



## RESEARCH ARTICLE

### PREVALENCE OF TOBACCO HABITS AMONG DENTAL STUDENTS IN JAMMU

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#### ABSTRACT

**Introduction:** Every eight seconds someone, somewhere in the world, dies as a result of tobacco use. It has been reported that there is an increased trend of tobacco habits among the healthcare students perusing healthcare education like any other youths. **Methodology:** A questionnaire based study to assess the prevalence of tobacco use among undergraduate students of Indira Gandhi Dental College Campus in Jammu on 170 students. Global Health professional students survey (GHPSS), survey questionnaire given by (CDC) centre for disease control Atlanta which is a standard pre-tested questionnaire for assessing prevalence of tobacco use among health care professionals around the world was used. **Results:** The present study showed 34.7 % prevalence of smoking and 17.6 % prevalence of chewing tobacco. This reflect alarming situation and demands urgent anti tobacco & tobacco cessation measures to be adopted by health professionals, who happens to be health promoters & health role models for society.

#### INTRODUCTION

The leading cause of death in today's world is tobacco consumption and more than five million people die globally from the effects of tobacco every year-more than that of HIV/AIDS, malaria and tuberculosis. Every eight seconds someone, somewhere in the world, dies as a result of tobacco use (Christopher Man *et al.*, 2009). It is reported that by the year 2030, the death toll is likely to exceed eight million a year. It also remains a major health problem in India as well (The Global Youth Tobacco Survey Collaborative Group, 2002). It has been reported that there is an increased trend of tobacco habits among the healthcare students perusing healthcare education like any other youths. Little attention has been given to the context of when and how healthcare students undergo attitudinal and behavioral changes with respect to their own smoking habits and alcohol consumption (Global School Personnel Survey). Moreover, health professionals, who happens to be health promoters/educators and health role models for society in future can have negative impact on society if they themselves are involved in tobacco consumption practice. Hence, the present study was undertaken to assess the prevalence of tobacco use among undergraduate students of dental colleges in Jammu, to assess the tobacco use prevalence among dental students, to assess the perceptions and attitudes of dental students towards participating in tobacco control and cessation activities and to suggest measures to involve dental professionals in tobacco cessation and other anti-tobacco interventions.

#### MATERIALS AND METHODS

**Methodology:** A cross-sectional study was conducted among the dental students of Indira Gandhi Dental College Jammu City, Jammu and Kashmir for the period of four days in the month of June 2017. Ethical approval was taken from the ethical committee of Indira Gandhi Dental College Jammu. A permission and informed consent was taken from the students. Study Population – A total of 170 students were taken as the study population for this study. All the students from 1<sup>st</sup> year to 4<sup>th</sup> yrs and interns students were included for the study whereas the post graduate students and house surgeons and the staff in various departments were excluded. Collection of Data: The data was collected on a pre-tested questionnaire which included 20 closed ended multiple-choice questions. Global Health professional students survey (GHPSS) questionnaire given by (CDC) Centre for disease control Atlanta which is a standard pre tested questionnaire for assessing the prevalence of tobacco use among health professionals around the world was used in the study. This questionnaire is also approved by World Health Organization (WHO) (The Global Youth Tobacco Survey Collaborative Group, 2002). The students received a full explanation of how to fill in the questionnaire. Furthermore, the examiner was always available during the completion of the questionnaire and the participants were encouraged to approach the examiner, when they needed to clarify at any point. The questionnaire was read out in local language by the examiner to enable the children to respond to the same.

## RESULTS

Life time prevalence of tobacco use among 3<sup>rd</sup> and 4<sup>th</sup> year students in Indira Gandhi Dental College campus in Jammu was 34.7 % (Table 1). Male students were more found than female students to smoke cigarettes. Out of the 34.7 % smoking student population almost 25.4% students 1<sup>st</sup> tried a cigarette at the age of 16-17 yrs. and 18-19 yrs. and 11% at the age of 20-24yrs (Table 2). Among all smoking students 64.4 % had smoked cigarettes on school premises/property (Table 3). Prevalence of using chewing tobacco among 3<sup>rd</sup> and 4<sup>th</sup> yr health care students was 17.06% (Table 4). More than 80% of students of healthcare campus favored complete ban on advertising of tobacco products (Table 5). More than 90 % students wanted smoking to be banned in restaurants, only 22.3% students wanted smoking to be banned in discos, bars and pubs and more than 95% wanted smoking to be banned in public places (Table 6).

**Table 1. Showing Prevalence of Smoking n (%)**

History of smoking	Sex		
	Male	Female	Total
Yes	48 (28.2)	11 (0.06)	59 (34.7)
No	59 (34.7)	52 (30.5)	111 (65.2)
Total	107 (62.9)	63 (37.05)	170 (100.00)

**Table 2. Showing Age at Smoking n (%)**

Age at smoking	Sex		
	Male	Female	Total
≤ 10	1 (1.70)	0 (0.00)	1 (1.70)
11- 15	5 (8.47)	2 (3.38)	7 (11.86)
16- 17	15 (25.4)	4 (6.77)	19 (32.20)
18- 19	15 (25.4)	2 (3.38)	17 (28.81)
20- 24	12 (20.3)	3 (5.08)	15 (25.4)
25- 29	0 (0.00)	0 (0.00)	0 (0.00)
Total	48 (81.4)	11 (18.6)	59 (100)

**Table 3. Prevalence of Smoking at School Premises n (%)**

Smoking at school premises	Sex		
	Male	Female	Total
Yes	35 (59.3)	3 (5.08)	38 (64.4)
No	13 (22.03)	8 (13.55)	21 (35.6)
Total	48 (76.36)	11 (18.6)	59 (100.00)

**Table 4. Showing Prevalence of Chewing Tobacco n (%)**

Chewing tobacco	Sex		
	Male	Female	Total
Yes	27 (15.88)	2 (1.17)	29 (17.06)
No	80 (47.05)	61 (35.88)	141 (82.94)
Total	107 (62.94)	63 (37.05)	170 (100.00)

**Table 5. Percentage of Student Advocating Ban on Advertisement of Tobacco Products n (%)**

Chewing tobacco	Sex		
	Male	Female	Total
Yes	93 (54.7%)	59 (34.7)	152 (89.4%)
No	14 (8.2%)	4 (2.3%)	18 (10.5%)
Total	107 (62.9)	63 (37.05)	170 (100%)

**Table 6. Percentage of Student Advocating Ban on Smoking in Public Places n (%)**

Smoking banned	No	Total
Restaurant	157	92.3 %
Discos, pubs, bar's	38	22.3 %
Public Place	167	98.2 %

70% of Dental students in IGDC believe that they should get specific training on cessation techniques (Table 7). More than 90% of students felt that the health professionals serve as role models for their patients and public (Table 8). 92.35% students were of the opinion that health care professionals should routinely advise their patients who smoke to quit smoking (Table 9). More than 90 % wanted to stop smoking cigarettes & 5.29 % did not want to stop smoking among the 34.7 % smoker students (Table 10). Among the 34.7% smoking student population more than 55.94% had received help or advice to stop smoking cigarettes and 44.06% had not (Table 11). Majority more than 70% of students believed that health professionals who smoke or use other tobacco products (chewing tobacco) are less likely to advise patients to stop smoking (Table 12 & 13). More than 60% had received during college training formal training in smoking cessation approaches to use with patients (Table 14). More than 70% had during their college training learned the importance to provide educational materials to support smoking cessation to patients who wanted to quit smoking (Table 15).

**Table 7. Percentage of student advocating training n (%)**

Chewing tobacco	Male	Female	Total
Yes	79 (46.4%)	40 (23.5%)	119 (70%)
No	28 (16.4%)	23 (13.5%)	51 (30%)
Total	107 (62.9%)	63 (37.05%)	170 (100.00)

**Table 8. Percentage who felt health professional act as health role models for society n (%)**

Chewing tobacco	Sex		
	Male	Female	Total
Yes	100 (58.82%)	56 (32.9%)	156 (91.7%)
No	7 (4.1%)	7 (4.1%)	14 (8.23%)
Total	107 (62.94%)	63 (37.05%)	170 (100%)

**Table 9. Percentage of student advocating routine advice to quit smoking to patients n (%)**

Chewing tobacco	sex		
	Male	Female	Total
Yes	101 (59.4%)	56 (32.9%)	157 (92.35%)
No	6 (3.5%)	7 (4.11%)	13 (7.64%)
Total	107 (62.9%)	63 (37.05%)	170 (100%)

**Table 10. % age of student wanted to quit smoking n (%)**

Smoking	Sex		
	Male	Female	Total
Yes	36 (61.01%)	11 (18.64%)	47 (79.66%)
No	12 (20.33%)	0 (0%)	12 (20.33%)
Total	48 (81.35%)	11 (18.64%)	59 (100%)

**Table 11. % age of student received ever advice to quit smoking n (%)**

Chewing tobacco	Sex		
	Male	Female	Total
Yes	28 (47.45%)	5 (8.47%)	33 (55.93%)
No	20 (33.89%)	6 (10.16%)	26 (44.06%)
Total	48 (81.35%)	11 (18.64%)	59 (100%)

**Table 12. % age of student who believed that smoker health care professionals less likely to advise patients smoking cessation practice**

Chewing tobacco	Sex		
	Male	Female	Total
Yes	87 (51.1%)	58 (34.1%)	145 (85.2%)
No	20 (11.7)	5 (2.9%)	8 (47.05%)
Total	107 (62.9%)	63 (37.05%)	170 (100%)

More than 65% students had heard of using nicotine replacement therapies in tobacco cessation programs (Table 16) and 70% of students had heard of using antidepressants in tobacco cessation programs (Table 17).

**Table 13. % age of Student who believed that tobacco consumer health care professionals less likely to advise patients tobacco cessation**

	Sex		Total
	Male	Female	
Chewing tobacco			
Yes	79(46.47%)	46(27.05%)	125(73.52%)
No	28(16.47%)	17(10%)	45 (26.47%)
Total	107(62.9%)	63 (37.05%)	170 (100%)

**Table 14. % age of student who had received formal training in smoking cessation approaches**

	Sex		Total
	Male	Female	
Chewing tobacco			
Yes	70 (41.17%)	40 (23.52%)	110 (64.7%)
No	37 (21.76%)	23 (13.5%)	60 (35.29%)
Total	107 (62.9%)	63 (37.05%)	170 (100%)

**Table 15. % age of student who had received formal training in providing educational material to patients for smoking cessation approaches**

	Sex		Total
	Male	Female	
Chewing tobacco			
Yes	80(47.05%)	39(22.9%)	119(70%)
No	27(15.8%)	24(14.1%)	51(30%)
Total	107 (62.9%)	63(37.05%)	170(100%)

**Table 16. % age of student who had heard of using nicotine replacement therapies**

	Sex		Total
	Male	Female	
Chewing tobacco			
Yes	84 (49.4%)	27(15.8%)	111(65.29%)
No	23(13.5%)	36(21.2%)	59 (34.7%)
Total	107 (62.9%)	63 (37.05%)	170(100%)

**Table 17. % age of student who had heard of using anti depressants therapies**

	Sex		Total
	Male	Female	
Chewing tobacco			
Yes	81(47.6%)	38(22.3%)	119(70%)
No	26 (15.2%)	25(14.7%)	51(30%)
Total	107 (62.9%)	63 (37.05%)	170

## DISCUSSION

There are various studies conducted in past to evaluate the knowledge, attitude and practice of tobacco use and smoking among health care professional as well as adolescents in past (4-9). The findings in our study show tobacco use among health professional students at Govt. Dental College campus are (34.7) % (Table 1) and similar results were obtained by Sinha *et al.* (2004) who reported 28.2% students who smoked cigarettes, another study conducted by Iqbal *et al.* (2010) reported tobacco use among health professional students at Jaipur campus was 25.11%. Prevalence of 12.1% was reported by Shah (Shah, 2005) which when compared with our study was significantly less. Which probably could be because of the fact the study done by Shah (2005) was pilot survey. A total of 22.4 percent students had ever used atobacco product in a study from Jammu & Kashmir (Singh *et al.*, 2008). Whereas,

46.83% adolescent were tobacco users in a study done in rural setup (Kishore *et al.*, 2007). In a meta-analysis (Smith and Leggat, 2007) the prevalence of smoking among medical students was suggested to varies widely between students of different countries and also between male and female students within the same countries. In their investigation, 22% of students (male and female) were smoking in the first year of study, a rate which rises to 27% by the sixth year. Roughly one-third (32.3%) original nonsmokers in the first year had also become smokers by the end of the sixth year at medical school. In our study the prevalence of chewing habits were 17.06 % which was similar to study done by Iqbal *et al.* (2010) who reported 13.70% prevalence of chewing habits, but when compared with Sinha *et al.* (2004) was less who reported 22%. This may be described to preference of cigarettes over chewing tobacco in the present study. In our study 92.3 % students favored banning of tobacco products in restaurants (Table 6), which was similar to Shah *et al.* (2005) who reported 83.9% students favoring ban in restaurants. Which was comparatively more than than the results shown by study done by Iqbal *et al.* (2010) depicting 79.44% students favoured banning of tobacco products in restaurants. In our study 22.3% students favoured bann smoking indicos, bars & pubs (Table 16) which was similar to previously study conducted by Iqbal *et al.* (2010) showing prevalence of 15.07%, but was very less when compared with Shah *et al.* (2005) who reported 75% dental students in India favoring ban and Sinha *et al.* (2004) who reported 59% medical students in favour of ban.

Students felt discos, bars and pubs are the only place where they can use these products as it is banned in all public places. More than 92.35 (Table 9) in our present study favoured that health professionals should routinely advise their patients to quit smoking, which when compared with Shah *et al.* who reported 95.1% and Sinha *et al.* (2004) who reported 96.9% were almost similar. More than 64.7% (Table 14) had received formal training in smoking cessation approaches to use with patients which was in agreement in previous study done by Iqbal *et al.*, (2010) showing 72% had received formal training in smoking cessation approaches which was almost similar to Shah *et al.* (2005) who reported 78.9% and Sinha *et al.* (2004) who reported 69.1% in medical students of India. In our study 65.29 (Table 16) had heard of using nicotine replacement therapies in tobacco cessation programs which were almost similar to results 63.47% of Iqbal *et al.* (2010) study, Sinha *et al.* (2004) also reported similar results of 61.9% and Shah *et al.* (2005) who had reported 75.8%. Health professional schools, Public health organizations and education officials should discourage tobacco use among health professionals and work together to design and implement programs that train all health professionals in effective cessation counseling techniques. GHPSS has shown significant unmet need for cessation assistance among students as well as gaps in professional training to provide similar effective assistance to their future patients. GHPSS is helpful in evaluating the behaviour and attitudes regarding to tobacco among health professional students, but additional research is necessary to improve the evidence base for effective tobacco-related curricula, especially materials that are appropriate for a range of cultural and economic settings. If the goal of the tobacco control community is to reduce substantially the use of tobacco products, then resources should be invested in improving the quality of education of health professionals with respect to tobacco control.

### Recommendations from the study

1. Develop and promote effective cessation program to reduce tobacco use among healthcare students.
2. Strengthen and enforce the legislation aimed at smoke free healthcare campus premises and buildings. Strengthen knowledge of healthcare students on harmful effects of smoking and second hand smoke on body in general and mouth in particular.
3. Improve curriculum and introduce healthcare campus based training programmes on tobacco use cessation approaches.
4. Promote involvement of upcoming healthcare professionals in public health advocacy for tobacco control.
5. Monitor the effectiveness of tobacco control agenda regular surveillance and periodic updates.

### Conclusion

The study reflects an alarming situation and demands urgent anti tobacco & tobacco cessation measures to be adopted by health professionals, who happen to be health promoters & health role models for society. Both tobacco control and tobacco cessation activities continue to remain important public & personal health issues.

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