A study to assess the knowledge and attitude regarding tobacco consumption among adolescents in selected schools of Guwahati, Assam with a view to develop an information booklet

Wangkhem Chitrabhanu Devi and Anurupa Dutta

Abstract

Background: Tobacco is one of the most common forms of addiction. GATS 2 Global Adult Tobacco Survey FACT SHEET (INDIA) 2016-17 reported that 19.0% of men, 2.0% of women and 10.7% (99.5 million) of all adults currently smoke tobacco whereas 29.6% of men, 12.8% of women and 21.4% (199.4 million) of all adults currently use smokeless tobacco. Currently, India is the second largest producer of tobacco in the world with the highest consumption levels.

Objectives: To estimate the knowledge and attitude regarding tobacco consumption among adolescents in selected schools of Guwahati; To determine the association between knowledge and selected demographic variables; To determine the association between the attitude and selected demographic variables; To correlate between knowledge and attitude regarding tobacco consumption; To develop information booklet regarding tobacco consumption.

Material and Method: The study adopted a descriptive research design, 304 samples were recruited using consecutive, non-probability sampling technique. Socio demographic performa, structured knowledge questionnaire, five point Likert scale were used to collect the data. Descriptive statistics, inferential statistics and Karl Pearson’s Correlation coefficient were used to analyze the data.

Result: The finding of the study revealed that 54.60% of participants belong to 14-15 year, 54.90% were male, 78.3% was from nuclear family, 45.3% father’s educational status was graduate and above, 28.3% family monthly income is between 10,001-20,000, 66.1% family members does not take any tobacco product, 7.9% consumed sikhar, 61.8% source of information was mass media. 77.3% have moderate knowledge regarding tobacco consumption. 53.6% have unfavorable attitude regarding tobacco consumption. There was significant association between knowledge and demographic variables like Age, Types of family, Father’s educational status, Monthly Income and Source of information at 0.05 level of significant. There is no significant association between attitude and demographic variables. There is correlation between knowledge and attitude regarding tobacco consumption among adolescent, (r-value= 0.259, p-value=0.000) at 0.05 level of significant.

Conclusion: The study concluded that, with increase in knowledge, favorable attitude towards tobacco will be decrease or higher the knowledge level higher the unfavorable attitude regarding tobacco consumption.

Keywords: Tobacco, knowledge, attitude, adolescent’s health, schools students, information booklet

Introduction

“Tobacco is the plant that converts thought into dreams.”

Victor Hugo

WHO defines ‘Adolescents’ as individuals in the 10-19 years age group and ‘Youth’ as the 15-24 year age group. While 'Young People' covers the age range 10-24 years [1]. Today’s children are tomorrow’s citizen, it is necessary for us to prevent adolescents to become prone towards substance abuse. An adolescent is a period when lots of changes take place in body & mind. Adolescents start using harmful and illegal substances at younger age. Drinking, smoking, and drug use by adolescents affect general health, physical growth, emotional development and school performance. Continues use of such substance lead physical & psychological harm, and is difficult to stop [2].
This may lead changes in a teen’s alertness, perceptions, movement, judgment, and attention, making the teen more likely to engage in high-risk behaviors. Alcohol and drug use among adolescents is a leading cause of death and disability from automobile accidents, suicide & violence[1]. Tobacco is a product prepared from the leaves of the tobacco plant by processing them. The plant is part of the genus Nicotiana and of the Solanaceae (nightshade) family. While more than 70 species of tobacco are known, the chief commercial crop is N. tabacum. The more potent variant N. rustica is also is also used around the world. Tobacco contents the alkaloid nicotine, which is a stimulant and harmala alkaloids. Dried tobacco leaves are mainly used for smoking in cigarette, cigars, pipes tobacco and flavor shisha tobacco. They can also be consumed as snuff, chewing tobacco, dipping tobacco and snus [4].

GATS 2 Global Adult Tobacco Survey FACT SHEET (INDIA) 2016-17 reported that 19.0% of men, 2.0% of women and 10.7% (99.5 million) of all adults currently smoke tobacco whereas 29.6% of men, 12.8% of women and 21.4% (199.4 million) of all adults currently use smokeless tobacco. 42.4% of men, 14.2% of women and 28.6% (266.8 million) of all adults currently use tobacco (smoked and/or smokeless tobacco). 38.7% of adults were exposed to second hand smoke at home. 30.2% of adults who work indoors are exposed to second-hand smoke at their workplace. 7.4% of adults were exposed to second hand smoke at restaurants [5].

Currently, India is the second largest producer of tobacco in the world with the highest consumption levels being made by the least educated and poorest. Contrasting the various methods of tobacco consumption across the various states of India, smokers with college-level education tend to consume more cigarettes, which are relatively expensive, while smokers with low levels of education consume larger numbers of the inexpensive beedis.

Use of tobacco is 2nd major cause of death in the world. The use of tobacco will be responsible for 10 million deaths per year by 2020-2030, mainly in China and India. India rank 4th in total tobacco consumption in the world. The prevention of tobacco use in young Indians appears as the single greatest opportunity for preventing non-communicable disease [6].

AIM

To assess the knowledge and attitude regarding tobacco consumption among adolescents in selected schools of Guwahati, Assam.

Method and Materials

A descriptive study was done among adolescents in selected schools of Guwahati, Assam. By using consecutive, non-probability sampling technique, total of 304 adolescent’s samples studying from class 10, 11 and 12 both male and female were taken during the study period. Those students who will not be available during data collection period were excluded in this study.

The study was started after getting the ethical approval from the Institution and formal permission from the Inspector of Schools Pan Bazar Kamrup Metro District Circle Guwahati, Assam. The investigator selects the convenient school for the study. After the selection of school, the investigator approaches the Principal where explanation of aims, objectives, information booklet and steps of procedure of the study was done. Informed consent was obtained from the parents of the students. To collect data, Socio demographic Proforma, structured knowledge questionnaire and five point Likert scale has been prepared by the investigator which consist of 13 item in Demographic Proforma, 24 structured questionnaires and 16 attitude item. The scoring for structured questionnaire was one mark for each correct answer and zero (0) for wrong answer where maximum score was 24. Scoring for attitude was such that, negative items were obtained by reversing the scores of the positive items ie 1=5, 2=4, 3=3, 4=2, 5=1. The highest score of the attitude tool is 80 and the lowest is 16(Summing across all the 16 items both positive and negative item). After the analysis of the main study data, information booklet was made according on the weak area of the participants. Therefore Investigator distributed the information booklet to the respective schools where she had conducted her main study.

The reliability was established by using Split half reliability Spearman-Brown prophecy formula. The r value obtained for knowledge and attitude regarding tobacco consumption was 0.93 and 0.75 respectively which indicated that the tool was reliable and adequate. The collected date was analyzed by using SPSS (Statistical Package for Social Sciences) version 20. Demographic proforma to be described by frequency and percentage distribution. Mean, Median, Standard deviation, Standard error were used to find out the knowledge and attitude among adolescents. Chi-square were used to find out the association between levels of knowledge with selected demographic variables and level of attitude with selected demographic variables among adolescents. Karl Pearson’s Correlation coefficient was used to find out the correlation between knowledge and attitude regarding tobacco consumption among adolescents in selected schools of Guwahati, Assam.

Results

The study was conducted on 304 adolescents in selected schools of Guwahati, Assam. Among the study participant majority of participant were from the age group 14-15year (54.60%). It was found that majority of the participant were male (54.90%). Majority of the participant were from Hindu religion (83.90%).78.8% participant was from nuclear family. Maximum of participant were from urban area (88.8%). It was found that majority (45.3%) of participant father’s educational status were graduate and above. Majority (30.2%) of participant mother’s educational status were graduate and above. It was found that majority (35.5%) of father’s occupation of participant were Government service and majority (78.3%) of the mother of the participant were house wife. Majority (28.3%) of participant fall under the family whose monthly income is between 10,001-20,000. It was found that 66.1% family members of participant do not take any tobacco product in their family where as 33.9% family member of subject take any form of tobacco. It was found that majority of the item consumed were Sikhar (7.9%) followed by Rajni Gandha (6.6%). Maximum source of information was mass media (61.8%).

The result of present study revealed that majority of the adolescent had moderate knowledge regarding tobacco consumption i.e. 77.3% as shown in Table: 1 and majority have unfavorable attitude regarding tobacco consumption ie 53.6% as shown in Table: 2. The present study revealed that there is a significant association between knowledge and
demographic variables (Age in years, types of family, Father’s educational status, Monthly Income and Source of information) among adolescents in selected schools of Guwahati, Assam as P value is < 0.05. Whereas there is no significant association between attitude and selected demographic variables.

### Table 1: Frequency and Percentage Distribution of Participant by Knowledge score range, N=304

<table>
<thead>
<tr>
<th>Knowledge score</th>
<th>Score range</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Total score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>&lt;13</td>
<td>33</td>
<td>10.9%</td>
<td>24</td>
</tr>
<tr>
<td>Moderate</td>
<td>13-18</td>
<td>235</td>
<td>77.3%</td>
<td></td>
</tr>
<tr>
<td>Adequate</td>
<td>&gt;18</td>
<td>36</td>
<td>11.8%</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2: Frequency and Percentage Distribution of participant by Attitude score, N=304

<table>
<thead>
<tr>
<th>Attitude score</th>
<th>Score range</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Total score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable attitude</td>
<td>&lt;70</td>
<td>141</td>
<td>46.4%</td>
<td></td>
</tr>
<tr>
<td>Unfavorable attitude</td>
<td>70 and above</td>
<td>163</td>
<td>53.6%</td>
<td></td>
</tr>
</tbody>
</table>

The present study show that, there is correlation between knowledge and attitude regarding tobacco consumption among adolescent in selected schools of Guwahati, Assam (r-value= 0.259, p-value=0.000) at 0.05 level of significant as shown in Table: 3. The study result shows that, with increase in knowledge favorable attitude towards tobacco will be decrease or higher the knowledge level higher the unfavorable attitude regarding tobacco consumption.

### Table 3: Correlation between Knowledge and Attitude Regarding Tobacco Consumption, N=304

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>r-value</th>
<th>p-value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>15.63</td>
<td>0.259</td>
<td>0.000</td>
<td>S**</td>
</tr>
<tr>
<td>Attitude</td>
<td>68.83</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

S**=Highly Significant at 0.05 level of significance, NS=Not significant

### Discussion

The present study finding reveal that majority of the adolescent has moderate knowledge regarding tobacco consumption i.e. 77.3%. These finding are supported by similar study which is done by Ballal K, Kulkarni M, Agrawal A, Kamath A, Kumar M (2016) on knowledge and attitude regarding tobacco and its use among adolescent students in urban schools, located in South-west Karnataka revealed that approximately 36% of the students had poor knowledge and was significantly less in females compared to males [7].

The present finding revealed that, majority have unfavorable attitude regarding tobacco consumption i.e 53.6%. These finding are supported by similar study which was done by Hirani DR, Balaramanamma DV (2015) on prevalence of tobacco consumption among school students studying from fifth to eighth standards and assessment of their risk behavior by studying their knowledge, attitude, and practices regarding tobacco consumption in Ahmedabad city, Gujarat, India. Study revealed that Regarding attitude, more than one-third of the students believed that tobacco consumption makes one smart and helps in making a number of friends, the majority (94.5%) of the students believed that tobacco consumption is forbidden in a public place. One thousand (35.2%) students believed that tobacco consumption led to an increased number of friends [8].

There is a significant association between knowledge and selected demographic variables (Age, Types of family, Father’s educational status, Monthly Income and Source of information) at 0.05 level of significant. The present study finding can be supported by similar study done by Sakori DN, Parande MA, Tapare VS, Bhattacharya S (2017) on Knowledge, attitude and practice of tobacco consumption among male college students of a rural area of Pune Maharashtra showed that the Knowledge (p=0.034) and attitude (p=0.007) were significantly associated with education of students. The gap between knowledge and practice was also significant (p=0.01) [9].

There is no significant association between attitude and selected demographic variables. Present study finding also support the study conducted by Fernandes S, Suchithra BS. (2012) on study to assess the prevalence and attitude of use of tobacco products among adolescent boys (Mangalore) depict that Attitude of adolescent boys towards tobacco consumption is negative (32%). There was no association between attitude and demographic variable like age, education and economic status etc. (p<0.05) [10].

There is correlation between knowledge and attitude regarding tobacco consumption among adolescent in selected schools of Guwahati, Assam. Present study support The study of Ballal K, Kulkarni M, Agrawal A, Kamath A, Kumar M (2016) on knowledge and attitude regarding tobacco and its use among adolescent students in urban schools, located in South-west Karnataka. It interpret that The knowledge of the students is relatively inadequate which can lead to unfavorable attitudes towards 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 [7].

### Recommendations

- The similar study can be replicated with larger sample with different demographic characteristics.
- The similar study can be done in different settings.
- The comparative study can be conducted to determine the knowledge of different age groups on tobacco.
- The comparative study can be conducted to assess the knowledge of urban and rural adolescents regarding tobacco consumption.
- The similar study can be conducted by using experimental group and control group.
- The similar study can be conducted by using different modalities.

### Conclusion

The study result shows that, with increase in knowledge favorable attitude towards tobacco will be decrease.
Adolescent are pillar of the future generation hence their health is matter of concern. With the developing world, adolescent intake of tobacco had been increasing day by day. Therefore immediate action to reduce adolescent exposing to tobacco is necessary. Education regarding tobacco consumption should start early age of life. Warnings and harm regarding tobacco use should reach everyone.

Researcher on adolescent knowledge, practice and awareness regarding tobacco consumption should be carried out continuously to assess their knowledge, practice and upgrade their knowledge and health awareness. Planned teaching program or structure teaching program can be implemented which will broaden the knowledge for adolescent. There is need of conducting such program and research frequently.

References
8. Hirani DR, Balaramanamma DV. Prevalence of tobacco consumption among school students studying from fifth to eighth standards and assessment of their risk behavior by studying their knowledge, attitude, and practices regarding tobacco consumption in Ahmedabad city, Gujarat, India. International Journal.