokeless form) cessation therapy to help patients in their attempts to quit the habit. The therapy can involve individual or group counselling and may include the dispensing of pharmacological aids, if the center is registered and equipped to do so. Government of India has taken initiative to start Tobacco Cessation Centers in every Dental college in India.[9] The ultimate Goal of Government of India to reduce the mortality and morbidity produced by Tobacco products. They had given some guidelines for the TCC in Dental Colleges. It is duty of every Dental college to increase awareness of functions of TCC among staff members and dental students. As per Government guidelines, mainly duty was given to Oral medicine and Public Health Dentistry Department but we can also involve all other Department to improve the action of TCC. Due to lack of literature, it was not possible to discuss each and every question with other study as our study was the first study among Dental students regarding knowledge of TCC establishment guidelines in Dental Colleges. (TCC guidelines)

There were some limitations of the study that we had included only interns and Postgraduate Dental students so result was not having good generalizability. After completion of study, we had conducted one session for all participants to spread knowledge of TCC establishment guidelines and motivated them to take active participation in this noble work. It was recommended that we can give posting to Postgraduate students of all departments.

Conclusion:

It was concluded that postgraduate dental students were having more knowledge regarding tobacco cessation center establishment as compared to interns. Education of TCC guidelines and its functions among Dental students should be improved by all Dental Colleges to fulfil the aim of Government of India.

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