Original Article

Oral health and tobacco issues among the people of Garamani village in eastern Nepal

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Abstract

Background:
South Asian communities are thought to be at high-risk for oral cancer, primarily because of various tobacco-related habits. Smoking of tobacco is common in Nepal and is prevalent among any age and both the sexes. There has been little research on the rural community's perception on these habits.

Aim and Objectives:
The aim of this study was to assess the oral health problems, prevalence of use of tobacco products and awareness of oral effects of tobacco products among the people of Garamani village in Eastern Nepal.

Materials and Methods:
A household based survey was conducted in all the nine wards of Garamani village. Interview was conducted using pre-tested semi structured questionnaire including background characteristics, oral health issues and use of tobacco products. The data was analyzed to calculate percentages and proportions.

Results:
Most respondents were tobacco consumers. Although 42% were aware of its ill-effects like cancer, ulcers and addiction, 42% believed it had beneficial effects. There were 78% smokers and 24% of them smoked more than 5 times a day. It was observed that the traditional method of tobacco use is being replaced with readily available processed tobacco products. About 56% respondents accepted that the use of tobacco products caused stained teeth and halitosis, 67% knew it was possible to quit and 92% refused to allow adolescents to consume tobacco. Moreover, 70% supported to ban the advertisement, production, sale and consumption of tobacco products.

Conclusions:
Various forms of tobacco consumption are a common habit among the population. However, people are opposed to tobacco and its products and know their hazards. It is recommended that health promotion activities against tobacco use be targeted to this population for the prevention and control of oral cancer.

Keywords:
Cigarette smoking, oral health, smokeless tobacco

Introduction:

Tobacco use, which claims the lives of 4.9 million people a year, is the second major cause of death in the world. At the current consumption rate 10 million deaths are likely to occur by 2020, most of which will occur in developing countries.[1, 2]

Cigarette smoking alone leads to death of half of its users worldwide, mostly in their middle ages, thus losing 20 to 25 years of productive life. Ignorance and/or indifference about the effects of tobacco on health have lead to increase in tobacco consumption. The lucrative marketing

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strategies attract young and old towards developing tobacco related habits increasing risks for tobacco related diseases.[3]

Tobacco exposure requires a long time to show its disease effects; studies show tobacco-related diseases take at least 40 years to emerge after exposure.[3,4] Tobacco use leads to lung, oesophagus, larynx, mouth and throat cancer, chronic pulmonary and cardiovascular diseases, adverse effects on the reproductive system and sudden infant death syndrome, cataracts, pneumonia, acute myeloid leukemia, abdominal aortic aneurysm, stomach cancer, pancreatic cancer, cervical cancer, kidney cancer, and periodontitis.[3,4,5] South Asian communities are thought to be at high-risk for oral cancer, primarily because of various tobacco-related habits.[6] Smoking of tobacco is common in Nepal and is prevalent among any age and both the sexes. A national sample survey on tobacco use showed the smoking prevalence of 42.6% among respondents aged 15 and above, with males 54% and females 31.6%. The estimated overall tobacco use prevalence was 44.7%, with males (58.1%) almost twice as much as females (3 1.6%). The tobacco products included cigarette, bidi, hukka, sulfa, chilim, kankad, rolled-on-tobacco, chewing tobacco (khaini, pan masala, gutkha, surti, etc.). The overal tobacco use prevalence was higher in rural areas (45.8%) than in the urban areas (34.4%).[4]

Oral health impacts in terms of pain ana suffering, impairment of function and effect on quality of life.[7] The interrelationship between oral and general health is proven and oral health qualifies as major public health issues and its greatest burden is on disadvantaged and socially marginalized population.[7, 8]

Studies on perception about tobacco products and their adverse effects, particularly oral cancer are limited in rural communities of Nepal. We conducted the study among the people of Garamani village in eastern Nepal with the objectives to assess the oral health problem, prevalence of use of tobacco products and awareness of oral effects of tobacco products.

Method and materials:

A household based survey was conducted in all the nine wards of Garamani village of Jhapa district of eastern Nepal. Head of each household of the VDC was interviewed using pre-tested semi structured questionnaire including background characteristics, oral health issues and use of tobacco products. In the absence or serious illness of the head of household, adult male or female present were interviewed. Three attempts of visits were organised for the house where no one was available in the first visit. Assurance of anonymity and confidentiality of information was maintained. Verbal consent was taken from the respondent. The raw data was edited on the same day of data collection to detect errors and omissions. The data was analyzed to calculate percentages and proportions.

Results:

Background information

Total of 2676 households were surveyed in nine wards of Garamani village of Jhapa District. Total of 15002 people (51.76% male and 48.24% female) were found to be inhabit the area. Almost 36 % were illiterate. About 92% households constituted more than three members in a family. Hindus (82%) predominates over other religions. More than half of the people were Brahmins. Around 59% of the families were nuclear and 22% households did not possess any land of their own. About 30 % of the people were farmers. The most common house (42.1%) was of Kachha type. Only 40% of families had the nearest health facility in walking distance of less than 30 minutes.

Tablel shows that 56 % of the respondents suffered from at least one type of oral problem. Toothache was the most common (43%) problem among them. Majority (66%) of them did not consult any of the health workers.

Table 1. Oral problems and treatment seeking behaviour among respondents.

Characteristics	N=2676	Percentage
Oral problem		
Not suffered	1177	44
Suffered	1499	56
Toothache	644	43
Gum problems	465	31
Halitosis	135	9
Other	255	17
Treatment seeking behavior		
No consultation	989	66
Consultation with medical practitioner	300	20
Consultation with dental practitioner	210	14

Amoug the 78% of the smokers, cigarette smokers were 56% followed by bidi (37%), hookah (5%) and chilim (2%). Only 6% of the smokers used to smoke 10-20 times per day. Among the 69% of the tobacco chewers, pan (18%), gutkha (18%) and tambaku (18%) were common (Table 2).

Table 2. Tobacco habits

Tobacco habits	No of respondents	Percentage
Non-smoker	589	22
Smoker	2087	78
Cigarette	1169	56
Bidi	772	37
Hookah	104	5
Chillum	42	2
Frequency of smoking (per day)		
Less than 5 times	1586	76
5 - 10 times	376	18
10 - 20 times	125	6
Smokeless tobacoo		
Quid (Paan)	482	18
Gutka	482	18
Tambaku	482	18
Others	401	15

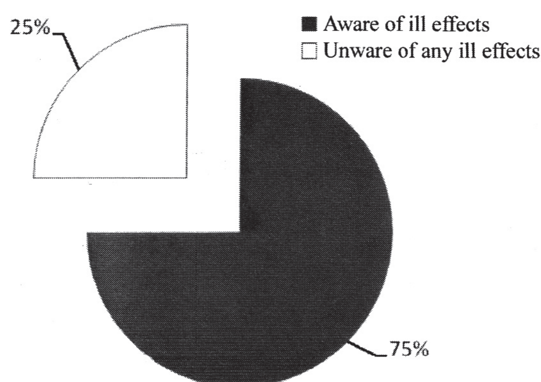

Fig.1 Awareness of ill effects of smoking

Table 3 shows that most of the respondents (58%) were unaware of any ill effects of smokeless tobacco. Cancer (18%), addiction (13%) and ulcer (11%) were the ill effects of smokeless tobacco pointed out by the respondents.

Table 3. Knowledge regarding ill effects of tobacco products.

Characteristics	No of respondents	Percentage
Unaware of ill effects	1552	58
Addiction	348	13
Ulcer	294	11
Cancer	482	18

The most common site reported by the respondents saying cancer due to smokeless tobacco was gum cancer (29%) followed by inner cheek cancer (17%), throat cancer (16%) and tongue cancer. There were number of respondents (26%) to say cancer of other parts due to smokeless tobacco (Fig.2).

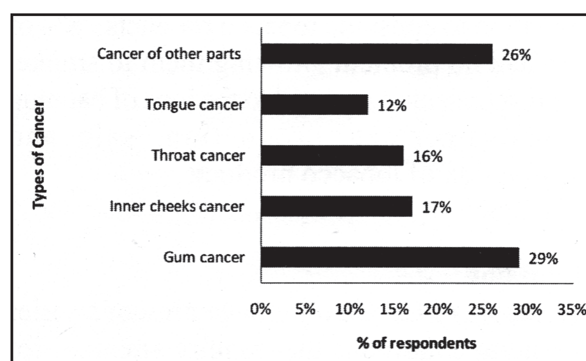

Fig. 2 Knowledge about the site of cancer due to smokeless tobacco (n=482)

Table 4 shows that 39% of the respondents said that there was no benefit of consuming tobacco products. There were reasons for consumption of tobacco as good taste (14%) aid in digestion (4%). Sense of freshness (3%), strengthen teeth and gums (1%).

Table 4. Reasons for consumption of tobacco

Reasons	No of respondents	Percentage
No benefits	1044	39
For benefits	669	25
Good taste	375	14
Aid in digestion	107	4
Sense of freshness	80	3
Strengthen teeth and gums	26	1

Possible ways to quit tobacco habit among the respondents were known as personal motivation (38%), encouragement (19%), increasing knowledge (16%) and alternative recreation (8%) as shown in Table 5.

Table 5. Knowledge about possible ways to quit tobacco habit among the respondents (N=2676)

Ways to quit	N=2676	Percentage
No idea	214	8
Not possible	669	25
Possible to quit	1793	67
Personal motivation	681	38
Encouragement	341	19
Increasing knowledge	287	16
Alternative recreation	143	8
Not sure	233	13
Others	108	6

Attitude regarding tobacco

A total of 56% of respondents said that the use of tobacco products was a kind of embarrassment. 92% of respondents refused allowing adolescent population to consume tobacco products. 8% of them had no problem allowing them to smoke. 70% respondents supported to the idea of banning of advertisement, production, sale and consumption of tobacco products.

Discussion:

The people of Garamani village present a series of general conditions that require attention for improvement of their health. The oral health conditions also suffer the same fate. Although more than half the respondents have had dental problems, toothache being the most prevalent, it does not seem possible to meet their treatment needs as these respondents have to travel long distances to the nearest health facility. Moreover, two thirds of the respondents lack treatment seeking behavior.

Oral health of the people could be more compromised due to their tobacco habits. More than three quarters of the respondents were smokers with almost one third smoking more than 5 times a day. In addition, indigenous smoking habits were also observed like bidi, chillum and hookah. A measurable percentage of respondents also consumed different types of smokeless tobacco. It is a common practice and even integral part of culture in South-East Asian countries[5] like India, Nepal and Bangladesh to use different forms of smokeless tobacco like khaini, surti, quid with and without tobacco and lime, nass and naswar[9]. Such indigenous products are being easily replaced by equally cheap and easily available commercial tobacco products. Affordability and accessibility of these products impose a serious threat to the health of adult as well as adolescent population.[9]

In our study people were smoking despite knowing that smoking tobacco was harmful to their health. More than half of the respondents were unaware of the harmful effects of smokeless tobacco and among those that were aware also knew they caused cancer of the mouth. A large number also opinioned smokeless tobacco had benefits. Belief about the medicinal values towards the tobacco leaves exist in a community.[5]

The population might not be adequately informed about many aspects of tobacco and hence not well understood by many of the tobacco users. Proper health education could minimise the false belief regarding tobacco use. More than half the respondents accepted that the use of tobacco products caused embarrassment in that it stained their teeth and caused halitosis. Their objective remarks on the effect of tobacco could probably make them keep away from the use of tobacco.

The WHO framework convention on tobacco control (FCTC) discusses promotion of education and public awareness, banning tobacco advertising and cessation of tobacco use in its articles 12, 13 and 14, respectively.[10] More than two thirds of the respondents said it was possible to quit tobacco and felt personal motivation and encouragements were important ways for doing so. Almost all had the attitude that sale and use by adolescents has to be banned and 70% felt that advertisement, production and sale of all tobacco products should be banned. Article 16 of the FCTC discusses prohibition of sale to and by minors.[10] The findings of the Global Youth Tobacco Survey (GYTS), the largest global survey on adolescents aged 13 to 15 and tobacco, show that young girls are smoking almost as much as young boys and they are using more of smokeless tobacco products.[3] All the respondents in our study were adults. The high prevalence of tobacco exposures in our study population might tempt the minors, both boys and girls, having access and resorting to tobacco, towards health-risk behavior.

The results of the study highlight a rural community's perspective of risk factors of oral cancer. Tobacco use and excessive alcohol consumption have been estimated to account for 90% of oral cancers. The oral cancer risk increases when tobacco is used in combination with alcohol and arecanut.[11] Attention of health professionals, particularly oral health professionals, is required towards the particularities of the community's

relationship to tobacco control and prevention of tobacco related diseases.

Conclusion:

The study provides a baseline for assessment of prevalence of knowledge and practice of tobacco and attitude towards advertising, manufacture and sale of tobacco products in a rural population of eastern Nepal. Various forms of tobacco consumption are a common habit among the population. However, people are opposed to tobacco and its products and know their hazards. Its results may provide public health decision-makers with evidence to design effective health promotion activities against tobacco use targeted to this population for the prevention and control of tobacco-related diseases and oral cancer.

Limitations:

Information on oral health and tobacco issues was limited to only an adult member presented in a household. The information of households remaining closed even after three attempts of visits could not be known.

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