

Are the Media Enabled Anti-tobacco Campaigns Effective? A Pilot Study

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ABSTRACT

Introduction: Globally, tobacco is a major cause of increased morbidity and mortality rates due to oral carcinoma. Despite the efforts of Government of India on anti-tobacco advertisements and campaigns, there is an increase in the number of consumers whereas the percentage who have attempted to quit the habit stands at a mere 3%-5%.

Aim: To evaluate the effectiveness of media enabled Government of India initiated anti-tobacco and anti-smoking advertisement and campaigns and understand behavioural/psychological response among tobacco users and non-users towards such campaigns.

Materials and Methods: This was a questionnaire-based study. A total of randomly selected general public, 250 young adults in the age group of 18 to 25 years, 158-tobacco users and 92-non-tobacco users, in South Bengaluru, India was interviewed on one to one basis in the study. A self-administered questionnaire was used to collect the data on basic personal details, specific questions related to Government of India initiated anti-tobacco advertisements, and psychological tests namely Sentence completion test, Thematic Apperception Test (TAT) and Inkblot test were used to check the responses among tobacco and anti-tobacco users. The SPSS version 22.0 software IBM, Corp was used to do the descriptive statistical analysis and the level of significance was set at $p < 0.05$.

Results: Of the overall 250 participants, 63.2% were tobacco product users and 36.8% were non-tobacco users. All 100% participants watched the Government of India initiated anti-tobacco and anti-smoking campaigns. Among overall subjects 49% gave up watching the advertisements due to fear or monotony, 23% of them reduced watching, and 28% felt like giving up the use. Among tobacco users, 48.73% discontinued the habit after watching the advertisements and 51.27% continued with the habit. The Government of India initiated anti-tobacco advertisements were ineffective in 65.19% of the tobacco users. The non-tobacco user group gave a favourable response in Sentence Completion Test and Rorschach Inkblot Test. There was no significant difference in the response seen in the TAT. Chi-Square test analysis was applied to determine the statistical significance between the psychological tests and the effectiveness of Government of India initiated anti-tobacco advertisements among tobacco and non-tobacco users.

Conclusion: It was observed that the Government of India initiated anti-tobacco and anti-smoking advertisements had more favourable response among the non-tobacco users whereas, with the current tobacco users, it did not have the desired impact. Psychological tests like TAT was statistically significant with respect to the effectiveness of advertisements ($p < 0.05$) in non-tobacco users.

Keywords: Anti-tobacco advertisements, Inkblot test, Non-tobacco, Sentence completion test, Thematic apperception test

INTRODUCTION

Tobacco consumption remains a leading reason for disability and premature death worldwide with India accounting to a large extent to this problem. Tobacco-related mortality rate is expected to rise to 10 million/year by 2030 with developing countries accounting for 70% of the tobacco-related deaths [1]. The tobacco consumption in both the forms i.e., smoking and smokeless, can lead to death with mortality around six million people per annum [2,3]. In India, tobacco use occurs in dual forms like smoking and smokeless such as beedis, chewing pan, gutka, mishri, hookah, chutta, chillum, cigar, khaini, zarda, khiwam, and masher [4].

Both active and passive smoking is responsible for increased incidences of morbidity and mortality by causing cardiovascular disorders, cancers, respiratory diseases, peripheral vascular diseases, stroke etc., [5].

Smokers have a 20 times higher risk than non-smokers of acquiring lung carcinoma and the risk is 10 times higher for obtaining ischaemic heart disease. Pregnant women who smoke are more susceptible to premature birth, miscarriage, and low birth weight babies [6].

Tobacco contains a vast range of chemicals such as carbon dioxide, tar, phenol, cadmium, lead, hydrogen cyanide, formaldehyde,

nitrosamines, acrolein etc., to have credible evidence to cause carcinogenic, cytotoxic, mutagenic, antigenic properties. This can lead to endothelial dysfunction, inflammation, thrombosis, and low-density lipoprotein cholesterol oxidation, elevation of several pro-inflammatory cytokines, and free radical-mediated oxidative stress. The active or passive intake of these toxins in the smoke of cigarette are rapidly dissolved and taken up into systemic circulation [7].

The strategy for managing tobacco-dependence includes pharmacological interventions and behavioural therapy. Nicotine causes bodily pathophysiological changes those results in the development of tolerance. Pharmacological agents such as nicotine gums and patches, bupropion, varenicline, antidepressants, anxiolytics are aimed at reducing withdrawal symptoms and interrupt the fortifying effects of nicotine [8]. Pharmacological interventions should be accompanied by psychotherapy with the active participation of the smokers, non-smokers, community and government through various policies and programs [8].

For many individuals, encouragement and support to quit attempts, regulate nicotine withdrawal symptoms and avert relapse are required. The final target of the therapy should be abstinence from smoking for a long-term. The first step towards it is to consider

cessation for an initial short period of time. Behavioural therapy follows the '5-As' approach which includes to 'Ask' patients if they smoke followed by 'Advice' on quitting, 'Assessment' to determine willingness to stop smoking, to offer 'Assistance' either as pharmacotherapy or as behavioural therapy and finally, 'Arrange' a follow up appointment [9,10].

Mendez D et al., opine that if further actions were not initiated, it would lead to smoking prevalence amounting to 22.7% in 2020 and 22% in 2030 as per the Global InfoBase Database of the World Health Organization (WHO). The numbers would amount to 872 million smokers [3]. In 2003 the World Health Assembly adopted the Framework Convention on Tobacco Control (FCTC), which includes 174 countries, covering 85% of the world's population [11]. To aid countries in implementation of effective interventions to reduce the demand for tobacco and its consumption in various forms, in 2008 the WHO disseminated recommendations called MPOWER, which included the following strategies: monitor tobacco use, protect people from tobacco smoke, offer help to quit tobacco use, warn about the dangers of tobacco, enforcing bans on tobacco advertising promotion and sponsorship, and raise taxes on tobacco [12].

With increasing consumption of tobacco every year, India's first anti-tobacco legislation was passed in 1975. However, it was inefficient as the legislation restricted itself only to healthcare warnings [13]. Advertisements through different means of mass media are banned but are still advertised with some restrictions [13]. In order to strengthen the implementation of tobacco control, National Tobacco Control Programme (NTCP) was initiated in 2007-2008. This was done to improve provisions of Cigarettes and Other Products Act (COPTA) and provisions under WHO FCTC.

It essentially was done to improve public awareness, behavioural change, and start facilities for testing of tobacco products, research, training, and school programs [14].

The motivation and reinforcement attempt to quit smoking is done through education campaigns and tobacco control policies. Advertisements are paid communication about the product, services, idea, or an organisation by means of mass media such as newspaper, television, radio, internet etc., [15]. Advertisements for products and services are designed to communicate a message for a certain duration of time. Advertisements focus on showing the program repeatedly to persuade the consumer to change their behaviour. To avoid boring, irritating consumers with repetitive messages, advertisers use multiple advertisements with a different setup; situation etc., [16]. There is a need to collect data on the impact of these advertisements on a larger population. Hence, through self-administered questionnaires, authors aimed to study the effect of Government of India initiated anti-smoking and anti-tobacco advertisement among young adults and the responses were studied using psychological tests.

MATERIALS AND METHODS

This questionnaire-based study was conducted on the general population, a sample of 250 people in Bengaluru Urban (Bengaluru South), Karnataka, India, from July 2014 to August 2014 among the age group of 18 to 25 years because it is impressionable age group or it is the most smoking age group. The Exclusion criteria of the study were: People below age group 18 years and above 25 years were excluded and the people who have not watched the Government of India initiated anti-tobacco and anti-smoking advertisements either on Cinema or television or any other media were excluded. Subjects were chosen randomly from the general public. Both tobacco users and non-users of both genders were selected for baseline data collection. A self-administered questionnaire was administered after obtaining written informed consent from each participant and the data was collected. The questionnaire was validated by 2-point validation method and checked for reliability by the Department of Public Health Dentistry and Department of Oral and Maxillofacial

Pathology, The Oxford Dental College, Hospital, and Research Centre, Bengaluru, Karnataka, India.

A self-administered questionnaire was used to collect data on: i) Basic personal details; (ii) Specific questions regarding Anti-Tobacco Govt. advertisements; (iii) Psychological tests like Inkblot, TAT and Sentence completion tests to check the responses in tobacco and non-tobacco users.

Study Tool

The self-administered questionnaire [Annexure 1] with a total of 10 questions consisted of socio-demographic information, the status of smoking or tobacco use, knowledge and attitude towards tobacco use, the effectiveness of Government of India initiated anti-tobacco advertisements and the effectiveness of these advertisements in tobacco control measures. There were five questions with regard to knowledge and attitude towards tobacco use. Two options were given for each question in the questionnaire: (a) YES; and (b) NO.

Psychological tests were scored based on the classification present with respect to each test and the subjects were categorised as per the classification to which they belong, based on the answer they have given.

In this study, a total of 250 young adults between age 18 to 25 of either gender were given self-administered questionnaires. The principal investigator explained the study process and purpose to the study participants. After obtaining written informed consent from each participant, data was collected on socio-demographic information, on the impact of viewing anti-tobacco advertisements by tobacco users and non-users. Psychological tests like Inkblot, TAT and Sentence completion tests were conducted to check the different responses like emotion, imagination and personality in tobacco and non-tobacco users. The participants were questioned about attitude, as to how they accepted the messages they viewed and their opinion with respect to government advertisements about anti-tobacco [17]. Considering the effect size to be measured (ρ) at 20% i.e., Correlation coefficient between the variables at 0.20, the power of the study at 80% and the margin of the error at 0.05%, the total sample size needed was 191, and the sample was round to 200. Anticipating 20% attrition during data collection, the total sample size was rounded off to 250.

Psychological/Behavioural Assessment

Three psychological assessment tests were conducted and they were chosen as the tests are easy to perform and demonstrate, easily understood by commoner and portable. It is to be noted that there are no single tests to assess all the psychological and behavioural aspects of the study subjects.

1. **Sentence completion test:** Sentence Completion Tests are used to assess the personality of the participant which indicates attitude, beliefs, motivation, or other mental states [Annexure 1] [18,19]. The classification that was used for scoring both tobacco and non-tobacco users categories are:

(a) Optimistic; (b) Pessimistic; (c) Realistic; (d) Subjective; (e) Confused.

Example: 1. I like _____

2. India is _____

Sentence completion tests can be interpreted in two different ways: subjective-intuitive analysis: In this analysis, the underlying motivations are projected in the subject's responses, or objective analysis: This analysis is done by means of scores assigned to each completed sentence [18,19].

2. **Thematic Apperception Test (TAT):** This test is used to assess the person's emotional status. The responses of the subjects on a famous sketch were classified as 'Positive Emotions', 'Negative Emotions', and 'Ambiguous Emotions' [Annexure 2] [20,21]. The test consists of showing the subject a series of images or only a single image asking him/her to make up a little story or ask them

like what they understand seeing that image. TAT is real pictures, which imagine something. Scoring was done based on the above classification present and the subjects were categorised as per the classification to which they belong based on the answer they have given.

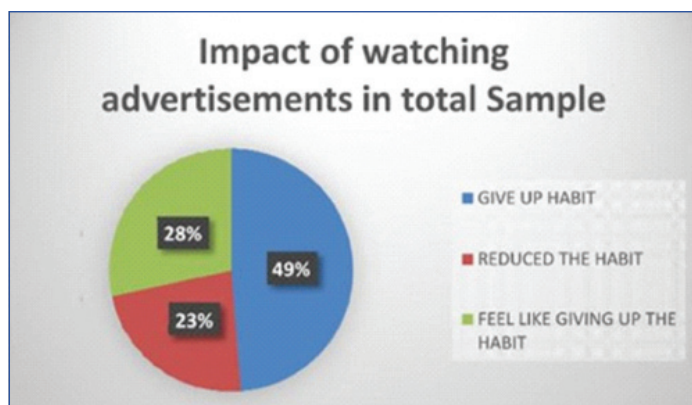
3. Rorschach inkblot test: This test evaluates the subject's response to ambiguous inkblots which in turn reveals the personality of the subject. The responses of the subjects were classified as 'Positive Imagination', 'Negative Imagination', and 'No Imagination' [Annexure 3] [22,23]. The tests consist of showing the subject an ambiguous image and ask them to imagine and record their opinion. Scoring was done based on the above classification present and the subjects were categorised as per the classification to which they belong based on the answer they have given.

STATISTICAL ANALYSIS

The Statistical Analysis was done using SPSS version 22.0 software IBM, Corp. The collected data were compared between tobacco users and non-users and presented as a percentage. The response of tobacco users and non-users towards anti-tobacco advertisements is presented in percentage. A descriptive analysis of the data was presented as frequency, mean, and Standard Deviation (SD). The level of significance was set at $p < 0.05$. Chi-Square test analysis was applied to determine the statistical significance between the psychological tests and the effectiveness of Government of India initiated anti-tobacco advertisements among tobacco and non-tobacco users.

RESULTS

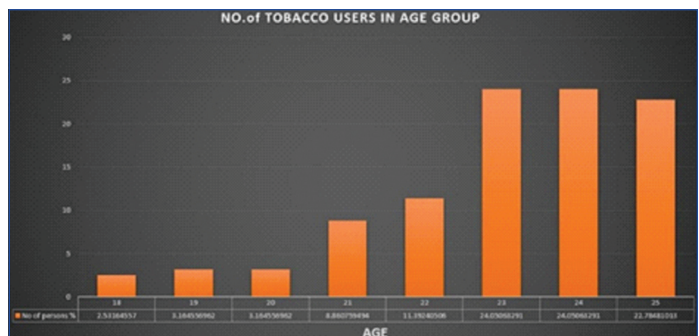
Among 250 study participants, all the participants recalled Government of India initiated anti-tobacco messages/spots about smoking either on Cinema or television or any other media. The recall rate was high in all the participants. Out of all the participants, 158 were the tobacco users and 92 were non-Tobacco users. The response of study participants about watching anti-tobacco advertisements is represented by [Table/Fig-1]. The analysis of data collected showed that among total participants, 28% felt like giving up the habit after watching advertisements, 23% reduced the habit after watching and 49% gave up the habit after watching advertisements [Table/Fig-1].



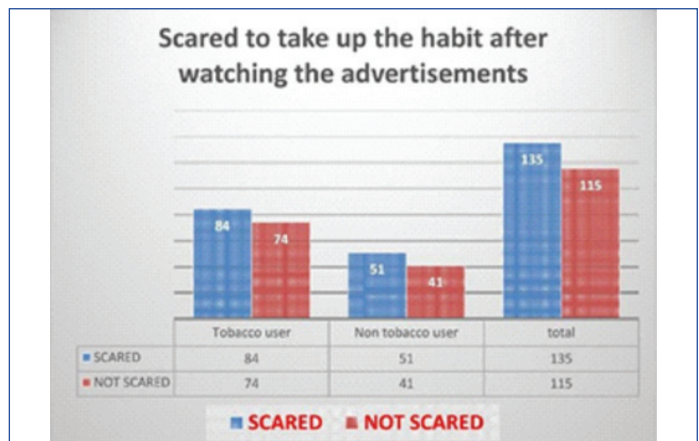
[Table/Fig-1]: Pie-chart showing the impact of watching advertisements when total sample was considered.

Further, in the study, [Table/Fig-2] shows the number of tobacco users among the different age groups and emotional response of participants towards anti-tobacco advertisements was depicted in [Table/Fig-3] wherein 54% of the total participants were scared to take up the habit and 46% of the total participants were not scared to take up to the habit after watching the advertisements [Table/Fig-3].

Among tobacco users, 53.16% were scared to take up the habit and 46.84% were not scared. According to [Table/Fig-4], 40.8% of total participants felt that advertisements to

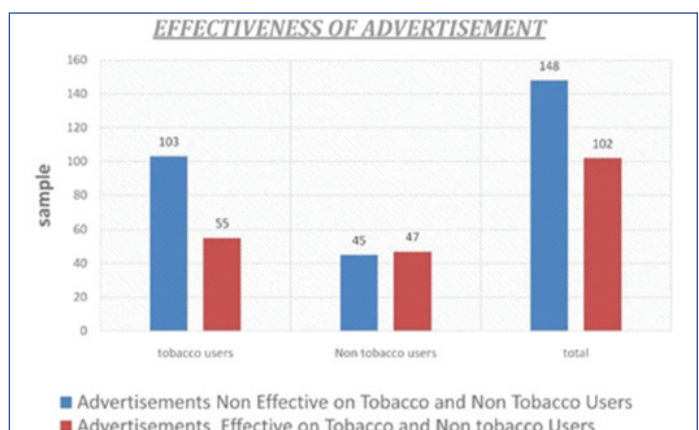


[Table/Fig-2]: Graph showing the number of tobacco users among the different age groups.
X axis: Number of tobacco users
Y axis: Age of the subjects

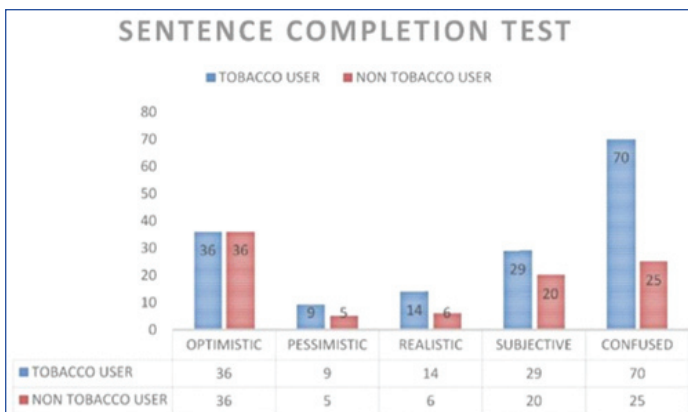


[Table/Fig-3]: Graph showing the number of respondents who were scared to take-up the habit after watching the advertisements.

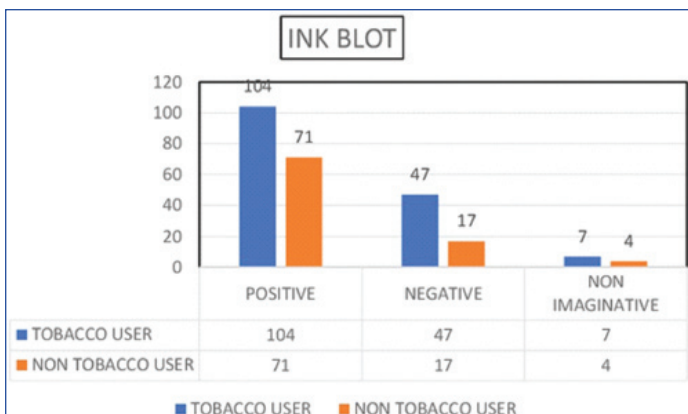
be effective [Table/Fig-4]. Among tobacco users, 65.19% do not feel the advertisements to be effective when compared to 48.91% of tobacco non-users. In sentence completion test, 37.039% of tobacco users and 51.085% of non-tobacco users have understood the purpose of the test conducted [Table/Fig-5]. In Sentence Completion test, optimistic replies were more from non-tobacco users compared to the tobacco users. In Inkblot test, there were more positive imaginative people in the non-tobacco user group [Table/Fig-6]. In TAT, there was not much difference between the two groups either in positive or negative emotions [Table/Fig-7]. In non-tobacco users, TAT was statistically significant with respect to effectiveness of advertisements ($p < 0.05$). Only in non-tobacco users, TAT was statistically significant with respect to effectiveness of advertisements ($p < 0.05$). The rest were not [Table/Fig-8]. Chi-Square test analysis was applied to determine the statistical significance between the psychological tests and the effectiveness of Government of India initiated anti-tobacco advertisements among tobacco and non-tobacco users.



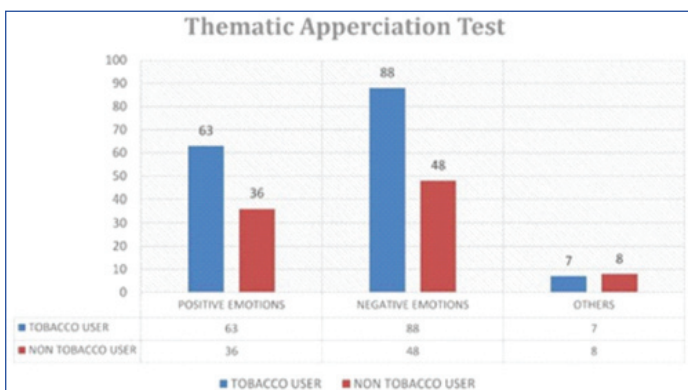
[Table/Fig-4]: Graph showing the effectiveness of advertisements on tobacco users and non-tobacco users.



[Table/Fig-5]: Graph showing the results of Sentence Completion Test among tobacco users and non-tobacco users.



[Table/Fig-6]: Graph showing the results of Inkblot Test among the tobacco users and non-tobacco users.



[Table/Fig-7]: Graph showing the results of Thematic Apperception Test among tobacco users and non-tobacco users.

		Crosstab			p-value
		FEEL THESE ADVERTISEMENTS ARE EFFECTIVE		Total	
		no	yes		
TAT Positive Emotions	Count	14	22	36	0.04
	% within TAT	38.9%	61.1%	100.0%	
	% within FEEL THESE ADVERTISEMENTS ARE EFFECTIVE	31.1%	46.6%	39.1%	
Negative Emotions	Count	24	24	48	
	% within TAT	50.0%	50.0%	100.0%	
	% within FEEL THESE ADVERTISEMENTS ARE EFFECTIVE	53.3%	51.1%	52.2%	
Others	Count	7	1	8	
	% within TAT	97.5%	12.5%	100.0%	
	% within FEEL THESE ADVERTISEMENTS ARE EFFECTIVE	15.6%	2.1%	8.7%	
Total	Count	45	47	92	
	% within TAT	48.9%	51.1%	100.0%	
	% within FEEL THESE ADVERTISEMENTS ARE EFFECTIVE	100.0%	100.0%	100.0%	

[Table/Fig-8]: And the statistical test Chi-square test analysis to determine the statistical significance (p-value) with respect to this particular table and between the psychological tests and the effectiveness of Government of India initiated anti-tobacco advertisements among tobacco and non-tobacco users as mentioned in the statistical analysis section of the article. Only in Non-Tobacco users, Thematic Apperception Test (TAT) was statistically significant with respect to effectiveness of advertisements (p<0.05). The rest were not.

DISCUSSION

The analysis of the study done by authors indicate that among 250 participants who watched Government of India initiated anti-tobacco and anti-smoking advertisements aired on television, movies, radios etc., 49% in overall participants gave up watching advertisements and among tobacco users, 48.73% gave up watching them and 51.27% continued watching the anti-tobacco advertisements. The emotional response to the advertisements showed that 54% of the total participants were scared to take up the habit and 46% were not scared. A 40.80% of total participants felt that these advertisements are effective while 59.20% felt them ineffective. This suggests that anti-tobacco advertisements have a lesser impact on the participants, especially on the tobacco users.

A lesser proportion of tobacco users (34.81%) feel that the advertisements to be effective when compared to non-tobacco users (51.09%). This indicates that these advertisements are lacking many ideas which induce motivation in targeted mass to reduce or quit the habits. This also suggests some new strategies to be introduced to attract the public towards cessation of the tobacco habits. This suggests the need for a stronger strategy to aid public especially young adults in watching the Government of India initiated anti-tobacco and anti-smoking advertisements to motivate them to stop tobacco use or stop them from starting the habit itself.

In Sentence Completion Test 37.039% of tobacco users and 51.085% of non-tobacco users have understood the purpose of the test conducted. In Inkblot Test, there were more Positive Imaginative people in the non-tobacco user group. TAT showed that there was not much difference between the two groups either in positive or negative emotions.

A study by Kaur J and Jain D, has shown that with respect to the challenges of implementation about Tobacco Control Policies of India showed that it remains a challenge [14]. According to author, the states have shown different success percentages at different levels. In another study by Kaur J et al., noted that 37% of the subjects feel the advertisements are effective and Interventional Community based Study done by Maulana Azad Medical College, New Delhi group on effectiveness of Anti-tobacco audio-visual messages on knowledge and attitudinal change towards the tobacco used showed that Mass media plays a significant role in initiation as well as in control of tobacco use [14,17].

There has been an increasing prevalence of tobacco-related diseases in India, especially among the youth. This is contributed to the addicting nature of tobacco, behavioural/psychological factors and belief and practices of an individual producing health hazards and economic burden [13].

Television advertisements that inform about the serious hazards of tobacco use are plausible to be successful with smokers and can be readily translated and adapted for local use [13]. Knowledge about psychological tests like Rorschach Inkblot test made its adjunct to psychiatric evaluation of the person's mind and its unstructured nature made it possible to evaluate an uncooperative patient [23]. Study by Shah PB et al., has further concluded that knowledge improvement and converting it to a positive attitude about tobacco use has been attributed to anti-tobacco advertisements and they also state that the current message delivered through anti-tobacco advertisements is minimal and infers that the counter-advertising has a protective effect on youth and it may function as tobacco and smoking cessation aids [24]. The effectiveness of the advertisements is influenced by the intensity and duration of anti-tobacco advertisements and mass media campaigns, but the concurrent events and follow-up the length in the community makes it difficult to verify [25]. Bala MM et al., found that there were no consistent patterns between the age, education, ethnicity or gender of those subjects taking part in the study and the effects of the anti-tobacco advertisements and campaigns [25]. In the present study, the retention and recall of the anti-tobacco government advertisements

were positive with respect to the participants and when asked about the advertisements they do recall message/spot about smoking. Tobacco users were significantly less than tobacco non-users to recall watching the advertisements since tobacco users sometimes did not care since they felt it was always monotonous.

“Youth smoking and the media” conducted by Wakefield M et al., in United States reveals that many tobacco companies have begun advertising strategies to promote a message to youth not to smoke, which gradually creating a situation, where it leads to a rise of questions regarding which anti-tobacco/anti-smoking advertising may have greater or lesser impact on youth smoking [26].

The study by Hong YH et al., found no difference between ethnic groups and its impact on the anti-smoking message. Also, they found that the internet was the best mode to dissipate anti-smoking advertisements [15]. The study by Bhatia M et al., revealed that around 17% of the drivers had tried tobacco products by observing the celebrities in mass media and peer pressure contributed to about 67% [27]. In our study, 34.81% of the subjects who were tobacco and tobacco product users felt that these anti-tobacco Government advertisements were useful which also inspired them to quit completely or to reduce the usage of tobacco products. The prevalence rate of tobacco use was the national figure of 30% [28]. Kaur J et al., found that socialization was a major factor among the professionals of public health for initiation as well as the continuation of tobacco use [17].

The level of changes in behaviour at a mass level is dependent upon factors such as values and beliefs both at the individual level as well as community-level besides the level of anti-tobacco campaign awareness [17]. Even though there are numerous anti-tobacco advertisements and campaigns initiated by the Government of India, there is an increase in tobacco consumers and the average number of quitting attempts ranges from 3-5 only [29,30].

The new strategies that need to be adopted to make anti-tobacco campaigns effective are as follows: Tobacco cessation centres within clinics can be introduced, Spreading awareness among the public about other diseases which occur due to smoking should be followed by the clinicians, new effective strategies should be employed in Anti-Tobacco Government Advertisements catering to tobacco users, the National, State and District level initiatives against the tobacco use should be implemented promptly and it should be made mandatory to put up Effective Anti-Tobacco posters in every dental clinic.

Knowledge about the harmful effects of smoking and tobacco use is a crucial element for smoking cessation and prevention. According to the knowledge-attitude-practice model, [31] acquiring relevant knowledge, changing related attitudes and altering practices are the important components involved in the assessment of change in the behaviour. Researches from China have found only weak associations between knowledge about smoking and actual smoking behaviour. Studies from Western countries revealed that, than the current smokers, the ex-smokers were twice as likely as to be aware of the harmful effects of tobacco smoking, [32,33] but comparable studies in China found a much weaker relationship between smoking status and knowledge of the health consequences of tobacco use and smoking [34-37].

There is an urgent need to take an effectual step on school children and the public, especially by launching community awareness programs to alert them about the consequences of tobacco use, and on assessing their effectiveness in reducing the problem. It is also necessary to keep updated of the policies and conventions of the international agencies like World Health Organization (WHO), United Nations Office on Drugs and Crime (UNDCP) and other similar agencies on tobacco use, to utilize their skill and proficiency in curbing this problem [38]. Study in India conducted by Imtiaz D et al., among the rural population

in Dehradun district Of Uttarakhand revealed that most of them were aware of the hazardous effects of tobacco and also knew that the tobacco consumption can lead to lung cancer and oral consumption of tobacco can lead to oral cancer but still there is a need for initiating community awareness programmes targeting the rural population and making them aware of various health consequences of smoking and tobacco use [39].

LIMITATION

This pilot study was conducted among general population aged between 18-25 years in South Bangalore. Hence, the present sample may not represent all young smokers. There is a need for collection of data of urban and rural dwellers, relation to education status, the standard of living etc, which present study lacks. The study was a self-administered questionnaire; hence there are high chances of recall basis. Only an overlook on behavioural response of participants about anti-tobacco advertisements has been obtained, but a more detailed behavioural assessment is required.

Apart from the combined pharmacological therapy and psychotherapy for tobacco use, there is need of support from the friends, family, community and the government with the continuous conduct of studies on the anti-tobacco measures so that adequate data are collected. A good strategy, use of multimedia, set up of regulations and community participation are important for the anti-tobacco campaign.

CONCLUSION

From the above study it can be elucidated that though anti-tobacco advertisements are effective in quitting tobacco use, still, there is a need of more systematic, strategised implementation of the anti-tobacco measure to facilitate stop of tobacco use. Media sources like television, radio, theatre and newspapers help to curb tobacco menace as an effective strategy to improve knowledge and change attitudes.

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ANNEXURE 1: QUESTIONNAIRE USED FOR THE SURVEY

Effectiveness of Anti-Tobacco Government Advertisements-A Survey

A short study conducted by: Sagar S Bhat

Age: Gender: Profession: Education: Area:

1. Have you watched anti-tobacco advertisements?
A. YES; B. NO
2. Did you use Tobacco or other Tobacco products?
A. YES; B. NO
3. Do you give up seeing advertisements?
A. YES; B. NO
4. Did your consumption of the products reduce?
A. YES; B. NO
5. Did you feel like giving up?
A. YES; B. NO
6. Are you scared about taking up the habit now, after watching the advertisements?
A. YES; B. NO

7. Do you feel these advertisements are effective?

A. YES; B. NO

8. Complete the following sentence:

India is _____

9. Inkblot Test

10. Thematic Apperception Test (TAT)

Signature of the participant

ANNEXURE 2

Thematic Apperception Test (TAT) used to assess the person's underlying motives, concerns and the way they see the social world. A TAT image shows a woman viewed from behind by an older woman. (Image credit: <http://www.dandebate.dk/eng-person6.htm>)

ANNEXURE 3

Rorschach Inkblot Test image that was used to reveal the personality of the subject. (Image courtesy: <http://ghcomm.org/sites/default/files/imagecache/horizontal-image/2.png>)