

**ORIGINAL RESEARCH ARTICLE****AWARENESS TOWARDS TOBACCO CONSUMPTION: A COMMUNITY BASED STUDY**
RB Sah^{1*}, U Shah², L Subedi¹, N Jha¹¹ School of Public Health and Community Medicine, BPKIHS, Dharan.² Department of Microbiology, Sunsari Technical College Pvt. Ltd., Dharan.**Correspondence to: Dr. Ram Bilakshan Sah, Associate Professor, School of Public Health & Community Medicine, B. P. Koirala Institute of Health Sciences, Dharan, Nepal. Email: bilaksah@yahoo.com***ABSTRACT**

More than 1 billion people worldwide smoke. If current trends continue, 8.4 million smokers are estimated to die annually of smoking-related deaths by the year 2020. To find out awareness towards tobacco consumption and to find out association between awareness towards tobacco and status of tobacco consumption among residents of Dhankuta municipality. The cross-sectional study was conducted among residents of Dhankuta Municipality where 205 households were taken as subjects. Pretested semi-structured questionnaire was administered to the study subjects and face to face interview was conducted. Chi-square test was applied to find out the association between awareness towards tobacco and status of tobacco consumption. Almost 41% of respondents were found to be aware of the harmful consequences of tobacco consumption. The respondents who did not consume tobacco were seen more aware of tobacco consumption (85.7%) than consuming tobacco (14.3%) ($P < 0.001$). The respondents think the problem of tobacco consumption can be controlled by banning the production was significantly higher among those who did not consume tobacco (57.7%) than consuming tobacco (42.3%) ($P < 0.001$). Most of the respondents think smoking can be discouraged by strict laws (60.5%) followed by family support (24.9%) and education (20%) and recreational activities (8.8%). Awareness towards the harmful consequences of tobacco consumption was found to be less in Dhankuta Municipality. The problem of tobacco consumption can be controlled by banning the production, awareness program and medicine i.e. nicotine therapy.

Key words: *Awareness, Community, Study, Tobacco consumption.***DOI:** <http://dx.doi.org/10.3126/jcmc.v5i4.16556>**INTRODUCTION**

Smoking is practiced by about a third of the world's population aged 15 years or older. About 73% of these smokers are in developing countries. Globally 48% of men smoke whereas for women it accounts 22% in developed countries and 9% in developing countries. Almost six million people die from tobacco use each year, both from direct tobacco use and second-hand smoke. By 2020, this number will increase to 7.5 million, accounting for 10% of all deaths.¹ Smoking is estimated to cause about 71% of lung cancer, 42% of chronic respiratory disease and nearly 10% of cardiovascular disease. The highest incidence of smoking among men is in lower-middle-

income countries.¹

Smoking and the use of other tobacco products kill 15,000 people in Nepal each year.² A recent study suggested that 3.41% of Nepalese adolescents between 10 and 14 years of age and 16.74% between 15 and 19 years of age smoke.³ Smoking prevalence varies among schools (2%–49%) and districts (7%–29%) in Nepal.⁴

Therefore, preventing tobacco use and smoking initiation is a public health concern that aims to reduce many chronic degenerative diseases (e.g., cardiovascular diseases, chronic respiratory diseases, and cancer).⁵ Further, cardiovascular

risk factor studies reported that the risk of acute myocardial infarction is three times higher in South Asian smokers (Nepal, Bangladesh and Sri Lanka) compared with individuals outside South Asia and population attributable risk is 43%.⁶ Therefore this study was designed to find out awareness towards tobacco consumption and to find out association between awareness towards tobacco and status of tobacco consumption among residents of Dhankuta municipality.

MATERIAL AND METHODS

The cross-sectional study was conducted from 1st July 2014 to 30th April 2015 among the residents of Dhankuta municipality of Nepal. Dhankuta is located in the eastern geographical region of Nepal. This research was based on random selection of the study area Dhankuta municipality. A National survey revealed that the prevalence of tobacco use was 33% (Khan S et al in India in 2013)⁷, more than that 45% (Karki YB et al Nepal in 2002)⁸ and highest 52.07% (Zahiruddin QS et al in India in 2011)⁹. So taking lower value 33% of prevalence of tobacco use, sample size was calculated at 95% CI & 80% powers then it became 205 persons aged above 17 years. There are 9 wards in Dhankuta Municipality. Among 9 wards, 5 wards was randomly selected. The list of households of five selected wards was prepared and equal number of households (41) from each ward was selected on the basis of simple random sampling.

Ethical clearance was taken by Institutional Ethical Review Board of B P Koirala Institute of Health Sciences, Dharan, Nepal. Participants were first explained the purpose of study, its implications and assurance about the confidentiality of the information provided was given to the participants. Name of the individuals or participating group was not disclose after the study. Written permission was taken from concerned authority (head of house) and the participants of the study.

Those individuals who were available after three visits and willing to give written consents were included in the study. Pretested semi-structured questionnaire was administered to the study subjects in the presence of investigator and face to face interview was conducted.

The collected data was entered in MS Excel 2000. The quantitative data was analyzed using Statistical Package for the Social Sciences (SPSS) software package. The prevalence was calculated, Chi-square test was applied to find out the association between awareness regarding tobacco and status of tobacco consumption. The probability of occurrence by chance is significant if $P < 0.05$ with 95% Confidence Interval.

RESULTS

Table 1: Awareness towards tobacco consumption (N=205)

Characteristics	Freq	%
Are you aware of the harmful consequences of tobacco consumption		
Yes	84	41.0
No	121	59.0
* If aware then what are they (n=84)		
Oral problems		
Yes	54	64.3
No	30	35.7
Respiratory problems		
Yes	52	62.0
No	32	38.0
GI problems		
Yes	46	54.8
No	38	45.2
How can control the problem of tobacco consumption		
Awareness program	53	25.9
Bann the production	97	47.3
Behavior change	12	5.9
Strong policy	12	5.9
Stop marketing	5	2.4
Medicine	26	12.7
* How can be discourage smoking		
Strict low	124	60.5
Yes	81	39.5
No		

Recreational activities		
Yes	18	8.8
No	187	91.2
Education		
Yes	41	20.0
No	164	80.0
Family support		
Yes	51	24.9
No	154	75.1
Are you aware of anti-tobacco law (n=205)		
Yes	117	57.1
No	88	42.9

Among 205 study population, almost 117 (57.1) of respondents was found to be consuming tobacco. Almost 41% of respondents were found to be aware of the harmful consequences of tobacco consumption. Most of the respondents think the problem of tobacco consumption can control by bann the production followed by awareness program and medicine. (Table1).

*percentages are based on multiple responses

Table 2: Association between awareness regarding tobacco and status of tobacco consumption (N=205)

Characteristics	Tobacco consumption		Total	P- value
	Yes	No		
Are you aware of the harmful consequences of tobacco consumption (n=205)				
Yes	12 (14.3)	72 (85.7)	84	<0.001
No	105 (86.8)	16 (13.2)	121	
* If aware then what are they (n=84)				
Oral problems				
Yes	8 (14.8)	46 (85.2)	54	0.853
No	4 (13.3)	26 (86.7)	30	
Respiratory problems				
Yes	9 (17.3)	43 (82.7)	52	0.313
No	3 (9.4)	29 (90.6)	32	
GI problems				
Yes	7 (15.2)	39 (84.8)	46	0.788
No	5 (13.2)	33 (86.8)	38	
How can control the problem of tobacco consumption (n=205)				
Awareness program	32 (60.4)	21 (39.6)	53	<0.001
Bann the production	41 (42.3)	56 (57.7)	97	
Behavior change	8 (66.7)	4 (33.3)	12	
Strong policy	10 (83.3)	2 (16.7)	12	
Stop marketing	5 (100.0)	0	5	
Medicine	21 (80.8)	5 (19.2)	26	
* How can be discourage smoking (n=205)				
Strict low				
Yes	67 (54.0)	57 (46.0)	124	0.276
No	50 (61.7)	31 (38.3)	81	
Recreational activities				
Yes	10 (55.6)	8 (44.4)	18	0.892
No	107 (57.2)	80 (42.8)	187	
Education				
Yes	27 (65.9)	14 (34.1)	41	0.204
No	90 (54.9)	74 (45.1)	164	
Family support				
Yes	29 (56.9)	22 (43.1)	51	0.972
No	88 (57.1)	66 (42.9)	154	
Are you aware of anti-tobacco law (n=205)				
Yes	71 (60.7)	46 (39.3)	117	0.228
No	46 (52.3)	42 (47.7)	88	
Total	117 (57.1)	88 (42.9)	205	

*percentages are based on multiple responses

The respondents who did not consume tobacco was more aware of the harmful consequences of tobacco consumption than consuming tobacco ($P < 0.001$). The respondents think the problem of tobacco consumption can control by bann the production was significantly higher among those did not consuming tobacco than consuming tobacco (< 0.001). (Table 2).

DISCUSSION

Nepal has very high prevalence rate of chronic obstructive lung disease (COLD) varying from 20-40% in persons above the age of twenty years. This was found to be significantly associated with tobacco smoking.¹⁰ Acute respiratory infection is the second biggest killer of infants and children in Nepal and positive correlation between tobacco smoking by parents and ARI in infants have been shown in a study conducted in Nepal.¹¹ Tobacco smoking has also been found to be associated with coronary artery disease in a hospital-based study in Nepal.¹²

Almost 41% of respondents in this study were found to be aware of the harmful consequences of tobacco consumption. The respondents who did not consume tobacco was more aware of the harmful consequences of tobacco consumption than consuming tobacco ($P < 0.001$). A study conducted by Gnanakshi D et al in Lekhnath, Kaski, Nepal showed that 31% of the participants had knowledge regarding ill effects of smoking.¹³ Similar study was conducted on Gadap Town, Karachi showed that 47% were knowledgeable about hazards of smoking. The study concluded that high proportion of people consume tobacco and most of them were unaware about tobacco consumption hazards and passive smoking.¹⁴

Most of the respondents in this study think that the tobacco consumption can cause oral problems (64.3%), respiratory problems (62%) and GI problems (54.8%). Knowledge regarding ill effects of tobacco

use among the study population was found to be lung cancer (35%), Oral cancer (30%), oral diseases (25%) & others (10%).¹⁵ Majority of the subjects (83.2%) had awareness that the smoking can cause cancer. Only 24.8% and 7% knew of respiratory and cardiovascular related health effects respectively.¹⁶ A recent study found that 84% of Pakistani people reported that smoking has a harmful effect on their health.¹⁷

Most of the respondents in our study think the problem of tobacco consumption can control by bann the production (47.3%) followed by awareness program (25.9%), medicine (12.7%), strong policy (5.9%), behavior change (5.9%) and stop marketing (2.4%). The respondents think the problem of tobacco consumption can control by bann the production was significantly higher among those did not consuming tobacco than consuming tobacco (< 0.001). Although enactment of policies was described, enforcement of policies was not described and is difficult to quantify. According to the first-hand experience of the authors, in Tanzania there is virtually no enforcement of any enacted tobacco policy. In Nepal, most bans and restrictions are not effectively implemented. Likewise, for nearly all the policies and interventions enacted for use in China, implementation has been far from complete. This is not being truly accomplished yet in any of these countries.¹⁸ Other problems exist that may serve as barriers to enforcement. For example, some countries in the developing world, like Nepal, undergo frequent changes in government leadership. Policy legislation under one leadership may not be seriously followed up when another leadership comes to power.¹⁸

Almost (57.1% of respondents in this study was aware of anti-tobacco law. In South-East Asia, so far, nine of the eleven member countries have formulated

comprehensive tobacco control legislation incorporating provisions of the Framework convention. Even though Indonesia and Timor-Leste are still without a comprehensive law, Governments are already implementing certain regulations and measures on tobacco control. Task forces have been constituted at the national and sub-national levels to facilitate the implementation of tobacco control programmes efficiently and synergize the collaborative efforts of various stakeholders such as non-governmental organizations, development partners, research institutes, community members, etc.¹⁹

Future research is essential to assess the effective implementation of Nepal's Tobacco Control and Regulation Act. Exploring the attitude of the managers and owners of the public places on the tobacco ban and formative research to explore the ways to effective implementation of the recently endorsed Tobacco Control and Regulation Act would be important future research in Nepal.

CONCLUSION

We conclude that the awareness towards the harmful consequences of tobacco consumption was found to be less. This means control of the smoking and other tobacco products as a major public health challenge in Dhankuta Municipality. The problem of tobacco consumption can control by bann the production, awareness program and medicine i.e. nicotine therapy. Smoking can be discouraged by strict law, family support and education. The implementation of the Act, synergized with tobacco control initiatives by the civil society, community and NGO's are pivotal in increasing awareness towards tobacco consumption.

ACKNOWLEDGEMENT

We would like to thank to School of Public Health and Community Medicine for approval of our research work. Our gratitude and sincere thanks to all the participants of study from Dhankuta for their kind co-operation.

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