# **Original Research Article**

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# Knowledge, attitude and practice of gutkha chewing among youth in Hiroli village of Kalaburagi district

# Sunil Deshmukh\*, Shreeshail Ghooli, Ravi S. Kurle

Department of Community Medicine, M.R. Medical College, Kalaburagi, Karnataka, India

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# \*Correspondence:

Dr. Sunil Deshmukh,

E-mail: drsunil.deshmukh@gmail.com

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#### **ABSTRACT**

**Background:** Gutkha is a preparation of crushed tobacco, lime, catechu, areca nut and flavouring agent. Gutkha chewing may lead to various diseases like cancer of oral cavity, gingival diseases, addiction, submucosal fibrosis and overall poor health of an individual. The use of gutkha in youths is highly prevalent due to a lack of awareness and education and has misconceptions, particularly in rural areas like chewing tobacco products aids in digestion, acts as germ-killer, mood enhancement and tension relief.

**Methods:** The study was undertaken to know the knowledge, attitude and practice among gutkha chewers of Hiroli village in Kalaburagi district, Karnataka, India. The study sample comprised a total of 479 participants.

**Results:** The result of the study showed that the prevalence of smokeless tobacco consumption is high in rural population (49.2%). And most of the participants (51%) agreed that gutkha chewing is injurious to health, but the knowledge of gutkha causing oral and throat cancer was limited (40.6% and 36.4% respectively).

**Conclusions:** The result indicated to increase awareness programs on associated health risks that focus on improving the knowledge, attitude and practice of gutkha chewing.

Keywords: Gutkha, Oral cancer, Addiction, Smokeless tobacco

#### **INTRODUCTION**

The term "smokeless tobacco" refers to the consumption of unburned tobacco and is used in various forms like chewing, spitting, snuff etc. Consumers chew the tobacco and usually spit out the juice that builds up. Although nitrosamine is the most important carcinogenic constituent but it is estimated that other 28 chemical constituents are present in tobacco which are carcinogenic in nature. Gutkha is a preparation of crushed tobacco, lime, catechu, areca nut and flavoring agent. Gutkha is available in small attractive sachets, which are very cheap (you can get a gutkha packet for even 1 rupee ) combined with heavy advertising and

marketing, has resulted in increased use in the past two decades.<sup>3</sup>

Gutkha chewing may lead to various diseases like cancer of oral cavity, gingival diseases, addiction, submucosal fibrosis and overall poor health of an individual.<sup>4</sup> The use of gutkha in youths is highly prevalent due to a lack of awareness and education and has misconceptions, particularly in rural areas like chewing tobacco products aids in digestion, acts as germ-killer, mood enhancement and tension relief.<sup>2</sup>

The prevalence of smokeless tobacco consumption is high in rural population and in low socioeconomic individuals.<sup>5</sup> In the present era of globalization, youth are

prone for addiction of gutka chewing. To increase the awareness of adverse effects and decrease the consumption of gutka chewing, the data pertaining to knowledge, prevalence and attitude of youths towards gutka chewing is essential. As limited data is available in this region, hence the present study was conducted knowledge, attitude and practice of youths towards gutkha chewing.

#### **METHODS**

### Study settings

The present study was carried out in Hiroli Village of Gulbarga District, Karnataka, India

## Study period

The study was conducted for a period of one and half months.

#### Inclusion criteria

Only current gutkha chewers were included in the study.

#### Exclusion criteria

Excluded other forms of tobacco consumption.

#### Data analysis

The data was analyzed using Microsoft excel (SPSS Version 16.0 Software) and the results are explained in frequency percentage and ANOVA Test was applied for statistical significance.

## Methodology

The cross sectional study was conducted in Hiroli village of Kalaburagi District, Karnataka, India and comprising 479 participants.

All the Participants were personally contacted and interviewed using pre-designed and pre-tested proforma. The data was analyzed using Microsoft excel (SPSS Version 16.0 Software) and the results are explained in frequency percentage and ANOVA Test was applied for statistical significance.

#### **RESULTS**

During the study period the questionnaire was administered to 513 participants, out of which 479 completed the questionnaire and were included in the final analysis (response rate of 94%). Out of 479 participants, 236 were gutkha chewers (prevalence was 49.2%). The demographic characteristics of the participants were shown in Table 1.

Table 1: Demographic characteristics of the participants (gutkha chewers N=236).

Variables	Number	Percentage
Gender		
Male	193	81.7
Female	43	18.3
Education		
Primary	97	41.1
Secondary	57	24.2
Graduate	35	14.8
Illiterate	47	19.9
Marital status	•	
Married	159	67.3
Unmarried	77	22.7
Occupation		
Employed	147	62.2
Unemployed	89	37.8

Table 2: Distribution of participants according to KAP scores.

Variables	Number of participants	Mean±SD	Percentage of scores
Knowledge	236	2.48±0.95	41.3
Attitude	236	3.07±0.84	51.2
Practice	236	7.0±0	100

Study observed that the knowledge scores of participants was 41.3% attitude score was 51.2% and all participants were actively practice gutkha chewing therefore the practice score was 100.0%. The mean score of knowledge was  $2.48\pm0.95$ , the mean score of attitude was  $3.07\pm0.84$  and the mean score of practice was  $7.0\pm0$ .

Most participants (51%) agreed that gutkha chewing is injurious to health, but the knowledge of gutkha causing oral and throat cancer was limited (40.6% and 36.4% respectively). Majority were not aware of other problems apart from cancer, but 35.2% of youths believed that gutkha chewing has some beneficial effects like it aids in digestion, can concentrate better while working. 58% of the youth has read about the pictorial warning on the gutkha packet and still continued to use gutkha. The attitude towards gutkha chewing is shown in Table 3.

Gutkha chewing as a good habit was considered by only 29.2%, but still continued to chew gutkha. Even though majority had a habit of chewing gutkha, only 37.7% felt that they are addicted to gutkha chewing. 31.3% tried to stop the habit and only 25.8% still wanted to quit gutkha chewing. 60.1% of the participants had received advice from friends and elders to stop the habit and only 18.2% consulted a doctor for problems arising due to gutkha chewing, others those who had problems, either used household measures or used over the counter medications.

Table 3: Knowledge about various aspects of gutkha chewing.

Question	Yes	No	Don't know
Tobacco is injurious to oral health	120 (50.8)	76 (32.2)	40 (17.0)
Do you know gutkha chewing can cause mouth cancer	96 (40.6)	57 (24.2)	83 (35.2)
Do you know gutkha chewing can cause throat cancer	86 (36.4)	93 (39.4)	57 (24.2)
Do you know gutkha chewing can cause other problems apart from cancer	54 (22.8)	114(48.3)	68 (28.9)
Do you believe gutkha chewing has any beneficial effects	83(35.2)	47 (19.9)	106 (44.9)
Have you read anti-tobacco warning written on gutkha packet	137 (58)	99 (42)	-

Table 4: Attitude towards gutkha chewing.

Question	Yes	No	Don't know
Do you think gutkha chewing is a good habit	69 (29.2)	112 (47.4)	55 (23.4)
Do you feel that you are addicted gutkha chewing	89 (37.7)	92 (38.9)	55 (23.4)
Have you ever tried to stop gutkha chewing	74 (31.3)	117 (49.5)	45 (19.2)
Do you want to quit gutkha chewing	61 (25.8)	89 (37.7)	86 (36.5)
Have you ever received advice to stop gutkha chewing	142 (60.1)	94 (39.9)	-
Have you anytime consulted a doctor for problems due to gutkha chewing	43 (18.2)	193 (81.8)	-

Table 5: Practice of gutkha chewing.

Question		Frequency	Percentage
How often do you chew gutkha	Everyday	169	71.6
now often do you chew gutkna	Five times a week	67	28.4
	<5	77	32.7
How many packets of gutkha do you chew daily	5-10	96	40.7
	>10	63	26.6
For how long have you been chewing gutkha	>1 year	68	28.8
	>3 years	169	71.6
How words do you aroud in a week for cuttlebe abouting	<100 Rs	81	34.3
How much do you spend in a week for gutkha chewing	>100 Rs	155	65.7
	Before meal	54	22.8
At what time of day do you chew gutkha	After meal	123	52.2
	No specific timing	59	25
Do you eventually swallow it or spit it out	Swallow	68	28.8
	Spit it out	171	72.4
How often do you brush your teeth with toothpaste and brush	Once daily	87	36.9
	Twice daily	35	14.9
	Do not use toothbrush	114	48.2

The practice of gutkha chewing is shown in Table 4. 169 (71.6%) participants chew gutkha every day, 63 (32.7%) of participants chew gutkha everyday more than 10 packets, 40.7% of participants chew gutkha everyday 5-10 packets. 71.6% of participants have been chewing gutkha more than 3 years. 65.7% of participants spent money for gutkha more the 100 Rs in a week. The most dangerous practice of chewing gutkha was to swallow gutkha (28.8%). 48.2% of participants were not using toothpaste or brush.

Study reveals that there was statistical significant difference of means of knowledge and attitude about gutkha chewing among males and females (p<0.05),

males have significantly more knowledge and attitudes as compared to females. There was no statistical significant difference of mean practice score among males and females (p>0.05). There was statistical significant difference of mean knowledge score about gutkha chewing in the educational status (p<0.05), graduates and secondary educated participants have significantly better knowledge as compare to illiterates and primary education participants. Whereas attitudes and practice of mean scores has no statistical significant difference in educational status (p>0.05). There was no statistical significant difference of mean scores of knowledge, attitude and practice among married and unmarried participants and among employed and unemployed participants (p>0.05).

Table 6: Demographical profile wise comparison of mean KAP scores.

	Practice score mean±SD	Attitude score mean±SD	Knowledge score mean±SD	Number of Participants
Sex		•		
Male	7.0±0	3.19±1.03	2.58±0.98	193
Female	7.0±0	2.71±0.87	2.27±0.93	43
ANOVA test p-value and significance	F=0, p>0.05, NS	F=2.91, p<0.05, S	F=2.86, p<0.05, S	236
Education		•		
Illiterate	7.0±0	2.89±0.78	2.18±0.76	97
Primary	7.0±0	2.91±0.92	2.21±0.88	57
Secondary	7.0±0	3.12±1.02	2.42±0.93	35
Graduate	7.0±0	3.09±0.73	2.53±0.78	47
ANOVA test p-value and significance	F=0, p>0.05, NS	F=1.79, p>0.05, NS	F=2.86, p<0.05, S	236
Marital status				
Married	7.0±0	3.15±0.89	2.52±0.98	159
Unmarried	7.0±0	3.03±0.78	2.45±0.97	77
ANOVA test p-value and significance	F=0, p>0.05, NS	F=0.42, p<0.05, NS	F=0.78, p<0.05, NS	236
Employment				
Employed	7.0±0	3.02±0.93	2.53±0.93	147
Unemployed	7.0±0	3.14±0.86	2.43±1.92	89
ANOVA test p-value and significance	F=0, p>0.05, NS	F=0.32, p<0.05, NS	F=0.69, p<0.05, NS	236

Most common reason for gutkha chewing was craving for gutkha (68.6%), the taste of gutkha (63.9%) and the pleasure obtained by using gutkha use (56.7%). The reasons for gutkha chewing are shown in Table 7.

Table 7: Reasons for gutkha chewing.

Reason	Frequency	%
Pleasure	134	56.7
To accompany friends	108	45.7
Craving	162	68.6
Taste	151	63.9
Look good/cool	96	40.6
Concentrate during work	127	53.8
No specific reason	68	28.8

#### DISCUSSION

The present study was done at a rural centre in North Karnataka region in the age group of 18-30 years and the prevalence was found to be 49.2%. According to global adult tobacco survey India, the overall prevalence of smokeless tobacco in the age group of 15-24 years was 8.2% among women and 23.1% among men. The present study reported higher prevalence than that of global adult tobacco survey. Gutkha chewing was more prevalent in males (Table 1).

The knowledge regarding gutkha chewing is shown in Table 2 and 3 the knowledge score was 41.3%. The

knowledge regarding ill effects of gutkha chewing and gutkha causing were oral cancer was limited (50% and 40% respectively). Other studies have reported higher knowledge (86%) of harmful effects of gutkha chewing, but other studies have reported limited knowledge on ill health effects of gutkha chewing.<sup>5,8</sup> The limited knowledge in the present study on ill effects of gutkha chewing may be due to rural population who has limited education. 35% of the respondents believed gutkha chewing had some beneficial effects and 58% youths continued chewing even after reading the warning mentioned on gutkha packets. There was significant difference mean knowledge score among sex and status. Educated males have better educational knowledge.

The attitudes of the respondents towards gutkha chewing are shown in Table 2 and 4 the attitude score was 51.2%. Gutkha chewing as a good habit was considered by only 29.2%, but still continued to chew gutkha. Even though majority had a habit of chewing gutkha, only 37.7% felt that they are addicted to gutkha chewing. 31.3% tried to stop the habit and only 25.8% still wanted to quit gutkha chewing. 60.1% of the participants had received advice from friends and elders to stop the habit and only 18.2% consulted a doctor for problems arising due to gutkha chewing. Other studied studies have reported varying quitting rates ranging from 28% to 90%. 9.11 There was significant difference of attitude among sex. Males have better attitude as compared to females.

The practice of respondents towards gutkha chewing is shown in Table 2, 5 and 6. 71% of the youths chewed gutkha on daily basis and 40% participants chewed 5-10 packets of gutkha daily, other studies have also reported that gutkha chewing was most common on a daily basis. 7.12 71% had been chewing gutkha for more than 3 years. Most of them consumed gutkha after meals and eventually they would spit out the gutkha. Other studies have reported similar findings. In the present study 100% participants were practicing gutkha chewing. There was no statistical significant difference of mean score, practice of gutkha chewing among sex, educational status, marital status and employment.

The reasons for gutkha use are shown in Table 5. Most common reason for gutkha chewing was craving for gutkha (68.6%), the taste of gutkha (63.9%) and the pleasure obtained by using gutkha use (56.7%). Banerjee et al reported that gutkha was used to relieve boredom, reduce stress, and to increase alertness. In another study the reasons were pleasure, boredom and relieve stress. <sup>2,14</sup>

#### **CONCLUSION**

The present study reveals that the prevalence of gutkha chewing in rural population was high among the youth, and more prevalence in males. In spite of having sufficient knowledge of effects of gutkha chewing, there was little change in attitude and practice towards quitting of gutkha chewing. Education programs need to be conducted on associated health risks that are specific to the community, focusing on improving the knowledge, attitude and practice of gutkha chewing suggested. Along with educational measures, strict regulatory enforcement on sale of gutkha needs to be implemented.

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Institutional Ethics Committee

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