

Original Research Article

A cross sectional study on awareness and prevalence of tobacco use among adult males of Vanakbara village, Diu district

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ABSTRACT

Background: Tobacco is used in various forms worldwide. The consumption of each pattern is different by the geographic area, economic status, socio-cultural and religious influence. The tobacco problem in India is more complex than that of any other country in the world, with a significant number of tobacco-related diseases and deaths. Over the years, India's position has risen from third largest to the second largest unmanufactured tobacco consuming country in the world. This study's findings will aid in the future planning of tobacco control and prevention in Vanakbara village of Diu district.

Methods: Community base cross-sectional study was conducted among adult males of Vanakbara village, Diu district. A study was conducted from September to November 2020, A sample was selected from the population by using a simple random sampling method. Data was collected using a preformed questionnaire. Data was entered in MS excel and analysis was done using statistical software like SPSS. Average, and the percentage considered and the frequency table and graphs were prepared wherever applicable.

Results: According to the study, smokeless tobacco use was more prevalent among adult males (56.6%) than smoked tobacco (14.6%). The most common form of smokeless tobacco used was mawa. According to the majority of respondents (44.3%), smoking was started because they believe it aids in concentration at work, followed by their friends. The study revealed that 88.6% of respondents are aware that tobacco consumption leads to oral cancer.

Conclusions: Our study indicates that there is an urgent need for taking actions aiming at increasing effectiveness of enforcing applicable tobacco control regulations in fisherman units.

Keywords: Tobacco, Smoking, Awareness

INTRODUCTION

Tobacco is used in various forms worldwide, due to the availability of various forms of both smoked and smokeless tobacco products. The consumption of each pattern is different by the geographic area, economic status, socio-cultural and religious influence. The tobacco problem in India is more complex than any other country, with a significant burden of tobacco-related diseases and deaths. The use of tobacco in India has witnessed varied pattern, which include smoking, chewing, applying,

sucking, gargling and so on. One-fifth of all worldwide deaths attributed to tobacco occur in India, more than 8, 00,000 people die, and 12 million people become ill as a result of tobacco use each year. In India, the deaths attributable to tobacco are expected to rise from 1.4% of all deaths in 1990 to 13.3% in 2020.¹

In India since the 1980s the areca nut industry has developed new product constituting areca nut and catechu ready for immediate consumption, packed in small and attractive sachets. One of these products with tobacco and

catechu is known as 'paan masala' and the one containing tobacco and zarda is called guthka.² As it is proven by many studies that tobacco in any form is harmful to health. This study would provide that baseline data from the population. The findings of this study will be useful for future planning regarding the control and the prevention of tobacco use in the Vanakbara village of Diu district.

Objectives

Objectives were to assess the prevalence of smoking and other forms of tobacco use among adult males of the village and to assess knowledge and awareness of tobacco and its health hazards among adult males.

METHODS

Study design

Community base cross-sectional study was conducted among adult males of Vanakbara village, Diu district. The study conducted from September 2020 to November 2020.

Study population

Vanakbara is a large village located in Diu district of Daman and Diu with total 1642 families. The Vanakbara village has a population of, 9696 of which 4796 are males while 4900 are females as per population census 2011. The present study was conducted on male adults who are more than 18 years old.

Study sample size

The prevalence of tobacco use has been identified as a risk factor with a high burden from literature reviews. The state fact sheet Daman and Diu shows that 32.2 % of adult men are currently using tobacco, whether they smoke or not, as per national family health survey-4 2015-16.

To determine the sample size, we use a prevalence rate of 32.2.

To calculate the adequate sample size with 5% absolute allowable error and 95 percent confident limit, prevalence of tobacco use had been taken into account.

The cross-sectional study had a sample size calculated as:

$$n = 4pq/L^2$$

Where, p=prevalence of tobacco use=32.2

$$q = 100 - p = 100 - 32.2 = 67.8,$$

L=allowable error=5%

$$n = \frac{4 \times 32.2 \times 67.8}{5 \times 5} = 350$$

According to this formula, 350 adult males was included in the study.

Inclusion criteria

In this study included an adult male who is over 18 years old, has permanent residency in the area, and has agreed to participate and give consent.

Exclusion criteria

Age less than 18 years, not the resident of the village or not giving consent to take part in the study was excluded.

Sampling technique

The 350 males were selected by simple random sampling. List of all males above 18 was taken from election department of Vanakbara village. Random number was generated using software. And they were contacted.

Data collection tool

Data were collected using pre formed questionnaire. Data was collected directly from study participant by asking them on the site. Primary questionnaire was including basic bio-data of the participant and socio-demographic details. Second part was about tobacco consumption and its form, frequency, duration etc. Third part was assessing common general awareness for tobacco consumption and health hazards. The fourth part was asked to consumers only to assess their attitude towards stopping use of tobacco.

Data entry and analysis

Data was entered in hard copy sheet during house-to-house visit and entry was done in MS excel. Data analysis was done using statistical software. Average, SD, percentage was calculated, and Frequency table and graphs were prepared wherever applicable.

RESULTS

Sociodemographic profiles of sample population

The majority of participate were formally educated (41.7%) and their main occupation is a fisherman (52.6%) followed by doing a job (24.9%). Most of the population falls under the age group of more than 40 (33.3%) followed by the age group 21 to 30 (32.7%). 65.1% of the population are married and 34.9% are single.

Nearly 70% were allocated into medium income category based on monthly net income for one person in the household. More than half of population has family income come under 10,000 to 50,000 by 76.6% (Table 1).

Knowledge and awareness of tobacco use

In the study, 100% of participants heard about tobacco products. More than half of the population of their parent or sibling use tobacco, or 86.3%. Out of 305 participants, 86.3% admitted that their parents consumed tobacco in any form. Around 69.4% of students admitted that at least one of their friends uses tobacco. Almost 96% of the population has good knowledge about the harmful effects of tobacco consumption. From the above, 73.1% know that tobacco has to be addictive substance. Majority of the participants (88.6%) correctly identified health hazards of tobacco use, followed by others (10.6%) (Figure 1).

Prevalence of smoked tobacco use

The study shows the patterns and frequency of smoking among participants. The percent of study participants who have ever smoked a cigarette was 14.6%, 9.7% of participants are bidi smokers in the study. The mean age for starting smoking was 35 years old. Most of participate are daily smokers (12.0%). Usually, they smoked 4 to 9 c/b per day (Figure 2).

Prevalence of smokeless tobacco use

There are 2 different forms of tobacco used. Study showed that out of 305 adult males, 198 (56.6%) have a habit of using smokeless tobacco, which is a high prevalence in study. Mean age of initiation of tobacco consumption was 25 years old. More than half of participates are use mawa as main form of smokeless tobacco (44%) followed by gutkha (10.9%) and betel nut (6%), majority of participants, 173 (49.4%) consuming tobacco daily, along with 35.7% of participants who used smokeless tobacco 2 to 5 times per day (Table 2).

Attitude towards stopping tobacco uses

The 205 (58.57%) adult male current tobacco users wanted to stop smoking or chewing tobacco. Only 67

(32.7%) current tobacco users had tried to quit smoking or chewing tobacco last year. A proportionately much larger number of respondents (89.1%) noticed anti-tobacco message media in newspapers, TV, or radio.

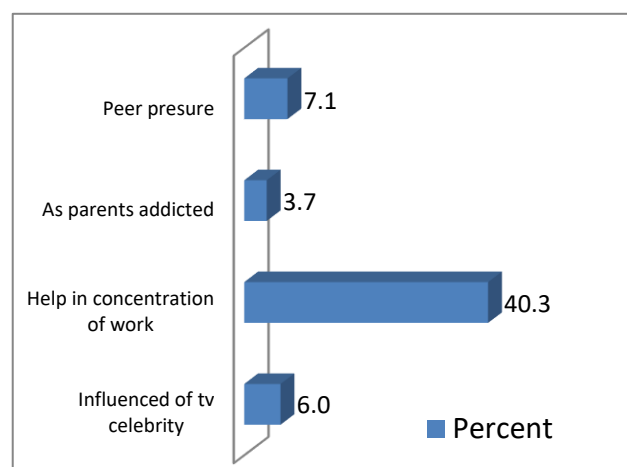


Figure 1: Percentages of reasons for tobacco consumption.

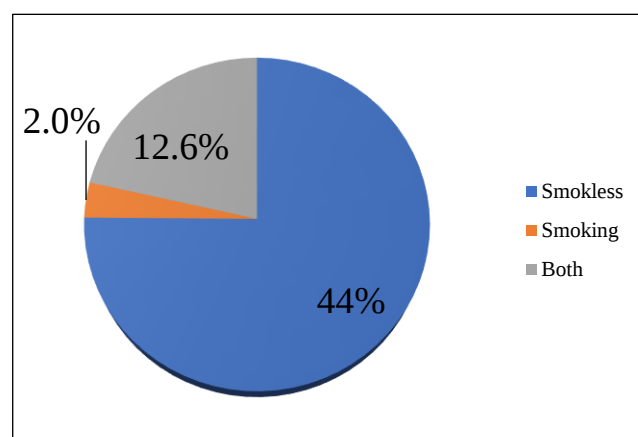


Figure 2: Percentage of different form of tobacco consumption.

Table 1: Socio-demographic profiles of sample population, (n=350).

Variables	N	Percentage (%)
Age (in years)		
10 to 20	21	6.0
21 to 30	115	32.7
31 to 40	98	28
More than 40	116	33.3
Marital status		
Single	122	34.9
Married	228	65.1
Education status		
Illiterate	48	13.7
Primary school	52	14.9
High school	146	41.7
Diploma	2	0.6
Degree	97	27.7
Post graduate	5	1.4

Continued.

Variables	N	Percentage (%)
Occupation status		
Non	64	18.3
Fisherman	184	52.6
Job	87	24.9
Business	15	4.5
Family income		
<10,000<10,000	5	1.5
10,000 to 5,0000	268	76.6
50,000 to1,00000	73	23.3

Table 2: Prevalence of smokeless tobacco use, (n=350).

Variables	Responses	N	Percentage (%)
What type of smokeless tobacco	Betel nuts	6	1.7
	Mawa	154	44.0
	Gutkha	38	10.9
	Total	198	56.6
At what age started using smokeless tobacco (years)	10 to 20	62	17.1
	21 to 30	131	37.4
	31 to 40	5	1.4
How many days smokeless tobacco use (days)	3 to 5	1	3
	6 to 9	12	3.4
	10 to 20	11	3.1
	21 to 29	1	3
	All 30	173	49.4
How many times usually use smokeless tobacco per day	Once a day	9	2.6
	2 to 5 time a day	125	35.7
	6 to 10 time a day	60	17.1
	More than 10 time	4	1.1
How much quantity of smokeless tobacco use per day (pouches)	<1 pouch	8	2.3
	1 to 3 pouches	136	38.9
	4 to 6 pouches	53	15.1
	More than 6 pouch	1	3

DISCUSSION

This cross-sectional study is an attempt to comprehensively assess the prevalence, knowledge, awareness, and attitude towards the use of smoked and smokeless forms of tobacco among adult males in Vanakbara, Diu. 47.7% of the sample population were found to fall under the category of formal education, and their main occupation is fishing (52.6%), followed by doing jobs (24.9%).

Each WHO region has at least 5 million smokeless tobacco users. In this present study, the prevalence of tobacco use is 58.6% in the area, whereas 44% use smokeless tobacco and 14.6% are current smokers. These findings are similar to those of the study conducted in India by Saddichha et al.³ Another similar study was conducted in Tripura, where the prevalence of both forms of tobacco consumption was higher compared to the present study.⁴

According to finding from Islam et al around one-fourth of men use smoking (24.6%) and one-third used SLT (29.1%) while one in every ten men used both smoked

and SLT (8.4%). The prevalence of all groups of tobacco use is decreasing in India in the last two decades. The prevalence of smoking (27.3%), SLT (40.2%), and any form of tobacco (52.3%) was higher in the Nepal. The present study found that the prevalence of smoking was lower than the proportion of SLT use.⁵

Muttappallymyalil et al reported that in Gujarat, the prevalence of smoking and tobacco chewing was reported to be 14.61% and 66.23%, respectively. Addiction to smoking and chewing was more prevalent among the age group of 17-19 years (36.36%), and it is shown that addiction increases with age.⁶

There was a significant association between the history of tobacco use among parents and friends in our study. 86.3% admitted that their parents consumed tobacco in any form. Around 69.4% of students admitted that at least one of their friends uses tobacco. According to a study by Makwana et al the main inducing factor for being addicted was friends (61.69%), followed by hobbies (14.30%), being influenced by parents (11.03%), siblings (7.79%), and personality symbols (5.19%).⁷

Friends are the main sources of information for tobacco use. According to the above data, the majority of participants (40.3%) said that tobacco consumption helps with concentration at work, followed by peer pressure. Islam et al reported that the men who were engaged in manual work were more likely to be tobacco users. High working hours and working conditions would be a possible cause for more tobacco use among this group. On the other hand, people who engage in the professional work tend to avoid the tobacco use in some office settings.⁵

The prevalence of smokeless tobacco (56.6%) was high in the present study. The study revealed that the majority of the respondents were using smokeless tobacco, with mawa masala (40%), followed by gutkha. The mean age for starting to use smokeless tobacco was 25 years old. In the present study, the majority of participants are daily tobacco users, 3-5 times per day.

The prevalence of current users of smoking daily was found to be 14.6%. Higher level of prevalence was observed in a study done in rural area of Visakhapatnam.⁸ A bidi was the most common form of smoking tobacco in the study.

The present study showed that 88.6% of respondents had the knowledge that consumption of tobacco is a leading cause of cancer. In the present study, only 67 (32.7%) current tobacco users had tried to quit smoking or chewing tobacco last year. A study conducted by Amorha et al noticed that counselling by health professionals was the least reason why the respondents had tried to stop smoking, suggesting that health professionals may not be actively involved with this.⁹

A much larger number of respondents (89.1%) noticed anti-tobacco message media in newspapers, TV or radio etc. Petersen et al reported that respondents have a greater frequency of exposure to anti-tobacco messaging than to pro-tobacco messaging, which is similar to the present study. These findings provide evidence of the current reach of anti-tobacco messaging on the radio (57%) and on television.¹⁰ A smaller number of studies that participated (22.9%) were aware of law and acts of tobacco control policy. Reddy et al conducted a study in South Africa, showed that the government initiative in the form of the tobacco products control act of 1993 is encouraging, it is still unknown to most people and therefore not readily implemented.¹¹

Limitations

The design of our study was cross-sectional, and this form of research can only provide a snapshot of situation in the sample. As per this study is conducted in one village of particular district, extrapolation of the data will not be possible. Generalizability of the results may also be questionable due to non-inclusion of adult females.

CONCLUSION

The prevalence of (56.6%) smokeless tobacco users was relatively higher among adult males than smoked tobacco (14.6%). Our study indicates that there is an urgent need for action aimed at increasing the effectiveness of enforcing applicable tobacco control regulations in fisherman unit.

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