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# Assessment Of The Knowledge And Attitude Regarding Tobacco And Its Use Among Students In Belagavi City: A Cross-Sectional Study

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## Abstract

Aim: To assess the knowledge and attitude regarding tobacco and its use among adolescent students in Belagavi city

Material and methods: A descriptivecross-sectional study was conducted in the school children for the period of 2 months.200 students were included in this study. A pre-structured and pretested questionnaire containing the following information was used to collect the data. Data on age, gender, grade, parent's education and occupation, current use of tobacco products among students, knowledge, attitude and perceptions regarding the use of tobacco and tobacco products were obtained using a semi-structured questionnaire.

Results: A total of 200 students participated in the study with a mean age of 14.84 ± 4.2 years. Knowledge regarding tobacco content in various products differed with the product. The presence of tobacco in cigarettes, gutka and bidi was known to 85.5%, 88.5% and 75% of the students respectively. The students lacked knowledge regarding snuff and khaini being tobacco products (23.5% and 30% respectively). History of use of tobacco in family members was seen in 15%. About 10% of students had friends who consumed tobacco products. About 4% of the students thought that tobacco is not harmful.Correct knowledge regarding the hazards of passive smoking was present among 87% of the students and 65% of students were aware of law against smoking in public places. Government rules to keep a check on tobacco sale was reported by 55.5% of the students and 58.5% knew that danger signs of using tobacco product are printed on the package of the product.

Conclusion: The knowledge of the students is relatively inadequate which can lead to unfavourable attitudes towards tobacco use. This indicates that theabove-discussedcorrelatesneedstobeaddressedso that education imparted to these students has apositive impact and prevents them from taking upthesehabits in thefuture.

**Keywords:** knowledge, attitude, tobacco, students

## Introduction

Tobacco is deadly in any form or disguise. Scientific evidence has unequivocally established that exposure to tobacco smoke causes death, disease and disability. In India, tobacco use among children and youth is quite high. According to the National Family Health Survey (NFHS)- 3 survey, conducted in 2005–06, tobacco use is more prevalent among men, rural population, illiterates, and a poor and vulnerable section of the society.[1] The estimates of the Global Adult Tobacco Survey (GATS) conducted among persons 15 years of age or older during 2009–10 indicate that 34.6% of the adults (47.9% males and 20.3% females) are current tobacco users. Fourteen percent of the adults smoke (24.3% males and 2.9% females) and 25.9% use smokeless tobacco (32.9% males and 18.4% females). According to the Global Youth Tobacco Survey (GYTS) conducted among 24,000 students aged 13–15 years in 2009, 14.6% of students were tobacco users.It is also linked to poor pregnancy outcomes, dental caries and periodontal diseases.[2]

The use of tobacco is the second major cause of death and one of the major preventable causes of disability worldwide.[3] According to estimates by WHO, if current smoking patterns are not reversed, the use of tobacco will be responsible for 10 million deaths per year by the decade 2020-2030, with about 70% of them occurring in developing countries, mainly China and India.[4] India is home to one-sixth of the global population. Currently about one-fifth of all worldwide deaths attributed to tobacco occur in India, more than 8,00,000 people die and 12 million people become ill as a result of tobacco use each year.[5] In India, the deaths attributable to tobacco are expected to rise from 1.4% of all deaths in 1990 to 13.3% in 2020.[6] The prevention of tobacco use in young Indians appears as the single greatest opportunity for preventing non-communicable disease. It is estimated that 5,500 adolescents start using tobacco every day in India, joining the 4 million young people under the age of 15 who already regularly use tobacco.[7] Adolescence is a transition phase when the mind is naturally motivated to experimentation and exploration of the world. It is the age when the majority of drug users start the use of substances like inhalants and tobacco, later followed by addiction to alcohol and others in the third decade of life.[8] Use of cigarettes, alcohol and illicit drugs by adolescents is a matter of concern worldwide. Drug use in this age group is associated with increased risk of accidents, violence and high-risk sexual behavior and hence infections such as HIV, interpersonal problems, decline in academic performance and failure to complete education etc. Drug use puts them to high risk of suffering from conduct and mood disorders.[9] Helping young people to avoid starting addictive substances is a widely endorsed goal of public health, but there is uncertainty about how to achieve the goal. Schools provide a route for communicating with a large proportion of young people, and school-based programmes for smoking prevention have been widely developed and evaluated.[10] There is a paucity of attempts to assess the level and extent of knowledge of the adolescents, attitude of adolescents towards addiction and their practices of addiction. As males start drugs at an early age and are more likely to abuse the tobacco, therefore this study was planned in male college students of rural areas to study knowledge and attitude toward tobacco consumption and the prevalence of practices of tobacco consumption and to identify the effects of various socio-demographic variables (age, social status, education level, address) with knowledge, attitudes and practice of tobacco consumption.

## Material and methods

### Study design and population

A descriptive, cross-sectional study was conducted among 14-16year school children in Belagavi city.

### Official Permission and Ethical clearance:

The study protocol was reviewed and clearance was granted from the Ethical Committee of V.K.I.D.S and written permission was obtained from the authorities at the institutions for the handicapped to conduct the study.

### Study duration:

One month (May 2022 – June 2022)

### Inclusion criteria:

Those who were willing to participate and who obtained informed consent.

Those who were present on the day of the examination.

### Exclusion criteria:

Those who were not willing to participate and not willing to give informed consent.

### Informed consent:
As all the participants were below 18 years of age, informed consent was obtained from their parents or legal guardians.

### Sample size
According to the Global Youth Tobacco Survey (2009)[5], considering the prevalence of tobacco consumption as 14.6%; with absolute precision of 5% and power of 80%, the sample size was calculated and it came to 190 and is rounded up to 200.

### Pilot study
A pilot study was done on 20 participants to check the flaw and feasibility.Cronbach's coefficient was found to be 0.72, which showed the internal reliability of the questionnaire. Mean Content Validity Ratio (CVR) was calculated as 0.87 based on the opinions expressed by a panel of four academicians.

### Details of study proforma
Demographic details: Data on name, age, gender, grade, parent's education and occupation.
Instrumentation: There is 14-item self-administered closed-ended questionnaire.

### Statistical analysis
The data was entered in Microsoft Excel and analysed statistically using the SPSS software, version 21; SPSS Inc., (USA). Descriptive statistics was calculated for the frequency distribution and percentage. Chi-square test for the association between the study variables and knowledge questions. Mann–Whitney U test was applied to test significance among the other study variables. All statistical tests were performed at a significance level of 5% ($P< 0.05$).

### Results
The socio-demographic profile of the study participants is given in Table 1. A total of 200 students participated in the study with a mean age of $14.84 \pm 4.2$ years. Knowledge regarding tobacco content in various products differed with the product. The presence of tobacco in cigarettes, gutka and bidi was known to 85.5%, 88.5% and 75% of the students respectively. The students lacked knowledge regarding snuff and khaini being tobacco products (23.5% and 30% respectively). A history of use of tobacco in family members was seen in 15%. About 10% of students had friends who consumed tobacco products. About 4% of the students thought that tobacco is not harmful.

Correct knowledge regarding the hazards of passive smoking was present among 87% of the students and 65% of students were aware of law against smoking in public places. Government rules to keep a check on tobacco sale was reported by 55.5% of the students and 58.5% knew that danger signs of using tobacco product are printed on the package of the product. The knowledge and attitude of the students regarding the usage of tobacco and its products is depicted in Table 2. About 6% of the students felt that using tobacco made one smart and cool. Also,4% of the students were of the opinion that smoking makes one more attractive. The knowledge score was poor among 37.5% of the students and significantly less among the females ($P = 0.007$). The knowledge score was significantly different with respect to their favourable or unfavourable attitude towardsthe use of tobacco products, parent's occupation and presence of a family member smoking (Table 3). The attitude of the students was found to be statistically significantly associated with knowledge, while the association with the presence of smoking among family members or friends was statistically non-significant. There was no difference in the attitude between gender or grade of the students.

### Discussion

Among adolescents, social bonding, social learning, lacking refusal skills, risk-taking attitudes and intentions have been highlighted as important attributes of tobacco use in studies in both developed and developing countries.[11] A study done in United States, found that the most influential predictors of the habit of smoking were alcohol, marijuana, and other drugs, involvement with violence, learning problems, a history of sexual intercourse, frequent hanging out with friends and having friends who smoke.[12] A study done by Horn et al.[13] and Chassin et al.[14] showed that inadequate knowledge about tobacco and health, tobacco use among family and friends, and favourable attitude towards tobacco use were important determinants of tobacco use among adolescents. In contrast, a government survey done among youths in India in 2013 found that even with good knowledge about the harmful effect of tobacco use, the uptake of tobacco and tobacco products was high.[15] In our study, the mean knowledge score for thestudy participants was $14.84 \pm 4.2$. Males had significantlybetterknowledgecomparedtofemales($p = 0.007$) and the knowledge score did not im-prove with the increasing grades. The GTYS has done in India also found a similar difference in the

knowledge between the two genders.[16] However, astudy done in Kerala among 13 to 19 years, foundknowledge among females to be better than males ($p<0.01$). Also, awareness regarding the health hazardsof tobacco and various legislations against tobaccowas better with increasing age. In our study, students with unfavourable attitude, i.e.,students likely to use tobacco products in the future hadpoor knowledge compared to students with favourable attitude ($p < 0.001$). This hints that interventions taken towards increasing the knowledge of the students could have a positive impact on a favourable attitude toward not taking up the habit oftobacco use. Proper interventions are required to shape the attitude of adolescents to prevent the risk of uptake of tobacco in the future.

Students with father working in a skilled job andabove and a working mother were found to havesignificantly better knowledge. This could be explained by the better socio-economic status of the family and better knowledge among parents which they would impart to their children as well. A cohort survey done among 9000 individuals from four different countries found that lower socio-economic status was associated with lower awareness of the harms of nicotine.[17]Although a survey was done in India (2013) has documented that low parental supervision and parental attitude favourable to smoking were risk factors for the uptake of the habit among adolescents.[15]

Including tobacco and its effect as a part of a schoolcurriculum is well documented in the tobacco control policy guidelines and has been incorporated inmany institutes. In our study, we found that students who reported to have attended any educationalclasses had a better knowledge score compared tothose who have never attended any ($p<0.001$). Ap-proximately only about 62% of the students knewabout the various legislations for tobacco control. The attitude of the students regarding these tobacco control policies was favourable. Around 95% ofthe students agreed that tobacco products should not be sold near educational institutes and should not be sold to those under 18 years. A study was done in Soviet Union among 18 years and above reported that increased public awareness is necessary for increased support for tobacco control measures.[18] Bonding with friends is an important part of adolescent development. The impact of peers on regular smoking is greater than that of parents and siblings.[19] In our study smoking among family members was found to be significantly associated with better knowledge about tobacco usage compared to students with no smoker in the family whereas smoking among friends did not have any relation. The 2013 survey done in India also observed parental attitude favourable to smoking as a significant risk factor for the uptake of the habit.[15]

In the present study, 6% of the students believedthat smokers had more friends and 4% of the students believed that these people were cool and attractive. A study done by Mpabulungi et al.[20] and Saji et al.[21] also found that 60% and 35.6% believed that those who smoke had more friends compared to those who do not respectively. Another study done in Udaipur City over 15 to 25 years old found that 65.9% of men who smoked agreed that people who smoke have more friends and 28.7% ofthem agreed that people who smoke are attractive.In a study done in New Delhi among school-going adolescents a common reason for use of tobacco was to show themselves grown-up individuals, friends/peer pressure, to increase self-confidenceand to relieve stress.[22] Such unfavourable attitudes have a strong predisposition towards the habit of smoking and should be addressed at an earlier age.[23]

## Conclusion

The knowledge of the students is relatively inadequate which can lead to unfavourable attitudes to-wards tobacco use. This clearly indicates that the above- discussed correlates needs to be addressed so that education imparted to these students has a positive impact and prevents them from taking up these habits in the future.

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**Table 1:**Demographic characteristics

| **Parameters** | **N (%)** |
|---|---|
| **Gender** | |
| Males | 110 (55) |
| Females | 90 (45) |
| **Class** | |
| Eighth standard | 103 (51.5) |
| Ninth standard | 97 (48.5) |
| **Religion** | |
| Hindu | 169 (84.5) |
| Muslims | 11 (5.5) |
| Christian | 16 (8) |
| Others | 4 (2) |
| **Socioeconomicstatus** | |

| | |
|---|---|
| APL | 81 (40.5) |
| BPL | 15 (7.5) |
| Don’tknow | 104 (52) |
| **Father occupation** | |
| Professionaland White Collar | 107 (53.5) |
| SkilledandSemi-skilled | 71 (35.5) |
| Unskilled | 6 (3) |
| Unemployed | 2 (1) |
| Don’tknow | 17 (7) |
| **Mother’soccupation** | |
| Professional and White | 47(23.5) |
| Collar SkilledandSemi-skilled | 7 (3.5) |
| Unskilled | 8 (4) |
| Housewife | 138 (69) |

All values are expressed as the frequency with percentages (in parentheses).

**Table 2:** Knowledge about the harmful effect of tobacco and attitude regarding tobacco products

| **Question** | **Responses N (%)** |
|---|---|
| **Knowledge about the harmful effect of tobacco** | |
| Doestobaccocauseheart attack? | 151 (75.5) |
| Doestobaccocauseasthma? | 90 (45) |
| Doestobaccocausegastritis? | 31 (15.5) |
| Doestobaccocauselung cancer? | 180 (90) |
| Doestobaccocausemouth cancer? | 170 (85) |
| Doestobaccocauseheadache? | 61 (30.5) |
| Isstandingnearapersonwho is smoking harmful | 174 (87) |
| **Attitude regarding tobacco products** | |
| DoSmokershavemorefriends? | 27 (13.5) |
| Shouldsaleoftobaccotothose under18yearsbeallowed? | 12 (6) |
| Parents,whosmokearebetter? | 4 (2) |
| Doyoufeelquittingtobaccois difficult? | 180 (90) |
| Shouldtobaccobesoldneareducationalinstitutes? | 10 (5) |
| Do you feel using tobacco for 1 or 2 years is safe? | 18 (9) |
| Should smokingbebannedinpublicplaces? | 160 (80) |

All values are expressed as the frequency with percentages (in parentheses).

**Table 3:**Association between demographic variables and knowledge score

| **Parameters** | **Knowledge scoren (%)** | | | | **Statistics** |
|---|---|---|---|---|---|
| | **Poor** | **Average** | **Good** | **Total (100%)** | **P-value** |
| **Gender** | | | | | |
| Males | 34 (30.9) | 50 (45.5) | 26 (23.6) | 110 | 0.007* |

| | | | | | |
|---|---|---|---|---|---|
| Females | 40 (44.4) | 28 (31.1) | 22 (24.4) | 90 | |
| **Class** | | | | | |
| Eighth standard | 40 (38.8) | 38 (36.9) | 25 (24.3) | 103 | 0.134 |
| Ninth standard | 30 (30.9) | 40 (41.2) | 27 (27.8) | 97 | |
| **Mother's occupation** | | | | | |
| Working | 20 (32.3) | 22 (35.5) | 20 (32.3) | 62 | 0.243 |
| House wife | 40 (29.0) | 70 (50.7) | 28 (20.3) | 138 | |
| **Smoking among family members** | | | | | |
| Presence | 7 (23.3) | 13 (43.3) | 10 (33.3) | 30 | 0.045* |
| Absence | 65 (38.2) | 80 (47.1) | 25 (14.7) | 170 | |
| **Smoking among friends** | | | | | |
| | | | | | 0.012* |
| Presence | 5 (25.0) | 7 (35.0) | 8 (40.0) | 20 | |
| Absence | 67 (37.2) | 78 (43.3) | 35 (19.4) | 180 | |
| **Any educational class is taken for tobacc** | | | | | |
| Yes | 18 (23.1) | 38 (48.7) | 22 (28.2) | 78 | <0.001** |
| No | 52 (42.6) | 40 (32.8) | 30 (24.6) | 122 | |
| **Attitude** | | | | | |
| Unfavourable | 6 (30.0) | 8 (40.0) | 6 (30.0) | 20 | <0.001** |
| Favourable | 60 (33.3) | 75 (41.7) | 45 (25.0) | 180 | |

*Poor ≤ 13, Average = 14 to 17, Good ≥ 18
All values are expressed as the frequency. The statistical test used:Kruskal Wallis test;Level of significance:

*P ≤ 0.05 is considered a statistically significant, **P ≤ 0.001 is considered a highly statistically significant association.