

Original Research Article

Response towards Anti-Smoking Legislation Implementation among Smokers and Non Smokers in North India

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Abstract: The study was aimed to evaluate the attitudes of smokers and non-smokers towards anti-smoking legislation. The present cross-sectional study was conducted among 400 subjects (160- smokers and 240- nonsmokers). A pretested proforma recorded demographic details and questions were on awareness and impact of anti-smoking act. The data was analyzed by using SPSS version 16 software. Chi-square test was applied to assess the statistical significance differences in the frequencies at $p < 0.05$. Overall, 63.4% were aware about the anti-smoking regulation and around half of them (53.2%) said that this law will help in providing a better environment. More than half of the respondents (63.8%) were in favor of this regulation and 67.5% desired to have a smoke free area. Most of the participants (80.7%) experienced that government has not fulfilled its responsibility just by implementing the legislation. So, 65.1% mentioned that more advertisement is required regarding this act. Overall non-smokers gave better response for anti-smoking legislation. Most of the participant's especially non-smokers showed great impact of anti-smoking legislation. Still they want that government authorities should improve the implementation policy by more advertisement among the public.

Keywords: Anti-smoking legislation; Smoking status; Smokers; Non smokers.

INTRODUCTION

Smoking form of tobacco is an important global challenge for public health policy makers. Tobacco smoking is one of the leading causes of preventable death, responsible for over 5 million deaths annually [1]. Second-hand or passive smoking has been found to increase the risk of lung cancer, heart disease and many other systemic diseases [2]. Currently, more than 1 billion people smoke, with highest percentage in low and middle income countries [3]. A lot of countries have achieved considerable decline in smoking status and its adverse effects like cancer through the implementation of comprehensive tobacco control programs.

With the introduction of the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) [4] and MPOWER (Monitor, Protect, Offer, Warn, Enforce, Raise) policy package, tobacco control policies are being implemented worldwide [5]. In India approximately 120 million people smoke, of which 900000 people die annually [6].

Government of India declared prohibition of smoking in public places on May 30, 2008 and came into force on October 2, 2008 [7]. India being a densely populated country lacks in primary preventive efforts like anti-smoking legislation in particular so government sponsored anti-smoking initiatives are also limited [8]. Unfortunately, few papers have been published on this issue. Therefore, the study intended to determine the response of people towards anti-smoking initiatives.

METHODOLOGY

The present cross-sectional study was planned among young adults in Patiala City from November 2016 to March 2017. Ethical approval was obtained from Luxmi Bai Institute of Dental Sciences and Hospital and a written informed consent was obtained from all the willing participants. The whole city was divided into four different zones and around 100 male subjects (Smokers and Nonsmokers) were randomly selected from each zone. All the areas like bus stops, colleges, factories were visited by the surveyors to collect sample of different demographic variables. So a

total of 400 male participants were finalized out of which 160 were Smokers and 240 were Nonsmokers. Also all the subjects were categorized into four age groups as follows 18 to 29 years, 30 to 39 years, 40 to 49 years and ≥ 50 years. In the same way, educational status was assorted into four groups as illiterate; up to high school, graduation and post-graduation.

A self-administered pretested questionnaire recorded demographic information (name, age, and educational qualification) in the first part. Second part included questions on smoking status, aware of anti-smoking act, sources of awareness, current anti-smoking legislation is beneficial for a healthy environment, impact of passive smoking, views for smoking ban in public places, favor for ban on smoking in public places, desire to have a smoke-free area, aware of smoke-free signs, government has fulfilled its duty by making legislation, and more improvement is required in the law.

Statistical analysis

The data was analyzed by using SPSS version 16 software (SPSS Inc., Chicago, IL, USA). Chi-square test was applied to assess the statistical significance of differences in frequencies between smokers and non-smokers. Significance level was fixed at $p < 0.05$

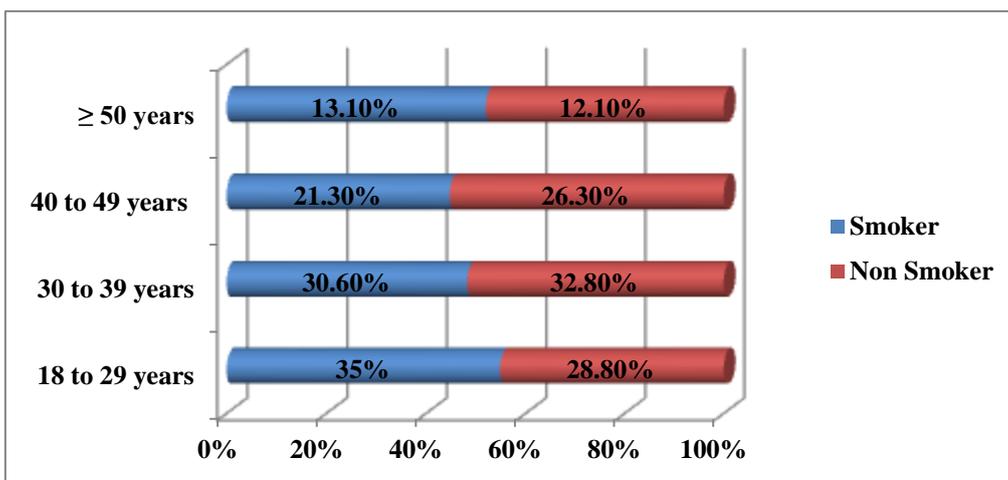
RESULTS

It was found that most of the smokers (35%) were in the age group of 18 to 29 years and least (13.1%) in the age group of 50 and above years. However non-smokers were more in the age group of 30 to 39 years (Graph 1). According to the education, smokers had mostly done education up to high school level (40.6%) and non-smokers were more in graduation (34.2%) as mentioned in Graph 2.

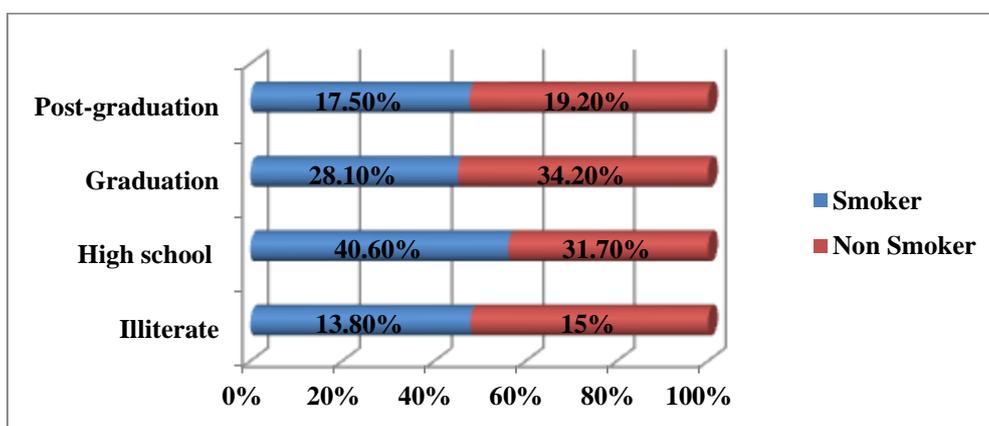
In the current findings, 63.4% were aware about the anti-smoking regulation. Around half of them (53.2%) said that this law will help in providing a

healthy environment. Whereas few participants (30.7%) agreed that this legislation will help to decrease the numbers of cigarettes. 51% knew that this smoking form of tobacco is serious threat to health. More than half of the respondents (63.8%) were in favor of this law and 67.5% desired to have a smoke free area for smoking. Nearly one third of the participants were aware of smoke-free signs in public places, but few (35.2%) responded positively regarding benefits of sign-boards of anti-smoking act in public places. Most of the participants (80.7%) experienced that government has not fulfilled its responsibility just by implementing the legislation and 65.1% mentioned that more advertisement is required regarding this act (Graph 3).

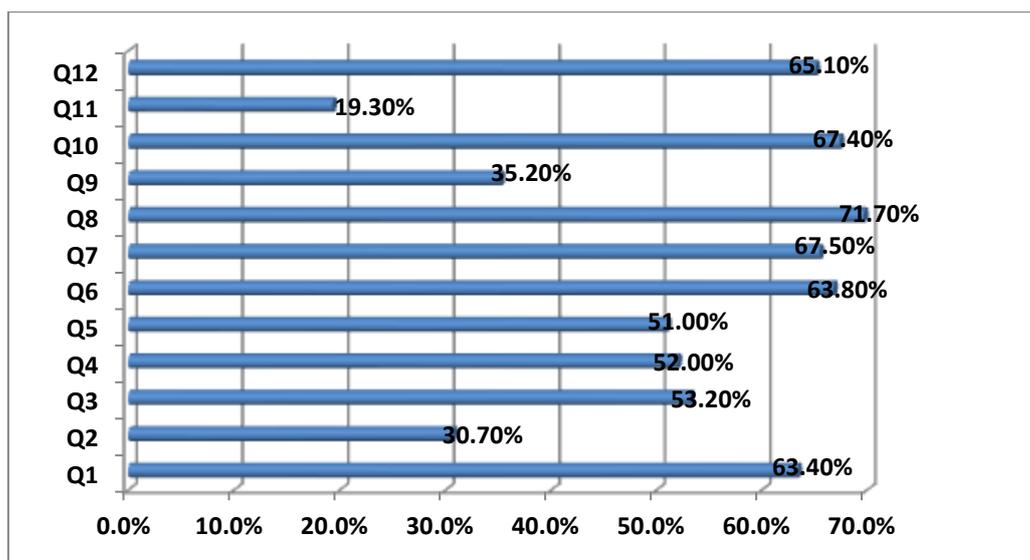
In this study, 160 (40%) were smokers and 240 (60%) non-smokers. Almost equal percentage were aware about the anti-smoking act ($p=0.125$). 38.1% of the smokers agreed that this legislation might help them to reduce the frequency of smoking. Non-smokers were in more favor that this policy and mentioned that it would aid in the establishment a healthy environment than smokers ($p=0.000$). 62.1% non-smokers and 36.9% smokers believed that the existing legislation had reduced their exposure to passive smoking. Smokers (75%) mostly desire to have smoke free areas compared to non-smokers (59.2%) and the findings were significant. Further smokers (78.1%) were more aware regarding smoke free signs in the public places. Few smokers (25%) and non-smokers (15.4%) responded positively about the framework of government on anti-smoking legislation. Therefore the respondents especially non-smokers want more implementation and advertisement for current anti-smoking legislation. Overall non-smokers showed more positive attitude towards anti-smoking legislation (Table 1). When it was asked regarding the source of information about anti-smoking legislation, mostly people mentioned newspaper (33.2%), followed by television (29.7%) and few got knowledge from internet (9.2%) (Graph 4).



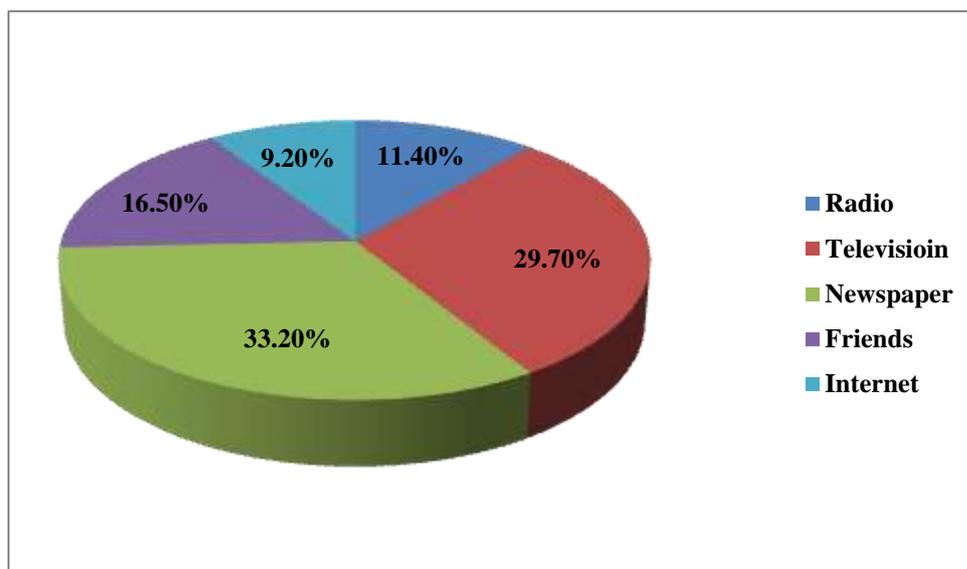
Graph 1: Prevalence of Smokers and Non-smokers according to age



Graph 2: Prevalence of Smokers and Non-smokers according to education



Graph 3: Overall response of study participants towards anti-smoking legislation



Graph 4: Sources of information regarding anti-smoking legislation

Table 1: Attitude of smokers and non-smokers towards anti-smoking legislation

Sr no	Questions	Smokers	Non smokers	p-value
1	Are you aware of anti-smoking act in India?	66.9%	61.7%	0.125
2	Is the current anti-smoking act has forced smokers to lessen the quantity of cigarettes?	38.1%	24.6%	0.003
3	Is the current anti-smoking legislation is going to give a healthier environment?	39.4%	62.5%	0.000
4	Is the current anti-smoking legislation has reduced exposure to passive smokers?	36.9%	62.1%	0.000
5	Do you believe that second hand smoke is a serious threat to health	34.4%	60.7%	0.000
6	Do you favor smoking prohibition in public places?	50.0%	77.9%	0.000
7	Do you desire to have a smoke-free area?	75.0%	59.2%	0.001
8	Are you aware of smoke-free signs in public places?	78.1%	64.6%	0.008
9	Are the sign-boards of anti-smoking act in public places helpful?	31.3%	37.5%	0.119
10	Is it right to ban smoking in public places?	43.1%	78.8%	0.000
11	Government has fulfilled its job by making Anti-smoking regulation	25.0%	15.4%	0.013
12	More implementation and advertisement is required for improving the current anti-smoking law.	39.4%	79.6%	0.000

DISCUSSION

Statistical data have reported that cigarette smoking practice generally begins before the attainment of adulthood [1], and continues for longer duration [9]. To overcome this hindrance, government authorities implemented anti-smoking legislation from October 2008, as an attempt to reduce smoking behavior into the public places. Therefore, this study was planned to

check the attitude of public regarding the current legislation.

The present survey found 40% smokers and 60% non-smokers and the figures of smokers were slightly lower than the results of a study by Rani et al showing smoking prevalence as 49.4% in Mizoram [10]. It was also found that the frequency of smoking was higher among the youth compared to old people.

However previous studies have shown that there was an increase in prevalence of smoking with increase in age [11, 12]. The reason might be the older age groups might not be able to make the decision to quit or have not been successful at smoking cessation.

Around 63.4% of the study participants were aware of anti-smoking legislation. However in a study by Chaudhary *et al* more number of respondents was aware about the act [13]. This is also a matter of concern as the later study was conducted among professionals and they are believed to play an important part in anti-smoking campaigns [14, 15]. The authors observed that study participants especially non-smokers believed that the present anti-smoking act is likely to give hale and hearty environment and also exposure to the passive smokers will be reduced. These statistics were comparable to the previous data [6, 13].

Mostly non-smokers favor ban on smoking in public places like bus stops, railway stations, near schools etc. in the present study. Similarly Ahmed *et al* stated that 63.0% respondents in North East of England supported for ban on smoking in public places [7]. However Bhat *et al* found that 81.2% favors ban on smoking in diverse public places such as workplaces, markets and hospitals [6]. Similarly, community's attitudes towards South Australia's smoke-free dining laws found supportive for the laws, rising from 81% four months after the laws implementation to 85% after 18 months [16].

Consistent with the previous results few participants in this study agreed that the legislation would reduce the frequency of smoking. Current investigators also found an adequate overall support for the legislation, but smokers and non-smokers attitudes showed significant differences between the two groups. Mostly non-smokers were in more favor of the introduction of law and mentioned that it would create the healthier environment or that there would be a reduction in exposure to passive smoking. Furthermore both the groups (smokers and non-smokers) agreed that additional advertisement is required for better implementation of the legislation and the results were comparable to the study done by Chaudhary *et al.*; [13]. However Saika K *et al.*; mentioned that in their study among members of the Japanese Cancer Association, participants were fully satisfied by the legislation implementation [17].

There was an in general support for the legislation but better positive reaction was from non-smoker's side and the results were consistent with a

study by Vadvadgi VH *et al.*; among professional students in India [2]. Support from the public plays an important task for successful implementation of act. Anti-smoking policy aimed at putting additional pressure on smokers to change their behavior opposed to one merely aimed at ensuring smoke-free air for non-smokers needs more vigorous enforcement. For better enforcement, children should be prevented from becoming addicted to tobacco [18].

CONCLUSION

The study concluded that in general participants supported the anti-smoking legislation but better positive reaction was seen from non-smokers side. Still there is a lack of enforcing mechanism in support of the legislation from government authorities. Therefore there should be an absolute ban on smoking with strong enforcement and implementation.

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