PERCEIVED BENEFITS, KNOWLEDGE ABOUT CANCER AND ATTITUDE TOWARDS PROMOTION OF GUTKHA AMONGST GUTKHA USERS FROM NEPAL

Basnet BB[1], Sharma KR[2]*

Affiliation

1. *Assistant Professor, Department of Prosthodontics, B.P. Koirala Institute of Health Sciences, Dharan Nepal*
2. *Assistant Professor, School of Public Health and Community Medicine, B.P. Koirala Institute of Health Sciences, Dharan, Nepal*

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**** Corresponding Author***

Dr. Bishal Babu Basnet

Assistant Professor

Department of Prosthodontics

BP Koirala Institute of Health Sciences, Dharan Nepal

Email ID: bidrum43@gmail.com

ORCID ID: https://orcid.org/0000-0002-0472-7229

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ABSTRACT

Introduction

Gutkha, a mixture of areca nut pieces, tobacco and slaked lime, is a potential carcinogen. It causes oral submucous fibrosis. Many people do not possess this knowledge and thus consume gutkha daily. The consumption is highly prevalent in Nepal because of easy availability of this material. Although ban of advertisement is implemented in Nepal in electronic media, the impact has not been significant.

Objective

To find the prevalence of different beneficial effects cited, to determine awareness about cancer and attitude towards ban of advertisement, production and sale in current gutkha users from rural Terai dwellers of Nepal.

Methodology

We interviewed 1217 households in a community survey in which 151 were current gutkha consumers, their responses about perceived benefits, cancer knowledge and views on ban of its sale and promotion was analyzed. The relationship with demographic variables were tested with Chi-square test with level of significance set at 0.05.

Results

Among the current users, the reason of consuming gutkha was mostly 'feeling of well-being' (38.4%), about 40% thought it can cause cancer. The knowledge was not associated with gender, age group and literacy but statistically related with marital status ($p<0.05$). Majority were in favor of ban on advertisement (74.2%) and on production, sale and consumption (70.2%).

Conclusion

The level of knowledge of cancer causation is very low and education level had not been significantly associated to knowledge. More gutkha users were in favor of its ban which is a positive finding.

KEYWORDS

Attitude, knowledge, smokeless tobacco, oral cancer

INTRODUCTION

The use of smokeless tobacco is highly prevalent among Nepalese, especially males and disadvantaged people.[1,2] In the studies the disadvantaged group consisted of people without education, with poor socioeconomic status or divorced/separated or widowed persons. The smokeless tobacco products commonly used in Nepal are surti leaves, khaini, gutkha and pan with tobacco contents.[3] More than 75% daily smokeless tobacco users snuff by mouth (khaini), more than 20% use chewing tobacco and more than 7.5% used betel or quid.[1]

Gutkha is a preparation made from pieces of areca nut, tobacco, catechu, paraffin, slaked lime and flavoring agents.[4] It is readily available or else can be prepared by vendors on demand of customers.[2] Betel nut have been conclusively linked to causation of cancer.[5-7]Gutkha use increases the parasympathetic and sympathetic nervous system activity and is one of the risk factors for cardiovascular diseases.[8] Gutkha and paan, attributed to their potential to form N-nitrosonornicotine, has also been linked to high prevalence of oral submucous fibrosis and oral cancer.[9,10]

Studies carried out in urban areas of Nepal revealed consumption of smokeless tobacco starts as early as by 12 years of age[11] and prevalence of users as high as 19.7% in Eastern region.[2] Gutkha users in urban cities of Nepal are at alarming level as high as 32.7% in 2007[11] and betel users 7.8% in 2013.[1] Various cultural practices entail consumption of areca nut in Nepal.[12] Areca is often used in worshipping ceremonies at houses along with the sacred thread (janai), it is also believed that lord Krishna chews paan. The areca is also used in the restaurants and bars as mouth fresheners or to mask the smell of alcohol.

People dwelling in Terai belt adjacent to Indian subcontinent are focused for studies related to smokeless tobacco use.[12] Their studies was limited to school going children from Terai community in Western Nepal.

The ban on advertisement of tobacco-related products in electronic media was implemented in Nepal since 1998.[3] Other than this, government levies tax on tobacco production, import and custom.[3] But various other forms of advertisement still exist. Many musical and cultural programs are being sponsored by such products and the posters, t-shirts, and leaflets are being distributed with display of these products as something good rather than deleterious.

To our knowledge, studies were not carried out to find the perception of gutkha users towards its ill-effects, cancer awareness and relationship to sociodemographic variables in rural Terai belt of Eastern Nepal in published literature. This study, contrived from the health survey of a community, aims to explore the attitude on advertisement and production, awareness about cancer and perception of benefits in current gutkha consumers of rural village of Eastern Nepal.

METHODOLOGY

The study was conducted as a study to determine village profile of Baniyani village of Jhapa district. It involved the undergraduate studentsof BP Koirala institute of health sciences (BPKIHS)as interviewers in their regular curricular activity.[13]Prior to actual survey, students were trained for a week in the college. The questionnaire used is pre-designed, well-tested and validated tool. The faculty members in the field assessed and monitored the interview process during study.

Total households in the village were 1217, from each household one participant participated in interview. The participant was the adult who was available at the time of interview and who gave consent to be interviewed after we provided the aims and objectives of the survey. The questionnaire sought information about various aspects of health but current study draws the responses of gutkha users for further analysis, if the respondent was not gutkha user he or she was excluded from the study. The study was approved by Research committee of BPKIHS (Acd.1106/ 073/074). The interview was carried out in local language, understandable to the participant. The data were entered into Microsoft excel and analyzed by SPSS version 11.5. The descriptive variables were expressed in mean, standard deviation and percentage. Association of dependent variables (awareness about cancer, banning of the products, advertisement of products)with independent variables (gender, literacy, age group, marital status) were carried out by Chi-square test with the level of significance kept at equal or less than 0.05.

RESULTS

From among 1217 responses, 151 (12.41%) participants admitted using gutkha currently. Among the current gutkha users, 125 (82.8%) were males. Mean age of users was 52.2 years (SD=16.91) with age ranging from 19 to 100 years. The highest proportion belonged to adults above 40 years of age (71.5%). Table 1 depicts the demographic characteristics of the studied population.

Table 1 Demographics of the gutkha users in Baniyani village (n=151)

Demographic variables	Count	Percentage
Gender		
Male	125	82.8
Female	26	17.2
Age group (Years)		
<40	43	28.5
41 60	56	37.1
>60	52	34.4
Marital status		
Married	124	82.1
Divorced/widowed	27	17.9
Literacy		
Illiterate	62	41.1
Literate by formal education	89	58.9

The percentage of participants reporting knowledge about gutkha was 78.1% despite the study population consisted of all current gutkha users. Among the users, 39.7% stated that use of gutkha can cause the cancer and 17.9% claimed it causes nothing and majority (42.4%) of users reported the ignorance about carcinogenic potential of gutkha.Principal sites mentioned were intra-oral by 22 (38.7%) respondents and lung cancer by 38 (63.3%) respondents.

Aside from gutkha, concurrent use of pan (11.9%), Chillim (3.3%), tamakhu (30.5%), cigarette (16.6%) and bidi (20.5%) was also reported by the respondents.

The perceived beneficial effects of gutkha was feeling of well being (38.4%) followed by feeling good taste (16.6%), helps in digestion (11.9%) and freshness (9.3%).

Asked about cessation, 54.3% denied the possibility of quitting whereas 51% thought use of smokeless tobacco was a matter of embarrassment. Table 2 also shows that maximum respondents were supporting ban on its advertisement (74.2%) and production and sale (70.2%).

The median monthly expenditure for the purchase of the items (gutkha alone or other substances if they used) was found to be NRs 300 (Range; NRs 10 to 10,000).

Table 2 : Attitude about cessation, perceived embarrassment, advertisement and production ban (n=151)

Questions	Responses	Count (%)
It is possible to quit	Yes	68 (45.1)
	No	83 (54.9)
It is source of embarrassment	Yes	77 (51.0)
	No	55 (36.4)
	Don't know	19 (12.6)
There should be ban on advertisement	Yes	112 (74.2)
	No	28 (18.5)
	Don't know	11 (7.3)
There should be ban on production, sale and consumption	Yes	106 (70.2)
	No	25 (16.6)
	Don't know	20 (13.2)

Table 3 shows the association of demographic variables to the awareness about gutkha causing cancer. It is found that only marital status was significantly associated with this knowledge ($p<0.05$). The literacy level was significantly associated with the attitude towards cessation ($p<0.05$). Table 3 also depicts that age-group, gender, marital status and literacy were not significantly associated with opinions about ban on production and advertisement ($p>0.05$).

Table 3: Association of demographic variables to knowledge and attitude about gutkha consumption

Demographic variables	Awareness about cancer	Possible to quit	There should be ban on advertisement	There should be ban on production/sale/ consumption
Gender	0.387	0.900	0.725	0.906
Age group	0.121	0.475	0.291	0.612
Marital status	0.039*	0.225	0.637	0.170
Literacy	0.095	0.006*	0.259	0.102

*$p<0.05$, statistically significant, NS – Not significant (Chi-square test)

DISCUSSION

The study explored the awareness about cancer in current gutkha users from rural population of Eastern Nepal. The majority of population had stated ignorance about cancer. This is in agreement with other study from Nepal.[14] The consumption of gutkha was done for feeling of well being or freshness by many respondents. Reasons cited by young school-goers in Western Nepal were taste (22.94%), craving (22.7%) and pleasure (19.13%) for areca nut chewing.[12]

Similar beneficial effects were quoted in other study.[10] In our study, 45% had seen possibility of quitting it. In a study done in western Nepal,[11] more (62.5%) smokeless tobacco users opined possibility of quitting which is in contrast to our study. But the participants in this study were urban college students. Among them, many had attempted to quit or sought help to quit. The role of education in developing attitude to quit was statisticaly significant ($p=0.006$) in our study.

Amongst Nepalese teenagers (14-19 years), 8%[12] to 34.28%[15] of prevalence of gutkha users is reported. In contrast, we found more consumption in older people. This is because in our household survey, most respondents were elders of the household and they did not know about the habits of all the family members.

There existed concurrent use of other smokeless tobacoo consumption in our study. The paan and gutkha users were 11.9% in contrast to the finding (33.6%) of a study in Indian subpopulation.[16]

Majority of participants (70%) suggested ban on production, sale and consumption of gutkha. In the Indian study, all participants (100%) were in favor of banning its production.[17] However, implementation of ban suffers drawback in India.

Delightsome advertisements in the form of t-shirts, pens, bags and hoarding boards still exist which plays an important role in consuming deleterious products.[11,18] Majority of current gutkha users are against the advertisement of deleterious products in our study.

Destitute of knowledge about carcinogenic potential of gutkha is alarming. Educational programs in the people who are menaced by poverty, unemployment and illiteracy is of paramount importance. It seems that mere formal education in college or school doesn't seem sufficient as literacy level wasn't significantly associated with the cancer knowledge. It is in agreement with a study where as high as 75% prevalence of consumers amongst educated group was seen.[17] In contrast to this, another study suggested that with schooling more than 10 years the knowledge of carcinogenic effects of smokeless tobacco was increased in an Asian country.[18]

Gutkha possesses the carcinogenic potential[9,10] and oral cancer in Nepal is listed amongst other cancers in 4th position (6.6%) in males of 15 – 34 year age group, 2nd in males of 35 – 64 year age group with 8% occurrence.[19] It is within top eight cancers for both the sexes from 15 years and above thus it has increased the burden of non-communicable diseases.[19,20] The consumption of smokeless tobacco is widespread in many countries and posing itself as an etiology of cancer.[10]

Although the locality which we examined was not an affluent, the expenditure on these substances (gutkha and/or paan, bidi, chilim, tamakhu and cigarette) was as high as NRs 300 (median) per month; some person even expending NRs 10,000. Dissensus was noted with a study in Nepal's urban area wherein expenditure was NRs 20 per day (NRs 600 per month).[11]

The factors determining tobacco use in college students also

accounts the household assets, knowledge and concurrent users in the family.[11,12] Therefore, it should be thought that in the surveyed households, young persons may also be smokeless tobacco users.

CONCLUSION

Within its limitations, the study showed that knowledge about cancer in gutkha users is minimal and education level was not a factor for the destitute of knowledge. Focused educational programs is to be implemented in the society like this. The noteworthy findings of the study are more gutkha users in favor of ban on the advertisement, production and sale of gutkha.

RECOMMENDATIONS

In view of findings of current study, prevalence of gutkha users who possess the knowledge about probable causation of cancer is minimal in the participants. We delivered the health education in the household survey about deleterious effects of gutkha to the current gutkha users. It is seen that there is a need of similar focused educational programs in the studied area to make the people aware about pernicious effects of gutkha consumption.

LIMITATIONS OF THE STUDY

We suffer some limitations in this study. The major drawback of this study was the respondent from household was single key person. The other family members might be gutkha users who were not interviewed. At times, gutkha use is considered as taboo. So, people reticently avoid to tell about deleterious habits and biases can occur due to social acceptance factor.[21] The sample size was small as compared to total population of the area.

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CONFLICT OF INTEREST

None declared.

FINANCIAL DISCLOSURE

None declared.

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