



Awareness of Ill Effects of Tobacco in Non Teaching Staff of Vasantdada Patil Dental College and Hospital Sangli – A Questionnaire based Study

Dr.Rakshanda Panari¹, Dr.Tejaswini Patil², Dr.Raghavendra Byakodi³, Dr.Sunil Awale⁴, Dr.Manishkumar Shete⁵, Dr.Shalvi Vora⁶

¹PG Student, Department of Oral Medicine and Radiology, Vasantdada Patil Dental College and hospital Sangli, India.

²PG Student, Department of Oral Medicine and Radiology, Vasantdada Patil Dental College and hospital Sangli, India.

³Professor, Department of Oral Medicine and Radiology, Vasantdada Patil Dental College and hospital Sangli, India.

⁴Reader, Department of Oral Medicine and Radiology, Vasantdada Patil Dental College and hospital Sangli, India.

⁵ Associate Professor, Department of Oral Medicine and Radiology, Vasantdada Patil Dental College and hospital Sangli, India.

⁶Lecturer, Department of Oral Medicine and Radiology, Vasantdada Patil Dental College and hospital Sangli, India.

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KEYWORDS

Tobacco, oral cancer, smokeless tobacco, smoked tobacco.

ABSTRACT:

Introduction- Tobacco has been cultivated and utilized by humans for millennia, starting with its use in religious rituals and medicinal practices. India is the second largest producer and consumer of tobacco after China. Tobacco use is widespread, varying in both smoking and smokeless forms across different geographical regions of the country. Tobacco use is responsible for approximately 33% of cancer-related deaths worldwide. In India, tobacco-related cancers contributed to 27% of the nation's cancer burden in 2020.

Aim - The aim of this study was to evaluate the awareness and attitude towards the detrimental consequences of uses of tobacco among non-teaching staff of the institute.

Material and Method - A Marathi language designed questionnaire study was conducted in 70 non-teaching staff of the institute. Questionnaire was adapted from GLOBAL YOUTH TOBACCO SURVEY (GYTS 2016-17) questionnaire. The responses were analyzed.

Result – Results of the presented study suggested that 21.5 % (n = 15) subjects consumed any form of tobacco products. Despite being aware of the adverse effects of tobacco, 21.5% (n = 15) of subjects still consumed it. 82.8% of subjects would significantly recommend that someone with habit to quit the habit. Gutkha was the most common tobacco products, followed by Mawa/Khaini and Cigarettes /Bidis.

Conclusion – Presented study emphasizes the awareness of adverse effects of uses of tobacco product among non- teaching staff of institute and concluded that 21.5% subjects regularly consumed the tobacco products. Gutkha was most common consumed tobacco product among Mawa/Khaini and cigarettes/bidis. 82.8% subjects would significantly recommend that someone with habit to quit the habit.

Introduction

Tobacco has been cultivated and utilized by humans for millennia, starting with its use in religious rituals and

medicinal practices and evolving over time to meet social needs, eventually leading to the development of addictive tobacco products in contemporary society.¹ Around 80% of the world's 1.3 billion tobacco users live



in low- and middle-income countries. In 2020, 22.3% of the world's population used tobacco: 36.7% of men and 7.8% of women.² Low and middle-income countries, such as India, which is home to 80% of the smokers, suffer from the heaviest burden of tobacco-related morbidity and mortality. India is the second largest producer and consumer of tobacco after China. Tobacco use is widespread, varying in both smoking and smokeless forms across different geographical regions of the country.³

The government of India recently released the key findings from Phase 1 of the National Family Health Survey conducted in 2019–20, which also included information regarding current tobacco use among Indian adults in 22 states and union territories. The prevalence of tobacco use among men has declined in most states, except Sikkim, Goa, Bihar, Gujarat, Himachal Pradesh, and Mizoram, where an upward trend can be seen. In the case of women, the prevalence has declined in almost all states except Mizoram and Sikkim, and in Maharashtra, it is about 3.8% and 24.4%, respectively. Tobacco use in north eastern states remains a challenge, where prevalence is still quite high. The prevalence of tobacco use in rural areas is higher than in urban areas.⁴ Tobacco usage increases concomitantly with increasing age. Its dependency is highest among individuals aged 45 and above, comparatively less among individuals from the 24–44 years age group, and least among individuals below 24. The most susceptible age for the initiation of tobacco use is late adolescence and early adulthood, i.e., 15–24 years of age.⁵ GLOBAL ADULT TOBACCO SURVEY (GATS) 2016–17 estimates have reported that tobacco use among minors aged 15–17 has been reduced from 10% to 4%, and the age at initiation of tobacco use has been increased by about 1 year for both smoking (18.8 years) and smokeless tobacco use (18.9 years). According to GATS, nearly 30% of Indian adults used tobacco in any form in the year 2016–17. About 20 million adults (21.4% overall, 2.6% men, 12.8% women) regularly consume some type of smokeless tobacco. The prevalence of smokeless tobacco use 21.4% is twice that of smoking 10.7%. The use of smokeless tobacco is prevalent not only among the men but also in other vulnerable groups, like teenagers, children, and women of reproductive age.⁶ The mean age of initiation of smoked tobacco and

smokeless tobacco in GATS 2 was 20.9 ± 8.5 and 22.3 ± 10.6 years, compared with 18.5 ± 9.7 and 19.7 ± 12.0 years in GATS 1. The mean age of initiation increased with age, and among those who were better aware of the adverse effects of tobacco.⁷ Occupation plays a pivotal role in the initiation and continuation of smokeless tobacco, but there is limited evidence available from India. Skilled agricultural and fishery workers are the most common consumers of smokeless tobacco among both current and past workers. Among the past workers, plant and machine operators share the same percentage as agricultural, and fishery workers (22%). Professionals are the lowest consumers of smokeless tobacco among both current and past workers, with nearly 10% having consumed smokeless tobacco. In legislators, senior officials, and managers for current workers, the share is nearly 9%, increasing to 17% for past workers. In the case of agricultural workers, the use of smokeless tobacco is higher for current users and decreased by 7% for past users.⁶ More than 40 types of smokeless tobacco, such as Paan masala, Khaini, Sarda, Mawa, Gutkha, Mishri, and Gudakhu, are used in chewing, snuffing, and applying to the teeth and gums. The smokeless tobacco products used substantially in India are Khaini (a tobacco-lime mixture), used by more than ten percent of the smoking population, Gutkha (a mixture of tobacco, lime, and areca nut), used by nearly seven percent; betel quid with tobacco, used by six percent; and Mishri, Gul, and Gudakhu, used by nearly four percent for oral application.⁸ Tobacco and tobacco smoke contain a very complex mixture of over 9500 compounds.⁹ Carcinogens identified in tobacco and tobacco smoke have drawn much attention from the U.S. FDA as well as other authorities, including the World Health Organization. There are 93 harmful and potentially harmful constituents included in the U.S. FDA list established in 2012, 79 of which are considered to be carcinogens.^{10, 11} Tobacco dependence is one of the most serious public health risks, with consequences that go beyond cancer, causing a slew of severe debilitating diseases involving the heart, lungs, kidneys, and other organs. Tobacco use is responsible for approximately 33% of cancer-related deaths worldwide. In India, tobacco-related cancers contributed to 27% of the nation's cancer burden in 2020.¹²

Enhancing awareness of the risks posed by various



tobacco products is vital and can be effectively facilitated through targeted tobacco cessation programs and educational camps. Our study aimed to assess the level of awareness regarding the hazardous effects of tobacco among the non-teaching staff at Vasantdada Patil Dental College and Hospital, Sangli. The study's objectives are outlined as follows:

1. To assess the prevalence of tobacco product users in our institute.
2. To determine the most common tobacco product used.
3. To assess the attitude of non-teaching staff members towards the of hazards tobacco.

Materials and Method

A questionnaire study was conducted with 70 non-teaching staff of the institute. The study employed a questionnaire consisting of 25 items spanning four pages, adapted from the GLOBAL YOUTH TOBACCO SURVEY, formulated in Marathi. The confidentiality of participant details, such as names and ages, was maintained. Respondents completed the questionnaire on the handouts they received. The survey was designed to assess participants previous and ongoing tobacco use, their habit history, their understanding of the health risks of smoking and smokeless tobacco exposure to passive smoking and their willingness to quit. The 70 responses were collected and analyzed. Data entries were performed using Microsoft Office Excel 2010, while analysis was carried out with Statistical Product and Service Solutions (SPSS) version 21. The descriptive statistics were analyzed and summarized in tabular form, employing frequencies and percentages.

Results

The presented study was carried out with 70 participants. The study's outcomes are shown below:

- Out of 70 participants, there were 54.3% males and 45.7% females. (FIGURE 1)
- The predominant age group for respondents was 16-30 years, comprising 38.2%, with 30% falling into the 20-30 year age range. Respondents aged over 51 years accounted for 15%, while only 18.5% were between 20-30 years. The majority of tobacco users,

32.8% were aged 41-50 years. (FIGURE 2)

- Out of 70 participants, 15 (21.5%) were tobacco users, while 55 (78.5%) were non- users. All 70 participants (100%) acknowledged that tobacco is addictive. Additionally, 65 participants (92.8%) believed that areca nut contributes to cancer; whereas 5 participants (7.2%) did not consider the areca nuts as a cause of cancer. (FIGURE 3)
- Regarding the common method of tobacco consumption in our communities, Gutkha was 58 (82.8%) the most prevalent. This was followed by Mawa and Khaini, which were 54 (72.2%). Bidi and cigarette consumption were reported at 50 (71.4%). Hookah by 17 (24.3%), Pipe by 11 (15.7%) and Snuff was the least common 6 (8.5%). (FIGURE 4)
- Participants reported various sources of exposure to tobacco products; 10 (14.3%) learned about them through social media, 8 (11.5%) through friends, and 4 (5.7%) through self-introduction. The majority 39 participants (55.7%) were introduced by family members or through audio- visual aids. Overall, about 40 participants (57.2%) were exposed to tobacco through these means. (FIGURE 5)
- Out of 70 participants, 11 (15.7%) indicated a willingness to quit tobacco use. 4 participants (5.7%) desired to continue using tobacco despite being aware of its hazardous effects, while 55 (78.5%) reported that they do not use tobacco. (FIGURE 6)

Discussion

Tobacco use is associated with accelerated mortality among adults, especially in low- and middle-income countries, where the burden of tobacco-related illness and death is heaviest.¹³ More than 1 million adults die each year in India due to tobacco use, accounting for 9.5% of overall deaths.¹⁴

The presented study was carried out with 70 participants; there were 54.3% males and were 45.7% females. **Sinha D N et al (2003)**¹⁵ conducted the study to obtain baseline information about the prevalence of tobacco use among school children in eight states in the north-eastern part of India. A total of 2177 students



participated. Among the 2177 respondents, 55% were boys and 45% were girls. **Sharma RK (2017)**¹⁶ conducted the study to evaluate the use of tobacco among young students and its influence of role models. Study was comprised of 220 respondents; there were 129 males and 91 females. **Nivethitha R (2022)**¹⁷ conducted the study to evaluate the ill effects of tobacco. The study was conducted among 100 participants. Among the 100 participants, there were 68% males and 32% were females. According to our study, in all the above mentioned studies male participants were more than female participants. The presented study was carried out with 70 participants. The predominant age group for respondents was 16-30 years, comprising 38.2%, with 30% falling into the 20-30 year age range. Respondents aged over 51 years accounted for 15%, while only 18.5% were between 20 and 30 years old. The majority of tobacco users, 32.8% were aged 41-50 years.

Nivethitha R (2022)¹⁷ conducted the study to evaluate the ill effects of tobacco. The study was conducted among 100 participants. Among the 100 participants, the most common age group participating in this study was 36–55 years (46%), followed by 18–35 years (40%), and above 55 years (14%). This study was in accordance to our study. The most common age group was 16 – 40 years.

Out of 70 participants, 15 (21.5%) were tobacco users, while 55 (78.5%) were non-users. All 70 participants (100%) acknowledged that tobacco is addictive. Additionally, 65 participants (92.8%) believed that areca nut contributes to cancer, whereas 5 participants (7.2%) did not consider areca nut as a cause of cancer. **Nivethitha R (2022)**¹⁷ conducted the study to evaluate the ill effects of tobacco. The study was conducted among 100 participants. Among the 100 participants, majority of the respondents (72%) reported using smoking tobacco products, 12% smokeless, and 16% both.

Regarding common methods of tobacco consumption in our communities, Gutkha was 58 (82.8%) the most prevalent. This was followed by Mawa and Khaini, which were 54 (72.2%). Bidi and cigarette consumption were reported at 50 (71.4%). Hookah by 17(24.3%), Pipe by 11 (15.7%), and Snuff was the least common 6 (8.5%). **Bhawna G (2009)**¹⁸ reviewed an article on the

prevalence of smokeless tobacco use (26%), is significantly higher than that of smoking (14%). Among the tobacco users, 8.7% smoked only, 20.6% consumed only smokeless tobacco.

Out of 70 participants, 11 (15.7%) indicated a willingness to quit tobacco use. 4 participants (5.7%) desired to continue using tobacco despite being aware of its hazardous effects, while 55 (78.5%) reported that they do not use tobacco. **Patil R (2021)**¹⁹ conducted the study to determine the awareness about the detrimental effects of tobacco consumption in any form present amongst the low socio-economic strata, as awareness is lacking in this group. The study consists of 50 domestic workers, and the results showed that 92% were aware of the detrimental effects it could have on their physical health.

Participants reported various sources of exposure to tobacco products, 10 (14.3%) learned about them through social media, 8 (11.5%) through friends and 4 (5.7%) through self- introduction. The majority 39 participants (55.7%) were introduced by family members or through audio-visual aids. Overall, about 40 participants (57.2%) were exposed to tobacco through these means. **Abroms LC et al (2024)**²⁰ conducted a cross sectional study comprised of 2061 participants to evaluate the impact of exposures to heated tobacco products in the media and through social connections on product perceptions and use. Of those who reported being aware of heated tobacco products (n=677), the source of first exposure was most commonly friends, family, or colleagues (33.2%), followed by advertisements (23.7%), stores (14.3%), social media (non-advertisements) (9.2%), and TV (non-advertisements) (3.3%). This study was in accordance to ours.

Conclusion

Our study suggested a multi-faceted approach to improve health promotion, emphasizing targeted strategies and community involvement. 54.3% males and 45.7% females participated in the study. Mawa and Khaini were most consumed by participants 54 (72.2%), Bidi and Cigarette consumption were at 50 (71.4%), Hookah by 17 (24.3%), Pipe by 11 (15.7%) and Snuff was the least common 6 (8.5%).



Recommendations for further research and campaign customization based on regional and gender-specific needs are need to be founded. Integrating awareness efforts into adolescent education and leveraging sociocultural contexts for policy development will likely enhance effectiveness. This comprehensive strategy should help in achieving meaningful behavioral changes and reducing tobacco use.

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GENDER COMPARISON

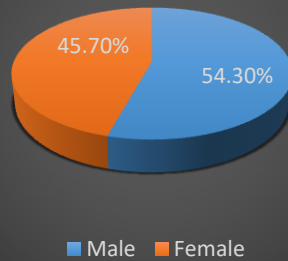


FIGURE 1

AGE GROUP DISTRIBUTION

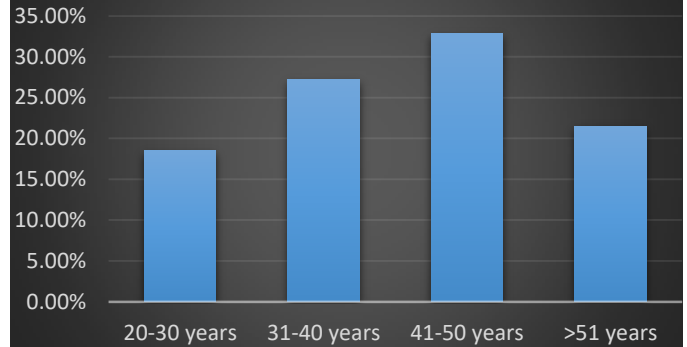


FIGURE 2

	Yes N (%)	No N (%)	p value
Do you use /consume any tobacco products	15 (21.5%)	55 (78.5%)	P< 0.001**
Do you think is it a form of addiction	70 (100%)	0 (0%)	P< 0.001**
Do you think areca nut can cause cancer	65 (92.8%)	5 (7.2 %)	P<0.001**

FIGURE 3

Tobacco common /known

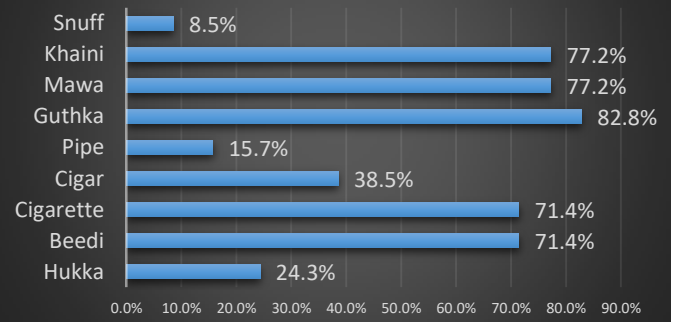


FIGURE 4

MEANS OF INFORMATION ABOUT TOBACCO

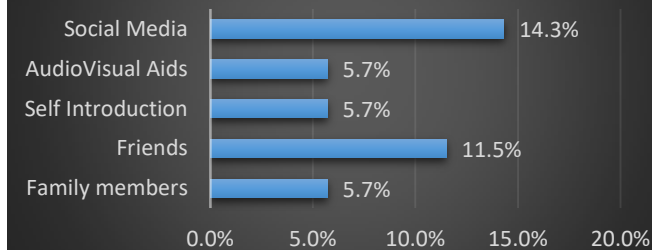


FIGURE 5

WANT TO STOP HABIT

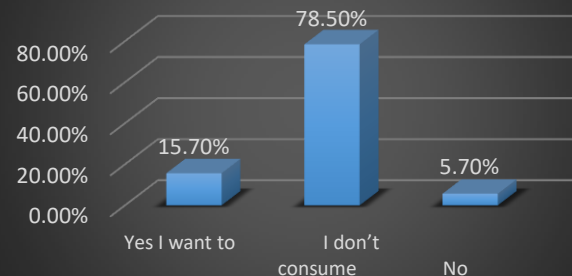


FIGURE 6