Pattern of Tobacco Consumption and Participants Perception in Relation to Anti-Tobacco Policies among Undergraduate Students in Mangalore

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ABSTRACT

Introduction: WHO has estimated that India has the second largest number of smokers in the world after china and is the third largest producer of tobacco in the worl. New WHO report on the global tobacco epidemic called "The MPOWER Package" reveals the evidence based strategies to be followed by member countries to control tobacco epidemic. This study was conducted to assess the perceptions in relation to tobacco policy MPOWER measures among under graduate students – Mangalore.

Methods: This was a cross sectional study was conducted among 400 randomly selected undergraduate students in Mangalore. Data was obtained by using a pre tested, structured questionnaire.

Results: Out of 400 individuals participated. Majority 183(45.8%) belonged to MBBS Course. Among the study group, 112 (28%) were current tobacco users and 47 (12%) were past users. Among tobacco users majority (98.1%) used tobacco in cigarette smoking form followed by chewing (1.9%). 64.2% of the current users were not in favour of raising tax on tobacco products, difference in opinion is found to be statistically significant (p=0.001).

Conclusion: Tobacco use is a significant problem among the male students population. It was also found that tobacco users demonstrated greater resistance to anti tobacco policy as compared with non-users.

Key words: Tobacco, MPOWER, Students, Perceptions

INTRODUCTION

WHO has estimated that India has the second largest number of smokers in the world after china and is the third largest producer of tobacco in the world [1]

In the Indian context, tobacco is consumed in both smoking and smokeless forms, e.g. bidi, gutkha, *khaini*, paan masala, hookah, cigarettes, cigars, chillum, *chutta, gul, mawa, misri,* etc. Tobacco is also a part of the socio-cultural milieu in various societies, especially in the Eastern, Northern, and North-Eastern parts of the country[2]

Anti tobacco legislation is one of the public health measure to address this menace of tobacco related mortality, morbidity. There is evidence that various provisions of the legislation like ban on smoking in public place, increase on taxation on tobacco products and ban on advertisements have led to decrease in use of tobacco products. [2]

The Indian tobacco control policies so far seem to be based on international research and recommendations. India however has a much wider spectrum of tobacco and health problems. Strategies need to be developed with the help of local research on tobacco control. On the whole, there are a few successes, but much remains to be done to reduce adverse public health consequences of tobacco in India. There is a need for strengthening

Indian research efforts in the area of tobacco control and public health.[3]

WHO report on the global tobacco epidemic called "The MPOWER Package"[4]reveals the evidence based strategies to be followed by member countries to control tobacco epidemic. There are six proven policies and they are 1) Monitor tobacco use and prevention policies; 2) Protect people from tobacco smoke; 3) Offer help to quit tobacco use; 4) Warn about the dangers of tobacco; 5) Enforce bans on tobacco advertising, promotion and sponsorship; and 6) Raise taxes on tobacco.

Keeping the above facts in mind, present study was conducted to assess the Perceptions in relation to MPOWER measures among the under graduate students of Mangalore

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MATERIALS AND METHOD

The present study is a cross sectional survey, conducted to assess the perceptions in relation to tobacco policy MPOWER measures among under graduate students of Nitte university Mangalore. Ethical Clearance was obtained from K S Hedge medical academy ethical review board .Written informed consent was obtained from study subjects before interview was taken. A pre tested questionnaire in English was used, which consisted of close ended questions related to –Demographic details which included age, education status, patterns of tobacco use behavior, type of tobacco they use and reasons for their tobacco use, perception in relation to MPOWER[1] measures. The data was collected by interviewing the under graduate students of Nitte university College's in Mangalore, on a questionnaire designed for the study.

From each college the students were select by using probability proportional size method. For the desired sample size students were selected by simple random method through attendance register or lottery method from respective colleges.

Status of tobacco usage was taken as per definitions given in WHO guidelines. Details of age at onset, frequency of consumption, duration of regular use in years, attempts to quit tobacco usage, reason for starting were also collected .The questions in the questionnaire designed for the study was taken from the pre-existing, pre tested surveys, such as the Global Youth TobaccoSurvey[5], The Global Adult Tobacco Survey (GATS) India Report [6].Prior permission was obtained from head of the institution before the survey. The partici-

pants were interviewed, the data so obtained was fed into Excel sheet and analyzed by Rates, Proportions and chi square test using SPSS softer ware version 16

RESULTS

A total of 400 undergraduates from Nitte University in Mangalore were included in this study. In this study, majority (45.8%) were medical students followed by dental students (22.9 %). The Mean age of the students was found to be 20.26 Years (SD=1.76). Majority of study population were Non tobacco users and current users were 28%. Among tobacco users majority (98.1%) used tobacco in cigarette smoking form followed by chewing (1.9%) . Mean on set of tobacco use was found to be, 18.35 years (SD=1.56). And average years of tobacco use was 2.13years (SD=1.46). Average no of attempts to quit tobacco usage was, 3.35 times (SD=2.3).Average no of cigarette/beedi smoked per day was 3.9.Most common place of tobacco consumption among tobacco users was at their friends place 30.0%, followed by outside college premise 27.3%

Table 1 showing: Most common tobacco consumption places by tobacco users (N=159)

Most common places of Tobacco consumption	Frequency (%)
At home	5(1.3)
Inside college premises	11(2.8)
Out side college premises	109(27.3)
At friends places	121(30.0)
At social events	106(26.5)
In public places	47(11.8)

Table 2 showing: Consumption pattern of tobacco products among the users (N=159)

Consumption pattern of tobacco	Frequency (%)
Beedi smoking	0 (0)
Cigarette smoking	156 (98.1)
E-Cigarette smoking	0 (0)
Gutka	3(1.9)
Paan	0 (0)
Khaini/Zarda	0 (0)
Plain Tobacco Chewing	0 (0)

Friend circle tobacco usage is the major influencing factor to start tobacco usage among tobacco users (81.1%), least being household member usage (6.2%).

64.2% of the current users were not in favour of raising tax on tobacco products,, difference in opinion is found to be statistically significant (p=0.001).

Table 3 showing: Participants perceptions in relation to MPOWER policies

Response	Current user (112)	Past user (47)	Non user (241)	Total(N=400)	P value
There should be strict legislation against tobacco use					
Yes	69(61.1%)	29(61.7%)	203(84.2%)	301(75%)	0.00
No	29(25.0%)	9(19.1%)	19(7.8%)	57(14.2%)	
Not sure	14(12.5%)	9(19.1%)	19(7.8%)	42(10.5%)	
Warn about the dangers of tobacco					
Yes	76(67.8%)	33(70.2%)	191(79.2%)	300(75%)	0.00
No	23(20.5%)	9(19.1%)	21(8.7%)	53(13.2%)	
Not sure	13(11.6%)	5(10.6%)	29(12.3)	47(11.7%)	
Raise tax on tobacco products					
Yes	35(31.2%)	15(31.9%)	177(73.4%)	227(56.7%)	0.00
No	71(64.2%)	23(48.9%)	9(19.1%)	103(25.7%)	
Not sure	5(4.4%)	9(19.1%)	52(15.7%)	66(16.5%)	
Enforce restrictions on public smoking strictly					
Yes	78(69.6%)	43(91.4%)	229(95%)	350(87.5%)	0.001
No	22(18.7%)	3(6.3%)	6(2.4%)	31(11.7%)	
Not sure	12(10.7%)	1(2.1%)	6(2.4%)	19(4.7%)	
Strict ban on direct and indirect advertising/,sponsorship of tobacco products					
Yes	51(45.5%)	27(57.4%)	200(82.0%)	278(69.5%)	0.002
No	42(37.5%)	16(34.0%)	23(9.5%)	81(20.2%)	
Not sure	19(16.9%)	4(8.5%)	18(7.4%)	41(10.2%)	
Offer help to quit tobacco use					
Yes	90(26.2%)	42(12.5%)	204(60%)	336(84%)	0.035
No	8(72.7%)	1(9.0%)	3(27.2%)	11(2.7%)	
Not sure	14(26.9%)	4(7.6%)	34(65.3%)	52(13%)	

DISCUSSION

The Mean age of the students was found to be 20.26 Years (SD=1.76). Similar study results were found among Medical College students of Himachal Pradesh by A.K. Gupta et al[7], where the mean age of the male medical students in the study was found to be 20.63 years. Similarly study by Sajjan B S et aL[8,] in their study found that the mean age of tobacco users was 21.2 years (SD= 2.6)

Overall prevalence of current tobacco use among study population was found to be 28%. Majority (98.1%) of the tobacco users were cigarette smokers, only 1.9% students gave history of chewing tobacco. This distribution is similar to the previous studies by G. S. Ramakrishna [9], where in their study population prevalence of the students who consumed tobacco in any form was 24.1%. Similarly by Sharma S Aggarwal[10] found that majority(25.42%)were cigarette smokers and only 7.06% used smokeless form of tobacco like gutka , Khaini, paan masaala.

The present study identified the mean on set of tobacco use was 18.35years (SD=1.56) . Similar finding was observed by Ramakrishna et al[7]in their study among medical students in Orissa, where the mean age of initiation was 17.1 years. Study by Devi Madhavi Bhimarasetty et al[11] also reported in their study the mean age at initiation was 19 yrs +/-2.34 years.

In the present study 81.1% admitted initiating tobacco use was due to influence of the friend circle.

This factor was also identified by Sharma S Aggarwal[10] where 24 out of 32 students (75%) admitted starting tobacco use was due to peer pressure. Similarly in another study by Kumari R, Nath[12] where they found that tobacco initiation was influenced by peer pressure which was found to be 78% .

In our study we found that 61.1% of current users, 61.8% of past users and 84.2% of non users agreed that there should be strict legislation against tobacco use, which is similar to studies conducted by Shalini Singh et al[13]where they found that 71.6% of their study population reported No smoking policy at the work place. Similarly by Devi et al [11] in their study found that 70% expressed that there should be strict legislation against tobacco usage .These two study finding are almost in consonance to our study findings.

In the present study, it was found that 95.5% Non users were in favour of strict restrictions on public smoking. Only 45% tobacco users and 57.7% non users were of the opinion that there should be strict ban on direct and indirect advertising/sponsorship of tobacco products. Similar finding was also noted by Syeda Kanwal Aslam et al [14] where they found that 91.4% of their study population supported anti-tobacco policies.

In the present study, 64.2% of current users and 48.9% of past users were not in favour to raise tax on tobacco products, but 73.3% non users were in favour of tax rise . These results are similar to the previous study by Shalini Sing et al.[13], where 81.3%

of non-smokers in their study expressed that they wanted the price of the tobacco products to be raised sharply which is similar to our findings.

Restricting smoking in specific locations was supported by the majority (69.6%) of current users and by 95.0% of non-users, with tobacco users being less supportive in banning smoking in specific locations.

LIMITATIONS

The study has the possibility of slightly under reporting the prevalence of tobacco use because some students may not have disclosed their tobacco usage due to fear of being discovered as a tobacco user Some of the eligible subjects could not be covered as they were not present during the survey , to get the correct picture.

CONCLUSION

From this study we concluded that the, tobacco use is a significant problem among the male students population. We need to take steps to stop its use by them to prevent them from being exposed to its harmful effects .The role of peer pressure and stress of studies are played an important role in starting tobacco usage among the students. Efforts need to be taken to reduce its usage and to adequately educate students. It was also found that tobacco users demonstrated greater resistance to anti tobacco policy as compared with non-users. Policy to regulate the contents in the tobacco products, especially, nicotine and tar content. Ingredients are to be disclosed on the tobacco products to create awareness in general population.

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