
ORIGINAL ARTICLE

**Psychological Impact of Anti Tobacco Campaigns in Various
Multimedia Sources on Tobacco Users: A Survey**

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ABSTRACT

India is the largest producer of tobacco and second largest consumer of tobacco related products. The Government Of India, in order to curb excessive consumption of tobacco products and also to generate awareness regarding the harmful effects of tobacco products, has started some anti-tobacco campaigns, which are played on television, cinema halls, social media and radio. Even after implementing such rules, consumption of tobacco seems to steep every single year. This study was conducted in order to understand the disparity between anti-tobacco advertisements and to assess the impact of these advertisements on tobacco users. A set of 18 questions were prepared in Google forms and circulated among the urban population of Chennai. Responses were calculated as percentages. Descriptive analysis and Chi square correlations were made using software IBM SPSS version 20. 62.4% of the respondents considered the ads to be effective. 62.4% of the respondents tried quitting tobacco, but started again. 38% could not quit tobacco because they lacked motivation. It was inferred that tobacco users having history between 0-5 years were the most influenced and were ready to quit tobacco habit ($p<0.05$), and tobacco users with habit more than 15 years were reluctant to quit tobacco and hence found the advertisement ineffective ($p<0.05$). Anti-tobacco advertisements run by the Government were not very effective and did not play a huge impact among tobacco users.

Keywords: Psychological impact, tobacco users, anti-tobacco campaigns.

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INTRODUCTION

India is the largest producer and third largest consumer of tobacco in the world [1]. Tobacco is sold freely and in many forms such as bidi, hookah, cigarette, mawa, zarda etc in cost effective prices in the Indian subcontinent. Previous studies have indicated that men consume 47-65% and women consume 14-33% of some kind of tobacco. Out of which 35% men and 3% of women have smoking habits [1,2]. It is estimated by the World Health Organisation, India will have an estimation of 1.5 million deaths within 2020 due to tobacco consumption [3] and in developing countries, mortality rate would tally upto 10 million per year by 2030 [4]. A study conducted by the Global Youth Tobacco Survey amongst young adults aged 12 to 15 years in 12 Indian states, it was estimated that tobacco use in any form was greater than 40% in north eastern states [5]. The reach of tobacco and its products is among all socioeconomic backgrounds of the country. In most of the places, tobacco is sold at meager prices catering to needs of lower socioeconomic groups as well. Prevalence and incidence of oral cancer cases can only be reduced, if production, distribution and consumption of tobacco is curbed.

India lacks proper policies when it comes to production and distribution of tobacco and tobacco related products, hence making it even more difficult in controlling the consumption and distribution of tobacco products.

As an attempt to control the consumption of tobacco among the general masses, the Government of India has started using anti tobacco campaigns and advertisements. The first step was taken in 1975 with the Cigarettes Act, where printing of statutory warning on cigarette packets was mandated [6]. In 2000, the Cable Television Networks (Amendment) Act abolished display of tobacco related advertisements on

cable networks [6]. This step was taken in order to educate masses and also instill fear and concerns among them. The advertisements include sensitive graphical images of the symptoms of tobacco consumption, animated video clippings of the pathogenesis of smoking and smokeless tobacco. Life story of deceased individuals due to oral cancer is the most played and viewed advertisements and also stills an emotional connect and instills fear in people's minds [7]. According to the Cigarettes and Other Tobacco Products Act (COTPA) which was enforced in 1st May, 2004 display of tobacco related advertisements is strictly prohibited through all media, selling of tobacco to minors, selling of tobacco within 100 yards of educational institutes is strictly prohibited and display of statutory warning is compulsory on all tobacco packets, failing which, the condemner shall either face imprisonment or fine. Even though the measures taken by the Indian government are extensive, still the consumption of tobacco by the general masses ceases to stop. A study conducted by Sagar Bhat et al, 65% participants found the advertisements ineffective, and only 28% of the participants felt like quitting the habit after watching the advertisements [8]. A study conducted by Sarah Durkin et al, stated that only 11% of the participants thought of quitting the tobacco habit only after getting inspired by emotional anti tobacco ads [8,9]. In an attempt to assess the efficacy of anti-tobacco advertisements in Indian scenario and the psychological impact on tobacco users, this study was conducted to understand the effect of anti-tobacco campaigns among tobacco users.

MATERIAL AND METHODS

The cross sectional study was conducted in Chennai, Tamilnadu, in the month of October. The study was conducted and circulated among all the age groups among the urban population of Chennai. The study consisted of 18 questions written in English. The questions were framed in four sets. The First set consisted of the general data of the study participants like age, gender and occupation. Set two consisted of questions which assessed the practice, duration of tobacco consumption habits among the study. Third set of questions are related to the anti-tobacco ads displayed in various multimedia sources and their psychological impact on them. And lastly the final set of questions aimed on assessing the type of impact incurred among the participants. The questionnaire was prepared using Google forms. Once the Google forms were prepared, it was circulated among people via various social media platforms like WhatsApp and Email. After 7 days, the data was retrieved. Age of the respondents were divided into age groups of 10-19 years, 20-29 years, 30-39 years, 40-49 years, 50-59 years and 60-69 years. Respondents were categorized according to their profession such as students, dentists, doctors, engineers, housewives and service holders. Responses were calculated in percentages. Data entry was made in Microsoft Excel and statistical analysis of the data was made using IBM SPSS version 20. Descriptive statistics was performed. Categorical variables were compared using the Chi-square test. $p < 0.05$ was considered as statistically significant.

RESULTS

A total of 101 responses were received from people aged 17 years to 56 years. Majority of the respondents were between 40 to 49 years of age. 69.3% were male respondents and 30.7% were female respondents. 68.3% respondents were tobacco users and 31.7% were not. 49.3% of the respondents have the habit of consuming tobacco for less than 5 years. 92% of the respondents have seen anti-tobacco campaigns. 46.5% have seen the ads on television. 31.7% have experienced guilt on watching the anti-tobacco ads and 22.8% experienced combined negative thoughts after watching the ads. 62.4% have thought of quitting tobacco after watching the anti-tobacco ads. Almost 40.6% have tried quitting tobacco but have always failed at the attempt and 38% have no motivation to quit tobacco consumption. 81.2% acknowledge the fact that consumption of tobacco has adverse effects on health and only 4% have said that it won't lead to any adverse health effects. 47.5% are very fearful and 43.6% are somewhat fearful after acknowledging the fact that tobacco consumption will cause adverse effects on their health. 71.3% know that the habit of tobacco consumption will cause harm to their family members. 62.4% are aware that continuous use of tobacco will cause emotional stress, financial burden and loss of family members. 70.3% are aware that smoking or tobacco consumption may cause death. 60.4% are very fearful of knowing the fact that continuous consumption of tobacco leads to death. 62.4% have said that anti-tobacco ads are effective in quitting smoking and tobacco consumption. (Table 1,2,3)

It was observed from our study that 19.8% of respondents from age group 20-29 years are more likely to consume tobacco, followed by respondents belonging to the age group of 10-19 years as they comprised 17.8%. Only 0.99% of respondents from age group 60-69 years had the habit of tobacco consumption. Pearson's Chi square test showed significant association as the p value < 0.05 (p value=0.008) (Graph 1). 29.7% of respondents in the age group 40-49 years have seen anti-tobacco advertisements, followed by

30-39 years comprising 22.7%, 19.8% 20-29 years, 10-19 years 5.9%. Pearson's Chi square test $p > 0.05$ (p value = 0.215), hence the association is statistically not significant (Graph 2). In the present study, it was observed that 49.5% having tobacco consumption habits for 0 to 5 years and 12.87% of respondents having tobacco consumption habits for 5 to 10 years intended on quitting tobacco consumption after watching anti-tobacco advertisements. 2.97% habitual users having tobacco consumption habit of 20-25 years and 5.94% having tobacco consumption habit for more than 25 years do not want to quit tobacco consumption habit. Pearson's Chi square test p value < 0.05 (p value = 0.00), hence the association is statistically significant (Graph 3).

40.59% having a tobacco consumption habit for 0 to 5 years have tried quitting tobacco, but started again. The reason provided by 8.91% for habitual users of 0-5 years, 16.83% for habitual users of 5 to 10 years and 12.87% for habitual users of 10 to 15 years was lack of motivation. The most reluctant habitual users were those having tobacco habits for more than 15 years. They don't want to quit consuming tobacco as they consider themselves healthy. 8.91% of the respondents gave the following response having a tobacco consumption habit between 15 to 20 years and > 25 years. Only 2.99% of respondents having a tobacco consumption habit for 15-20 years gave such a response. Pearson's Chi square $p < 0.05$ (p value = 0.00), hence the association is statistically significant (Graph 4). 49.5% of respondents having tobacco consumption for 0-5 years have found the anti tobacco advertisement useful and 12.87% of the habitual users for 5 to 10 years have found advertisements useful. 12.87% of respondents having habit for 10-15 years, 89.1% of respondents having habit for 15-20 years, 3.96% of respondents having habit for 5-10 years and 2.97% of respondents having habit for 20-25 years have found the anti tobacco advertisements to be ineffective. Pearson's Chi square p value < 0.05 (p value = 0.00), hence the association was found to be statistically significant (Graph 5).

Table 1: Table depicts the general data of the participants of the study. The table provides cumulative data regarding age groups, gender predilection and profession of participants.

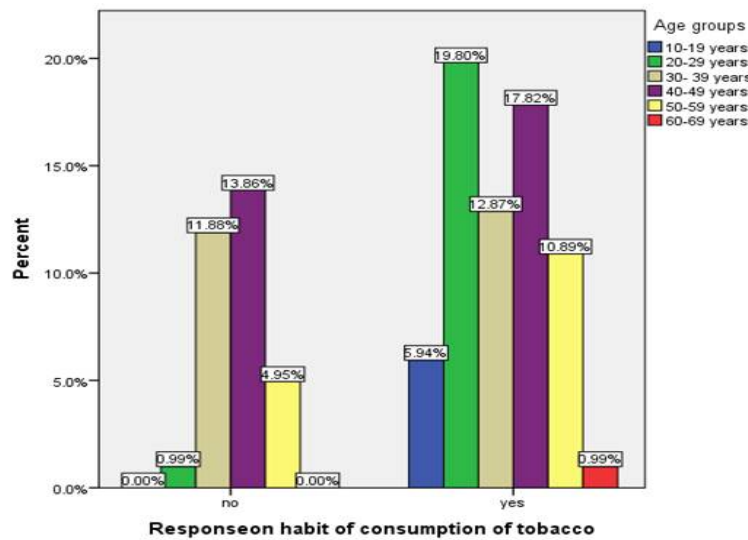
| General Data | Percentage (%) |
|--------------------|----------------|
| Age group: | |
| 10-19 years | 5.9% |
| 20-20 years | 20.9% |
| 3-39 years | 24.8% |
| 40-49 years | 31.7% |
| 50-59 years | 15.8% |
| 60-69 years | 1% |
| Gender: | |
| Male | 69.3% |
| Female | 30.7% |
| Profession: | |
| Dentist | 5% |
| Doctor | 11.9% |
| Engineer | 9.9% |
| Housewife | 8.9% |
| Service | 35.6% |
| Student | 28.7% |

Table 2: Table depicts impact of watching anti tobacco ads and difficulty status on quitting tobacco.

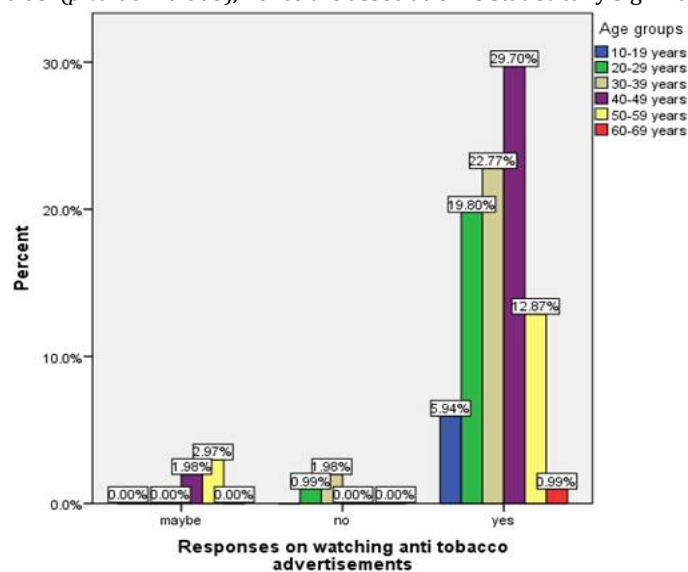
| Questions | Answers/ Options | Percentage |
|--|-----------------------------------|------------|
| What did you feel after watching the anti-tobacco advertisement? | Guilt | 31.7% |
| | Combined negative emotions | 22.8% |
| | Fearful | 16.8% |
| | Sad | 21.8% |
| | Irritated | 6.9% |
| Why can't you quit smoking/ having tobacco? | Tried quitting but started again | 40.6% |
| | Lack of motivation to quit | 38.6% |
| | Because I consider myself healthy | 20.8% |
| Why can't you quit smoking/ having tobacco? | Tried quitting but started again | 40.6% |
| | Lack of motivation to quit | 38.6% |
| | Because I consider myself healthy | 20.8% |

Table 3: Table depicts various impacts on the psychology of habitual tobacco users.

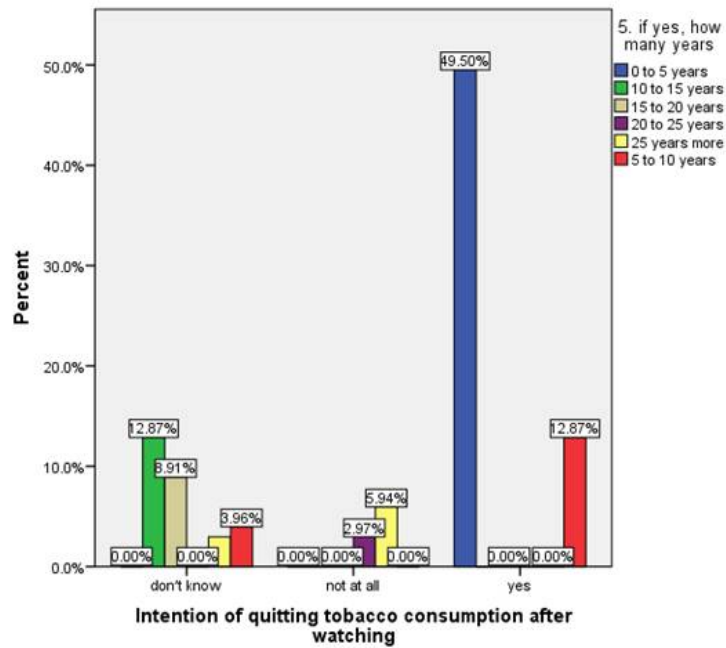
| Questions | Answers/ Options | Percentage |
|--|--|-------------------------|
| Do you feel that smoking/ tobacco chewing will cause adverse effects on your health? | Yes Maybe No | 81.2% 15% 4% |
| If yes, then how fearful do you feel about it? | Very fearful Somewhat fearful Not at all fearful | 47.5% 43.6% 8.9% |
| Do you know that smoking/ chewing tobacco causes early death? | Yes Maybe No | 70.3% 16.8% 12.9% |
| Are anti-tobacco advertisements effective in quitting smoking/chewing tobacco? | Yes, very effective No, not at all | 62.4% 37.6% |



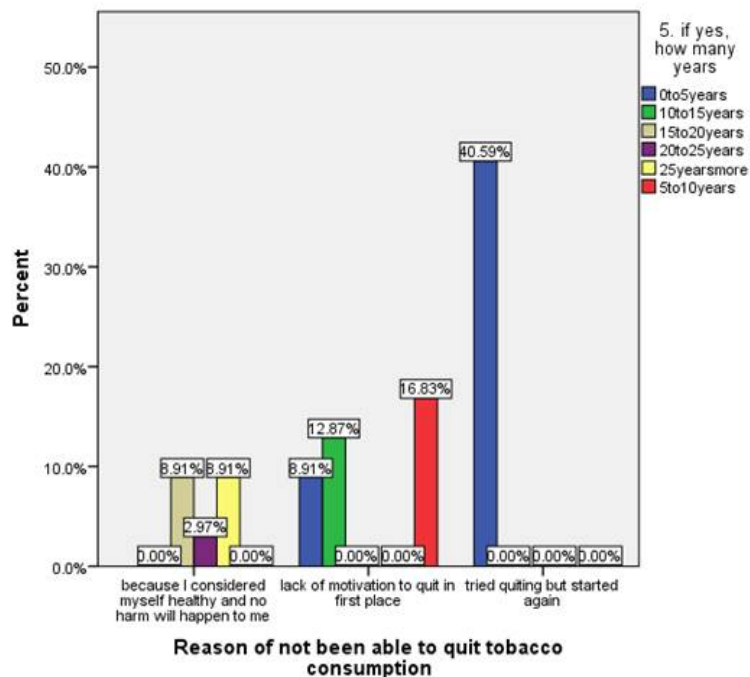
Graph 1: Bar graph depicts association between habit of tobacco consumption and age groups. X axis depicts respondents having the habit of tobacco consumption and Y axis depicts percentage. Respondents of age group 20 to 29 years majorly have the habit of tobacco consumption and least consumed by 60-69 years of age group. It is concluded that tobacco is consumed mostly by the younger generation as compared to the older generations. Pearson's Chi square $p < 0.05$ (p value = 0.008), hence the association is statistically significant.



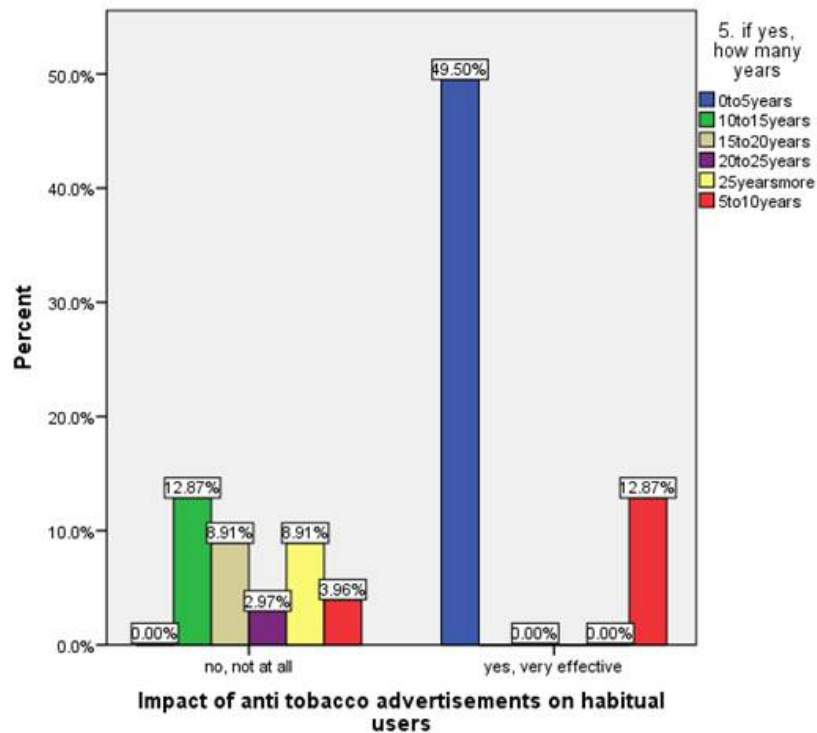
Graph 2: Bar graph depicts the association between prevalence of viewership of anti tobacco advertisements and age groups. Pearson's Chi square value $p > 0.05$, (p value = 0.215) hence the association is statistically not significant.



Graph 3: Bar graph depicts the association between intention of quitting tobacco after watching anti-tobacco advertisements with tobacco users of varying tobacco consumption periods. X axis depicts the responses on quitting tobacco after watching anti-tobacco advertisements. Y axis depicts the percentage of responses. Respondents consuming tobacco for more than 25 years are the most reluctant to quit tobacco. Pearson's Chi square test p value < 0.05 (p value = 0.00), hence the association is statistically significant.



Graph 4: Bar graph depicts the association between inability to quit tobacco with tobacco users of varying tobacco consumption periods. X axis depicts reasons for not quitting tobacco, Y axis depicts the percentage of responses. Respondents having a tobacco habit for 15 to 20 years and more than 25 years were reluctant to quit tobacco. Pearson's Chi square p value is < 0.05 (p value = 0.00), hence the association is statistically significant



Graph 5: Bar graph depicts association between impact of anti tobacco advertisements with the respondents. The X axis depicts the response to the impact of anti tobacco advertisements on habitual users and the Y axis depicts the percentage of responses. Respondents with a tobacco consumption habit of 0 to 5 years and 5-10 years have found anti tobacco advertisements to be effective. Respondents having tobacco consumption for more than 25 years did not find the advertisements effective at all. Pearson's Chi square p value < 0.05 (p value = 0.00), hence the association is significant.

DISCUSSION

The study was conducted in order to assess the psychological impact of anti tobacco advertisements on habitual users of tobacco. 69.3% of the respondents were male and 30.7% were female, most of the respondents were between 40 to 49 years. In previous studies male respondents were 92.7% and female respondents were 7.3%. Most of the responses received was from the age group 18 to 25 years. The disparity between male and female respondents is because males are the major consumers of tobacco as compared to females [10][11][12]. The second school of thought regarding less respondents from female participants could be due to a stigma attached towards tobacco consumption. The same was mentioned in a study conducted in Indonesia [13]. In the present study, 92% of the respondents have watched anti tobacco advertisements. A study conducted by Sagar Bhat *et al*, all respondents have claimed to have seen anti tobacco advertisements [8,9]. This concludes that the respondents have easy access to all forms of social as well as entertainment media. In our study, response percentage pertaining to the following question was considerably high, hence the results are in accordance with our present study. Nevertheless, in an era of digital bandwagonism, receiving such a response was pertinent. In the current study, 45% of the respondents have seen the advertisements on television. Previous studies have shown that the mode of viewing anti tobacco advertisements are television, cinema halls and through social media [8,9].

In the present study, 31.7% experienced a sense of guilt and 22.7% experienced combined negative emotions on watching such ads. A study conducted by Lee *et al*, in 2014 tried exploring the guilt factor among the Korean smokers and smokers of the United States. It was observed that Korean smokers felt more guilty as compared to the United states smokers [14]. The results are in accordance to our study as many of the respondents have responded as guilty to be their very first emotion on watching an anti tobacco advertisement.

In the present study, 62.4% of the respondents were ready to quit smoking and 40.6% have tried quitting tobacco consumption but have failed in the attempt and 38% have no motivation on quitting tobacco. A study conducted by Erin LS *et al* in 2008, observed that the majority of adolescents thought of quitting tobacco after watching the anti tobacco advertisements [15]. Sarah Durkin *et al* conducted a study stating that 16.1% of the participants have already quit after watching anti-tobacco ads [9,16]. The study

respondents in the present study have experienced fear, sadness, guilt and mixed negative emotions on watching anti tobacco advertisements. Previous studies have also claimed to instill such emotions among the respondents after watching the advertisements [16]. The percentage of people willing to quit is more in our present study. This is an indication of progress and we might be able to break the habit with sufficient support to these people.

Respondents in the present study are aware of the effects of tobacco consumption. 71.3% are aware that tobacco causes adverse effects on their health and on their family members health. 70.3% were aware that continuous tobacco consumption can lead to death. Similar results were procured from studies done previously Jagdish *et al* have observed that 75% of the respondents knew that smoking can cause serious health issues. The knowledge and awareness perceived from the study participants from the study made by Jagdish *et al* is in accordance with the present study. A sound knowledge on the ill effects of tobacco consumption in the present study population was because the study was conducted amongst doctors, dentists, engineers and service providers, who automatically will be aware of the adverse effects of tobacco due to their educational background.

In our present study, 62.4% of the respondents have claimed anti tobacco ads to be effective and 37.6% believe that anti tobacco advertisements add no value on the lives of habitual tobacco users. In other studies also, the percentage of positive responses were comparatively more but not to an extent of significance. L Beiner *et al*, conducted a study in 2000, the effectiveness of anti tobacco advertisements was scored 7.2 out of 10 as many tobacco users had the intent of quitting cigarettes. Participants in his study responded more after watching strong and emotional anti tobacco advertisements [17], [18]. Sagar Bhat *et al* concluded from their study that only 40.80% of the respondents had found anti-tobacco advertisements useful and 51.2% have said the advertisements are ineffective [8]. A study conducted by RJ Donovan observed that the image depicted on the advertisements on cigarette packets are beautifully depicted, hence making a huge impact on the adolescent population [8,19]. The responses and the perception received were so varied. It was observed from the present that habitual users of more than 15 years have found the advertisements to be ineffective. The advertisements neither instill motivation, fear or hope among them. The reason could be due to unavailability of strong anti tobacco advertisements. Another reason is also due to less screen timing of display of anti tobacco advertisements. These ads are either played mostly in movie theatres and are seldomly played on private television channels. Hence in future, in order to provide a lasting impact on tobacco users, either the advertisements should get more screen time, or it should be so impactful that it instills motivation and hope to quit tobacco use in the minds of tobacco users.

CONCLUSION

The study was conducted to assess the impact of anti-tobacco advertisements on tobacco users. It was observed that tobacco users of less than 5 years were more influenced after watching anti-tobacco advertisements and also initiated quitting of tobacco. Only the users with a habit of more than 15 years were reluctant to quit tobacco and also claimed anti-tobacco advertisements to be ineffective.

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