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Research Article

KNOWLEDGE AND PRACTICE ON ILL EFFECTS OF TOBACCO CONSUMPTION AMONG RESIDING IN DHANKUTA: A STUDY FROM EASTERN NEPAL

Sah Ram Bilakshan^{1*}, Subedi Laxmi², Shah Usha³, Jha Nilambar⁴

¹Associate Professor, School of Public Health and Community Medicine, BPKIHS, Dharan

²Senior Instructor, School of Public Health and Community Medicine, BPKIHS, Dharan

³M.Sc. student, Dept. of Microbiology, Sunsari Technical College Pvt. Ltd., Dharan, Nepal

⁴Professor & Chief, School of Public Health and Community Medicine, BPKIHS, Dharan

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*Corresponding Author: **Dr. Ram Bilakshan Sah**

Associate Professor School of Public Health & Community Medicine B. P. Koirala Institute of Health Sciences Dharan, Nepal Phone: +977-9804012728

ABSTRACT

Background: Worldwide opinion says, “Smoking is injurious to health”. It is positively injurious in many ways not only to the health of smoker but also to the health of the people around him or her known as the passive smokers.

Objectives: To know the knowledge and practice towards effect of tobacco on health, and to find out the association between health problems and tobacco use among residents of Dhankuta Municipality.

Methods: 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 health problems and tobacco use.

Results: Almost 70.7% of respondents think that tobacco use is injurious to health. Among them 67.6% think it can cause respiratory problems (67.6%) and oral problems (60%). The respondents suffered from disease among tobacco consumer in last one year were higher (80%) than no consuming tobacco (20%). The respondents who consume tobacco suffered more from pneumonia (91.7%) than oral problems (33.3%) ($P < 0.005$). Most of the respondents get knowledge about impact of tobacco on health are friends (53.5%), family members (51.5%), and media (47.1%).

Conclusion: Urban residents who are living in relatively Dhankuta reflect good knowledge towards effect of tobacco on health but poor practice to prevent effect of tobacco on health. The prevalence of diseases in last one year was higher among those consuming tobacco.

Keywords: Knowledge, Practice, Tobacco consumption, Dhankuta, Nepal.

INTRODUCTION

“Tobacco is slow but sure killer”. Smoking is a practice in which a substance, most commonly tobacco is burned and the smoke is tasted or inhaled. Smoking is the most common method of consuming tobacco and tobacco is the most common substance smoked¹. The agricultural product is often mixed with other additives and then combusted. The resulting vapors are then inhaled and the active substances are absorbed through the alveoli in the lungs. The active substances trigger chemical reactions in nerve endings which heighten heart rate, memory, alertness, and reaction time¹.

Dopamine and later endorphins are released, which are often associated with reward and pleasure. Most common method of smoking today is through cigarettes, primarily industrially manufactured but also hand-rolled from loose tobacco and

rolling paper. Other smoking implements include pipes, cigars, bidis, hookahs and vaporizers².

Smoking is dangerous owing to its various ill effects. Smoke contains more than 4000 poisons substances which cause various diseases, even death. Nevertheless, smoking is practiced by approximately 1.22 billion people and smoking has become one of their common habits which is affecting the people adversely day by day². Although such studies are scarce in low-income countries like Nepal, this approach would be highly useful in tailoring and implementing effective tobacco control programs. Therefore this study was designed to know the knowledge and practice towards effect of tobacco on health, and to find out the association between health problems and tobacco use among residents of Dhankuta Municipality.

MATERIALS 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)³, more than that 45% (Karki YB et al Nepal in 2002)⁴ and highest 52.07% (Zahiruddin QS et al in India in 2011)⁵. 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. Tobacco consumption was taken as the dependent variable and knowledge and practice towards effect of tobacco on health (tobacco use is injurious to health, if tobacco effect health, then what kind of problems, suffered from any disease in last one year, if suffered, then how many times and name of disease), and source of information about effect of tobacco on health was taken as independent variables.

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 and Odds ratio was calculated, Chi-square test was applied to find out the association between health problems and tobacco consumption. The probability of occurrence by chance is significant if $P < 0.05$ with 95% Confidence Interval.

RESULTS

Almost 70.7% of respondents think that tobacco use is injurious to health. Most of them think tobacco use can cause respiratory problems and oral problems. Almost 14.6% of respondents suffered from disease in last one year. Majority of them suffered from pneumonia and some had oral problems (Table1).

Table 1: knowledge and practice towards effect of tobacco on health (N=205)

Characteristics	Frequency	Percent
Family member consume tobacco		
Yes	133	64.9
No	72	35.1
If yes then when FM started (n=133)		
After you started	20	15.0
Before you started	98	73.7
Simultaneously	15	11.3
Tobacco use is injurious to health		
Yes	145	70.7
No	60	29.3
*If tobacco affect health, then what kind of problems (n=145)		
Oral problems		
Yes	87	60.0
No	58	40.0
Respiratory problems		
Yes	98	67.6
No	47	32.4
GI problems		
Yes	3	2.1
No	142	97.9
Suffered from any disease in last one year		
Yes	30	14.6
No	175	85.4
If suffered, then how many times (n=30)		
One episode	18	60.0
Two episode	12	40.0
If suffered, then name of disease (n=30)		
Pneumonia	24	80.0
Oral problems	6	20.0

*percentages are based on multiple responses

The table indicates that most of the respondents get knowledge about impact of tobacco on health are media i.e. Radio, TV, newspaper, billboard followed by friends and family members (Table 2).

Among 205 study population, almost 117 (57.1%) was found to be consuming tobacco. Prevalence of tobacco use was found to be significantly higher in those think tobacco use is not injurious to health than those think is injurious to health

($P < 0.001$). The prevalence of diseases in last one year was higher among those consuming tobacco than not consuming ($P < 0.05$). Those who are using tobacco have higher risk of having respiratory problems (pneumonia) as compared to oral problems ($OR = 22.00$) (Table 3).

Table 2: Source of information about effect of tobacco on health (N=205)

Characteristics	Frequency	Percent
*Source of information about tobacco		
Media (Radio, TV, newspaper, billboard)		
Yes	155	75.6
No	50	24.4
Friends		
Yes	144	70.2
No	61	29.8
Family		
Yes	132	64.4
No	73	35.6
Others (Doctor, study)		
Yes	4	2.0
No	201	98.0

*percentages are based on multiple responses

Table 3: Association between health problems and tobacco use (N=205)

Characteristics	Tobacco consumption		Total	Odds Ratio	P- value
	Yes	No			
Family member consume tobacco					
Yes	114 (85.7)	19 (14.3)	133	138.0	<0.001
No	3 (4.2)	69 (95.8)	72		
If yes then when FM started (n=133)					
After you started	11 (55.0)	9 (45.0)	20	<0.001	
Before you started	92 (93.9)	6 (6.1)	98		
Simultaneously	11 (73.3)	4 (26.7)	15		
Tobacco use is injurious to health					
Yes	71 (49.0)	74 (51.0)	145	0.29	<0.001
No	46 (76.7)	14 (23.3)	60		
*If tobacco affect health, then what kind of problems (n=145)					
Oral problems				0.41	0.10
Yes	35 (40.2)	52 (59.8)	87		
No	36 (62.1)	22 (37.9)	58		
Respiratory problems				1.00	0.996
Yes	48 (49.0)	50 (51.0)	98		
No	23 (48.9)	24 (51.1)	47		
GI problems				2.09	0.074
Yes	3 (100.0)	0 (0.0)	3		
No	68 (47.9)	74 (52.1)	142		
Suffered from any disease in last one year					
Yes	24 (80.0)	6 (20.0)	30	3.53	0.006
No	93 (53.1)	82 (46.9)	175		
If suffered, then how many times (n=30)					
One episode	16 (88.9)	2 (11.1)	18	4.00	0.136
Two episode	8 (66.7)	4 (33.3)	12		
If suffered, then name of disease (n=30)					
Pneumonia	22 (91.7)	2 (8.3)	24	22.00	0.001
Oral problems	2 (33.3)	4 (66.7)	6		

*percentages are based on multiple responses

DISCUSSION

The World Health Organization estimates that approximately 5 million people die each year worldwide from tobacco related

illnesses. If current trend continues, this figure will rise to about 10 million per year by 2025⁶. Worldwide approximately 1.3 billion people smoke cigarettes or other tobacco related products⁷. By 2030, a projected 7 million people in developing

countries will be killed every year by tobacco or tobacco related products⁸. Tobacco use is one of the main risk factors for cancer, cardiovascular diseases and chronic lung diseases, also known as non-communicable diseases (NCDs)⁹. The risk of developing tobacco-related diseases increases proportionally with the consumption of tobacco products and the length of the smoking period⁹.

The rate of tobacco consumption was higher among those whose family member consuming tobacco (85.7%) than not consuming tobacco (4.2%) ($P < 0.001$). Similar study conducted by Uprety S et al showed family member of the smokers smoke about 38%¹⁰, Paudel S et al in Dharan Municipality, Nepal (21%)¹¹ which are lower than our study. Regarding the incidences related to getting started to smoking, majority of the responses whose family member consuming tobacco¹². This was also observed by Leatherdale ST et al where he mentioned that smoking is influenced when there is smoker in their family and surroundings¹³.

This study showed about 71% of respondents has knowledge that tobacco use is injurious to health. A study conducted by Gnanakshi D et al in Kaski, Nepal was found that 31% of the participants had average level of knowledge regarding ill effects of tobacco consumption¹². This study revealed that more than 50% of people believed (i) Tobacco is bad for health, (ii) smokers die earlier than non-smokers, and (iii) smoking can irritate others. Nonsmoking people also believed that their family members did not want them to smoke¹⁴. Similar study was conducted on Gadap Town, Karachi showed that only 47% were knowledgeable about hazards of smoking. High proportion of people consumes tobacco and most of them were unaware about tobacco consumption hazards and passive smoking¹⁵.

Majority of the respondents was thinking tobacco can cause respiratory (68%) and oral problems (60%) and GI problems. A study conducted to assess the knowledge and perceived risk of smoking or smoke related conditions and found average percentage of knowledge for each disease category included: cardiovascular 95%, pulmonary 94%, oral health problems 89%, smoking related cancer 71% and reproductive risk 44%¹⁶. It indicates that a substantial majority of the respondents recognize the general health, tuberculosis, risk of cancer lung, heart disease and adverse pregnancy outcomes (prematurity, low birth weight, still birth) where as fewer know that it can lead to infertility¹¹.

The prevalence of diseases in last one year was higher among those consuming tobacco than not consuming ($P < 0.05$). The respondents consuming tobacco have four times higher chances of having health problems as respondents not consuming tobacco (OR=3.53). Study revealed that majority of the current smokers (94.6%) believed that smokers are more prone to suffer from more health problems than non-smokers (5.4%) ($P < 0.01$)¹¹. Smoking is responsible for 90% of all lung cancers, 75% of chronic bronchitis and emphysema and 25% of cases of Ischemic heart disease. These findings are consistent with findings of a study which depicted that smoking is associated with suboptimal self-perceived health and health problems in tobacco consumer¹⁷.

The smokers suffer from diseases almost four times more than people who do not smoke (OR=4.00). A survey also showed

the smokers suffer from diseases almost three times as often as people who do not smoke¹⁸.

Most of the respondents get knowledge about impact of tobacco on health are media i.e. Radio, TV, newspaper, billboard (75.6%), friends (70.2%) and family members (64.4%). The findings from Nepal Demographic and Health Survey 2011 showed in response to information access, 34.0% read the newspaper, 52.6% watched television, and 59.6% listened to the radio¹⁹.

CONCLUSION

Urban residents who are living in relatively Dhankuta reflect good knowledge towards effect of tobacco on health but poor practice to prevent effect of tobacco on health. Most of the respondents get knowledge about impact of tobacco on health are media, friends and family members. The prevalence of diseases in last one year was higher among those consuming tobacco than not consuming. Those who are using tobacco have higher risk of having respiratory problems (pneumonia) as compared to oral problems. Thus, there is a need to educate people regarding ill effects of tobacco on health. Health education can be provided through mass media regarding prevention of harmful consequences of tobacco consumption. Also health personnel should counseling to people to improve the level of awareness and discourage practices that predispose to tobacco consumption.

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