CHAPTER – ONE
INTRODUCTION

1.1 Background of the study

Tobacco use is responsible for considerable number of morbidity and mortality in the world. It is one of the most important preventable risk factor of most non-communicable diseases. The tobacco smoke contains more than 4000 substances that are detrimental to health. Among these 4000 substances, at least 43 are carcinogenic. Based on current smoking trends, tobacco will soon become the leading cause of death worldwide, causing more deaths than HIV/AIDS, maternal mortality, automobile accidents, homicide and suicide combined. Tobacco is cultivated in the many regions around the world and can be legally purchased in all countries. The dry leaf of the plant nicotine tabacum is used for smoking, chewing, or snuff. Comparable data on the prevalence on the smoking are not widely available and are often inaccurate especially when age-specific data are required. More importantly, current prevalence of smoking poor proxy for the cumulative hazards of smoking, which depend on several, including the age at which smoking began, duration of smoking number of cigarette per day, degree of inhalation and cigarette characteristics such as tar and nicotine content or the type of filter. Smokers who have taken up the habit in adolescence and continue to smoke regularly have a 50% chance of dying from tobacco-related disease. Half of those persons will die in middle age, thereby losing nearly 22 years of normal life expectancy on 20th century. With prolonged smoking, smokers have a death rate about three times higher than non-smokers at all ages, starting from young adulthood (Retrieved from URL:http://www.searo.who.int.com**)**

The current global trends indicate that the use of tobacco is declining in developed countries as control measures take effect. Thus tobacco companies are stepping up marketing in developing countries. As a result, the use of tobacco is increasing especially among adolescents of developing countries. Ignorance about the negative health effects of tobacco use, big budget allocation for promotional activities by tobacco companies and glamour attached to smoking in the media and in advertisements has further exacerbated the problem. Tobacco is unquestionably the substance responsible for the most persistent and most widespread drug dependence, far ahead of alcohol, marijuana, heroin and cocaine. More alarming is the exponential

rise in tobacco consumption and the corresponding deaths, with age, income and gender being no barrier **(**NCADA, (National council against drug abuse report, 2002**)**

The use of tobacco in any form is a major preventable cause of premature death and disease. Globally, nearly 5 million persons dies every year from tobacco-related illness, with disproportionately higher mortality occurring in developing countries. The global burden of deaths attributable to tobacco use each year is estimated to double from 5 million in 2005 to 10 million in 2020. Tobacco products have no safe level of consumption, and are `the only legal consumer products that kill when used exactly as the manufacturer intends. Researchers have rated nicotine as even more addictive than heroin, cocaine, marijuana or alcohol. The Tenth Revision of the International Classification of Diseases reserves classification for tobacco dependence syndrome. Yet tobacco products continue to be aggressively marketed by tobacco companies. The result is that global tobacco consumption has doubled since medical science conclusively proved, 30 years ago, that these products were unrivalled killers and consumption is still increasing in many areas of the world (CWIN, tobacco use among street children in Nepal, 2009)

Tobacco is usually smoked. Sometimes tobacco leaves are ‘dipped’ or ‘chewed’ so the nicotine is absorbed via the gums. When a person smokes a cigarette, the body responds immediately to the chemical nicotine in the smoke. Nicotine causes a short-term increase in blood pressure, heart rate, and the flow of blood from the heart. It also causes the arteries to narrow. Carbon monoxide reduces the amount of oxygen the blood can carry. This, combined with the effects produced by nicotine, creates an imbalance in the demand for oxygen by the cells and the amount of oxygen the blood is able to supply. It is now well documented that smoking can cause chronic lung disease, coronary heart disease, and stroke, as well as cancer of the lungs, larynx, esophagus, mouth, and bladder. In addition, smoking is known to contribute to cancer of the cervix, pancreas, and kidneys. Researchers have identified more than 40 chemicals in tobacco smoke that cause cancer in humans and animals (Retrieved from URL:http://www. drugfree.org.com)

Chewing tobacco is a smokeless tobacco product. Chewing is one of the oldest ways of consuming tobacco leaves. Smokeless tobacco contains 28 cancer-causing agents (carcinogens). It is a known cause of human cancer, as it increases the risk of

developing cancer of the oral cavity. Oral health problems strongly associated with smokeless tobacco use are leukoplakia (a lesion of the soft tissue that consists of a white patch or plaque that cannot be scraped off) and recession of the gums (Retrieved from URL:http://www.wikipedia.com)

Smokeless tobacco and cigars also have deadly consequences, including lung, larynx, esophageal, and oral cancer. The harmful effects of smoking do not end with the smoker. Women who use tobacco during pregnancy are more likely to have adverse birth outcomes, including babies with low birth weight, which is linked with an increased risk of infant death and with a variety of infant health disorders. The health of nonsmokers is adversely affected by environmental tobacco smoke (ETS). Each year, exposure to ETS causes an estimated 3,000 non-smoking Americans to die of lung cancer and causes up to 300,000 children to suffer from lower respiratory-tract infections. Evidence also indicates that exposure to ETS increases the risk of coronary heart disease (Retrieved from URL:http://www.drugfree.org.com).

Undoubtedly, the most significant persuading factor in the increasing number of young tobacco users worldwide is tobacco advertising. It effectively influences teenagers to start using tobacco, and it encourages them to continue. Tobacco advertising often feeds on the fact that many teens look up to actors, musicians and/or athletes. Smoking is perceived as an adult behavior by young people, and teenagers often start smoking in order to appear more mature. A sense of social acceptability and belonging typically is a priority for young people. Peer pressure may drive a young person from experimentation with tobacco to addiction (Retrieved from URL:http://www.manbir-online.com).

The term adolescence is defined by the World Health Organization (WHO) as the age group 10–19 years. The meaning of adolescence as a cultural construct is understood in different ways in different societies. In general, it is considered a time of transition from childhood to adulthood during which there are physical changes associated with puberty. The study is conducted in different topic such as drugs abuse, Alcolol chewing tobacoo and misuse of drugs in different ethice group such as Kami, damai rai , Gurung, e.t.c. But very few study is founded in adolesecents. Therefore, problem is stated as “Current Status of Tobacco Consumption and its Socio-economic Impact among the Adolescent Students of Damak Nagarpalika”.

1.2 Statement of the Problem:

Tobacco is the second major cause of death in the world. It is currently responsible for the death of one in ten adults' worldwide (about 5 million deaths each year). If current smoking patterns continue, it will cause some 10 million deaths each year by 2020. Half the person that smoke today that is about 650 million people will eventually is killed by tobacco10. Most people begin using tobacco before the age of 18. Recent trends indicate that the smoking prevalence rate among adolescents is rising and age of initiation is becoming younger**.**

Every year about 16,000 people in Nepal die due to smoking and consumption of tobacco. Fifty-five percent Nepalese use tobacco related things, among them 48 percent are over 15 years. Nepal is the top list of tobacco consuming countries in the world .Prevalence of tobacco use in adults was 68.4% in rural Nepal, 37.0% in urban Nepal 54.7% in Terai region and 77.7% in mountain region. Adolescence is characterized by a feeling of invincibility and a sense of curiosity. Young people experiment with different behaviors without giving thought to the long-term consequences of their actions. Many adolescents underestimate the addictiveness of nicotine and its serious health risks. 25% of high school males use smokeless tobacco.36% of high school students' smoke. Every day 6,000+ kids have their first cigarettes; 3,000 of them will become regular smoker. Students are more likely to be influenced by tobacco advertising by peer pressure.

In Nepal, smoking the burning prevail be termed as one of the burning prevailing problems relating to health. However, history reveals its practice from the ancient time the Hinduism was originated. A holy book of Hindu depicts lord shiva as a great hashism smoker who sleeps for many days under its influence.

In Nepal, the study and researches are rarely conducted which address about the health of people and the problem generated due to tobacco consumption. Consequently, Nepalese still remain ignorant about the harmful aspects of tocacco consumption. This has for worst pushed more people to embrace the habit. The adolescents are more prone group to pick up this addiction many youth are loosing their lives due to this sole causes.

Today, the campaigns against tobacco is increasingly happening in the world. An institution namely 'Framework convention on tobacco control' (FCTC) has been established in an international level. In addition, WHO has brought forth numerous programs in its bit to established proposed 'smoke free world'. Many countries have set up various legislations to control this ill-practice, yet the reduction in practice is not to be seen. Different reports exhibited about the practice of consuming the same cigarette for at least 2 to 3 times after putting it on and off. The reports also described that the children of 10 – 12 years imitate the habit from their own parents. The statistics assembled by WHO in B.S 2059 uncovered that 12 percent people started the practice of taking tobacco from the age while they were under 10.

The present research study will help to know their knowledge and attitude regarding tobacco consumption. According to the situation of tobacco consumption, it is important to take a strong action for future prevention strategies and campaigns. It has been a subject of serious concern to all responsible and intellectual people to give thought 'Why the children and adolescence, the future foundation of nation are drifting towards ruins? Numbers of questions stand all. Nation cannot achieve development until the health conditions of adolescence are intact. The remedial measures have to be explored and prevent the youth to develop the country. Concern authority should take the concrete step to prevent the future morbidity and mortality related to tobacco consumption.

1.3 Research question:

1. What are the socio demographic and cultural characteristics of adolescent students of Damak Nagarpalika ?
2. What is the current status of tobacco consumption among the adolescent students of Damak Nagarpalika?
3. What are the factors related to tobacco consumption among the adolescent students of Damak Nagarpalika?
4. What are the socio economic impacts among the adolescent students of Damak Nagarpalika?

1.4 Objectives of the study :

1. To identify the factors related to tobacco consumption among the adolescent students of Damak Nagarpalika
2. To determine the type of tobacco use among the adolescent students of Damak Nagarpalika
3. To assess the socio demographic and cultural characteristics of adolescent students of Damak Nagarpalika
4. To assess the knowledge and attitude with tobacco consumption among the adolescent students of Damak Nagarpalika

1.5 Significance of the study

In the past, there was no such type of study carried out among school students in this Nagarpalika to find out the pattern of tobacco consumption and other related factors. Therefore,this study was conducted to provides the baseline data to support anti-tobacco intervention program. The research report also will submitted to district level line agencies like District Education Office (DEO), Jhapa and District Public Health Office (DPHO), Jhapa to address the adolescent health issues by incorporating in their action plan. That may helps to improve the health of all adolescent student of Jhapa district. And it also helps to reduce the socio economic burden by discouraging the use of tobacco consumption.

The significance can be pointed out as follows:

1. The research finds out the impact of tobacco consumption among the adolescents students of Damak Nagarpalika.
2. It will be useful for the other researchers and learners as reference.
3. It will be helpful for planning, policy making and program implementation for the government, VDC, NGOs & INGOs, CBOs and other sectors.
4. It will be supporting for community development in concern population and study areas.
5. It will solve the problems of related issues.

1.6 Delimitation of the Study

1 Person 10-19 years of age group are taken as respondents in this study.

2 The study could not explore many things, as only limited to the responses of the selected population in Jhapa district.

3 The study was limited to the respondents of Damak Nagarpalika Ward no. 13.

1.7 Definition of the Terms Used:

Adolescent: In general, terms it is considered a time of transition from childhood to adulthood during which there are physical changes associated with puberty.

Attitude: In this study, attitude denotes Respondent's own opinion on tobacco consumption

Awareness: Awareness is the perceived knowledge and conducive behavior of a person it is clear and certain mental perception, understanding the facts, knowing the facts, familiarity with the information related to the study questions .In this study awareness referred to level of awareness on tobacco.

Culture: It is the system of sharing ideas and feelings that determined people's the way of living. All cultures are learned but not transmitted or inherited from generation to generation.

Habit: Habit is an accustomed way of doing thing or more commonly practiced customs.

Higher education: Level of education that has passed intermediate or high.

IEC materials: The published or handmade materials which provide the information and education regarding the reproductive and sexual health

Illiterate: Those who can neither read or write

Literate: Those who participate in informal education/ simply they can write and read.

Lower Secondary education: Level of education that has been passed 6 to 8 grades.

Primary education: Level of education that has been passed 1 to 5 grades. Secondary education: Level of education that has been passed 8 to 10 grades.

Tobacco: Leaves of the tobacco plant dried and prepared for smoking or ingestion. Tobacco is also chewed, "dipped" (place between the cheek and gum) and consumed as finely powdered snuff tobacco, which is sniffed into the nose.

Tobacco consumption: It denotes that the adolescent student use any form of the tobacco product especially cigarette/Bidi, chewable tobacco like Surti, Parag, Hukka or Chillim.

CHAPTER–TWO
REVIEW OF RELATED LITERATURE

2.1 Review of Related literature

Tobacco is the second major cause of death in the world. It is currently responsible for the death of one in ten adults' worldwide (about 5 million deaths each year). If current smoking patterns continue, it will cause some 10 million deaths each year by 2020. Half the person that smoke today that is about 650 million people- will eventually is killed by tobacco. Tobacco is the fourth most common risk factor for disease worldwide. The economic costs of tobacco use are equally devastating. In addition to the high public health costs of treating tobacco-caused diseases, tobacco kills people at the height of their productivity, depriving families of breadwinners and nations of a healthy workforce. Tobacco users are also less productive while they are alive due to increased sickness (www.warren@cdc.gov/Who report on the global tobacco, epidemic, 1988)

A study done in different ecological regions of Nepal indicated that prevalence of tobacco use in adults was 68.4% in rural Nepal, 37.0% in urban Nepal 54.7% in Terai region and 77.7% in mountain region. It was interesting to note that in the mountain region, the female smoking rate was 71.6%, which is one of the highest reported in the world **(**Pandey MR, Basnet B, Neupane RP, 1988**)**

A national survey on tobacco economics showed that smoking rate increases with age; among the 16-19 years old it was about 30%. It was unveiled that the household share of expenditure on tobacco product is more than 3.5% **(**Global youth Tobacco Survey, fact sheet, Nepal OSH, CDC **)**

Another cross sectional survey of students of grade 4-9 was recently conducted in a private school of Kathmandu. 47% of the students were of the age group 13-15 years. In contrary to the findings from other studies, the prevalence of tobacco use in this particular study was quite high. A regular smoker (smoking at least one cigarette per day) was 7.8%. The percentage of students using tobacco in forms other than smoking was 42.4% (n=924, coverage rate 95%). However, this included the students using these products daily and occasionally as well as only during festivals. A substantial

portion of the occasional smokers (57.2%) expressed their wish to quit smoking **(**Acharya G.P, 2001)

Nepal has very high prevalence rate of chronic obstructive lung disease (COLD) varying from 20-40% in persons above the age of twenty years. This was found to be significantly associated with tobacco smoking. Acute respiratory infection is the second biggest killer of infants and children in Nepal and positive correlation between tobacco smoking by parents and ARI in infants have been shown in a study conducted in Nepal **(**Pandey MR, Sharma PR, Neupane RP, Gautam A, 2005**)**

A cross-sectional survey of a representative sample of 2,340 female participants aged 15 years and above was conducted in Dhahran municipality of Eastern part of Nepal. The finding was that 12.9% were cigarette smokers and 14.1 % were smokeless tobacco users. The smoking habit had a significant relationship with the habit of tobacco chewing. About 50% of the smokers had been continuously smoking for more than 20 years. Smokers aged 50 years and above were more likely to smoke more than 10 Cigarettes per day than those at the reproductive age (15-49 years) **(**Niraula, SJ, 2005**)**

There is evidence that among the patients with myocardial infarction and acute coronary syndrome, more than 80 % were smokers. The female smoking rate is highest in Nepal than any other part of the world accounting for 73 % in the hilly region. Smoking is a leading and one of the most preventable risk factor for coronary heart disease (CHD) and sudden cardiac death. Although the prevalence of tobacco use and the tobacco-dependent population of Nepal have not been studied extensively, a few studies have shown that prevalence of smoking in Nepal among the age group varying from 15 to 30 is more than 70 % **(**Global youth Tobacco Survey, fact sheet, Nepal OSH, CDC **)**

A cross-sectional survey of 1157 young individuals between the ages of eight and 19 years living in a rural community of the hill region of Nepal was carried out with the help of the WHO standardized smoking survey questionnaire for young people. There was a very high response rate (96.1 per cent). The survey was carried out by a health assistant especially trained in smoking survey techniques for young people. Special care was taken in interviewing the younger boys and girls to overcome the problems of concealment of information and inhibition in reporting the smoking habit. The overall prevalence of daily smoking was found to be 12.6 per cent

(17.3 per cent for boys and 6.7 per cent for girls). The prevalence increased with age for both sexes. In addition, there were a large number of weekly and experimental smokers especially in the younger age groups Young persons who are not in school constituted a vulnerable group. Education was found to be beneficial and helped to form a favorable attitude including public action against smoking. A major deterrent factor seemed to be strong peer pressure in school. Attitudes of parents, siblings, and friends were also assessed, and results indicated that peer pressure had more influence against smoking on non-smokers than on smokers **(**Pandey, MR, 2007**)**

At present, World Health Organization (WHO) estimates 1.1 billion smokers in the world today; the number is expected to rise to 1.64 billion by the year 2025. About 4.9 million people die each year from tobacco use. If the current trends continue, this figure will reach more than 10 million by the early 2030s, with over 70 percent of those deaths occurring in developing countries**.** The use of tobacco in any form is a major preventable cause of premature death and disease. Globally, nearly 5 million persons dies every year from tobacco-related illness, with disproportionately higher mortality occurring in developing countries. The global burden of deaths attributable to tobacco use each year is estimated to double from 5 million in 2005 to 10 million in 2020 **(**Shamra G. K., Rupakhetee, K, 2007**)**

WHO estimates that there are about 1100 million regular smokers in the world today. About 300 million (200 million males and 100 million females) are in the developed countries, and nearly three times as many (800 million: 700 million males and 100 million females), in developing countries. In developed countries, 41% of men are regular smokers, as are 21% of women. Half the men living in developing countries are smokers, compared with about 8% of women (Retrieved from URL:http://www.manbir-online.com)

At the beginning of the 21st century, tobacco use among young people is already well established in many parts of the world. Nearly 20% of 13–15 year olds use some type of tobacco product, and among those who smoke cigarettes, nearly 25% smoked their first cigarette before the age of 10 years. The determinants of youth tobacco use are many and varied. Cultural and religious norms, availability of different types of tobacco products, tobacco control strategies, and, perhaps most

importantly, tobacco industry behaviors to promote tobacco use and undercut tobacco control strategies are determining factors. While we do not fully understand all the factors that contribute to the decision to use tobacco, which quickly leads to addiction and eventual adverse health outcomes, we do need to understand better the patterns of use, how the determinants of use interact, and how they differ among countries and cultures. Systematic global surveillance of youth tobacco use is the essential first step in attempting to prevent the projected epidemic of death and disease that smoking will cause in the 21st century. The GYTS was developed to enhance the capacity of countries to design, develop, implement, and evaluate their tobacco prevention and control programs (Retrieved from URL:http://www.who.int.tobacco.com)

The World Health Organization estimates that there are around 1.3 billion smokers in the world, of which almost 1 billion are men. This represents about one third of the global population aged 15 and over and the vast majority of these people, around 84% or 1 billion people live in developing countries. In China alone, there are about 350 million smokers (60% men and 3% women), more than the entire population of the United States of America. If the current smoking patterns in China continue, around 100 million Chinese men now aged 0-29 will die as a result of their tobacco use (Retrieved from URL:http://www.who/searo. com, 2008.)

Tobacco is expected to be the single biggest cause of death worldwide, with an estimated 10 million people world wide dying of tobacco related causes. Around 3 million of these will occur in the developed world and 7 million in developing countries. Since the 1950s, more than 70,000 scientific articles have shown that prolonged smoking causes premature death and disability worldwide. Overall, one in two smokers will die prematurely, with one quarter dying in middle age, losing 20-25 years of life. Smoking alone is estimated to have caused 21% of deaths from cancer worldwide **(**Shamra, G. K, Rupakhetee, K. Report, 2008**)**

A report estimated that the use of tobacco resulted in an annual global net loss of US $ 200 thousand million, a third of this loss being in developing countries. Tobacco and poverty are inextricably linked. Many studies have shown that in the poorest households in some low-income countries as much as 10% of total household expenditure is on tobacco. This means that these families have less money to spend on

basic items such as food, education and health care. In addition to its direct health effects, tobacco leads to malnutrition, increased health care costs and premature death. It also contributes to a higher illiteracy rate, since money that could have been used for education is spent on tobacco instead. Tobacco's role in exacerbating poverty has been largely ignored by researchers in both fields. Experience has shown that there are many cost-effective tobacco control measures that can be used in different settings and that can have a significant impact on tobacco consumption. The most cost-effective strategies are population-wide public policies, like bans on direct and indirect tobacco advertising, tobacco tax and price increases, smoke-free environments in all public and workplaces, and large clear graphic health messages on tobacco packaging. All these measures are discussed on the provisions of the WHO Framework Convention on Tobacco Control (Retrieved from URL:http://www. who.int/tobacco.com)

The health consequences of the smoking epidemic in developed countries have been quantified by WHO, in close collaboration with the Imperial Cancer Research Fund's Cancer Studies Unit at the University Of Oxford, UK. A major report giving detailed estimates of the numbers and rates of smoking-attributed deaths for over 50 countries or groups of countries has been published. Between 1950 and 2000, it is estimated that smoking will have caused about 62 million deaths in the developed countries (12.5 % of all deaths: 20% of male deaths and 4% of female deaths). More than half of these deaths (38 million) will have occurred at ages 35-69 years. Currently, smoking is the cause of more than one in three (36%) male deaths in middle age, and about one in eight (13%) of female deaths. Each smoker who dies in this age group loses, on average, 22 years of life compared with average life expectancy. During the 1990s, the report estimates that almost 2 million people a year will die from smoking in developed countries (1.44 million men and 0.48 million women) (Retrieved from URL:http://www. druglibrary. org.com)

An analysis of trends in cigarette consumption for WHO regions indicates that the two regions with the highest average per capita (adult) consumption in 1990-1992 were Europe (2290 cigarettes per adult per year) and the Western Pacific (2000). The lowest consumption was observed in the African Region (540). For the developed countries as a whole, per capita adult consumption is currently about 2400 cigarettes,

which is still significantly greater than the average consumption in the developing world (1370 cigarettes) (Retrieved from URL:http://www.druglibrary.org.com)

In 1970-1972, consumption per adult in the developed countries was 3.25 times higher than in the developing world. By 1980-1982, this ratio had narrowed to 2.38, and by 1990-1992, to 1.75. During the last decade, per capita consumption has declined by an average of 1.4% per year in developed countries, but has risen by 1.7% annually in developing countries. If these trends were to continue, consumption of cigarettes per adult in the developing world will exceed levels in the developed world some time between the years 2005 and 2010.There have been very noticeable differences in trends among WHO regions. Over the last decade, the fastest decline in per capita consumption occurred in the Americas. This entirely due to declines in consumption in Canada and the United States of America; excluding those two countries, per capita consumption in the Region still declined by an annual average of 1.7%. On the other hand, the increasing consumption in the Western Pacific (2.2%) and South-East Asia (1.8%) is primarily due to the trends in China and India respectively. From 1983, per capita (adult) consumption in China rose by 3.9% per year to reach 1990 cigarettes in 1990-1992. In India, where about 90% of cigarettes are consumed in the form of bidis (traditional hand-rolled cigarettes), adult consumption has risen by about 2% per year over the last decade and now exceeds 1200 cigarettes ((Retrieved from URL:http://www.druglibrary.org.com/,report on the global tobacco epidemic,2009)

The warning on tobacco advertisements was required by the federal government, presumably as a health message to educate the public about the risks associated with tobacco use. Despite its potential public health role, there have been few published studies on the effectiveness of these warnings as a health message. The present study used well-accepted market research methods to examine adolescent viewing of tobacco advertisements. Sixty-one adolescents participated in the study. Eye tracking was used to study how participants viewed five different tobacco advertisements. The average viewing time of the warning amounted to only 8% of the total advertisement viewing time. In 43.6% of cases, the warning was not viewed at all. Following the advertisement viewing, participants were asked to identify the observed warnings within a list that included other simulated warnings. Subjects did

only slightly better than random guessing in this test of recognition. Using market research criteria, the federally mandated warning must be viewed as an ineffective public health message in so far as adolescents are concerned **(**Earl J. Berman, MD; Dean M. Krugman, PhD**)**

As regards cigarettes the health consequences of tobacco use are much more difficult to estimate in developing countries owing to lack of data. Currently, it is estimated that tobacco causes about 1 million deaths a year in developing countries, but there is substantial uncertainty about this figure. If current trends continue, and if the risks of death from tobacco use are similar in developing countries to those that have been observed in the industrialized world, then the annual toll of mortality from tobacco will rise dramatically to around 7 million deaths per year in the 2020s or early 2030s. The chief uncertainty is not whether, but rather when, these deaths will occur if current trends in tobacco use persist (www.druglibrary.org.com)

This cross-sectional analytical study was conducted in Tehran in 2010 and used "Global youth tobacco survey" self administered questionnaire for data collection. The survey revealed that the prevalence of smoking experience, current smoking and current regular smoking among students was 25.5%, 7.4% and 1.9% respectively. The score of knowledge was 5.29±1.29 for all students, 5.34±1.23 for nonsmoker students, and 4.57±1.74 for current smokers. The mean score of attitude towards smoking was 27.29±7.41 for all students, 27.56±7.20 for nonsmokers and 21.10±7.69 for current smokers. In evaluation of the correlation between cigarette smoking and different variables, several factors were found to increase the likelihood of smoking among students including the male gender, older age, low grades, having smoker friends, pockets money more than 300,000 Rials per month, exposure to family members' smoking, lack of parental advice, low score for knowledge, low score for attitude, passive smoking(exposure to secondhand smoke at home or outside), poor perception of anti-smoking messages broadcasting by the media, watching actors smoking in movies, and last but not least viewing smoking advertisements and cigarette commercials. **(**Ali Ramezankhani and Gholam reza heydari, 2010, Shahid Beheshti University MC, Tehran-Iran**)** (Retrieved from URL:http://www.druglibrary.org.com)

The overall median per cent of students who had ever smoked cigarettes, even one or two puffs, was 33.0%. The highest per cent who ever smoked cigarettes was in the Northern Mariana Islands (79.8%), and the lowest in Tamil Nadu, India (3.4%). Over 70% of students reported having ever smoked cigarettes in three of the 75 sites (Santiago, Chile; Kiev, Ukraine; and Northern Mariana Islands) and 50% reported having ever smoked in 18 sites. Only five sites reported ever smoking rates less than 10% (four states in India and Nepal) **(**Shamra G. K, Rupakhetee, K. Report.2006**)**

A Study show that Percent of students who ever smoked cigarettes, who smoked their first cigarette before age 10 years, was 23.9% Manipur, India (87.8%) had the highest rate of smoking initiation before age 10, and the lowest was Buenos Aires, Argentina (6.1%). A total of eight sites, all in India, reported that of the students who smoked, more than half smoked their first cigarette before the age of 10 years. Only five sites reported a prevalence of fewer than 10% for students smoking their first cigarette before the age of 10 years. The overall median percent of current use of any tobacco product (smoked cigarettes or used other tobacco products on one or more days in the 30 days preceding the survey) was 18.7%.The highest per cent currently using any tobacco product was in the Nagaland, India (62.8%), and the lowest in Goa, India (3.3%). Over 50% of the students reported current use of any tobacco product in six states in India; Northern Mariana Islands; and Palau. Less than 10% of the students currently used any tobacco product in nine of the 75 sites (Virgin Islands (Am.); three states in India; Nepal; Sri Lanka; Shandong and Tianjin, China; and Singapore) **(**Paudel D, 2009**)**

The study was conducted among the students of age between 13-15 years and sample was taken from 75 sites in 43 countries and the Gaza Strip/West Bank region. Current use of any tobacco product ranges from 62.8% to 3.3%, with high rates of oral tobacco use in certain regions. Current cigarette smoking ranges from 39.6% to less than 1%, with nearly 25% of students who smoke, having smoked their first cigarette before the age of 10 years. The majority of current smokers want to stop smoking and have already tried to quit, although very few students who currently smoke have ever attended a cessation programme. Exposure to advertising is high (75% of students had seen pro-tobacco ads), and exposure to environmental tobacco smoke (ETS) is very high in all countries. Only about half of the students reported

that they had been taught in school about the dangers of smoking during the year preceding the survey (Retrieved from URL:http://www.warren@cdc.gov**)**

The forces of globalization have led the tobacco industry to expand ever further in search of new markets in developing countries. In response to the globalization of the tobacco epidemic, WHO's Member States unanimously adopted WHO's first global treaty, the WHO Framework Convention on Tobacco Control (WHO FCTC), in May 2003. The treaty has entered into force on 27 February 2005. On 29 June 2004 the WHO FCTC was closed for signatures. As on 2nd April 2007, 168 countries signed and 146 countries ratified the WHO FCTC. Out of 11 SEAR countries, 10 have signed and ratified the WHO. FCTC Meanwhile, a vicious link has been established between tobacco and poverty. Tobacco contributes to the continuing poverty of low-income households and countries because money is spent on tobacco instead of food, education, and healthcare (Retrievedfrom URL:http://www.warren @cdc.gov/Tobaccouse,exposure to second hand smoke and cessation)

The survey carried out by Global Health Professional survey (GHPS) in Nepal found more than 1 in 10 (17.4 %) dental students and about 2 in 10 (23.6%) medical students reported that they were current cigarette smokers. Male medical and dental students were significantly more likely than their female peers to be current smokers (41.3 % versus 7.7 % in dentistry and 34.1 % versus 5.4 % in medical). As far as nicotine dependency among medical and dental students is concerned, around 6 in 10 dental students and more than 4 in 10 (43.5 %) medical students showed a desire to smoke within 30 minutes of awaking in the morning. Around 2 in 10 (19.1 %) dental students and more than 1 in 10 (15.0%) medical students reported that they currently used chewing tobacco products like Khaini, Gutka, Pan-masala with Zarda or Pan with Zarda. A higher proportion n of male dental students (44.4 %) used chewing tobacco products than their female peers (6.4 %) showing statistically significant difference. Among medical students, male were more likely to use chewing tobacco products than female students (Global youth Tobacco Survey, Nepal OSH, CDC 2000**)**

A cross-sectional survey of students in grade 8-10, conducted in 49 secondary schools of Central Development Region (CDR) of Nepal in 2001. A two-stage cluster sample design was used to produce representative data for the region. Overall 16.3%

of the students ever used tobacco product in any form. Percentage of current users of any form of tobacco product was 11.6% and the rate among boys was significantly higher (15.3%) than among girls (6.4%). The overall percentage of cigarette smoking was 4.1%. Majority, (77.7%) of the students were taught about the dangers of smoking, its effect as a part of lesion in the class. Perhaps, as a consequence, a vast majority (76.8%) of the current smokers expressed their desire and also made an attempt (77.7%) to stop tobacco use **(**Pandey, MR and Pathak, RP 2000**)**

The study was carried out in Dhangadhi and Mahendranagar of Kailali and Kanchanpur district of the Far Western Development region of Nepal. The study was a cross-sectional survey of school personnel belonging to randomly selected 25 schools. The study revealed that more than two fifth (41.2%) school personal have ever smoked tobacco in any forms. Similarly, more than two fifth school personnel have ever used smokeless tobacco and about one third (32.2%) are using it currently. Nearly one tenth (8.9%) were daily smokers and about one sixth (17.6%) were occasional smokers. More than half (52.2%) school personnel were smoking cigarettes followed by bidi and hand rolled tobacco leaves. Nearly one third (30.7%) school personnel use gutkha or panmasala and 27.6% use betel quid **(**Pandey, M.R. Shrestha, S. GYTS and GSPS-2000**)**

The GYTS and GSPS data indicates that there is still high prevalence of tobacco use among students and school personnel in Nepal. Overall 7.9% of the students ever smoked cigarettes, even one or two puffs. The overall percentage of current cigarettes smoking was 3.9%. Percentage of current other tobacco product use was 8% and the rate among boys was significantly higher than among girls. 35.3% were exposed to smoke from others at home and 47.3% were exposed to smoke from others public places. Boys were significantly highly exposed to secondhand smoke than girls. 55.7% thought that the smoking should be banned from public places. Nearly 1 in 10 (7.9%) students were offered free cigarette by tobacco company representative and 4 in 10 (38.1%) of the current tobacco users purchased tobacco products in a store. More than two third (69.5%) of them were not refused because of their age. The finding showed that more than one-third (37.7%) school personnel in Nepal had ever smoked cigarettes and about 1 in 10 are currently smoking cigarettes **(**Pathak, R.P, Pandey, M.R. 2000**)**

The recently published Global Youth Tobacco Survey (GYTS) report on Tobacco Use among Youth: A Cross Country Comparison revealed that 186 million populations were estimated to be in the age group 13-15 out of the world population of 6.2 billion. The GYTS studies covers 140 countries around the world, including Nepal. Out of the 186 million, 34.8 million were estimated to be currently using some form of tobacco and 25.8 million were currently smoking cigarettes. The use of any form of tobacco by 13-15 year old students was found to be more than 10% Current smokers in this age group was less than 10% around the world (Retrieved from URL:http://www.warren@cdc.gov, 2011**)**

The study was a cross-sectional descriptive survey among school adolescents of grades 8, 9 and 10 of Pokhara sub metropolitan city. The report reveals that nearly half (47.1%) of the adolescent students ever used tobacco products. One in seven (13.2%) were current users, one in four (22.7%) were experimental users and one in ten (10.6%) were past users of any tobacco product. Use of pan masala, gutkha was more common (41.2%) followed by cigarette (14.7%) and surti (3%). The mean age of initiating tobacco was about 13 years and nearly one fifth (18.9%) initiated before 10 years of age. Boys were 3.15 times as likely to use tobacco as compared to girls. Similarly, adolescent students of non-government schools were 2.58 times as likely to use tobacco as compared to government schools students. Adolescent students from Gurung/Magar family were more likely to use tobacco as compared to those from Brahmin/Chhetri family. About seven in ten adolescent students were living in the family where at least one member uses tobacco. A substantial proportion (43.9%) of adolescent students reported that at least one of their four best friends use tobacco. Nearly one-third (31.0%) of the adolescent students were having good knowledge and less than half (42.7%) were having some knowledge about the hazards of tobacco use. The forty seven percent respondents thought that tobacco users have more friends. About one third (33.2%) of adolescent students were exposed to pro-tobacco advertisements. Adolescent students exposed to pro-tobacco advertisements were 1.32 times as likely to use tobacco as compared to those who were not exposed**. (**Paudel, Deepak, 2011)

Today, the campaigns against tobacco is increasingly happening in the world. An institution namely ‘Framework convention on tobacco control’ (FCTC) has been

established in an international level. In addition, WHO has brought forth numerous programs in its bit to established proposed ‘smoke free world’. Many countries have set up various legislations to control this ill-practice, yet the reduction in practice is not to be seen. Different reports exhibited about the practice of consuming the same cigarette for at least 2 to 3 times after putting it on and off. The reports also described that the children of 10 – 12 years imitate the habit from their own parents. The statistics assembled by WHO in B.S 2059 uncovered that 12 percent people started the practice of taking tobacco from the age while they were under 10.

In Nepal, the major current public health problems are malnutrition and infectious disease. However if the smoking epidemic allowed to spread unchecked out country will shortly find that the cost of treating the health problem with disease caused by the smoking. The perpetual shortage of resource available for health care the additional burden of treating smoking related disease could have dire consequences.

In Nepal, the study and researches are rarely conducted which address about the health of people and the problem generated due to tobacco consumption. Consequently, Nepalese still remain ignorant about the harmful aspects of tobacco consumption. This has for worst pushed more people to embrace the habit. The adolescents are more prone group to pick up this addiction many youth are losing their lives due to this sole causes.

CHAPTER – THREE

RESEARCH METHODOLOGY

3 Research Methodology

The following methodological procedure was adopted to carry out this research work.

3.1. Research Design

The study design of this research was was qualitative and quantitative as well as descriptive and analytical. It was conducted to assess the current status of tobacco consumption and its socio economic impact among the Asolescent students of selected schools within Damak Nagarpalika of Jhapa District.

3.2 Population of the Study

The study population was the adolescent students of class ,8,9, and 10 from secondary schools within Damak Nagarpalika, Jhapa District of Nepal.The number of total population was 200 students and main study sample was based on rural community people having mixed economic status.

3.3 Source of Data

Data was based on both primary and secondary sources. The primary data was collected through interviewing with the help of questionnaires of related topic from the respondents. whereas secondary data was collected through District Development Committee Office Profile, data from Damak Nagarpalika , District Public Health Office annual report, Web site, already done thesis and many other publication regarding tobacco comsumtion.

3.4 Sample size and sampling procedures:

The study was carried out among school students of Damak Nagarpalika ward No-13 of Jhapa District and geographically it lies in Terai region. This is situated in the eastern development region. There were more than 50 secondary and higher secondary schools in Damak Nagarpalika. Among them, eight schools were taken as study areas within Damak Nagarpalika . From every school 25 students was selected for the study. This study was based on systematic sampling method which will be represented the whole selected community.

3.5 Data Collection Tools:

Interview schedule was the major tools for data collection of this study. The tools was related with pre-determined objectives, different kinds of tobacco consumption and health related topics. Questionnaire were converted in local language for better understanding of the respondents.

3.6 Validation & Standardization of the Research Tools.

Pre test of the interview sehedule was taken in the similar tobacco consumption affected community with 5% of total questionnaire, that will be 10 adolescent students of Damak Nagarpalika ward no.14. This pre-test was tried to minimize the error of the questionnaire and the survey. The questionnaire was designed with the suggestion of supervisors, concerning exports of related subject and previous research report was used to minimize the error of the questionnaire and survey.

3.7 Data Collection Procedure

Data was based on both primary and secondary sources. The primary data had collected through interviewing with the help of questionnaire of related topic from the community people of Damak Nagarpalika. collected by using self-administered questionnaire. Informed verbal Consent from the school authority will obtained after explaining the purpose of the study. The self-administered questionnaires was distributed to the students of selected classes after explaining the purpose of the study and the instructions to fill in the questionnaire. Considering the sensitivity of the issue, the school authority was requested not to be present in the class during the filling in of the questionnaire.

Self-administered questionnaire in Nepali language was used to collect the information. The questionnaire was pre-tested in Public Higher Secondary School, Damak. Following the pre-test, some modification was done in questions and terminology made in the final questionnaire.

After the preparation, Pretest, revision and approved the tools and to be taken authority letter from the campus as well as recommendation letter from Damak Nagarpalika. Data was collected in study area (Damak Nagarpalika, ward-No 13) by systemic sampling method.

3.8 Data Analysis and Interpretation Procedure

Collected data was carefully checked to minimize the errors showing in data processing. Raw data was copied in master chart by doing edit and tabulation. The data was analyzed with the help of simple statistical law such as percentage, value etc. as necessary these data was presented in simple descriptive method, table, figures, pie chart and bar diagrams as per as convenience and necessary.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

This chapter has dealed with analysis and interpretation of the data which was collected from the community of Damak Nagarpalika ward no - 13, Jhapa district, it has mentioned the general characteristics of studied population providing different information relating to demographic and socio-economic status of study area. .

4.1 Socio demographic Characteristics:

Demographic characteristics play an important role in the process of development of a nation. A demographic characteristic contains in all aspects mainly age, sex population, family structure, marital status, economical condition and educational status etc. The result with every variable is presented with the help of tables, chart, graphs etc. as required for output.

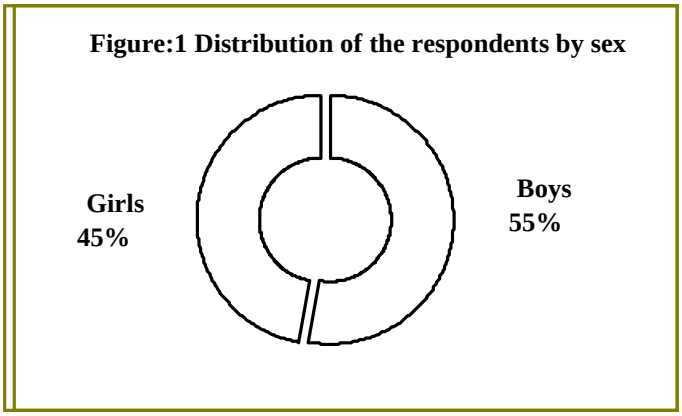
4.1.1 General characteristics of the Respondents:

Age: The respondents were the age between 10 to 19 years. Among them, majority (60%) of the respondent were age group 14 – 16 years. 10 – 14 years age group and 16 – 19 years age group has same number of respondents (40%).

Educational level of students: The grade distribution of the respondent was 40% of them were from grade ten followed by 20% from nine, 25% from eight and from seven grades was 15%

Sex: Among the total 200 respondents, majority of the respondents (55%) were girls and 45% were boys.

Figure: 1 Distribution of the respondents by Sex

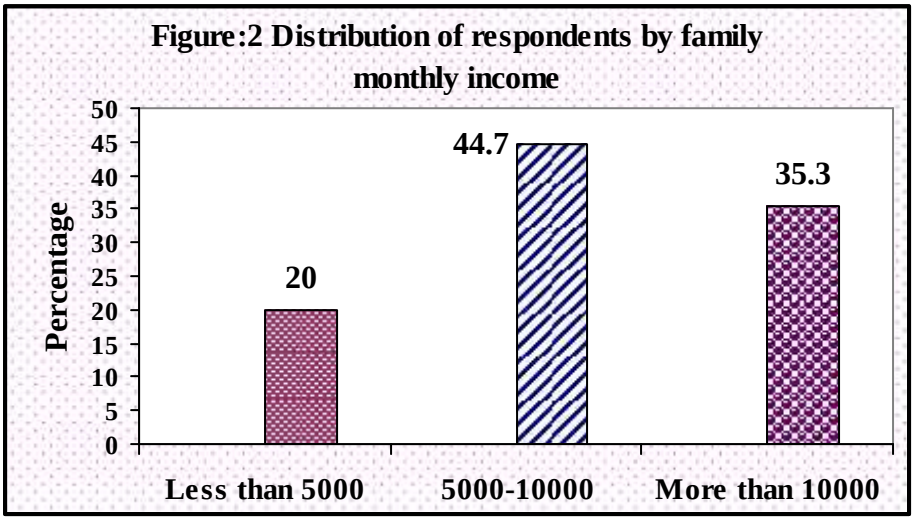


Religion: More than (70%) of the adolescent student were from Hindu religion and few 12% were Buddhist followed by Christian (10%) and Islam (8%)

Caste/ Ethnicity: More than one fourth (28.%) of the respondents were from Chhetri and the proportion of Bramin was 23%. Other includes Gurung/Magar (10%) followed by Newar (13%), Dalit (8%), Rai/Limbu (14%) and other (4%).

Type of family: Among the total 200 respondents more than half (65%) were from nuclear family, (25.%) were from joint family and 10% were from extended family.

Monthly family income: Regarding the monthly family income of the respondents, the Nepali currency Rs. less than 5000 covered only 20 % and the highest was more



ethan 35.3% that covers Rs.10000 only. Majority of the respondent (44.7%) have family income between Rs. 5000 to 10000. The median income was around Rs.10000. The minimum income was 3500 followed by maximum income 50000.

Marital status: Among the total respondents majority (95%) were unmarried and very few (5 %) of respondents were married. It shows that marriage in teen age is less.

Family size of the respondent: Nearly half (47.5%) of respondent were found having below five members family and 40.5% were having 5-7 family members. Remaining 6.8% respondents were having 8-10 members and only 5.2% have family member more than ten.

Relationship with Parents: Majority of the respondent (69.4%) claimed that they have friendly relationship with parents and other family member (i.e. sister, brother) and more than one fourth (26%) of them noted fair relationship to them. Very few (4.7%) of the student found the relation was Quarrelsome to the family member.

Activity of the respondent: Students were asked whether they were involved in any organization. Among them 31.7% of the total respondent were involved in organization like sporting club, Social organization (Red-Cross, Reyukai or Scout etc) and Youth club.

Education status of Parents: Regarding the percentage distribution of the respondent's parents, their fathers were found to be more educated than their mother. Only 5.2% of fathers group were illiterate, 31.2% had primary education, 27.3% completed secondary education, and majority of them were had college and above, On the other hand, , majority(47%) of mother group completed their primary education, 20% of them found illiterate, followed by 21.6% secondary education and 11.4% college or above. Education level of parents make impact on the tobaccoo consumption of their children.

Table: 2 Frequency distribution of the respondent according to socio demographic characteristics (n=200)

Characteristics	Frequency	Percentage
Education level of the Student		
Seven	30	15.0
Eight	50	25.0
	40	20.0
Age of the student:		
11-13 years	40	20.0
14-16 years	120	60.0
17-19 years	40	20.0
Mean age: 15.01 Std. Deviation : 1.61 Std. Error of Mean: 0.802		
Sex of the student		
Male	110	55.0
Female	90	45.0
Marital status:		
Unmarried	190	95.0
Religion of the respondent		
Hindu	140	70.0
Buddhist	24	12.0
Muslim	20	10.0
Caste/ Ethnicity		
Brahmin	46	23.0
Chhetri	56	28.0
Gurung/Magar	20	10.0
Newar	26	13.0
Dalit	16	8.0
Type of School		
Government	75	37.5

Table: 3 Education Status of respondent's parents

Education Level	Father		Mother	
	Frequency	Percentage	Frequency	Percentage
Illiterate	10	5	40	20
Primary education	64	32	94	47
Secondary education	54	27	44	22
College or above	74	36	22	11

Information related factor (heard about Tobacco):

Regarding the information getting about any form of the tobacco product; nearly 100% of the respondent noted they were heard about any form of tobacco product. Nearly 98% of the respondents were familiar with cigarette/Bidi, nearly 63% of them were heard about smokeless tobacco product (Surti /Khaini, Gutkha/Pan Masala) and few 42.5% heard about Hukka/Chilim as comparison to other.

Expose to Source of information by respondents:

Majority of the respondent (73%) noted that they received the information on tobacco product from TV/Radio. Followed by Newspaper/ Media (65.6%), Family /School (58.3%) and 46.5% in Peer/Friend. Now a days because of exportation of media and easily access of children had make a huge impact among the adolescents students.

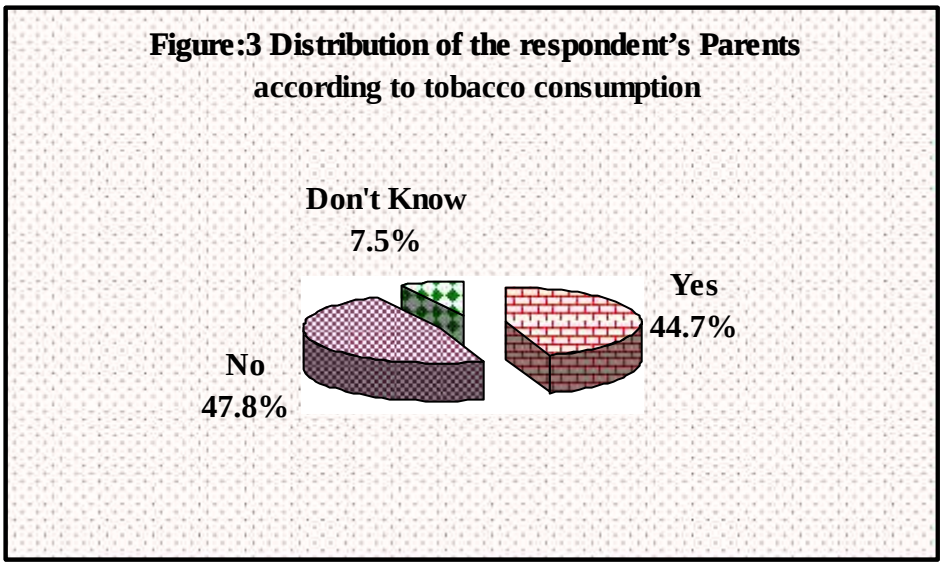
Table: 4 Distribution of the respondents receiving the information on tobacco by source (n=381)

Characteristics	Frequency	Percentage
Have you heard about any form of tobacco:	198.4	99.2
Expose to media:		
Peer/Friend (n=200) *	93	46.5
News paper/Magazine (n=200)	131.2	65.6
TV/Radio (n=200)	146.0	73.0
Family / School (n=200)	116.6	58.3

Tobacco use habit among the respondent's parents:

According to the information given by the adolescent student, tobacco consumption habit of parents found as 44.7% whereas 47.8% of the respondent never use any form of tobacco product but 7.5% of the respondent didn't know about that habit.

Figure:3 Distribution of the respondent's Parents according to tobacco consumption



As per information given by students 44.7% of the parents were ever user of tobacco product. It is bit lower than the survey conducted in Nepal that 55% of Nepalese use tobacco related things, among them 48 per cent are over 15 years. It is also comparable to the research done in Nepal. It showed the prevalence of tobacco use in adults was 68.4% in rural Sarlahi, 37.0% in urban Sarlahi 54.7%, Pandey MR, Basnyat B, Neupane RP, 1988.

Habit of tobaccoo use in Adolescent students:

Among the total (n=200) respondent 16.4% of the respondent reported that they were using any form of the tobacco product. Among the tobacco consumer 70 % of the student were boys and only 30% were girls. But the overall percentage of tobacco consumption was 21.7% in boys followed by 10.4% in girls. Among the student of government school student the percentage was more (22.1%) than that of the student of private school.

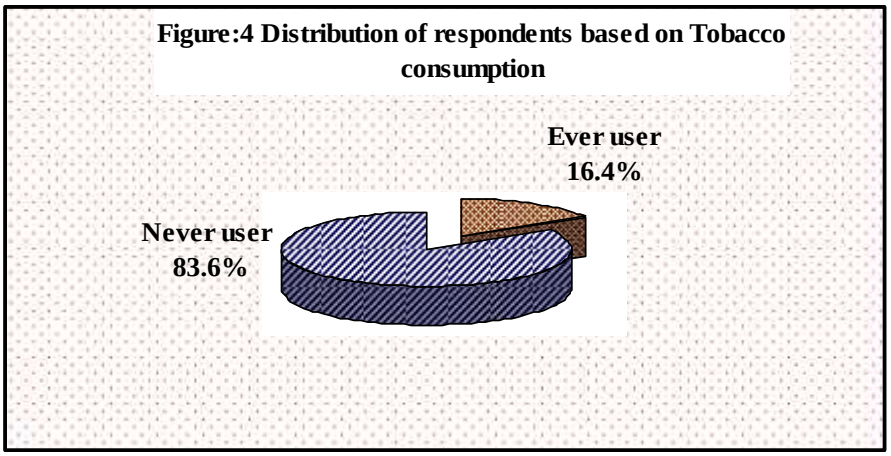


Table: 5 Distribution of the respondent according to tobacco consumption

(Using any form of tobacco product, n=200)

5.1 Distribution by sex:

Characteristics	Frequency	Percentage
Boys *(n=110*)	43.4	21.7
Girls*(n=90)*	20.8	10.4
Total(n=200)	63	16.4

5.2 Distribution by type of school

Characteristics	Frequency	Percentage
Government (n=75)	43	22.1
Private(n=125)	20	10.5
Total(n=200)	63	16.4

Type of tobacco user:

Among the tobacco user, 41.0% of the respondent were occasional user, 29.5% of the respondent were regular user followed by (13.1%) past user and (16.4%) experimental user. Among boys 36.3% were regular user and in girls 47.4% were occasional user. In total study population, 15.3% of boys were found as current user (regular and occasional), on the other hand only 6.5% of girls belong to current user.

Table: 6 Proportion of the respondents based on using practice:

6.1 Among the tobacco user (n=63)

Category	Current user		Experimental user	Past user
	Regular user	Occasional user		
Boys	36.3	34.1	18.2	11.4
Girls	15.8	47.4	2.7	1.1
Total	29.5	41.0	16.4	13.1

Type of Tobacco product consumed by adolescent:

Among the total respondent majority (10.1%) of the respondent reported that they used to take Cigarettes/Bidi and 9.9 % of them were using smokeless tobacco (Pan Masala and Gutkha) followed by using Surti and Khaini (5.2%).

Smoking in private school was higher than in government school whereas surti/khaini consumption was high in Government school and that of Pan Masala and Gutkha user were high in private school student. Regarding the sex distribution, majority of the boys found to consume Cigarettes/Bidi but the proportion of using Pan Masala was high in girls.

Table: 7 Proportion of the respondent by the type of Tobacco consumption

Category#	Cigarettes/Bidi	Smokeless Tobacco	
		Surti/Khaini	Gutkha/Pan Masala
Girl	4.4	2.7	6.6
Boys	15.3	7.4	12.8
Government school	14.9	7.2	13.8
Private school	5.3	3.2	5.8
Total	10.1	5.2	9.9

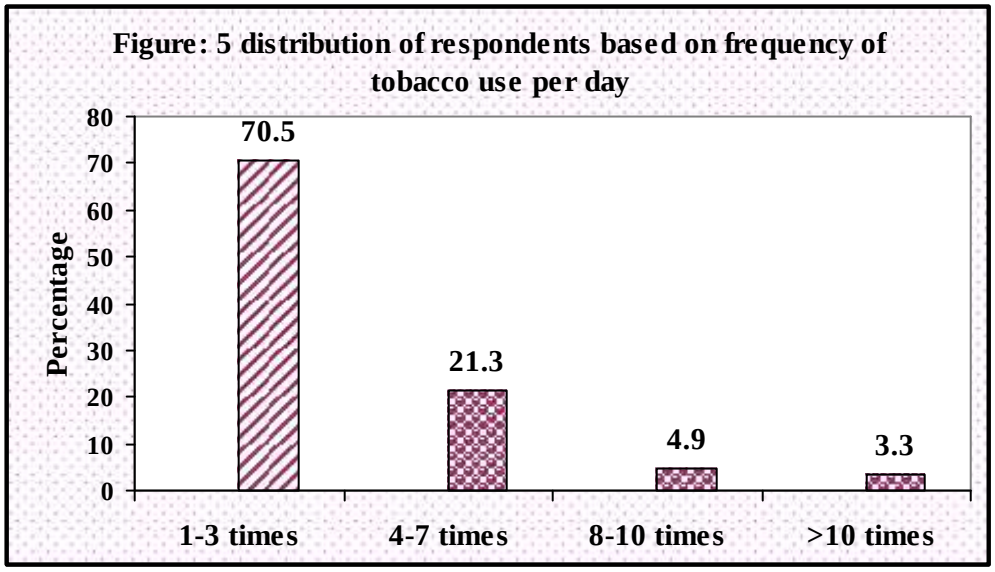
7.2 Among the tobacco user (n=63)

This output is also resembles with the Globle youth on tobaccoo consumption survey(GYTS) Nepal (OSH, CDC 2003). According to GYTS in Nepal, 11.2% of

students had ever smoked cigarettes, 12.9% currently use any tobacco product and 9.2% currently use tobacco products other than cigarettes. I.e. smokeless tobacco products like Pan Masala Gutkha Surti Khaini etc.

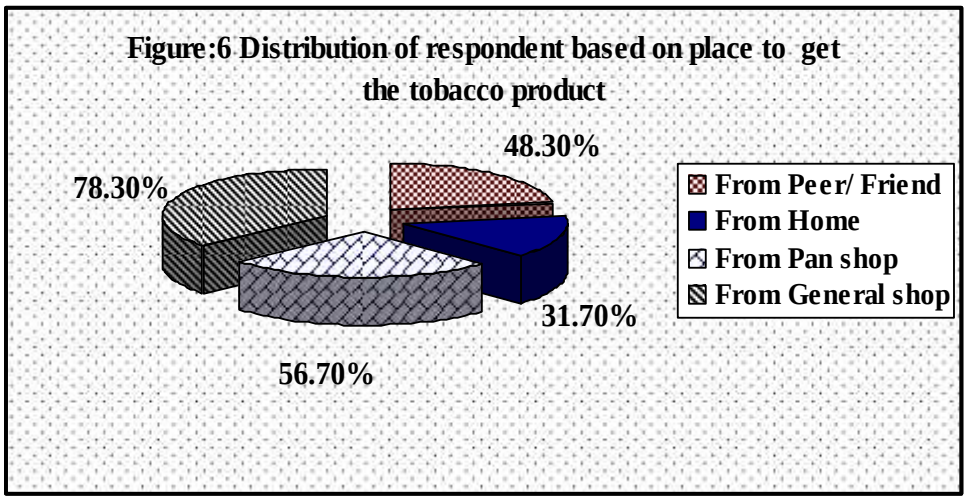
Frequency of tobacco consuming per day:

Nearly 3/4$^{th\ of}$ the tobacco consumers were consumed any form of tobacco 1-3 times/ day. And only 21.3% of them reported the frequency four to seven times per day followed by nearly 5% for 8-10 times and only 3.3% more than 10 times consumed the tobacco product.



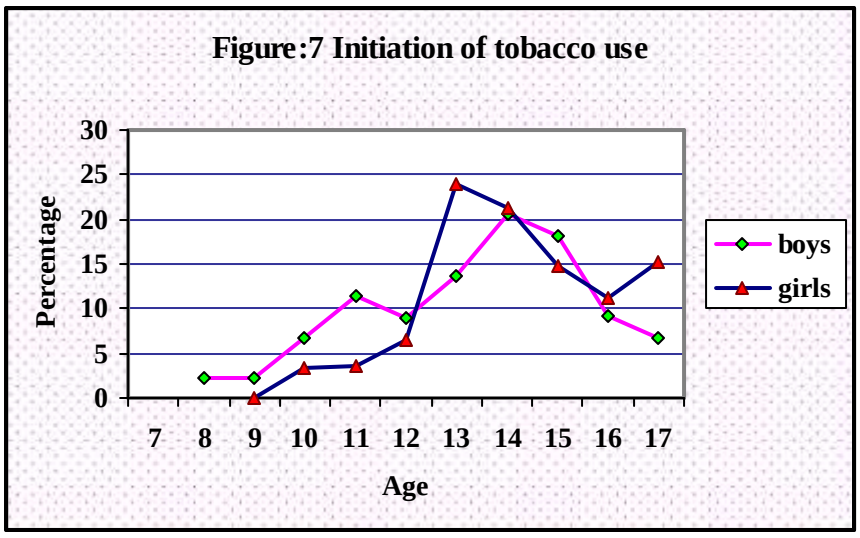
Place to get Tobacco product:

Majority (78.3%) of the adolescent student reported that they got tobacco product from general shop. Another alternative was from peer/friend (48.3%) followed by battle (pan) Shop (56.7%) and home (31%).



Some students reported initiation of tobacco use as early as 7 years of age and 6.3% of the respondent were started tobacco before 10 years. 1/5th (22.2%) of ever tobacco users initiated tobacco between 10-12 years of age.

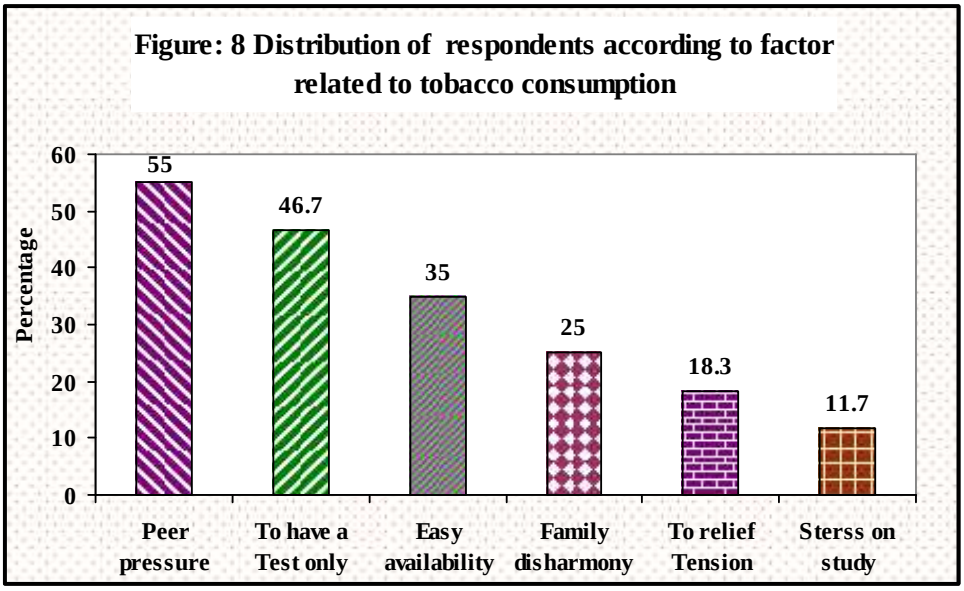
Among boys, one fifth of them initiated tobacco at 14 years of age but one fourth of girl started at 13 years of age. The line chart show the initiation of tobacco was in boys was earlier than that of girls.



The finding is nearly equal to the research done by Paudel D (2003). That study showed the average age of initiating tobacco use was 12.64 years. Initiation of tobacco use was earlier by a few months among girls (12.40 yrs) than boys (12.76 yrs). The initiation of tobacco use may be influenced by different factors like peer pressure, following the parents habits, easy availability etc.

4.2 Factor related to Tobacco consumption:

Another important objective of this research was to find out the factor related to tobacco consumption. As per information given by the adolescent student, the main cause of the tobacco initiation was peer pressure. Majority (55%) of the respondent reported it as a main cause. The second factor for the tobacco use was to have a test only. Nearly 47% of the respondent noted for that reason. More than one third (35%) of the respondents were consuming tobacco related product as easy availability of the tobacco product. One fourth of the respondent were started to take tobacco because of family disharmony followed by 18.3% to relief tension and stress on study was only 11.7% among the tobacco consumer.

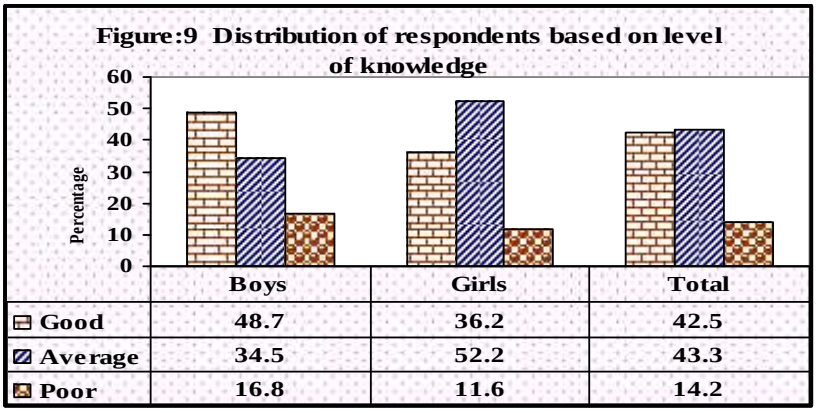


4.3 Knowledge related factor:

4.3.1 Knowledge on hazardous effect of Tobacco use:

Students were asked if they were aware of the harmful effects of tobacco use. Among the total respondents, adolescent (80.7%)) students claimed that they have knowledge about the bad consequence of tobacco use. Among the students who reported to have knowledge about the health hazards of tobacco use, (16.5%) were tobacco consumer and (83.5%) have never used any form of tobacco product.

As mentioned in the questionnaire, Adolescent student were asked to report the bad effect of tobacco use. Among those who mentioned the effects, (42.5%) reported two or more hazardous effects (respiratory problem like Asthma, Cough /Heart disease, mouth ulcer and or Cancer).43.3% of the respondent mentioned only one hazard (i.e. cancer or heart disease or Asthma). Some of the students reported that bad effect like bad smelling, teeth problem etc.



	Boys	Girls	Total
Good	48.7	36.2	42.5
Average	34.5	52.2	43.3
Poor	16.8	11.6	14.2

Regarding the level of knowledge on bad consequences of tobacco use those who reported two or more than two hazardous effect (42.5%) are categorized as have Good

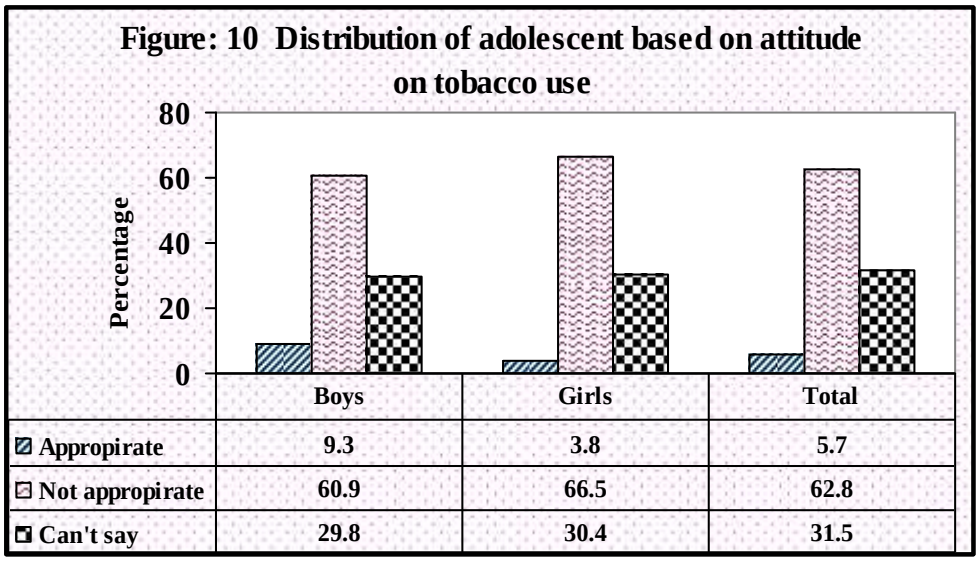
Knowledge. The majority of student (43.3%) mentioned only one hazard (Some knowledge) followed by only (14.2%) didn't reported any of the hazardous effect as Poor knowledge (Figure 10).Comparatively, among total respondent nearly half (48.7%) boys have good knowledge than that of girls(36.2%). On the other hand more than half (52.2%) of the girls have some knowledge. The proportion of poor knowledge is low in girls (11.6%) than in boys (16.8%).

This finding is bit different to the research conducted by Paudel D, 2003. In that study among 2032 sample, (91.4%) adolescent students reported to have knowledge about the hazards of tobacco use. Among the students who reported to have knowledge about the health hazards of tobacco use, 846 (46.5%) have ever used tobacco and 993 (53.5%) have never used tobacco. The knowledge on hazard of tobacco use was more or less same but proportion of tobacco consumption was much different. The variation may be due to sample size and place.

4.3.2 Attitude towards tobacco use:

Adolescent student were asked to open their feeling towards tobacco use (i.e. tobacco consumption is appropriate or not).Regarding this issue, among total study population, very few (5.7%) of the respondents reported tobacco consumption is appropriate. Nearly 3/4th of the total respondents were mentioned as tobacco consumption not appropriate and nearly 1/3rd (31.5%) of them were neutral on that question.

Among the tobacco consumer, (n=63), the proportion was bit different. More than 1/5th (21.2%) of boys and very few (5.6%) of girls were on the favor of the tobacco consumption. More than half of the boys (52.7%) and nearly 3/4th (72.2%) of girls mentioned that tobacco consumption is not appropriate.

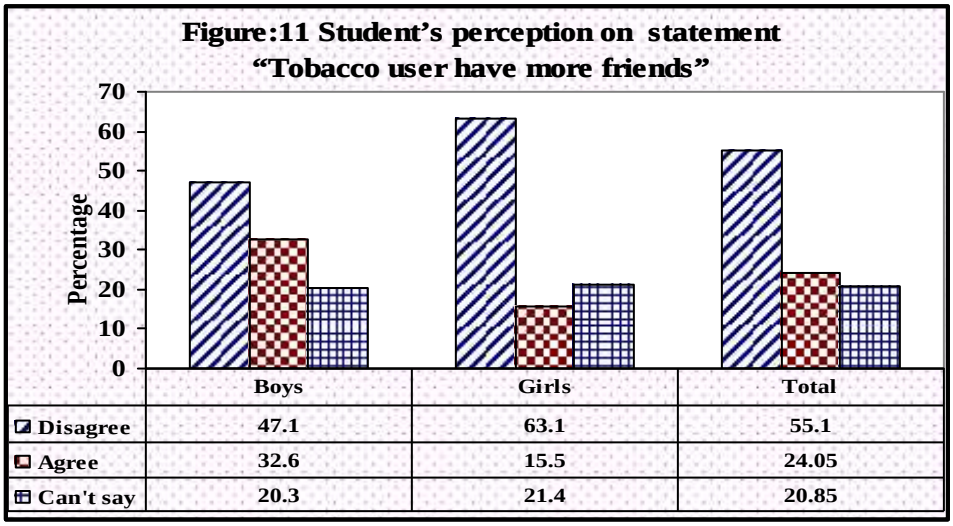


Perception towards tobacco use:

The perception of the adolescent student was measured in the five-point scales ranging from strongly agree to strongly disagree on the given statements. For simple analysis, strongly agree and agree were merged to agree and strongly disagree and disagree were merged to disagree. Finally, categories for analysis of perceptions were Agree, Can't say, Disagree.

More than half (55.1%) of total population expressed their view on disagree on the statement "Tobacco user has more friends" and nearly one fourth 24% of them reported agree whereas one fifth of the population can't say...

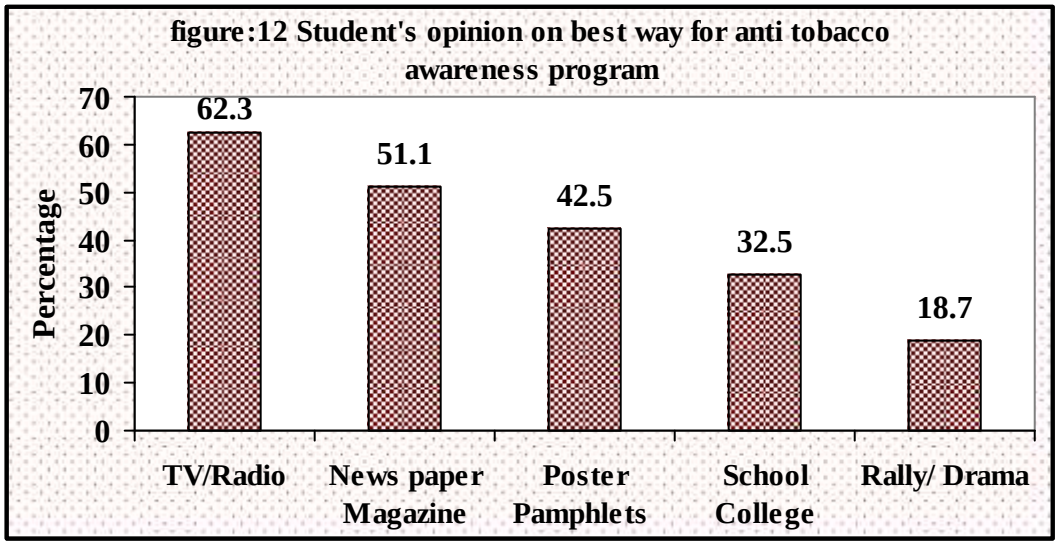
Among the tobacco user, three fourth 72.5% of students were agreed to the statement and only 12.9% of tobacco users were disagreed to the statement.



This finding is also resembled with the research conducted by GYTS. According to that research, 48.8% of boys and 28.9% of girls who smoke tobacco have more friends.

Student's opinion on Best way for Anti-tobacco awareness program:

Regarding the student's opinion on best media for anti tobacco awareness program, more than nearly 2/3rd (62.3%) of the respondent put their opinion that best media as TV/ Radio and more than half of them expressed their view on newspaper/ magazine followed by 42.5% for poster /pamphlet, nearly 1/3rd for (32.5%)expressed their view on school and college and few of them (18.7%) on rally/drama for the anti tobacco awareness program.



4.4 Association between Socio Demographic characteristics and Tobacco consumption:

The association with demographic characteristics includes sex, age, religion, grade, Caste/ ethnicity, type of school etc.

Sex: Regarding sex of the adolescent student, boys were 2.3 times more likely to have tobacco than girls. (21.7% and 10.4% respectively).

Age: From the age group of the respondent, it was seen that majority 26.9% (16-19years) of the student were tobacco user than 10.8% age group 11-15 years.

Students of ages between 16-19 were more likely to have tobacco than other age group.

Religion: Majority of the respondent were tobacco consumer those who were from Hindu origin so it was compared to other religion like Buddhist, Muslim, and Christian

Caste/Ethnicity Tobacco consumption habit among different caste was statistically not significant between Brahmin/ Chhetri and other caste. The result shows majority of the adolescent were from other caste those who were tobacco user.

Grade: Majority of the tobacco user were from class 9 and 10 (18.7%) as compared to class 7and 8 (13.7%)

Tobacco use habit of parents: From the information collected by student , those parents used tobacco product were more likely to have tobacco .more than one fourth of the adolescent were tobacco consumer as their parents consumed than few (17%) of non consumer.

Type of school: More than one fifth (22.1%) of the tobacco user were from Government school followed by only one tenth from private school.

Association between knowledge and Attitude to tobacco consumption:

Knowledge on bad consequence of tobacco use: The knowledge on hazardous effect of tobacco consumption was categorized into three forms (poor, average and good knowledge.) as mentioned above. Adolescent student who have average /poor knowledge (those who reported one or less than two hazardous effect) were found more (17%) tobacco consumer on the other hand, than that of having good knowledge (12.3%).

Attitude toward tobacco use: Among those students who believe tobacco consumption is appropriate were more likely to have tobacco consumed as compared to those who reported tobacco consumption as not appropriate/can’t say.

Table: 8 Association between Socio-demographic characteristics according to tobacco consumption:

Category		Tobacco consumption	
		Yes	**No**
Sex	Boys	(21.7%)	(78.3%)
	Girls	(10.4%)	(89.6%)
Age (Years)	11-15	(10.8%)	(89.2%)
	16-19	(26.9%)	(73.1%)
Religion	Hindu	(16.8%)	(83.2%)
	Other	(13.5%)	(86.5%)
Caste / Ethnicity	Brahmin &Chhetri	(14%)	(86%)
	Others	(18.9%)	(81.1%)
Grade	7- 8	(13.7%)	(86.3%)
	9-10	(18.7%)	(81.3%)
Tobacco user habit of Parents	Yes	(26.7%)	(73.3%)
	No/don't know	(8.0%)	(92.0%)
Type of school	Private	(10.5%)	(89.5%)
	Government	(22.1%)	(77.9%)
Involved in Organization	Yes	(19%)	(81%)
	No	(15.2)	(84.8%)

Table: 9 Association between Knowledge and Attitude regarding tobacco consumption:

Category		Tobacco consumption	
		Yes	**No**
Level of knowledge	**Poor /Average**	(17%)	(83%)
	Good	(12.3%)	(87.7%)
Attitude towards tobacco use	**Appropriate**	(60%)	(40%)
	Not appropriate/ Don't know	(14%)	(86%)

CHAPTER FIVE

SUMMARY,FINDING,CONCLUSION AND RECOMMENDATION

5.1 Summary:

This descriptive and analytical study was conducted in Damak Nagarpalika, Jhapa District of Nepal. The objective of the study was to assess the current status of tobacco consumption and factors related to tobacco use among adolescent students. The sample size of the study was 200 adolescent students. Systematic sampling method was followed for the study. The self-administered questionnaire (structure questionnaire) was distributed to the students. The data was analyzed with the help of simple statistical law such as percentage, value etc. as necessary these data was presented in simple descriptive method, table, figures, pie chart and bar diagrams as per as convenience and necessary.

5.2 Findings

1 In this study, total respondent were 200 adolescents students including from class 7,8,9 and 10 among them 55% were boys and 45% were girls. The study had shown 16.4% (percent) of the adolescent students ever used any type of tobacco product

2.More than one tenth (11.1%) were current user (regular and occasional), few (3.4%) were experimental user (i.e. used any tobacco products not more than 10 times) and nearly 2% were past user. Among tobacco user, majority (41%) were occasional user followed by 29.5% regular user, 13.1% past user and 16.4% were experimental user.

3. One in ten (10.1%) of the respondents were used to take Cigarettes/Bidi and the use of smokeless tobacco (Pan Masala and Gutkha was 9.9 % followed by Surti and Khaini 5.2%). Prevalence of tobacco consumption among boys was significantly higher than girls. Boys were 2.3 times more likely to have tobacco use than that of girls (21.7% and 10.4% respectively).

4. Adolescent students of government schools were 2.4 times more likely to use tobacco as compared to private schools students.

5. Majority of students initiated tobacco use by 13.24 years of age (for boys 12.8 years and for girl 13.39 years). It was seen that majority (6.9%) of students of age group (16-19 years) were tobacco user than 10.8% in age group 11-15.More than three fourth (78.3%) of the adolescent students used to get tobacco product from general shop. Nearly half (48.3%) used to get from peer/friend followed by Pan Shop (56.7%) and home (31%).

6. Nearly half (44.7%) adolescent students were living in the family where their parents used tobacco product. Students whose parents use tobacco they were 4.2 times likely to have tobacco than non user. Regarding attitude, those who reported to the favor of tobacco consumption, 60 % of them were tobacco user.

The lesson learned from above finding authority should take the concrete step to prevent the future morbidity related to tobacco consumption. Health education programs should be provided to adolescent students to raise the level of awareness of the hazards of tobacco use and to change their perceptions.

5.3 Conclusion:

This descriptive and analytical study of tobacco use among adolescent students of Damak Nagarpalika of Jhapa District explored their tobacco consumption behavior, knowledge on hazardous effect and influencing factors for initiating tobacco use. The above finding explored the current status of tobacco consumption among adolescent student.

The overall prevalence of the tobacco was seen 16.4% for any type of tobacco product. The prevalence of tobacco consumption was 21.7% among boys and lower (10.4%) in girls. Among ever user, more than 2/3rd (69.8 %) of the student were boys and only 30.2% were girls. The overall prevalence was significantly higher in student of government school than private school. The prevalence increased with age for both sexes. Among tobacco user, there was a large proportion (41.0%) of occasional user. Among boys majority (36.3%) were regular user and in girls majority was (47.4%) in occasional user.

Most of the ever-users initiated tobacco use by 13.24 years of age (for boys 12.8 and for girl found 13.39 years) and 6.3% of the respondent were started tobacco before 10 years. More than One-fifth (22.2%) of ever tobacco users initiated tobacco between 10-12 years of age.

The main cause of the tobacco initiation was peer pressure. More than half (55%) of the student reported initiating factor as peer pressure. Nearly 47% of the respondent noted to have a test only. Tobacco use by parents was also influencing factors for tobacco use of adolescent students. A substantial proportion of adolescent students were exposed to the tobacco use behavior of parents.

Regarding the level of knowledge on bad consequences of tobacco use, it was satisfactorily. (42.5%) were categorized as have good knowledge. majority (43.3%) were seen to have average knowledge and only (14.2%) were found poor knowledge on hazardous effect of tobacco use. The existence of wrong perception of school students about tobacco use was also evident from the findings. Nearly one fourth 24% of student reported agree toward the statement “Tobacco user have more friends”. Among ever user, nearly three fourth 72.5% agreed to the statement and only 12.9% disagreed to the statement. Those students who belief tobacco consumption is appropriate were more likely to have tobacco consumed as compared to those who reported tobacco consumption as not appropriate/can’t say.

Form above finding adolescent student initiated tobacco not only by peer pressure but also by exposed to the parents. Starting tobacco from childhood increases the risk of addiction to tobacco related things. There is increasing resistance to advertisement in the developed world but the young adolescents in the developing countries are more vulnerable. Adolescent students have knowledge on hazardous effect of tobacco use although they are still using tobacco product, it may be due to low awareness level and lack of positive attitude to their own health. Another reason may be that they are following the fashionable world.

5.4 Recommendation:

Recommendation based on study finding:

i. Prohibiting tobacco use at school and other public places and monitoring the high-risk behaviors of adolescents in school is necessary.
ii. Health education programs and parents counseling should be provided to adolescent students to raise the level of awareness of the hazards of tobacco use and to change their perceptions.
iii. A national level research is necessary to find out the current status on tobacco consumption targeting adolescent student.
iv. To develop program on health education and behavior change communication related to tobacco consumption and health care seeking to raise the level of awareness of the community.

Recommendations for program implication:

i. By announcing schools and other public places as tobacco-free places will help to minimize the exposure to tobacco. It also helps to change social norms and ultimately to minimize the use of tobacco
ii. School based educational programs focusing on all forms of tobacco (both smoked and smokeless) should be planned and implemented.
iii. Behavior change communication (BCC) and Peer Education Program (PEP) should be started by focusing the target group.
iv. There is a need for strong anti-tobacco legislation and strict implementation of the legislation to ban tobacco smoking in public places
v. It is also necessary to study the level of knowledge and practice of tobacco consumption among the adolescents who are out of school and campus level students.
vi. Gender and occupation basis study regarding knowledge and practice of tobacco consumption should be more effective for future.
vii. This study can help the government to formulate strategy and policy about drug abuse.

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