Knowledge and attitude towards the health effects of tobacco and measures of tobacco control

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Abstract:

**Background:** Tobacco is a major public health threat the world has ever faced. It is a risk factor for six of the eight leading causes of death in the world. Without the effective implementation of tobacco regulation policy, the risk itself cannot be minimized. The aim of this study is to provide the adolescents knowledge of the health effects of active and passive smoking, and knowledge and attitudes towards tobacco control measures.

**Materials and Methods:** A descriptive type of study was conducted in December 2013 in one of the government school of Palpa district, one of the rural areas of the Western region. Data entry and analysis was done using SPSS 17 version. Microsoft Excel 2007 is also used for the data processing.

**Results:** There is substantial support for the government taking measure towards tobacco control (96%). Furthermore, strong supports are there regarding ban of smoking in public places and public transport (95%) followed by increasing price of tobacco products (87%), banning sales of tobacco to and by minors (82%) and ban of tobacco advertising, promotion and sponsorship (73%).

**Conclusion:** The study focuses the effective implementation of the Tobacco Control and Regulation Act 2011, Nepal and health education should be provided to the adolescents with the facts and skills that will enable them to protect themselves from the harmful effects of tobacco related exposure.

**Key Words:** Tobacco, Tobacco Control, Nepal

**Introduction:**

Tobacco use is highly prevalent throughout the world both in male and female and is a major public health threat the world has ever faced. Tobacco killed 100 million people worldwide in the 20th century. Globally there are approximately one billion smokers and currently it is responsible for the global mortality of 5.4 million annually, an average of one person every six seconds [3]. To control the increasing tobacco use, in May 1999, the governing body of the WHO adopted by consensus a resolution that paved the way for starting multilateral negotiations on the WHO Framework Convention on Tobacco Control (FCTC). Government of Nepal signed FCTC in 3 Dec. 2003 and has ratified FCTC in 7 Nov. 2006. Furthermore, Government of Nepal enforced the Tobacco products (Control and Regulation) Act, 2011 [5].

**Materials and Methods:**

A descriptive type of study was conducted in December 2013 in one of the government school of Palpa district, one of the rural areas of the Western region. The study was conducted by taking the permission of the school administration. The study was designed to find out the knowledge and attitude regarding the tobacco use and the tobacco control measures among the adolescents. So, students from class 9 and 10 were only included in the study. The standard questionnaire was used which was prepared by Ministry of Health and Population, Nepal for the survey of tobacco use. The questionnaire was distributed in the class to be filled by the student themselves to know their knowledge regarding the tobacco use. Data entry and analysis was done using SPSS 17 version. Microsoft Excel 2007 is also used for the data processing.

**Results:**

The total number of students participated counted to be 149. Among the total students, 70 (47%) of them are male and 79 (53%) are female. The mean age of the students found to be 14.7 years (S.D. ±1.13) and the median age was 14 years. The minimum age of the student was 13 years and the maximum was 18 years.
Knowledge about the effects of tobacco use

99% of the participants responded that the tobacco use is harmful. Maximum (74.5%) of the students responded the health effects of tobacco to be Heart disease, Respiratory disease, Cancer and Problems with teeth/gums. However, 12.1% responded to be only cancer followed by 7.4% with Heart disease, Respiratory disease and Cancer. [Table 1]

<table>
<thead>
<tr>
<th>Disease pattern</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory disease (RD)</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Problems with teeth/gums</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Heart disease (HD)</td>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>Cancers</td>
<td>18</td>
<td>12.1</td>
</tr>
<tr>
<td>All</td>
<td>111</td>
<td>74.5</td>
</tr>
<tr>
<td>RD, problems with teeth/gums and Cancers</td>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>RD, HD and Cancers</td>
<td>11</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Regarding the passive smoking, 97% of the student knows that the passive smoking is harmful for the health.

Support to measures for tobacco control

Maximum of the adolescent supported all the steps that the government took measures for tobacco control. [Table 2]

<table>
<thead>
<tr>
<th>Support (%)</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Measures to reduce tobacco use</td>
</tr>
<tr>
<td>Banning advertising, promotion and sponsorship of tobacco products</td>
</tr>
<tr>
<td>Increasing price of tobacco products</td>
</tr>
<tr>
<td>Banning smoking in public places and public transport</td>
</tr>
<tr>
<td>Banning sale of tobacco to and by minors</td>
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</tbody>
</table>

Perception towards tobacco use and tobacco industry

48% responded that the people use tobacco for relaxation followed by 21% for fun, 14% due to foolishness and 11% to show manly behavior. [Fig. 1]
79% revealed that the tobacco industry causes harm to the economy of families and country and environment. [Fig. 2]

Fig. 3 reveals the participants' family members or friend's involvement pattern in the use of tobacco related products. 

Fig 2. Perception towards the tobacco industry

Fig 3. Use of tobacco by family and friends
Discussion:

This study was conducted to find out the knowledge about the tobacco, its health effects and the tobacco related regulations among the adolescents studying in one of the school of village area. As studies show that the youths are the major target of tobacco industry and are more vulnerable to start the smoking habit. A study in Nepal revealed that 33% started smoking as the symbol of adulthood [4]. To control the increasing tobacco consumption, the Tobacco Control and Regulation Act (2011) have been enforced since 7 August 2011 in Nepal [5]. According to the Act, use of any tobacco products are prohibited in all public places such as offices, educational institution, public vehicles, child care homes, cinemas, pool sides, shopping arcades, etc. The Act prohibits any kind of promotion, advertisement and sponsorship to promote both smokeless and smoking forms of tobacco. The regulation also mandates the use of pectoral graphics and textual warning covering 75% of the total area of tobacco products. The sale of any form of tobacco to children under 18 years and pregnant women is prohibited [5]. The regulation needs the effective implementation so the study tries to highlight how the adolescent respond to the regulation.

The mean age of the students in our study was 14.7 years (S.D. ±1.13). A study revealed that the mean age of starting tobacco among current users is 18.1 years (S.D. ±2.99) in Nepal [4]. The selected age group is not adult and almost all of the participants responded that they do not consume tobacco related products. Studies revealed that the factor like smoking habits among family and friends attribute to tobacco use [4]. Fig. 3 shows the use of tobacco by family, siblings and friends among whom 25.5% responded that their father use some type of tobacco products. Whereas only 6% responded that their mother use some form of tobacco products and 31.5% of the participants have their tobacco consumer siblings/friends. According to WHO, over 40% of the children have at least one smoking parent. In a study, 18.8% of the participants responded that they start smoking followed by their parents and siblings. And, 52.5% of them responded due to their friends [10]. Also, a study revealed that 79.1% use tobacco in public places and 55.2% of the people smoke in front of children [4] which can precipitate the will of children towards smoking. The present study supports the banning of smoking in public places and public transport by 94.6%.

Ban on advertising, promotion and sponsorship are one of the most effective ways to reduce tobacco consumption, with countries that have already introduced bans showing an average of 7% reduction in tobacco consumption, with some countries experiencing a decline in consumption of up to 16% [3]. In another study, 33% of the respondents said that increasing the knowledge about the tobacco related legislation among people will decrease tobacco use while 28.6% thought banning tobacco based advertisement and sponsorship as well as community based preventive program will be an effective method [4]. The Act was enforced and it’s time to summarize how the Act affects in the society. So, this study starts with the view of finding the knowledge regarding the youths towards the tobacco control and its regulations as youth are the focused group to pave the path to the success.

Research shows about one third of youth experimentation with tobacco occurs as a result of exposure to tobacco advertising, promotion and sponsorship [7]. Worldwide, 78% of young people aged 13-15 years report regular exposure to some form of tobacco advertising, promotion and sponsorship [3]. WHO report shows that, in 2007, a mere 2.4% of people worldwide were protected by complete bans on tobacco advertising, promotion and sponsorship [7]. Recent survey on tobacco use in Turkey revealed that the ban on advertising, promotion and sponsorship combined with other tobacco control measures has contributed to cutting tobacco use by more than 13% [1]. 73.2% of the adolescents who participated in the present study responded that they support the strategy of government banning advertisement, promotion and sponsorships on the tobacco products whereas 25.5% oppose the banning strategy which means they need some sort of knowledge based program. Study in Massachusetts adult and youths living in town with strong tobacco regulation depict the towns’ norm to be more antismoking. However, local tobacco regulations may have less influence on the perception of youths than adults [8]. On the other hand, as the tobacco industry catches young people, also highlighted by the WHO World No Tobacco Theme 2008: Tobacco-free youth, knowledge based program for youth is indeed a need. A Meta-analysis of adolescent smoking prevention program revealed that the school-based programs should consider adopting interventions with a social reinforcement, social norms, or developmental orientation [13].

WHO focuses on the policy of raising taxes on tobacco as the theme of the year 2014 [2]. Various studies also revealed that raising taxes on tobacco is the most cost effective measures for reducing tobacco use [3, 6, 12]. WHO report showed that 32 countries have tobacco tax rates greater than 75% of the retail price. 87.2% of the respondents in the present study support the price increasing policy of government. Regarding the tobacco industry, 79.2% reported that it causes harm to the economy of the families, country and the environment. It is well known fact; the tobacco users who die prematurely deprive their families of income, raise the cost of health cost and hinder economic development [3].

The majority of the respondents (99%) acknowledge the harmful effects of the direct smoking. A study in South Africa revealed (87%) of the respondents acknowledge the harmful effects of the direct smoking [11]. On the other hand, second hand smoking causes more than 600,000 premature deaths per year. In adults, second hand
smoke causes serious cardiovascular and respiratory disease, including coronary heart disease and lung cancer while in infants it causes sudden death. In the present study, majority (49%) highlights the effect to be lung illness. It seems that the majority of the respondents are aware of the serious health effects of active and passive smoking, knowledge about the specific diseases associated with smoking is inadequate and needs to be improved.

**Conclusion:**
This study focuses towards the effective implementation of the Tobacco Control and Regulation Act 2011, Nepal and has provided health authorities with information to support the development of health promotion strategies. It can further be expected that the data will provide some insight into the effectiveness of existing legislation and suggest guidelines for possible future legislation. Majority of the youths are positive towards the banning strategy as the tobacco control measures. Health education should be provided to the youths and adolescents with the facts and skills that will enable them to protect themselves from the harmful effects of both active and passive smoking and the tobacco related products. Concurrently other health promotion activities such as legislation, taxation and control of tobacco promotion should be implemented. A more comprehensive preventive approach is therefore needed.

**References:**
[14] M. Wakefield, F. Chaloupka. Effectiveness of comprehensive tobacco control programmes in reducing teenage smoking in the USA, Tobacco Control, 9: 177-186