



A CROSS-SECTIONAL STUDY TO ASSESS THE REPORTED PRACTICES OF SMOKELESS TOBACCO USE AND THEIR AWARENESS REGARDING ITS HEALTH HAZARDS AMONG ADULTS

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ABSTRACT

The world is facing a major health crisis due to tobacco consumption, which is a leading cause of severe and chronic diseases. Both smoking and smokeless tobacco use significantly increase the risk of life-threatening conditions with alarming growth in usage among both youth and elderly.^[1] The study was conducted to assess the reported practices and health hazards of smokeless tobacco use among adults in selected sub urban areas of Bengaluru, India. The cross-sectional research design and Convenience sampling technique was employed for the research study. The sample size was 60 and study population consisted of adults aged 18 years and above who were consumers of smokeless tobacco residing in Mugalur village, Bengaluru. The results revealed that there is no statistically significant association between baseline variables and reported practices except with education where the p value was 0.003. Therefore, the research hypothesis has been accepted. Chewing tobacco in any form can become a lifelong habit and frequently result in addiction and risk for oral cancer. There is a need to raise awareness about the importance of quitting smokeless tobacco consumption.

KEYWORDS: Smokeless tobacco, snuff, snus, malignancy.

INTRODUCTION

Tobacco consumption poses a significant threat to the health and well-being of Indians. Introduced by the Portuguese around 400 years ago, tobacco use has become widespread, with India now ranking second globally in tobacco consumption, after China.^[1] Alarming, most adult smokers start using tobacco during their youth, often influenced by media, peer pressure, and the desire to emulate celebrities. Beyond smoked tobacco, various smokeless products, including chewing tobacco and snuff, also contribute to the country's alarming tobacco usage rates.^[2] Multiple factors contribute to adult tobacco use, including peer influence, experimentation, accessibility, emotional and psychological issues, and family history. Smokeless tobacco, used by over 300 million people globally, poses significant oral health risks, such as gum disease, tooth

decay, and tooth loss. Notably, India has one of the highest mouth cancer rates worldwide, with smokeless tobacco linked to over 50% of cases.^[3] Low and middle-income countries, particularly in Asia (Pakistan, Sri Lanka, India, and Taiwan), experience high oral cancer rates. Tobacco use claims a life every six seconds, with projected annual deaths exceeding 8 million by 2030.^[4] Nicotine in smokeless tobacco products is highly addictive and especially harmful to youth, impairing brain development, mood regulation, and attention.^[5] According to the 2019–2020 National Family Health Survey, Karnataka has a prevalence of tobacco consumption of 8.5 percent for women and 27.1 percent for men.^[10]

METHOD

Source of Data: Data was collected from adults aged 18 years and above residing in the villages under the Mugalur suburban areas of Bengaluru.

Sampling and Sampling Technique: Suburban areas were selected using a convenience sampling technique.

Data collection: Interview method was followed to collect the data.

Population: consisted of adults using smokeless tobacco residing in selected sub urban areas of Bengaluru.

Tool consists of three sections

Section A: Proforma to elicit Baseline Variables of adults using Smokeless tobacco.

Section B: Check list to elicit the reported practices of Smokeless Tobacco users.

Subjects were interviewed using a checklist to elicit the reported practices.

➤ The scale consists of 15 questions. The scoring for the check list is arbitrarily done based on the following categories

High risk 15 - 22

Greater than minimal risk 23 - 30

High Risk refers to serious concerns to one's health.

Section C: Structured questionnaire to elicit the awareness of adults regarding the health hazards of smokeless tobacco use.

➤ The structured data consists of 15 MCQ which was interpreted based on the responses given by the participants. The data collection took approximately 20 minutes per subject.

The scoring is arbitrarily done based on the following categories

Good 11-15

Average 6 -10

Poor 1 – 5

RESULTS

Table 1: Description of Baseline Variables

n=60

BASILINE VARIABLES	FREQUENCY	PERCENTAGE (%)
Age		
Young adulthood (20-39)	6	10.0%
Middle adulthood (40-59)	29	48.3%
Old age (60 ⁺)	25	41.7%
Gender		
Male	9	15.0%
Female	51	85.0%
Education		
Intermediate	2	3.3%
High School	8	13.3%
Middle School	2	3.3%
Primary School	5	8.3%
Illiterate	43	71.7%
Income		
37325-62272	2	3.3%
12445-37324	32	53.3%
≤12444	26	43.3%
Occupation		
Employed	19	32%
Unemployed	41	68%
Marital Status		
Married	59	98.3%
Single	1	1.7%
Type of Family		
Nuclear	32	53.3%
Joint	28	46.7%

Table 1 depicts that among the 60 participants, most of them were from the age group 40-50 years (29; 48.3%), most of them were females (51; 85%), Illiterate (43; 71.7%), unemployed (41; 68%) and employed (19; 32%), had income of 12445 - 37324 (32; 53.3%), belonged to nuclear family (32; 53.3%), married (59; 98.3%).

Table 2: Description of reported practices of smokeless tobacco use.

n=60

Variable	Max. score	Range	Mean	SD	Mean %
Reported practices	30	15 - 24	18.3	2.62	61%

Table 2 shows that the mean of reported practices is 18.3 ± 2.6

n=60

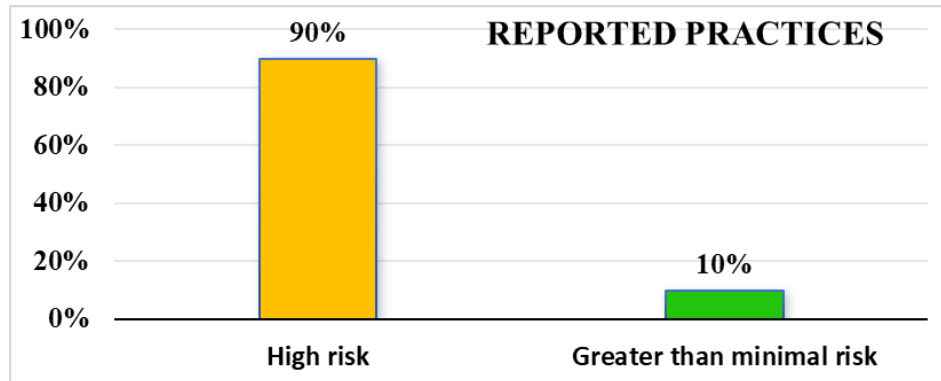


Figure 1: shows 90% of them belonged to high-risk category in relation to the reported practices and 10% of them belonged to greater than minimal risk category.

Table 3: Description of awareness about health hazards of smokeless tobacco use

n=60.

Variable	Max. score	Range	Mean	SD	Mean %
Awareness of health hazards	15	3 - 11	7.92	1.83	52.80%

Table 3 shows that the mean of awareness of health hazards is 7.92 ± 1.83

Table 3a: Percentage distribution for categories of awareness of health hazards.

n=60

Awareness of Health hazards	Frequency	Percentage %
Good	4	6.7%
Average	52	86.7%
Poor	4	6.7%

The study findings showed 86.7% of the subjects had average awareness of health hazards

Table 4: Correlation between reported practices and awareness of health hazards.

n=60.

Study Variables	Mean	SD	r- value	p value
Reported Practices	18.3	2.62		
			-0.238	0.067
Awareness	7.92	1.83		

The table 4 depicts that there is weak negative correlation between awareness and practice.

Table 5: Association of reported practices with baseline variable of Education.

n=60.

BASELINE VARIABLES	REPORTED PRACTICES		FISHER'S EXACT	P- VALUE
	HIGH RISK	GREATER THAN MINIMAL		
	f %	f %		
Education				
Intermediate	2 3.7%	0 0.0%	19.1	0.003
High school	6 11.1%	2 33.3%		S
Middle school	2 3.7%	0 0.0%		
Primary	2 3.7%	3 50.0%		
Illiterate	42 77.8 %	1 16.7%		

S- Significant

There is a significant association between education and reported practices but no association with other baseline variables.

DISCUSSION

In the present study, the total sample consisted of 60 subjects. Among them, 48.3% (29) belonged to middle adulthood (40-59 age group), and 41.7% (25) belonged to old age (60+). This is inconsistent with findings from Pretoria, South Africa, where the majority of subjects were between the ages of 30 and 39¹. The findings of the current study showed that a higher proportion, 85% (51), of females compared to 15% (9) of males consumed smokeless tobacco (SLT). The current study showed that 71.7% (43) were illiterate, 8.3% had primary education, 13.3% had high school education, and 3.3% had intermediate education. In Belagavi, a study found that most participants were either illiterate (43.1%) or had received education only up to the primary level (26.4%).

In the present study, 53.3% (32) of participants had an income of 12,445-37,324 per month, and 43.3% (26) had an income of less than 12,444 per month. This contrasts with the results obtained in a study by Shukla in 2019, which revealed that a significant proportion of participants (43) came from a low socioeconomic status.^[15] The findings of the current study reveal that 68% (41) of participants were unemployed, and 32% (19) were employed. In a similar study, the participants were predominantly unemployed, accounting for 64.9% of the total.^[13] In the present study, participants belonged to nuclear families (53.3%) and joint families (46.7%). In this study, 59 (98.3%) participants were married, and 1 (1.7%) was single.

In this study, there was a weak negative correlation between awareness and reported practices. The correlation is not statistically significant. The *r* value obtained was -0.238 with a *p* value of 0.067. A similar study by Chavan SS in 2020 found a weak negative correlation between knowledge and the use of smokeless tobacco among adolescents, with *r* = -0.15, *p* = 0.001.

The present study depicts that education (*p* = 0.003) has a significant association with reported practices and no association with age, gender, income, occupation, marital status, and type of family. No similar results were found with associations to the above variables. In this study, 90% had a high risk of reported practices, and 10% had practices greater than minimal risk. The mean was 18.3, and the SD was 2.62. The majority consumed tobacco with betel leaf more than once a day.

In the present study, there is no significant association between awareness and age, gender, income, education, occupation, type of family, and marital status. 86.7% of subjects exhibited an average awareness regarding health hazards. In contrast, research conducted in Gujarat revealed a significant statistical association (*P* < 0.0500) between age and education, and a highly significant

association (*P* < 0.001) between gender, literacy, and employment in terms of knowledge about the harmful effects of tobacco addiction on health.^[18]

This study reveals that half of the participants lack motivation to quit tobacco, fueled by misconceptions that it's harmless due to observations of seemingly healthy individuals in their social circle who use smokeless tobacco.

CONCLUSION

Though they are aware of the health hazards of using smokeless tobacco, they have difficulty quitting. The investigator found the study process to be a valuable experience, as it greatly contributed to understanding the importance of stressing the need for cessation of smokeless tobacco use.

Recommendations

- Motivate community health nurses to undertake studies related to the prevention of tobacco and other products in their area of work in the community.
- Conduct interventional research to find out the efficacy of awareness programs on smokeless tobacco use and its preventive strategies among adults.
- Coordinate with organizations such as NGOs to provide mass education in PHCs and CHCs regarding the cessation of smokeless tobacco use.
- Guide staff to prepare educational materials like leaflets, posters, and pamphlets to use in delivering health messages to the public.

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