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Original Research Article

A survey on: Tobacco awareness in urban region of Maharashtra

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ABSTRACT

Background: Tobacco has been a prevalent cause of disease burden over India since decades. Gap in awareness among the population leads to use of tobacco, causing a number of deaths across India.**Objectives:** The study aimed at assessing prevalence, attitude, knowledge gap harbouring in the urban population of Maharashtra. Effect of mass media was gauged along with the ability of people to avoid their addiction.**Materials and Methods:** A quantitative, online Google form based Questionnaire survey was conducted in a convenient sample of urban population across Maharashtra. 344 people participated following, the data was analysed using Microsoft Excel.**Results:** 29.1% (n=100) of the urban population were Tobacco users, most of which having Undergraduate/Postgraduate Educational qualification. 25% (n=61) of Non users didn't know about the tobacco content in various products. Majority of Tobacco users were aware of the risk of Tobacco use causing heart attacks and also hold an opinion that smoking should be banned in public places. 38% (n=91) Tobacco users felt that there was a lack of impact of Tobacco use on social behaviour. People with different education levels consumed cigarettes/bidis the most.**Conclusion:** Higher educated class was found to have a higher conscious decision in Tobacco Usage. The need for Mass media enhancement was felt due to low impact on quitting behaviour. Tobacco was found to have a low impact on socializing, and its true effects can be studied in future.© This is an open access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

1. Introduction

Tobacco's captivating influence on addiction and associated health consequences has led to its growing usage in the population worldwide. Tobacco usage has been a cause of concern since it's spread to the English seas from America. Even though in India there is a shocking decline of 6%,¹ when compared to the former survey of 2016 to 2017, there still remains a wide gap in awareness amongst people about the different tobacco products that are being commonly used.² Out of the total production, only 19% of the total consumption of Tobacco is in the form of cigarette whereas 81% is in other forms like,

chewing, Bidi (Tobacco rolled in Tendu leaf), Snuff, Gutkha paste (Tobacco paste), Jarda, Hookah paste etc. This study thus aimed at finding out the addiction level of people from various educational backgrounds, general attitude, knowledge, behavior, health effects and danger of passive smoking and tobacco usage amongst the middle-service class population of Maharashtra, India. The World Health Organization has predicted that tobacco deaths in India may exceed 1.5 million annually by 2020.³ We aimed to analyse the awareness of tobacco usage and addiction patterns of the urban population of Maharashtra.

2. Materials and Methods

A quantitative cross-sectional based survey was conducted to check the awareness, health care, attitude that people

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in general have towards tobacco. An online Google form based structured questionnaire was designed in English, as most of the urban population is an educated mass and a physical survey could not be conducted due to the COVID-19 lockdown period in Maharashtra. Questionnaire contained some basic questions on tobacco and its effects. These questions were in accordance with the GYTS (Global Youth Tobacco Survey).⁴ Some questions also pertained to understand the demographics and opinions of the respondents. The study population consisted of a convenient sample size which consisted of educated, service middle class people. The survey forms were sent to all the age groups equally with a random selection of people based on the availability of the means to fill the form. Out of the 475 people that were given this form, 344 people willingly participated and filled the study. The study was conducted between 15th to 30th April 2021, to create awareness amongst the people on the occasion of World No Tobacco day i.e. on 31st May. The data was collected and responses were analysed in the Microsoft Excel spreadsheet and Google docs and a comparative study was made with the data on prevalence of tobacco use in the general population as obtained from the World Health Organization (WHO) - Global Adult Tobacco Survey (GATS-2; 2016-17).³

3. Results

3.1. Tobacco users and non users based on gender and frequency (Figure 1)

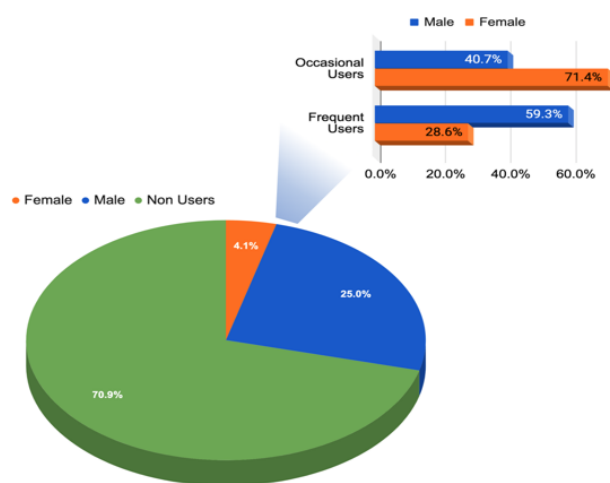


Fig. 1: Tobacco users versus non users

It was found that 71% (n=244), (n=133 Females and n=111 Males) were Non Users, and the Tobacco Users were classified on the basis of gender, out of which 4% (n=14) were found to be females and 25% (n=86) were found to be males. Out of 55 participants, frequent users were 59% males (n= 51) and 29% females (n=4). However, occasional

users were 41% males (n= 35) and 71% females (n= 10).

3.2. Frequency of users according to educational qualification (Figure 2)

It was found that among the participants who were 10th/12th grade passed, 12.5% (n= 5) were found to be frequent tobacco users and a similar number were found to be occasional tobacco users. Among undergraduate participants, 16% (n=24) were frequent and 14% (n=22) were occasional tobacco users. The postgraduate category was found to comprise 18% (n=27) frequent and 12% (n= 18) tobacco users.

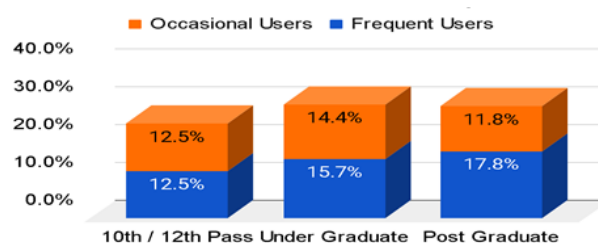


Fig. 2: Educational wise occasional and frequent users

3.3. Knowledge about tobacco contents in various products among users and non users (Figure 3)

90% (n=90) tobacco users and 73% (n=179) non users feel that cigarettes/bidis contain tobacco; 55% (n=55) tobacco users and 62% (n=152) non users feel that gutka/mava contain Tobacco; 37% (n=37) tobacco users and 39% (n=95) non users feel that paan masala contains tobacco; 39% (n=39) tobacco users and 55% (n=134) non users feel that tobacco Chewing Gum contains tobacco; 56% (n=56) tobacco users and 55% (n=135) Non users feel that hookah/shisha contains tobacco; and 5% (n=5) tobacco users and 25% (n=61) non users are not aware if any of the above options contained Tobacco.

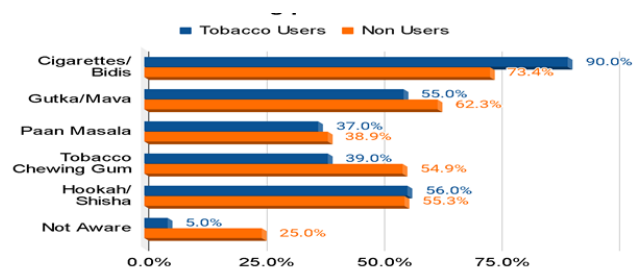


Fig. 3: Percentage of tobacco users and non users who think the following products contained tobacco

3.4. Awareness of passive smoking among respondents (Figure 4)

95% (n=232) non users and 84% (n=84) tobacco users thought it was harmful for them; 2% (n=4) non users and 5% (n=5) tobacco users thought it was not harmful for them; and 3% (n=8) non users and 11% (n=11) tobacco users were not aware of the effects of passive smoking on their health.

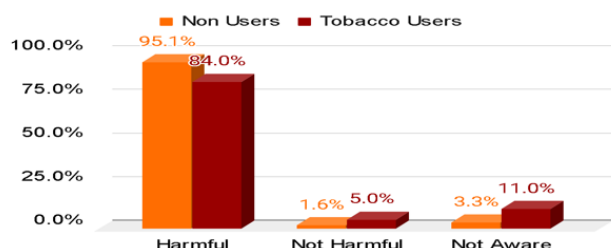


Fig. 4: Percentage of tobacco users and non users on effects of passive smoking

3.5. Heart attack risk awareness among respondents (Figure 5)

72% (n=175) non users and 73% (n=73) tobacco users responded that it could increase the risk of causing a heart attack; 4% (n=10) non users and 4% (n=4) tobacco users thought that there was no impact/risk of a heart attack; and 24% (n=59) non users and 23% (n=23) tobacco users were not aware of the impact of tobacco consumption on the risk of causing a heart attack.

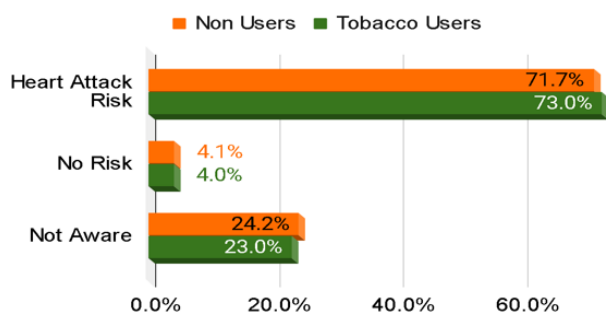


Fig. 5: Heart attack risk awareness among tobacco users and non users

3.6. Opinions on the banning of smoking in public places of users and non-users (Figure 6)

95% (n=232) Non users and 84% (n=84) tobacco users responded that it should be banned; 2% (n=4) non users and 5% (n=5) tobacco users responded that it should not be banned; and 3% (n=8) non users and 11% (n=11) tobacco users did not give any opinion.

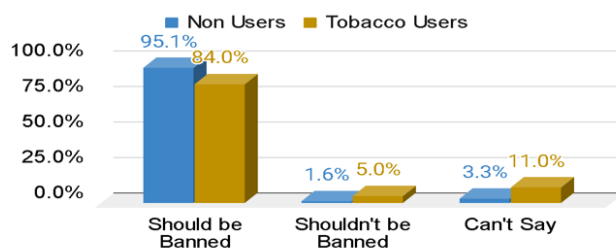


Fig. 6: Opinions on smoking ban in public places

3.7. Impact of mass media on quitting attitude according to the age groups (Figure 7)

In the age group of 15-25 years (Youth age group), 69% (n=115) were found to non-consumers, 8% (n=14) said they would quit later, 16% (n=26) were trying to quit and 7% (n=11) had no impact on their tobacco usage. In the 25-45 years age group, 69% (n=51) were non-consumers, 5% (n=4) would quit later, 19% (n=15) were trying to quit and 11% (n=9) had no impact. Among the individuals of 45 years and above, 77% (n=76) were non-consumers, 3% (n=3) would quit later, 17% (n=16) were trying to quit and 4% (n=4) had no impact on their smoking habit.

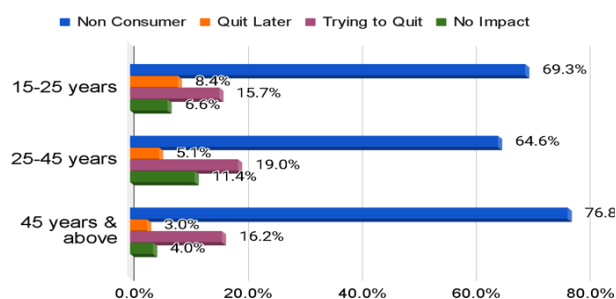


Fig. 7: Impact of mass media on quitting attitude

3.8. Effect of tobacco use on social behaviour based on usage (Figure 8)

Out of the total tobacco users, 28% (n=28) responded that it stimulates comfort in smokers, 34% (n=34) felt that it did not make people comfortable, and 38% (n=38) said that it had no impact on their comfort. Among the non-users, 12% (n=30) said that it stimulates comfort, 50% (n=123) felt that it doesn't stimulate comfort while 37% (n=91) responded that it had no impact.

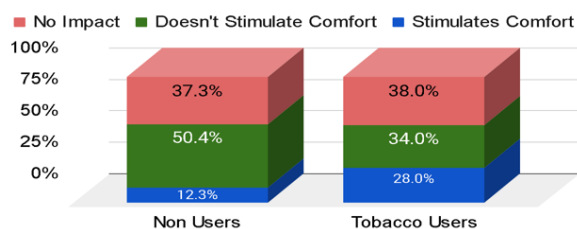


Fig. 8: Effect of tobacco use on social behaviour

3.9. Addiction levels of population categories on the basis of their educational qualification to various tobacco products (Figure 9)

It was found that among the lowest educated population of 10th/12th Pass category, 9% (n=4) were addicted to cigarettes/bidis, 2% (n=1) to gutka/mava, 4% (n=2) to hookah/shisha, and 2% (n=1) to other forms of tobacco. Among the Undergraduate population, 13% (n=20) were addicted to cigarettes/bidis, 1% (n=2) to hookah/shisha, and 3% (n=5) to other tobacco products. Among the postgraduate respondents, 11.5% (n=18) were addicted to cigarettes/bidis, 2% (n=3) to gutka/mava, 1% (n=2) to hookah/shisha and 1% (n=2) to other forms of tobacco.

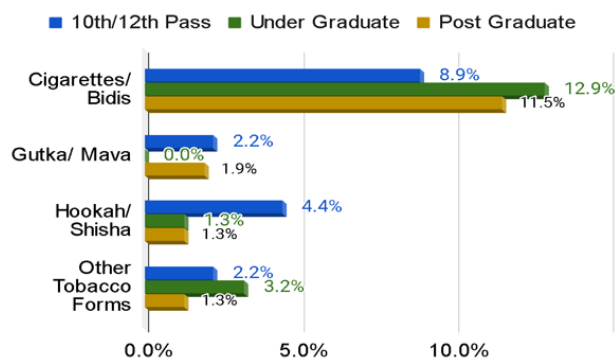


Fig. 9: Educational qualification versus addiction to various tobacco product

4. Discussion

The present survey aims at finding the awareness of Tobacco in the urban population of Maharashtra. In this study, Figure 1 shows the female non-users accounting to 90.5% (n=133) against the 86% female non users from the GATS India Results 2016-17; and male non-users as 56% (n=111) against the 58% of GATS-2.³ A similar result of Tobacco users found in our study was 29% (n=100) against the 29% surveyed by GATS-2.³ A gender-wise prevalence of Tobacco usage among the population was assessed, and a higher proportion of male users (25%) (n=86) in comparison

to females (4.1%) (n=14) was found in this study. A greater proportion of Frequent users among the Males (59%) (n=51) was found, while most of the female participants consumed Tobacco occasionally (71%) (n=10). Usually in the male dominated society, middle class females are responsible for carrying the family burden and are bestowed upon with the ideal responsibilities. Hence they often tend to refrain from such habits.

Figure 2 shows an analysis of the frequency of Tobacco usage based on the educational qualification, which revealed that the majority of undergraduate and postgraduate people indulged in tobacco usage practices (30% (n=46) and 30% (n=45)) respectively; against the 25% (n=10) 10th/12th pass students. Education-wise comparison showed that all the categories of people - 10/12th pass; Undergraduates; Post-graduates were addicted to cigarettes/bidis while few were addicted to other forms of tobacco as well. This also suggests that smoking behaviour may arise from workplaces and offices, where people adapt to these habits and eventually succumb to this addiction. A disadvantage here was that not all Tobacco users could admit whether they were addicted to tobacco or not, and it was seen that many people claim to be frequent and occasional users, yet very few were themselves aware of their addictive habits.

Figure 3 highlights the awareness among Tobacco users and Non users about which products contain Tobacco. It was found that 10% (n=10) Tobacco users did not know tobacco was present in Cigarettes/Bidis, 45% (n=45) were unaware that it was present in Gutka/Mava, 44% (n=44) were unaware of its presence in Hookah/Shisha and 39% (n=39) had a misconception of its presence in Tobacco Chewing gum. However, a higher percent of non users (62%) (n=152) had knowledge of the presence of tobacco in Gutka/mava than the users. An education gap pertaining to tobacco was found to be greater among the tobacco users, as a majority of them remain unaware of what they consume contains tobacco. This calls for more education through media/advertisements and various other sources.

Figure 5 spots a common misconception that people generally have is that smoking has no relation with Heart diseases. A major 72.1% (n=248) people believed that smoking can lead to Heart attack against the 76.7% according to GATS-2.³ This shows a slightly low awareness of the impact of Tobacco use on cardiovascular health among the people of Maharashtra, even though the people in our study greatly comprised educated middle class people. Amongst this 4% of the tobacco users had the misconception that tobacco intake has no relation with causing a heart attack. Moreover, 23% (n=23) of the tobacco users were unaware of the effect of tobacco use on the chances of having a Heart Attack, which seems to be alarming, as they remain unaware of what effects tobacco is causing to their health (Figure 5). A study conducted in North India indicated that the deaths caused due to

heart attack included those of 70.7% of Tobacco users and 29.3% of non users, proving that tobacco use can majorly accelerate risk of causing death due to heart attacks.⁵

Figure 4 highlights the huge concern of Passive smoking for our society today. The best example of how it can cause addiction in another individual at an early age is Maternal Tobacco usage, where the foetus starts receiving nicotine from maternal blood.⁶ Passive smoking is an added major cause of concern, since this affects the non-smoker population and its effects are more harmful to others than the smokers themselves. This points towards the 91.9% (n=316) people in our study against the 92.4% of GATS³ who believed that passive smoking is harmful but still let smokers continue with it. A similar result of 95% awareness and 72.3% positive attitude on the ban of smoking in public places was found in a study done in Assam.⁷ In accordance to Figure 6, 5% (n=5) of Smokers thought that Passive Smoking was not harmful, and also did not favour a ban on smoking in public places whereas 11% of them were unaware of the effects of Passive smoke on others and did not have any opinion regarding the ban. This awareness gap among the few 16% (n=16) users shows why smokers continue to smoke in public places, not knowing that they silently endanger the lives of children and adults who are non smokers by themselves. However, a majority of 84% (n=84) of Tobacco users favoured a ban on smoking in public places like parks, buildings, beaches, etc; showing that they were conscious of their habits and the harm they might be causing to others.

Figures 6 and 7 discusses how the mass media has played a significant role on the behaviour of tobacco users, and anti-tobacco commercials have seen a significant rise in the past few years. However, the impact of these media messages was studied in various age groups, and it was found that a majority (8%) (n=14) of tobacco users in the adolescent age group of 15-25 years would prefer to quit later, probably because peer influence and the drive of youth encourages them to continue its use. In the age group of 25-45 years which consisted of working adults, a majority of 11% (n=9) said that media messages had no impact on their tobacco use. Also, about 19% said they would try methods to quit. This indicates variable behaviour of people from this age group, as some start getting conscious about their health while the others remain adamant on their beliefs of temporary satisfaction. A larger group of 77% (n=76) people above 45 years, were found to be non-smokers and 16% (n=16) were trying to quit. This can be related to the various health conscious effects that people of this age group make, as here they start experiencing the various age related diseases. Another study found that 37% of its subjects were motivated to stop using tobacco by anti-tobacco advertisements.⁸

Figure 8 contradicts the notion that everyone in general holds is that using tobacco helps its users to get rid of

their anxiety level.⁹ Often in various forms of media we see socially awkward tobacco users bond with others based on their smoking habit. But this severe misconception was cleared as 72% (n=72) tobacco users find no impact of tobacco on stimulating comfort in them at social events. 88% (n=214) non users also seem to carry a similar belief even after seeing a contrasting picture in multimedia.

Figure 9 shows the educational qualification of participants, a higher percentage of undergraduates 13% (n=20) were found to be consuming cigarettes/bidis as their tobacco product. This could be attributed to the freedom and less parental restrictions that they experience. Easy availability around the college campuses and workplaces, peer pressure and the need for a curious adventurous experience could add to the higher usage. A similar, slightly lower percentage of postgraduates 11.5% (n=18) were found to be consuming cigarettes/bidis. This slight decrease could be due to the involvement of post-graduates in building their families, yet they continue to use cigarettes/bidis due to their earlier addiction and work commitments. We also found that the population of 10th/12th Pass was more inclined towards using chewable forms of tobacco (gutka/mava) or the older versions such as hookah/shisha, owing to the influence of adults and other groups in households as well as in some local hangouts, and due to its easy local availability and access to such stalls in the cities of Maharashtra.

To end with, the participants were asked about their opinion on the impact of tobacco addiction among its users due to the ban on its sales in the COVID-19 lockdown period in Maharashtra. 58% (n=201) reported that tobacco addiction has reduced to a certain extent as opposed to 13% (n=45) which believed that there was no reduction in tobacco usage. 6% (n=20) respondents felt that tobacco sales had increased, while 23% (n=78) did not have any idea regarding the same.

5. Limitations

The most major limitation of our study was a small convenience sample size, which consisted of only 344 participants, and a major chunk of them being middle-class service employees and their families. Hence, the low-income and high income population could not be covered. The survey was also conducted online, so the credibility of the responses could not be guaranteed.

6. Conclusion

Although tobacco usage is highly addictive, many people have refused to admit that they are addicts, owing to the social taboos associated with it. The people in our study consisted of an educated service middle class population of Maharashtra yet an awareness gap was found about the tobacco containing products. It was also found that Mass

Media had a low impact Tobacco usage behaviour of people, as many of them were aware of the ill effects and yet did not make an attempt to quit. If Mass Media messages and Anti-Tobacco messages can be enhanced, it may have a positive impact on Tobacco users in future.

Owing to the lockdown in India, not many had access to tobacco, hence it aided in reducing the addiction behaviors to some extent. Such time to time bans can help people quit tobacco in future. Psychological behaviour and attitude of the tobacco users and their quitting behaviour in the COVID Lockdown period are the areas that can be further studied.

The social effects that tobacco helps in bonding, easing out anxiety are something that can be researched upon. As the addiction levels are not realized by the people, it is highly possible that in such social situations also, the stimulatory effect of tobacco might be underestimated.

7. Source of Funding

None.

8. Conflicts of Interest

None.

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