PATTERN OF TOBACCO USE AMONG ADOLESCENT IN INTERNATIONAL COLLEGE

KALANKI NEPAL

Miss Pratibha Shahi

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Public Health Program in Public Health

College of Public Health Sciences

Chulalongkorn University

Academic Year 2013

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รูปแบบการสูบบุหรี่ในกลุ่มวัยรุ่นวิทยาลัยนานาชาติ คาลันที ประเทศเนปาล

นางสาวพราติบา ชาฮี

Thesis Title	PATTERN OF TOBACCO USE AMONG ADOLESCENT IN INTERNATIONAL COLLEGE KALANKI NEPAL
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Field of Study	Public Health
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พราติบา ชาฮี : รูปแบบการสูบบุหรี่ในกลุ่มวัยรุ่นวิทยาลัยนานาชาติ คาลันที ประเทศ
เนปาล. (PATTERN OF TOBACCO USE AMONG ADOLESCENT IN
INTERNATIONAL COLLEGE KALANKI NEPAL) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: Dr.
Chitlada Areesantilai, Ph.d, หน้า.

บุหรี่เป็นปัญหาทางด้านสาธารณสุขในกลุ่มวัยรุ่นที่เพิ่มมากขึ้นและเป็นหนึ่งในสิ่งที่ทั่ว
โลกให้ความสนใจ งานวิจัยครั้งนี้เป็นการศึกษาเชิงพรรณา มีวัตถุประสงค์เพื่อศึกษารูปแบบการ
บริโภคยาสูบและปัจจัยที่มีความสัมพันธ์กับรูปแบบการบริโภคยาสูบของวัยรุ่นที่กำลังศึกษาอยู่ใน
วิทยาลัยนานาชาติ ประเทศเนปาล กลุ่มตัวอย่างในการศึกษาครั้งนี้คัดเลือกนักศึกษาที่กำลัง
ศึกษาอยู่ในวิทยาลัยนานาชาติ ในเมืองกาลันกี ประเทศเนปาล จำนวน 380 คน
เก็บรวบรวมข้อมูลโดยการสัมภาษณ์ตามแนวคำถามในแบบสัมภาษณ์แบบมีโครงสร้างโดยมีผู้ช่วย
วิจัยที่ผ่านการอบรมแนวทางการสัมภาษณ์เชี่ยวชาญเป็นผู้ช่วยเก็บข้อมูล วิเคราะห์ข้อมูลโดยใช้
สถิติเชิงพรรณนา ความถี่,อัตรา และร้อยละ เพื่ออธิบายลักษณะทั่วไปของประชากร และ สถิติ
ไคสแควร์ เพื่อหาความสัมพันธ์ระหว่างปัจจัยที่มีความสัมพันธ์กับรูปแบบการบริโภคบุหรี่ของกลุ่ม
ตัวอย่าง

ผลการวิจัยพบว่ากลุ่มตัวอย่างสูบบุหรี่ค่อนข้างสูง ร้อยละ 88 เป็นผู้ที่สูบ และพบว่า
ชนิดของยาสูบที่ใช้มากที่สุดในกลุ่มตัวอย่างที่บริโภคยาสูบในปริมาณที่มาก คือ ร้อยละ 70 เป็น
บุหรี่มวน และผู้ที่บริโภคยาสูบในปริมาณน้อย คือร้อยละ 27 ใช้ บุหรี่ชนิดไร้ควัน ด้าน
ปัจจัยทางสังคมพบว่าวัยรุ่นที่อาศัยอยู่กับผู้ปกครองและเพื่อน ร้อยละ 40 สูบบุหรี่มวน ส่วนวัยรุ่น
ที่อยู่กับผู้ปกครอง ร้อยละ 27 ใช้ยาสูบชนิดที่ไร้ควัน นอกจากนี้ครึ่งหนึ่งของกลุ่มตัวอย่างรายงาน
ว่าสามารถเข้าถึง บุหรี่ ได้เมื่อต้องการ และถึงแม้ว่าจะมีกฎหมายห้ามการโฆษณาบุหรี่ แต่ ร้อยละ
50 ของกลุ่มตัวอย่างรายงานว่าพบการโฆษณาบุหรี่ หนังสือพิมพ์และนิตยสาร ซึ่งแสดงให้เห็นถึง
การผ่อนปรนในการบังคับใช้กฎหมาย และผลการวิจัยยังพบว่าร้อยละ 50 มีความถี่ในการบริโภค
ยาสูบ (5-6 ครั้งต่อวัน) และเพิ่มขึ้นตามจำนวนเงินที่วัยรุ่นได้รับ

จากผลการศึกษาในครั้งนี้แสดงให้เห็นว่า ภาครัฐควรมีการกำหนดนโยบายในการ
ควบคุมการบริโภคยาสูบ อาทิ การราบังคับใช้กฎหมายที่เข้มงวดกับผู้ที่ฝ่าฝืน การเพิ่มภาษี ใน
ขณะเดียวกันชุมชน สถานศึกษา ควรมีมาตรการควบคุมการบริโภคยาสูบ โดยมุ่งเน้นการสร้าง
ความรู้ ความเข้าใจ ถึงอันตรายและผลเสียของการบริโภคยาสูบ และรณรงค์ต่อต้านการบริโภค
ยาสูบในกลุ่มวัยรุ่นต่อไป

สาขาวิชา สาธารณสุขศาสตร์	ลายมือชื่อนิสิต ....
ปีการศึกษา 2556	ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก ....

PRATIBHA SHAHI: PATTERN OF TOBACCO USE AMONG ADOLESCENT IN INTERNATIONAL COLLEGE KALANKI NEPAL. ADVISOR: DR. CHITLADA AREESANTILAI, PH.D, pp.

ABSTRACT

Tobacco use among the adolescent is a growing public health problem and one of the great concern all over the world. This study was embarked on patterns of tobacco use among adolescent of International college, Nepal.

In this cross –sectional study face to face interview method was used with the help of expert trained interview done of 380 adolescents in the international college. Purposive sampling method was done to choose the college in Kalanki, which is one of the ward in the central region of Nepal i.e. Kathmandu. Descriptive data like socio-demographic variables were analyzed using descriptive frequency, percentage and the association of the dependent and independent variable was analyzed by chi-square.

The overall prevalence of tobacco use among the male and female adolescent were high. Eighty eight percent of the male and female adolescent were found to be current smokers. The most common form of tobacco used was burning tobacco(mostly cigarette – 70%) compared to smokeless tobacco (27%). Living with parents and friends (40%) had influence on the tobacco use of the adolescent and the adolescent living with parents (27%) consumed smokeless tobacco highly. Having tobacco users among family and friends highly influenced (p-value 0.00 < 0.001) with the use of tobacco among the adolescents. The availability/ accessibility (50%) of tobacco had high influence on the types, amount and frequency of the tobacco used . Fifty percent of the adolescents responded that they can easily access tobacco whenever they need. This research reports that there can be different policies and programs that can be conducted by the government, community and the schools to decline the use of tobacco i.e enforcing strict laws, increasing tax and dissuading tobacco hazardous message through anti-tobacco programs which include the youths.

Field of Study: Public Health

Academic Year: 2013

Student's Signature ⋯⋯⋯⋯⋯⋯⋯

Advisor's Signature ⋯⋯⋯⋯⋯⋯⋯

ACKNOWLEDGEMENTS

CONTENTS

CHAPTER I

INTRODUCTION

1.1 Background

One of the biggest public health threats the world has ever faced these days is the tobacco epidemic. [WHO, 2013]. According to WHO report, 2013 on tobacco, it nearly kills six million people every year. Tobacco smoking stills remains to be the single greatest preventable cause of mortality, responsible for nearly six million deaths worldwide. One person dies every six seconds due to tobacco, accounting for one on 10 adult deaths. Up to half of current users will eventually die of tobacco related disease. [WHO, 2013]

The public health issue that is affecting the whole world is the tobacco use among adolescent. The most common form of tobacco use is tobacco smoking. each day over 400 people under the age of 18 try their first cigarette according to the National Survey On Drug Use and Health, 2012. It is estimated that there are about 1.3 billion smokers around the world among which about 80% of them are from developing countries. One of the leading causes of deaths today is tobacco use. [Tobacco Control Foundation India, 2012].

According to the National Adolescent Health and Development Strategy, Family Health Department, 2008 among the total population of Nepal, more than one fifth, 22% comprises of adolescent, the proportion that is expected to grow over

the years to come due to fertility. The health of the adolescent is profoundly associated with their behavior and development process. There are several factors like socio- economic circumstances, community and peer relationships and available opportunities for education and access to health information and services for healthy development of adolescents. There are many health warning

and health hazardous pictures on every packet of cigarettes produced in Nepal indicating that smoking is injurious to health but these warning are illegibly printed. While on the other hand, there are attractive and catchy advertisements shown everywhere on television, hoarding boards and posters. Thus, the use of tobacco products are increasing day by day in the country.

Being an agricultural with 80% of the people involve in farming, now-a- days most of them are involved in farming tobacco as it is considered one of the most cash producing crop. Tobacco is smoked in form of beedis and cigarettes or by using devices like hookah, paan, surti, khaini with other tobacco ingredients in it. Among, the smokeless and chewing tobacco the most popular is paan which is mostly popular in Terai region. Tobacco use is highly prevalent in the high hill areas of Nepal. It is also said that the smoking prevalence among women is one in the high hill areas of Nepal. It is also said that the smoking prevalence among women is one of the highest in the WHO- South Asia Region. [Tobacco Brief , 2007].

Tobacco use kills about fifteen thousand people in Nepal each year. A recent study suggested that 16.74% between 15 and 19 years of age smoke. Smoking prevalence varies among schools and districts. Studies among school age and college students report that most students begin smoking between 13 and 16

years of age and smoking in initiation in adolescents is a public health concern that aims to reduce many chronic degenerative disease . [Tobacco Brief Profile, 2007].

Every individual goes to adolescent phase which is an important change over period during which time they begin to explore and experience their first tobacco use. Many studies reported that tobacco smoking is rising in adolescents between the age of 18 and 24 years they are legal targets of tobacco industry marketing and increased the prevalence of smoking among college student. [Indian Journal Of Pediatrics, 1999].

In Nepal, tobacco use is highly in both the urban and rural areas. According to a study in tobacco Economics in Nepal by WHO/SEAR in 2000, the overall tobacco use prevalence is higher in urban areas (34.4%) and rural areas (45.8%). The Global Youth Survey done by WHO, 2007 also reported that 7.9% students smoked cigarettes and 8% used other smokeless product. Therefore, the adolescents were chosen for the study.

The study site was chosen as one of the private and one of the largest college of Kalanki. The study site has many small shops where cigarette and other tobacco products are sold day and night. Due to which there is easy accessibility of the

students for tobacco products and the students can easily use the tobacco products. Moreover, here are also attracted by advertising as in the urban area the advertisement are done highly.

There is not much data available on the patterns of use of tobacco among adolescents. So, of only we would study about tobacco in Nepal even from a small sample, the data would help to make a baseline data for Nepal.

Therefore, this study aims to assess the pattern of tobacco use among the adolescent in one of the colleges of Kalanki, Kathmandu , Nepal and to get information about the tobacco use of the adolescent over there.

1.2 Research Question

What is the pattern of tobacco among adolescent of the international college, Kalanki, Kathmandu, Nepal.

1.3 Research Objectives

To study the pattern of tobacco use among the adolescents of the international college, Kalanki, Kathmandu, Nepal.

1.4 Operational definition

Patterns of Tobacco use means the tobacco practice of the respondents and will be determined by types of tobacco consumed ,amount of tobacco use and the frequency of tobacco use.

Current User was defined as one who had used any form of tobacco (smoked or chewed) in the past one month and are still continuing.

Types of tobacco use is both smokeless and burning tobacco which can be cigarette, Bidis, Khaini, Paan etc.

Frequency of tobacco use is the number of days the respondents use of tobacco measure in terms of weekly and monthly.

Adolescent refers to the graduate level students studying in the private college within the age range 24.

Amount of tobacco use is the unit or numbers of cigarette, paan used and packets of khaini, surti etc.

School performance is the percentage or grade that they get in their studies .

Tobacco users among family members is defined as one of their family members smoking which they see smoking ie. father, mother , close relatives (niece, cousin, uncle, aunt) , teachers.

Tobacco users among friends is defined as one of their close friends smoking which they see smoking and getting influence from them.

Information about tobacco means the advertisements that they have heard or viewed of smoking behaviors from media channels, such as hoarding boards , magazines, television, radio etc.

Pocket money refers to the total amount of money which adolescents have received from parents or guardian on the daily or weekly basis and then it will be calculated for the estimation of the total monthly pocket money which is exclusive of school fees and house rental.

Availability is defined as the access of the students of tobacco products from shops or selling venues.

Education Level was defined as the students studying the in the graduate and under-graduate level.

1.5 Conceptual Framework

Independent Variables   **Dependent Variables**

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┌─────────────────────────────┐
│ Socio- demographic          │
│ Characteristics             │
│                             │
│ Age                         │
│                             │
│ Gender                      │                    ┌──────────────────────┐
│                             │                    │ Tobacco Use          │
│ Pocket Money                │                    │                      │
│                             │           ────────▶│ Types                │
│ Accommodation during study  │                    │                      │
│                             │                    │ Frequency            │
│ School performance          │                    │                      │
│                             │                    │ Amount               │
└─────────────────────────────┘                    └──────────────────────┘

┌─────────────────────────────┐
│ Environmental Context       │
│                             │
│ Tobacco users in the family │
│                             │
│ Tobacco users among friends │
│                             │
│ Availability/ Accessibility │
│                             │
│ Information about tobacco   │
└─────────────────────────────┘
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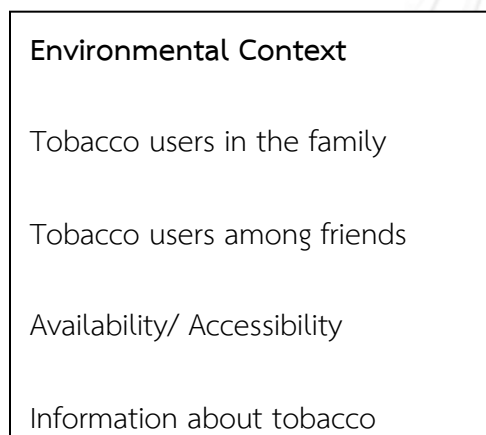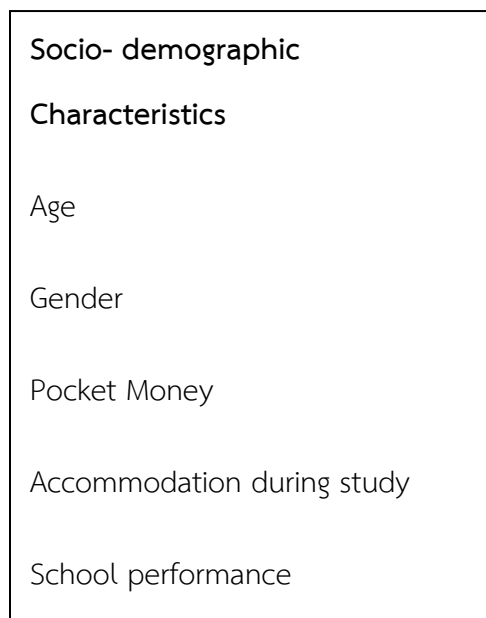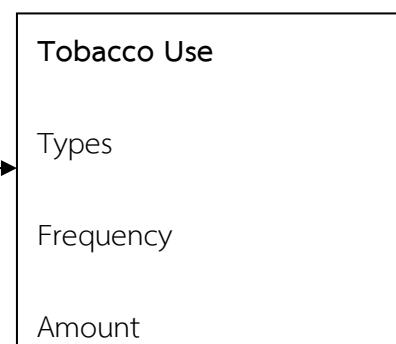
Chapter II

Literature Review

The literature review mainly comprises of

2.1 Tobacco Use Definition

2.2 Tobacco Use Globally

- Youth Tobacco Use in Different Countries

- Patterns of Tobacco Use among Youths

2.3 Tobacco Use in Nepal

- Tobacco production and Trade

- Overall Prevalence and Patterns of Tobacco Use

2.4 Health and Tobacco Use

2.5 Types of Tobacco Use In Nepal

2.6 Factors

2.7 InformationIn Nepal

2.8 Types of Tobacco Use in Nepal

2.10 Theories

2.9 Instruments

2.10 Article Review

2.1 Tobacco Use Definition

Tobacco use is a drug addiction, WHO defined drug addiction as drugs or chemical substances which cause toxic in chronic condition to the human body, destroy physical, mental and social status. (Kumanuwatchaidaj, 1986)

The tobacco product to be used either by smoking, sucking, sniffing, munching eating, blowing or spraying in to the mouth or nose by other into the mouth or nose by other means in order to obtain the same result are the tobacco products under the law on tobacco and any other product composed to tobacco leaves . Smokeless tobacco or nicotine tobacco plant.(Health Systems Research Institute, 1995).

Cigarette means a cigar, other cigarettes, tobacco or modified pursuant to the law on tobacco. Smoking includes any act which results in the production of smoke from the burning of cigarette.

Basically two types of tobacco can be used which is smoking and chewing tobacco but the most popular form is smoking worldwide. These days smokeless or chewing tobacco is also on a popular rise especially in the developing countries like Nepal.

Especially in Nepal, the widely used smoking is smoking cigarette, bidi etc. and the smokeless tobacco used are Khaini, Paan and Jarda.

2.2 Tobacco Use Globally

There is high rise of tobacco in an alarming rate in many developing countries including Nepal. One of the public health issues killing around six million people around the world is tobacco use. In the 20th century, around hundred million people died. It is estimated that if the trend continues the number of people dying would reach billion. There are still many data that lacks the information about tobacco related deaths but as per the recorded data the deaths is estimated to rise more than eight million per year by 2030. [Institute of Medicine, 2003].In attributable deaths, one of the leading behavior and physiological risk factors are tobacco use which is said to be 9% a/c to WHO Report 2012.

All the habits are initiated and established during adolescence like smoking and smokeless tobacco. It is also reported that by the age of eighteen, about 88% of adults begin to smoke[U.S Department of Health and Human Services, Centre for disease control and prevention, 1994]. Though, there is declination in cigarette smoking among middle and high school youth between 2000 and 2011. Also there is gradual declination in the current use of smokeless tobacco.

In the WHO Western Pacific Region, as reported in the year 2009 that smoking among men was highest which was 51% of men aged 15 whereas the percentage of women

was 22% among women. Girls of age 13-15 years old are using tobacco excessively than woman who are above 15 years of age.

There is a greater concern about the rising use of tobacco among the girls because of the data reported. The high rates among girls is very concerning as these data suggest potential substantial increase for women in the near future. The rates at which adolescent boys use tobacco average around 18% globally. [Global Health Observatory, 2011].One of the research done in United States, Trends in current Cigarette smoking among high students and Adults1965-2011, reveal that the data has declined as compared to before but is still at around 19% in adults and 18% in students.[Data and statistics, Centre for Drug and Crime, 2012].

One study in the Journal of the American Medical Association showed that, 'Seventy-two percent of students reported experimenting with formerly or ever smoking cigarettes, and 32% reported smoking in the past 30 days. Students who had participated in interscholastic sports were less likely to be regular and heavy smokers than were others who had not participated. Smoking initiation rates increased rapidly after age 10 and peaked at age 13 to 14. Students who began smoking at age 12 or younger were more likely to be regular and heavy smokers than were students who began smoking at older ages.

The pattern of tobacco use in the US varies among socio- demographic groups. A large gender gap in cigarette smoking existed in the 1960 , when over 50% of men

and only about 25 % of women smoked. This gap has narrowed but not disappeared. Currently, 21.5 % of men and 17.3 % of women smoke cigarettes.

Youth Tobacco Use in other countries

The behavior of youth tobacco use in each country is in the high range which has caused the public health in a certain country that is trying to solve the problems such as the United States, research into the risk behavior of youth in 2005, found that the prevalence of high school students smoking was 23%. (Eaton et al, 2005). In that same year, in Indonesia, they found that the prevalence of any type of tobacco among male youth were 38% and 5.3% for female youth. (Ng et al. 2007). For Saudi Arabia, they found that the prevalence of male students in AL Qassim in 2003 was 29.8% and most of them start smoking when they were 15 years or younger(Al-Damegh et al, 2004). For Africa such as Uganda, the research in 2002 showed that high school students form 2,789, 17.5% of smokers and in one third had tried or started to use tobacco before they were 10 years old and more than two- thirds of current smokers would like to quit.

The common use of tobacco use among youths in Thailand is smoking. From the study of the development and the strategy to enhance the awareness of risk in youth smoking in the 1st year, period 1 in 2005 by Srimorakot and Panichrat has found that Thai youth has experienced smoking 10.1%. The average starting age was 13 year and the youngest age to start smoking was 5 years old.

In India, the tobacco use among male school and college students were found to vary from 6.9% -22.5% according to one of the research. Among the girls, the prevalence was found comparatively low than the male students.

Usually data from all around the countries and world suggest that most of the men and women begin smoking in early age and the adolescent start to smoke around the age of 13- 15.

Pattern of Tobacco Use Among Youths

There is significant decrease in many of the developed countries of adult tobacco use over the last 20 years, there is still high rise of tobacco use among youth in many developing countries. There are three patterns of tobacco use :-

Types of Tobacco Use

The trends seen in the world about using the different types of tobacco varies from smoke or smokeless tobacco. More than two third of the youths use tobacco in some form of smoking, chewing, application to teeth and gums or sniffing.(Global Adult Tobacco Survey, 2010).

The tobacco use among youths in both smoking and smokeless forms is quite high in the South East Asian region including Nepal. Tobacco is consumed in myriad forms in Nepal which includes smoking as well as smokeless tobacco (Rani et.al, 2003).

Cigarette is the most popular prevalent smoking product consumed in urban area (John, 2005; Gupta et al 2010) in comparison to other smokeless products. Smokeless tobacco is consumed predominantly by chewing Khaini and pan/masala, surti in the mouth. (Tobacco Brief Profile,2007). Seven percent of all nepali youths smoke tobacco and 8% of them using smokeless tobacco, with 48% out of these being daily smokers. The other smokeless form of tobacco used by youths are Bidi (20%) followed by surti/ khaini (15%) and hookah (5%). (Global Youth Tobacco Survey, WHO, 2007).

Ever User and Current User Of tobacco

Ever user of tobacco was classified as the ones who had not used or tried any form of tobacco in the past one year . According to the Global Youth Tobacco Survey: Cross Country Survey, 2007 summed up that ever user and current smoking use of other tobacco products and initiation of tobacco products and initiation of smoking by never smokers in the next year increased among males but with the improvement in the students knowledge and attitudes towards smokers.(Global Youth Tobacco Survey, 2007). In one of the studies, done in Dharan about tobacco use and associated factors among adolescent, 2013 among the adolescents, the prevalence of ever tobacco use was 19.7% . The prevalence of ever smoked among male and female were 33.6% and 4% respectively. Among the ever users 98.7% smoked

cigarettes while 1.3% had smoked hukka or cigar. Ever smoker's prevalence was 17.9%. 98.7% had smoked cigarettes whereas 1.3% had smoked hukka or cigar.

According to World Health Organization, 2011, Most of the youths start using tobacco during adolescence period. So, they are the main focus group when considering the initiation of tobacco use.During the teen years, adolescents are attempting to disentangle from the influence of and identification with parents, establish stronger links with their peers and establish a sharper and independent self- identity. There are many reasons why an adolescent smoke. They continue to smoke from adolescent to adulthood. They think smoking is mature habit to do as it is a grown up behavior and children are not allowed to smoke. They experiment with tobacco products in order to show themselves more mature.

According to Tobacco Free Initiative, Statement , WHO, 2002, most tobacco use starts during childhood and adolescence. Teenagers are the therefore an appropriate focus group when considering the initiation of tobacco use. During the teen years, adolescents are attempting to disentangle from the influence and identification with parents, establish stronger links with their peers and establish a sharper and more independent self – identity.

2.3 Tobacco Use in Nepal

Tobacco Production and Trade

Cigarette production in Nepal is increasing. The import of tobacco and tobacco products are increasing. Most of the tobacco products are exported from India whereas the tobacco farming and exports of Nepal are negligible.

Smuggling of tobacco products, especially smokeless products, into Nepal is believed to be common. The country has long porous borders, and such border controls as exist are beset. [17]

It is difficult to estimate tobacco consumption in Nepal because there are few relevant data. In Nepal, the overall tobacco use prevalence among adolescents including products such as cigarettes, bidi, hukka, sulpha, rolled on tobacco, chewing tobacco (khaini, pan masala, gutka, dry tobacco leaves) is 44.7 % and the prevalence of tobacco smoking is 38.4%. Smoking was reported to be 5.5 times higher than the use of smokeless tobacco products like khaini, pan masala, gutkha etc. In Nepal, the prevalence of smoking and tobacco use is 56.5% in men and 19.5% in women (Nepal Demographic Health Survey), 2006 which is higher in comparison to other countries. The use of tobacco products is almost twice as high among boys than among girls (58.1% and 31.6% respectively). Five percent of total respondents are using both smoked and smokeless tobacco products.

The worldwide Organization's (WHO) STEP- wise approach to non- communicable disease risk factor surveillance was carried out in 2007. The survey revealed that 35.5% of men and 15% of women smoked tobacco products and 31.2% of men and

4.6% of women used smokeless tobacco. The prevalence of smoking among adults females in Nepal is one of the highest in the WHO South- East Asia Region. Among male daily smokers 85% smoke cigarettes while 46% smoke cigarettes among female smokers.

According to a study on Tobacco Economics in Nepal by WHO/SEAR in 2000, the overall tobacco use prevalence is higher in rural areas(45.8%) than in urban areas (34.4%) in the country. Among the three ecological regions, the overall tobacco use prevalence rate is highest in the high hills (68.2%) followed by Terai (42.4%) and the low hills (40.9%). Tobacco use prevalence is higher among illiterate persons(55.2%) as compared to literate population.(36.1%).

By gender, a much higher proportion of boys use tobacco (77.4% of illiterate boys) and 49.4% of literate boys than their girl counterparts (44.3% of illiterate girls and 12.5% of literate girls). Literacy appears to discourage the use of all types tobacco products among both boys and girls in Nepal.

 Smoking prevalence among the literate is much lower (29.7%) than among the illiterate (49.15) and this is true for users of smokeless tobacco products as well. Smoking prevalence for the population 10 years of age and over was 31.6% in 2008. [Tobacco Economics, Nepal, 2008]

2.4 Health and tobacco control

Usually the people in Nepal are unaware of the health risks of tobacco consumption. The tobacco consuming habit is a social habit while for some that is also a symbol of showing status.

Recent data on smoking – related disease in Nepal are scant. There were 60,000 cancer patients reported in Nepal in 1997. A 1988 study showed a high prevalence of chronic bronchitis (33.9% among men and 28.3 % among women . Prevalence of tobacco use combined with the use of unventilated indoor fires for cooking and heating produce high rates of lung disease in Nepal. [World Health Organization, 2011]

According to the report by Centre for Disease Control and Prevention,2004, Toxic ingredients in cigarette smoke travel throughout the body, causing damage in several different ways. Nicotine reaches the brain within 10 seconds after smoke is inhaled. It has been found in every part of the body and in breast milk. Carbon monoxide binds to hemoglobin in red blood cells, preventing affected cells from carrying a full load of oxygen. Cancer-causing agents (carcinogens) in tobacco smoke damage important genes that control the growth of cells, causing them to grow abnormally or to reproduce too rapidly. The carcinogen benzo- pyrene binds to cells in the airways and major organs of smokers. Smoking affects the function of the immune system and may increase the risk for respiratory and other

infections. There are several likely ways that cigarette smoke does its damage. One is oxidative stress that mutates DNA, promotes atherosclerosis, and leads to chronic lung injury. Oxidative stress is thought to be the general mechanism behind the aging process, contributing to the development of cancer, cardiovascular disease, and COPD. The body produces antioxidants to help repair damaged cells. Smokers have lower levels of antioxidants in their blood than do non-smokers. Smoking is associated with higher levels of chronic inflammation, another damaging process that may result from oxidative stress.

2.5 Types of Tobacco In Nepal

Different varieties of tobacco products are used in Nepal in both smoking and smokeless forms. Usually smoking prevalence is high in urban area but is also common in rural areas. The The type of tobacco used is both local and imported brands. The common smoking forms are :-

1. Cigarette

   It is a long stick smoked by burning.

2. Bidi

   It is smoking stick which is made from hand by rolling a dried, rectangular piece of temburni leaf and mixed with sun-dried, flake tobacco filled into a conical shape and tied with thread. Bidi are considerably cheaper than other smoking products.

3. Hookah

   It is a long wooden or steel made metallic pipes. The tobacco smoke pass through water kept in a spherical receptacle, in which aromatic substance is mixed. It was usually common in the ancient period among the villages as a symbol of socializing but now- a- days flavored hookah is growing as one of the popular smoking methods in the urban areas.

The major chewing form of tobacco is

1. Surti/ Khaini

   It is the roasted tobacco flakes mixed with slaked lime. It is prepared right at the time of consuming by mixing the ingredients in palm and rubbing it. The prepared pinch is then kept in the lower gum of the mouth. This method is usually popular in the rural area of Nepal.

2. Paan Masala

   It is a mixture of areca nut , betel quid mixture and the content of tobacco depends on the person eating. This product is chewed and sucked. This is the cheapest among all other smoking products. Unlike cigarettes, tax levied on pan masala is low.

3. Gutkha

   It is a smokeless product which is a mixture of areca nut, tobacco and some condiments which is marketed in different flavors in colorful packets.

Smoking is often seen as a symbol of independence and a modern fashion statement among the urban population, especially urban women and young people. Among rural women, tobacco chewing is more socially acceptable than smoking and among smokers bidi smoking is more popular than cigarette smoking. [WHO Brief Tobacco Profile, Nepal, 2007].

2.6 Factors and Variables

Age

One of the study done in 57,189 junior and senior school in 1990, Japan reported that the current smoking rate increased with age, more years of age with more smokers(Osaki & Minowa,1996). The study of prevalence and risk factors of smoking among 4311 secondary school students in Nairobi,2003, revealed that age had strong relationship between age and tobacco use. (Kwamanga, 2003). In one of the study done in adolescent in one of the city in Nepal, revealed that first time tobacco users were of lesser age but it increased as the age developed which was 13-15 were 48.5% and above 15 years was 48.5%. (Institute OF Medicine, 2003).

Gender

In one of the study in Columbia, done in 5431 adolescents, more females smoked than males which is 30% of females and 28% males whereas In one of the survey from smoking behavior of Thai population 1976- 2006 by National Statistics Office revealed that male smoke more than female which were also as similar as the

report of study of smoking rate of youth from inside and outside of the country in Japan (Osaki, % Minowa, 1996), in Ryria (Maziak % Mzayak, 2000) in Thailand (Sroythong, 1999; Ruengkanchanaseth, 2001, Vichit- vadakan, 2003; Lerdpiromlak, 2004).

Education Level

In many studies it has revealed that the persons who studied higher education level smoked more than the lower level according to one of the study in Japan, the students who studied in grade twelfth smoked more than the students who studied in seventh grades. (Osaki& Minowa, 1996). In one of the studies in the United States also, the students in the high school had higher percentage than middle school students. (Marshall, 2006). In one of the survey done in Nepal in government and private school, it was found that the students who studied in private school smoked more than the students in governmental school.

School performance

One of the studies done in Thailand in 2,243 students from governmental and private schools in four of the regions, revealed that their school performance or grade point average was associated with smokers (p<.05) (Sroythong, 1999). One of the studies revealed that the Thai Youths of 5,598 in overall Thailand, reported that

male youths who achieved good performance or grape point average were found to be smoking less. (Subpavong, 1997).

Accommodation During Study

In one of the studies done in 1996, studying about the factors related to smoking behavior among male vocational school students, Thailand revealed that residence was statistical significant relationship with smoking (p,0.5) (Na-Pompench 1996) and also one of the research revealed that accommodation was statistical significant relationship with smoking (p,.01) (Limtrakun, 1991).

Pocket money

In one of the studies done in school students by NCT, India, 2004, reveals that more than a third of the total of 3422 students reported to spent their significant part of their pocket money on tobacco consumption with about 9.6%. In one of the research done in Dharan, about tobacco use and associated factors among adolescent in Dharan, 2013 found that the median expenditure on tobacco to be Nepalese rupees NRs. 100.month. This study also showed likelihood of using tobacco with higher amount of pocket money.

Ethnicity

In one of the studies done in Dharan, Nepal, 2013 about the tobacco use and associated factors among adolescents revealed that Janajati were two times more

likely to consume tobacco compared with Brahmin/ Chhetris in the study. Janajatis is the broad ethnic group comprising castes mainly from the hills of Nepal. Nepal Adolescent and Youth Survey in 2010, showed similar results in which relatively advantaged Janajatis were found to have a higher prevalence of tobacco use (16.62%).

2.7 Environmental Factors
Tobacco users in family

In one of the study about Pattern of tobacco use among school children in NCT (national capital territory,2004), was observed that the parents of 59% of the children discussed harmful effects of tobacco consumption. The use of tobacco among the parents were also significantly associated with current tobacco use. One of the study in Nairubi among 5311 secondary students were surveyed, it found that parents and teachers smoking habits influenced initiation of smoking in young children while peer pressure influenced older children to smoke. (Kwamanga, 2003). In the study done by NCT, India, 2004 it revealed that 29.3% of them initiated first cigarette by their family members/relatives.

Tobacco Use by friends

In one of the research results about influencing smoking behavior among 456 junior high school students in Nonthaburi province, found that peer smoking was

significantly related to smoking (Lerdpiromlak, 2004). The study done in India by NCT, 2004 found that 37.8% of them were first introduced by their friends.

2.8 Information about tobacco advertisement

The report by Centre of Drugs and Crime that conducted The National Youth Tobacco Survey

Informed that youth exposure to tobacco –related to tobacco-related media and access to smoke (Centre For Disease Control and Prevention, 2004). This study also reported that students were exposed to cigarette and gutka advertisements through various media. In one of the studies done in Nairubi among 5311 secondary students found that cigarette advertising influenced older children to smoke (Kwamanga, 2003). In one of the study of Adolescent smoking and volume of exposure to various forms of media in USA, 2008 found that the students reported exposure to an average of 8.6th of media daily. (Primack et.al, 2008).

2.9 Instruments

I. **ASI (Addiction Severity Index)** : According to WHO, 2013 The addiction severity index, lite version (ASI-Lite) is a shortened version of the Addiction severity Index (ASI). The ASI is a semi- structured instrument used in face to face interviews conducted by researchers. The ASI covers the following areas : medical,

employment/ support, drug and alcohol use, legal, family/social and psychiatric. The ASI obtains lifetime information about problem behaviors, as well as problems within the previous 30 days. The ASI- Lite contains 22 fewer questions than the ASI, and omits items relating to severity ratings and a family history grid.

II.CAGE Questionnaire :- It is a simple, accurate tool that has been used for many years to screen patients for addictive disorders. The CAGE questions have been revised to apply to smoking behavior which are :-

III. Global Youth Tobacco Survey (GYTS) :- In 1998, the World Health Organization (WHO), the Centers for Disease Control and Prevention(CDC) partnership initiated the Global Youth Surveillance Survey to assist countries in establishing tobacco control surveillance and monitoring programs. Under this surveillance system was one of the survey that was GYTS(Global Youth Tobacco Survey). The GYTS is a school based survey designed to enhance the capacity of countries to monitor tobacco use among youth and to guide the implementation and evaluation of tobacco prevention and control programs. The GYTS uses a standard methodology for constructing the sampling frame, selecting schools and classes, preparing questionnaires, following consistent field procedures, and using consistent data management procedures for data processing and analysis. The information generated from the GYTS can be used to stimulate the development of tobacco control programs and can serve as a

means to assess progress in meeting program goals. In addition, GYTS data can be used to monitor seven Articles in the WHO FCTC.

GYTS is composed of 56 core questions designed to gather data on the following domains. The domains are :-

1. Knowledge and attitudes of young people towards cigarette smoking

2. Prevalence of cigarette smoking and other tobacco use among young people.

3. Role of media and advertising in young people's use of cigarettes.

4. Access to cigarettes

5. Tobacco- related school curriculum

6. Environmental tobacco smoke

7. Cessation of cigarette smoking

For measuring the tobacco smoking prevalence , there are three questions which are

Q. 1 Current Tobacco Smoking Status

Q.2 Past Dailey Smoking Status

Q.3 Past Smoking Status

The other questions in this guide cover additional key topics related to tobacco use and policies including cigarette consumption, smokeless tobacco, secondhand smoke exposure, cigarette advertising and economic.

For measuring the tobacco smoking prevalence, the first question measures current use, the second measures past daily use for current less than daily smokers, and the third question measures past use for current non- smokers.

IV. Teen Survey Questionnaire

In 1989, the HEA launched this teen survey was designed in order to access the prevalence of tobacco and smoking behavior among the teenage. This survey contains:-

1. Smoking Prevalence

2. Age first smoked cigarette

3. Brand of cigarette smoked

4. Giving up smoking

5. Parental smoking behavior

6. Attitude towards smoking and smokers

7. Social and educational factors

In Addition to this , questions on cigarette consumption and siblings smoking behavior were retained but in a different format. It was also necessary to adapt the respect questionnaire because some of the promotional deviced used by campaign has also changed.

- Questions new to the survey included those on the following topics,

- Cigarette dependency

- Physiological effects of smoking and giving up smoking

- Cigarette company promotions.

2.10 Theories

Social Cognitive Theory

Social Cognitive Theory is the theory which explains the behavioral patterns. It explains how people acquire and maintain certain behavioral patterns. There are many factors that affects the behavior of a person. The different factors might be environmental factor. Environmental factors like social and physical environment might affect the person's behavior. Physical environment is the size of a room, the temperature or the availability whereas social environment may include family members, friends and colleagues. Social Cognitive Theory mainly explains the model that is given below.

2.10 Article review

According to a article, ' Tobacco Use Among Youth: A Cross Country Comparison' by The Gobal Youth Tobacco Survey. Datas were presented from 75 sites in 43 countries and Gaza Strip/ West Bank region, according to the data the current use of tobacco product ranged from 62.3% to 3.3% with high rates of tobacco use in central regions. The current cigarette smoking ranges from 39.6% to less than 1%, with nearly 25% of

students who have tried their first cigarette at the age of 10 years. The students were highly influenced by pro-tobacco advertisement. [Tobacco control, BMJ]

In one of the study, ' Pattern of alternative tobacco use among cigarette smokers' , survey done on 6090 adolescent in California, 60% of the current cigarette smokers compared to only 2.1% of never smokers had ever tried smokeless tobacco, cigars, bidi. The prevalence of smoking among male was 55.7% and in high school is 80.4%. Overall, more than half of adolescent smokers reported they have used any kind of tobacco product in the past 30 day, 42.6% used cigar and 20.8% used smokeless tobacco.

According to one of the article, 'Tobacco Use Among High School Students Of West Bengal, India' 2004, of 462 school students taken as sample, overall prevalence was 9.61%. the study was done in rural and urban area of West Bengal, prevalence among students of urban area was 11.05% and among rural area was 8.61%. Tobacco use among male was 15.04% and among female was 0.90%. The current and regular tobacco use both smoke and smokeless form among male students exceeded their female counterparts.

In one of the study, 'Tobacco smoking among the primary and high school children in the administrative district of Sokolka, reports that the elderly smokers start smoking at the age of 13-15 years. More often the young people smoke in order to

impress their friends, 18% of boys and girls attempted smoking in the primary schools and 35% in the high schools.]

A cross sectional study on, ' Tobacco Use By Indian Adolescent', 2002 summarizes the studies done on school and college students. The prevalence among the male school and college students was found which varied from 6.9%- 22.5% . The rate among the girls were low ie. 0- 2.3%. It was also noted that smoking was very new habit among the females. More than 40% of children had started the smoking habit between 10-15 years of age. Among the male gender of above 15 years of age, one for of the influences for smoking was smoking by a close relative including father, mother or sister/brother.

Another cross-sectional study conducted in India about ' Prevalence and pattern of tobacco use among tribal adolescent', reports that the prevalence of any form of smoking whether smoking or smokeless tobacco was 54.4%, 53.4% and 23.1%. the tobacco use prevalence in boys was more in boys than in girls that is in boys it was 66.25% whereas in girls was 26%. In the late adolescent period tobacco use was found to be more. It was found that bidi was commonly used while pan masala and gutka were the preferred smokeless tobacco. Despite of smoking, it was also found to be using smokeless tobacco. Radio and television were the commonest modes of information.

One of the cross-sectional study done in Western Nepal about tobacco chewing and associated factors among youth, 2011 reports that the tobacco chewing prevalence was 21.3%ie. 30.2 % of male and 10.9% of female. The reasons that they gave for chewing tobacco was just like it or because of friends chew. Almost one tenth of the students among the total student 816 believed they were addicted to chewing tobacco.

One of the study done about tobacco smoking among the first-year medical students, 2006 revealed that twenty one percent of respondents were current smokers of which 17% were females and 28% were men.

One of the study, on tobacco use among young people in informal education, 2004 done among 84 samples of age about 18 and above states that 15.4 % had never smoked, 44% smoked. 40% of the total smokers smoked up to 10 cigarettes/day and 60% smoked about 11 to 20. The age that they started smoking was 13.1 years. Among them 23.5 % of the smokers expressed desire to stop smoking whereas 50% of them never tried to quit. The tobacco users were also associated with weekend alcohol consumption in 59% of the smokers.

One of the studies done in Saudi Arabia in 9 colleges it reported that the current smokers were 28.1% of which 21.6% smoked cigarette whereas 14.6% smoked waterpipe. And of the current smokers, 41.4% were living in homes where others smoke and 17% initiated smoking below the age of 12.

In one of the cross- sectional studies about Prevalence and Correlates of tobacco use amongst junior collegiates in twin cities of western Nepal, 2008 the prevalence of ever users of tobacco products was 13.9%. The prevalence among girls and boys was 20.5% and 2.9% respectively. The prevalence of cigarette smoking was 9.4% and smokeless products was 6.5%. The mean age of initiation of cigarette smoking and chewing tobacco reported was 16 and 15 years. Among the current smokers, 58.7% were smoking at least one cigarette per day. 67.8% were reported to purchase tobacco products by themselves from stores or got them from friends. 82%5 of them were reported to be exposed to tobacco advertisements through magazines/newspapers and advertising hoardings during 30 days of survey. About 62% of the students smoked one or two cigarettes per day. Among the current tobacco chewer of 104, 32.7% were reported to be using gutka , 25% were reported to be using pan masala, 23.1% were reported to be using Surti, 11.5% used khaini. About getting the information on tobacco, it was reported that 59.7% got the information from magazines, 56.9% got the information from newspaper, 48.7% got the information from television, 41.9% got information from radio while 39.2% got the information from advertisement hoarding.

The study on tobacco use among the adolescent of Pokhara metropolitan schools, 2010 reports that the more male adolescents used burning tobacco and smokeless tobacco more frequently for around 10 to 15 times per day.

According to the World Health Report, WHO, 2002, for many adolescents, smoking appears to constitute a ' rite of passage into adulthood. Smoking helps them to feel more mature because smoking is an adult behavior forbidden to children. Adolescents experiment with tobacco products to appear more mature. For some youths, smoking is seen as a pleasurable, relaxing and helpful behavior. Cigarettes often referred to as a dependable ' best friend' through both happy and difficult times. Cigarette smoking is perceived as a sociable behavior. It is viewed as a way of establishing links with other people and of being one of the group. Some studies suggested that peer pressure and the smoking habits of parents and older siblings are major factors that influence the initiation of youth smoking.

Almost 90% of teenage smokers in the United States reports that at least one of their four best friends smoke on a regular basis while only 33% of noon- smokers have a best friend who is a smoker. With regard to parental smoking, suggest that parents who smoke are more likely to have children who smoke than non- smoking parents. For example, one study in the United States Found that teenagers with two parents who smoke are more than twice as likely to smoke as those with no parents smoking. an interesting finding from recent Turkish study was that both boys and girls were more likely to start smoking if their mother smoked than if their father smoked.

According to the study of smoking patterns of youth in Turkey, 2002 , several other factors have been revealed as the risk of youth using tobacco in many of the studies.

These include tobacco industry advertising and promotion, easy access to tobacco products and low prices. The recent Turkish study found that youths who were exposed to any type of cigarette advertisement were 1.19 times more likely to experiment and 1.18 times more likely to continue smoking than youth who were not exposed to advertising.

According to one of the study of teenage smoking , Washington DC , 1979 One of the study found that the percentage of smokers among high school students in the US was higher among students who failed to participate in school activities other than sports(30.7% of boys and 22.0% of girls) than among those who participated in at least one such activity. The lowest percentage of smokers was found among members of honour societies and among those who belonged to religious clubs. In the Turkish study, involvement in an extracurricular activity was not found to have an effect on experimentation with smoking by youth. However, among youth who were already established smokers, those not involved in an extracurricular activity were found to be 1.20 times more likely to continue smoking than those who were involved in an extracurricular activity.

According to the Global Adult Tobacco Survey in the Central region of Nepal, 2008, 11.6% (15.3% boys and 6.4% girls) of adolescent students currently use any tobacco product and 8.7%(12.0% boys and 3.8% girls) had ever smoked cigarette.

About 40% of students are exposed to second hand smoke in their home and almost half in public places.

Chapter III

Methodology

This research objective was to access the pattern of tobacco use whether smoked or chewed, the amount of tobacco they used and the frequency of any kind of tobacco they used. Among the adolescent. Information regarding the research was explained below.

3.1 Research Design

The research design was descriptive cross- sectional study.

3.2 Study Area

The study was done in one of the International college of the Kathmandu Valley which is the central region of Nepal which is in Kalanki, Kathmandu, Nepal.

3.3Study Population

The study population were the adolescents studying in the International College, Kalanki, Kathmandu, Nepal.

Inclusion Criteria

- The students within 24 years.

- Students who were willing to participate in the study.

Exclusion Criteria

- The students who were ill.

- The students who were not their on the interview day.

3.4 Sampling Technique

The purposive sampling method was done to choose the college in Kalanki, Kathmandu, Nepal. Kalanki lies in the central region of the five development region of the country. Kalanki has the population of 5608 people, 550 household and 15 colleges. The prevalence of smoking in this area is increasing in a alarming rate. So, we choose the college which has the highest number of adolescents. This college was chosen in order to reach the sample size. There were two levels. One is under- graduate level which is +2 level in Nepal which has 4 sections and Graduate level (BBA) which has 12 sections each with 55 students. The total number of students in this college was 660.

Nepal

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                  ┌──────────┐   ┌──────────┐
                  │  Urban   │   │  Rural   │
                  └──────────┘   └──────────┘
                        │
                        │        Purposive Sampling
                  ┌──────────┐
                  │ Kathmandu│
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                        │
              ┌──────────┐   ┌─────────────────────┐   ┌─────────────────────┐
              │Wards (35)│───│ Ward no. 14 ( Kalanki)│──│ International College│
              └──────────┘   │ Private college (15) │   └─────────────────────┘
                             └─────────────────────┘              │
   ┌──────────────────┐                              ┌──────────────────┐
   │ Under – Graduate │                              │     Graduate     │
   └──────────────────┘                              └──────────────────┘
            │                                                  │
   ┌──────────────┐  ┌──────────────────┐        ┌──────────────────────┐
   │Science (Under│  │Management (Under- │        │Bachelors in Business │
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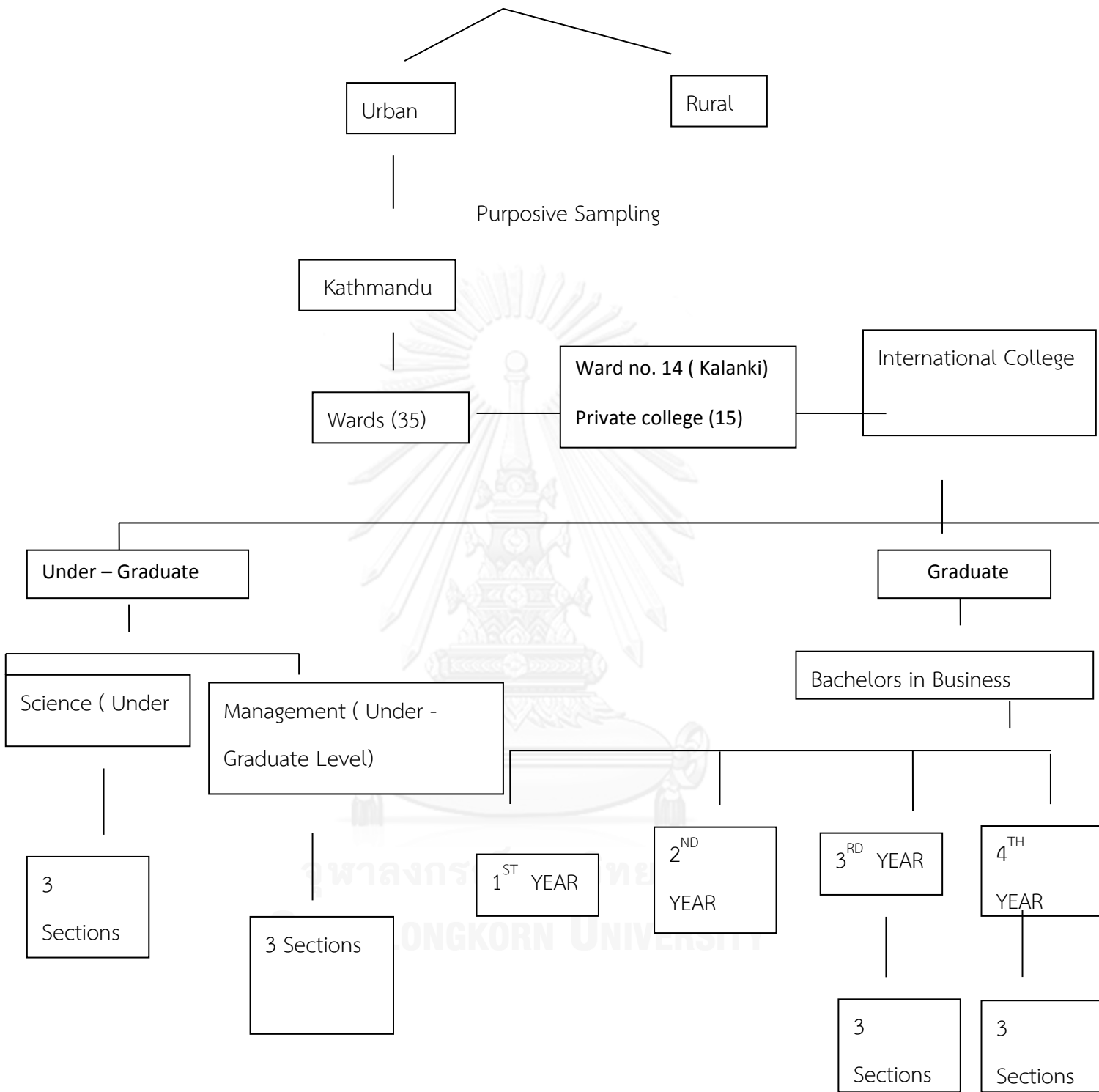
Sample size

Krejcie Morgan formula was used to calculate the sample size.

$$S = X^2 NP\ (1-P)/D^2\ (N-1) + X^2 P\ (1-P)$$

$$= 3.841\ (750)\ (0.51)\ (1-0.51)/(0.05)^2 (750-1) + 3.841*0.51\ (\ 1-\ 0.51\ )$$

$$= 378$$

Where,

S= sample size

X^2 = table value of chi-square for one degree of freedom at the desired level of confidence, which is 3.841 for the 95% confidence level.

N= the given population size (which is 750)

P = the population proportion (assumed 0.5 because this would provide the maximum sample size)

d= degree of accuracy expressed as a proportion (.05)

The total number of the data collected was 380.

3.5 Data Collection

For the data collection process, ten interviewers were hired to be assigned in the college. Before the data collection process, they were provided the short training about the study and questionnaires. They also practiced before starting the data collection process. The duration of the training was one day.

For the data collection process, they were provided the transportation charges to go to come to the college. The interview was conducted by face to face interview. The maximum number of interview per day was six interviews in order to control the quality of answers.

Instruments

Instruments used for the research to collect data were developed particularly to respond to the concept and objectives of the research. Therefore, interview method was used. The questionnaire was divided into three parts. The parts that were not covered by the standard questionnaire were created by own self with the help of three experts on the field of research. The parts of the questionnaire are:-

1. Part I - Socio-demographic
2. Part II - Environmental
3. Part III – Global Youth Tobacco Survey

Part I – Socio- Demographic Factors

The part I contained the questions for the socio-demographic factors i.e age, gender, accommodation during study, religion, school performance and pocket money.

Part II – Environmental Factors

The part II contained the questions for environmental contexts i.e tobacco use among family , tobacco use among the friends, availability of tobacco and information / resources of exposure of tobacco.

Part III Global Youth Tobacco Survey

 This part had information about mainly tobacco smoking, smokeless tobacco , media and knowledge and attitude and availability.

The validity and reliability for Global Adult Tobacco Survey was found to be good. The Face validity kappa for-ever and current users was 86.6% among the high school students [Brener et al, 1995].

3.6 Validity and Reliability

The content validity was reviewed by three experts in the field of tobacco research and dependence. The validity tested is 0.85

The reliability of the instrument was then be tested via a pilot test in 30 adult people from Nepal in similar setting. The feedback and responses from the pilot test was then used to make changes and incorporate them into the final instrument. The Cronbach Alpha is 0.70.

3.7 Data Analysis

Descriptive statistics such as frequency, percentage was used to describe the socio-demographic characteristics and tobacco use of this study population.

For the relationship of the variables, Chi-square was used to test the association between the independent variables and dependent variables.

3.8 Ethical consideration

The thesis proposal was submitted to ethical committee of Nepal Health Research Council, Kathmandu, Nepal. The registration number of the ethical council of Nepal Health Research Council is (reg. no. 24/2014).

CHAPTER IV

RESULTS

This research was to find out the pattern of tobacco use among the adolescent of International college, Kalanki, Kathmandu, Nepal.

This research was done among 380 adolescent students. The results showed that the male respondents were 263 and the female respondents were 117. Of the male respondents, 74 of them were graduate students and 189 were under-graduate students and of the female respondents, 34 of them were graduate students and 83 of them were under-graduate students.

Table 1:Socio- Demographic Characteristics

The table 1. (socio- demographic characteristics) shows that 81% of the male respondents in the graduate level were between the age of 18-20 and 52% of the female respondents in the graduate level were between the age of 22-24 years . 49% of the male respondents and 48% female respondents in the under-graduate level were between the age of 20-22 and 22-24 respectively. 100% of the both graduate and under-graduate male and female respondents were single. The male respondent (68%) in the graduate level and (71%) in the under-graduate level followed Hindu religion. Female respondent (67%) in the graduate level and (75%) in the under-graduate level followed Hindu religion.

54 % of the male in the graduate level had fair school performance and 39 % of the male respondent in the under-graduate level had poor school performance. Half of the female respondent in the graduate level had fair school performance and 41 % of the under-graduate female respondent had poor school performance. The male respondent (35%) and 47% of the female respondent in the graduate level lived with their parents and 37 % of the male respondent of the under-graduate level lived with their parents and friends and 47% of the female respondent in the under-graduate level lived with their friends.

	Graduate (n= 108)		Under- Graduate(n=272)	
	Male(n= 74) n (%)	Female (n=34) n(%)	Male(n=189) n(%)	Female(n=83) n(%)
Age 18-19 20-22 23-24	60 (81.1) 14 (18.9)	16 (47.1) 18 (52.9)	71 (37.6) 93 (49.2) 25 (13.2)	21 (25.3) 22 (26.5) 40 (48.2)
Marital Status Single	74 (100)	34 (100)	189 (100)	83 (100)

Religion				
Hindu	51 (68.9)	23 (67.6)	135 (71.4)	63 (75.9)
Christian	4 (5.4)	5 (14.7)	4 (2.1)	6 (7.2)
Buddhist	19 (25.7)	6 (17.6)	50 (26.5)	14 (16.9)
Occupation				
Un-employed	74 (100)	34 (100)	189 (100)	83 (100)
School Performance of the Student				
Poor (Below 2.00 GPA)	19 (25.7)	10 (29.4)	72 (38.1)	34 (41)
Fair (2.00-3.00 GPA)	40 (54.1)	16 (47.1)	74 (39.2)	31 (37.3)
Excellent (3.00- 4.00 GPA)	15 (20.3)	8 (23.5)	43 (22.8)	18 (21.7)
Accommodation				
Parents	26 (35.1)	16 (47.1)	71 (37.6)	25 (30.1)
Friends	26 (35.1)	15 (44.1)	44 (23.3)	39 (47.0)
Cousin	13 (17.6)	3 (8.8)	20 (10.6)	8 (9.6)
Alone	9 (12.2)		54 (28.6)	11 (13.3)

Table 2:- Pocket Money

	Graduate (n=108)		Under-graduate (272)	
	Male (n= 74)	Female(n=34)	Male (n=189)	Female(n=272)
Pocket Money	74 (100)	34 (100)	189 (100)	83 (100)
Amount of Pocket money (#) 3 to 4 USD a day 5 to 6 USD a day 7 to 8 USD a day	16 (21.6) 50 (67.6) 8 (10.8)	8 (23.5) 23 (67.6) 3 (8.8)	21 (11.1) 152 (80.4) 16 (8.5)	11 (13.3) 58 (69.9) 14 (16.9)

1 USD = 100 Nepali Rupees.

The table 2 shows that 100% of the male and female respondent in the graduate level get pocket money. Concerning about the pocket money of the graduate level, 67% of the male and female respondent get pocke70% of the female respondent in the under-graduate level get the same amount of pocket money as the respondent in the graduate level.

Table 3 :- Tobacco Use

Of total responses, 94 % of the male and female respondent in the graduate level had tried smoking and it is somewhat similar for the respondent of the under-

graduate level, 95% of the male and 83% of the female respondent had tried smoking. Concerning about the graduate level respondent, 47 % of the male and 41 % of the female respondent started smoking at the age of 13 to 15 years and of the under-graduate level, more than half (54%) of the male respondent and 43 % of the female respondent started smoking as the same of the graduate level students i.e 13 to 15 years. More than 50% of the male and female respondent of the graduate level responded that the reason for initiating smoking was curiosity. Of the under-graduate level responses, 62% of the male and female respondent has the same reason for initiating smoking which was curiosity.

	Graduate (n= 108)		Under-graduate (n=272)	
	Male (n=74) n(%)	Female (n= 34) n(%)	Male (n=189) n(%)	Female(n=83) n(%)
Ever Tried Smoking				
YES	70 (94.6)	32 (94.1)	180 (95.2)	69 (83.1)
NO	4 (5.4)	2 (5.9)	9 (4.8)	14 (16.9)
Age of smoking				
10 to 12 years	12 (16.2)	4 (11.8)	44 (23.3)	26 (31.3)
13 to 15 years	35 (47.3)	14 (41.2)	103 (54.5)	36 (43.4)

16 to 18 years	16	(21.6)	10	(29.4)	26	(13.8)	7	(8.4)
19 to 21 years	7	(9.5)	4	(11.8)	7	(3.7)		

Reasons for initiation

Curiosity	42	(56.8)	17	(50)	117	(61.9)	52	(62.7)
Imitation	11	(14.9)	3	(8.8)	25	(13.2)	3	(3.6)
Peer pressure	17	(23.0)	12	(35.3)	38	(20.1)	14	(16.9)

Table 4:- Current Tobacco Use

	Graduate (n= 108)		Under-graduate (n= 272)	
	Male (n=74)	Female(n=34)	Male (n=189)	Female (n=89)
	n(%)	n(%)	n(%)	n(%)
Currently smoke in the past 30 days.				
Yes	65 (87.8)	29 (85.3)	157 (83.1)	63 (75.9)
No	5 (6.8)	3 (8.8)	23 (12.2)	6 (7.2)
Types of Tobacco Used				
Burning Tobacco				
Yes	56 (75.7)	25 (73.5)	128 (67.7)	59 (71.1)
No	9 (12.2)	4 (11.8)	29 (15.3)	4 (4.8)
Smokeless Tobacco				

Yes	9 (12.2)	4 (11.8)	28 (14.8)	4 (4.8)
No	56 (75.7)	25 (73.5)	129 (68.3)	59 (71.1)

Of the responses of the graduate level, 87% of the male and 85% of the female respondent had smoked in the past 30 days of the interview taken. Of which, 75 %of the male had used burning tobacco and 73% of the female had used burning tobacco. The graduate level respondents, 83% of the male and 75 % of the female had smoked in the past 30 days of the interview taken.

Table 4 : Tobacco type and Frequency

	Graduate (n= 108)		Under-Graduate (n=272)	
	Male (n= 74) n(%)	Female (n= 34) n(%)	Male (n=189) n(%)	Female(n= 83) n(%)
Kind of burning tobacco used in 30 days	53 (71.6)	25 (73.5)	111 (58.7)	57 (68.7)
Cigarette	3 (4.1)	9 (26.5)	17 (9.0)	2 (2.4)
Bidis				

Frequency of smoking (30 days)

Once a day	4 (5.4)	1 (2.9)	15 (7.9)	4 (4.8)
2 to 5 times a day	23 (31.1)	6 (17.6)	64 (33.9)	23 (27.7)
6 to 8 times a day	18 (24.3)	15 (44.1)	43 (22.8)	25 (30.1)
9 to 12 times a day	11 (14.9)	3 (26.5)	6 (3.2)	7 (8.4)

Amount of burning tobacco use (30 days)

	10 (13.5)	6 (17.6)	47 (24.9)	14 (16.9)
1 to 3 sticks a day	19 (25.7)	5 (14.7)	34 (18)	13 (15.7)
4 to 6 sticks a day	13 (17.6)	12 (35.3)	40 (21.2)	25 (30.1)
7 to 9 sticks a day	14 (18.9)	2 (5.9)	7 (3.7)	7 (8.4)
9 to 12 sticks a day				

Money spent on burning tobacco (30 days)

	17 (23.0)	11 (32.4)	64 (33.9)	27 (32.5)
1to 2 USD a day	16 (21.6)	1 (2.9)	24 (12.7)	5 (6.0)
3to 4 USD a day	10 (13.5)	7 (20.6)	30 (15.9)	10 (12)
5 to 6 USD a day	13 (17.6)	6 (17.6)	10 (5.3)	17 (20.5)
6 to 7 USD a day				

Of all the responses, 71 % of the male and 73% of the female respondent of all graduate level usually use cigarette. Of the graduate level respondent, 25 % of the male respondent use 4 to 6 sticks per day and 35 % of the female use 7 to 9 sticks per day, 24 % of the male respondents and 44 % of the female respondents it smoke 6 to 8 times a day. 23 % of the male respondent and 32% of the female respondent of the graduate level spend 1 to 2 USD a day.

58 % of the male respondent and 68% of the female respondent in the under-graduate level use cigarette as burning tobacco. Of the under-graduate level responses, 24 % of the male respondents smoke 1 to 3 sticks per day and 30% of the female respondents smoke 7 to 9 sticks per day, 33% of the male respondents and 27% of the female respondents use it 2 to 3 times a day. 33% of the male and 32% of the female respondent spend 1 to 2 USD per day.

Table 5 :- Smokeless Tobacco Use

Of all the graduate level, 8% of the male respondent and 11% of female respondent smoked khaini. 9% of the male respondent used it 2 to 4 times a day and 6% of the female respondent used it once a day. 6% of the female respondent and 5% of the male respondent used 1 to 3 packets of Khaini a day. 6% of the male respondent and 5% of the female respondent spend 2 to 4USD per day and 1 to 2 USD per day.

11% of the male respondent and 3% of the female respondent of the under-graduate level used Khaini. Of the under-graduate responses, 7% of the male respondent used it about 1 to 2 packets per day and 3% of the female respondent used it about 2 to 4 packets a day. 7% of the male respondent and 3% of the female respondent used it about 2 to 4 times a day. 6% of the male respondent spend 1 to 2 USD per day and 2 % of the female respondent used 2 to 4USD per day.

	Graduate (n= 108)		Under-graduate (n=272)	
	Male (n= 74) n(%)	Female (n=34) n(%)	Male (n=189) n(%)	Female(n=83) n(%)
Type Of Smokeless Tobacco Used				
(30 days)				
Khaini	8 (10.8)	4 (11.8)	22 (11.6)	2 (3.6)
Zarda	1 (1.4)		2 (1.1)	1 (1.2)
Pan Masala			1 (1.1)	
Gutkha			2 (1.1)	
Frequency of smokeless tobacco				

used (30 days)				
Once a day	1 (1.4)	2 (5.9)	5 (2.6)	1 (1.2)
2 to 4 times a day	7 (9.5)		14 (7.4)	3 (3.6)
5 to 7 times a day	1 (1.4)	1 (2.9)	7 (3.7)	
7 to 10 times a day		1 (2.9)	2 (1.1)	
Amount of smokeless tobacco use (30 days)	4 (5.4)	3 (5.9)	13 (6.9)	1 (1.2)
1 to 2 packets a day	4 (5.4)		8 (4.2)	3 (3.6)
3 to 5packets a day	1 (1.4)	1 (2.9)	6 (3.2)	
6 to 8packets a day		1 (2.9)	1 (0.5)	
8 to 10 packets a day				
Money spent on smokeless tobacco (30 days)				
1 to 2 USD a day	4 (5.4)	1 (5.9)	13 (6.9)	1 (1.2)
3to 4 USD a day	5 (6.8)		9 (4.8)	
5 to 6USD a day		1 (2.9)	4 (2.1)	2 (2.4)
6 to 7 USD a day		1 (2.9)	2 (1.1)	1 (1.2)

Table 6 :- Price of tobacco and Pocket Money

The respondent were asked about whether the tobacco price is high or not, 39% of the male respondent and 47% of the female respondent of the graduate level responded that the price of tobacco was high and 45% of the male and 38% of the female respondent feel that the pocket money was enough. Of the under-graduate level, 49% of the male and 43% of the female respondent responded that the price of tobacco was high and for 49% of the male and 47% of the female responded that the pocket money was not enough.

	Graduate (n= 108)		Under-Graduate (n=272)	
	Male (n= 74) n(%)	Female (n=34) n(%)	Male (n= 189) n(%)	Female (n = 83) n(%)
Tobacco Price High				
Yes	29 (39.2)	16 (47.1)	94 (49.7)	36 (43.4)
No	32 (43.2)	13 (38.2)	63 (33.3)	22 (26.5)
Is Pocket money enough				
	34 (45.9)	13 (38.2)	64 (33.9)	24 (28.9)
YES	31 (41.9)	16 (47.1)	93 (49.2)	39 (47.0)
NO				

	Graduate (n= 108)		Under-graduate (n= 272)	
	Male (n= 74)	Female (n= 34)	Male(n= 189)	Female(n=83)
Place of smoking				
At home	18 (24.3)	9 (26.5)	42 (22.2)	22 (26.5)
Outside school premises	12 (2.7)	12 (5.9)	14 (7.4)	3 (3.6)
	14 (18.9)	4 (11.8)	36 (19.0)	19 (22.9)
At friend's place	1 (1.4)			

	Graduate (n= 108)		Under – graduate (n= 272)	
	Male (n=74)	Female(n=34)	Male(n=189)	Female(n=83)
At social events	30 (40.5)	14 (41.2)	65 (34.4)	3 (3.6)
In public places				16 (19.3)

Table 7 :- Place of Smoking

Of all the male respondents who currently smoke, 40% of the male respondent and

41% of the female respondent in the graduate level smoke in the public places and

34 % of the male respondent and 26% of the female respondent of the under-

graduate level smoked at public places and at home respectively.

Table 9 :- Environment

Any family member smoke or not				
Yes	45 (60.8)	16 (47.1)	103 (54.5)	44 (53)
No	29 (39.2)	18 (52.9)	86 (45.5)	39 (47)

Smoke or not if family member offered				
Probably Yes	30 (5.4)	1 (2.9)	13 (6.3)	9 (10.8)
Definatly No	55 (74.3)	27 (79.4)	168 (88.9)	62 (74.7)
Probably No	15 (20.3)	6 (17.6)	9 (4.8)	12 (14.5)

When asked whether any of their family member smoke or not, 60% of the male respondent of the graduate level responded that one of their family member smoked and 52% of the female respondent responded that they don't smoke. When asked about whether they will smoke if any family member offered them or not, 74% of the male and 79% of the female respondent responded that they would defiantly not smoke. Of the under-graduate level, 54% of the male and 53% female respondent answered that any of their family member smoked and 88% of the male

and 74% of the female responded that they would defiantly not smoke if offered

from a family member.

	Graduate (n= 108)		Under – graduate (n= 272)	
	Male (n=74)	Female(n=34)	Male(n=189)	Female(n=83)
	n(%)	n(%)	n(%)	n(%)
Any close friend smoke or not				
Yes	54 (73.0)	28 (82.4)	144 (76.2)	68 (81.9)
No	20 (27)	6 (17.6)	45 (23.8)	15 (18.1)
Smoke or not if close friend offered				
Definatly Yes	39 (52.7)	23 (67.6)	93 (49.2)	57 (68.7)
Probably Yes	18 (24.3)	2 (5.9)	44 (23.3)	4 (4.8)
Definatly No	17 (23)	9 (26.5)	48 (25.4)	22 (26.5)

Of all the graduate level, 73 % of the male respondent and 82% of the female

respondent responded that their close friend smoked and if offered from them 52%

of the male and 67% of the female responded that they would defiantly smoke.

76% of the male and 81% of the female respondent of the under-graduate level responded that their close friend smoked and if offered from them 49% of the male and 68% of the female responded they would defiantly smoke.

	Graduate (n= 108)		Under – graduate (n= 272)	
	Male (n=74)	Female(n=34)	Male(n=189)	Female(n=83)
	n(%)	n(%)	n(%)	n(%)
Have seen any teacher smoke or not				
Yes	44 (59.5)	24 (70.6)	129 (68.3)	54 (65.1)
No	30 (40.5)	10 (29.4)	60 (31.7)	29 (34.9)
Whether asked to buy tobacco by teacher				
Yes	5 (6.8)	9 (26.5)	24 (12.7)	9 (10.8)
No	69 (93.2)	25 (73.5)	165 (87.3)	74 (89.2)
Teacher discussed about harmful effects of tobacco				
Yes	38 (51.4)	17 (50)	84 (44.4)	40 (48.2)
No	36 (48.6)	17 (50)	105 (55.6)	43 (51.8)

59% of the male and 70% of the female of the graduate level responded by saying that they have seen their teacher smoke and 26 % of the female respondent have been asked to buy tobacco product. 50% of the male and female respondent responded that their teacher have not discussed about harmful effects of tobacco.

Of all the under-graduate level, 68% of the male and 65% of the female responded by saying that they have seen their teacher smoking and 12 % of the male respondent have been asked to buy tobacco product. 44% of the male and 48% of the female responded that their teacher have not discussed about the harmful effects of tobacco.

Table 8 :- Availability/ Information About Tobacco

	Graduate (n= 108)	Under-Graduate (n= 272)

	Male(n= 74) n(%)	Female (n=34) n(%)	Male (n=189) n(%)	Female (n= 83) n(%)
Tobacco shops near school				
YES	74 (100)	34 (100)	189 (100)	83 (100)
Ever seen tobacco advertisement				
	37 (50)	1 (2.9)	67 (35.4)	12 (14.5)
YES	37 (50)	33 (97.1)	122 (64.6)	71 (85.5)
NO				
In which media				
Television			5 (2.6)	
Magazines/	38 (50)	1 (2.9)	60 (31.7)	12 (85.5)
Newspaper			2 (1.1)	
Events				

Of the graduate level responses, 100 % of the male and female responded that there were tobacco shops near their school. 50% of the male responded that they have seen tobacco advertisement and have seen it in magazines/ newspaper. Of the under-graduate level, 100% of the male and female respondent responded by saying that tobacco was easily available near the school area and majority of the respondent have not seen any tobacco advertisement and 35 % of the male and 12 % of the female have seen the advertisement. Of them, 31% of the male have seen them through magazines and 85% of the female have also seen them through magazines.

Table 9 :- Education Level and Type of Tobacco

The table 1. shows the respondents who have used smokeless tobacco and burning tobacco according to their level of education. 75% of the respondent in the graduate level use burning tobacco and 69% of the respondent in the under-graduate level also used burning tobacco. Very few respondent used smokeless tobacco from both graduate and under-graduate levels which was 12 % and 11 % respectively.

	Education Level	
	Graduate (n=108)	Under- Graduate (n=272)

Burning Tobacco

Yes	81 (75.0)	187 (68.8)
No	13(12.0)	33(12.1)

Smokeless Tobacco

Yes	13 (12.0)	32 (11.8)
No	81 (75.0)	188(69.1)

Table 10 :- Association of the socio-demographic characteristics and status of smoker

	Status of Smoking (past 30 days)		p-value
	Smoker	Non- Smoker	
Age			
18-19	142 (45.1)	26 (40)	
20-22	94 (29.8)	21 (32.3)	0.7
23-24	79 (25.1)	18 (27.7)	
Gender			
Male	224 (70.9)	39 (60.9)	0.1
Female	92 (29.1)	25 (39.1)	

Religion

Hindu	228 (72.4)	44 (67.7)	0.05 *
Buddhist	75 (23.8)	14 (21.5)	
Christian		7 (10.8)	
	12 (3.8)		

Accommodation

Parents	112 (35.6)	26(40.0)	
Cousin	109 (34.6)	15(23.1)	0.03*
Friends	36 (11.4)	8(12.3)	
Alone	58 (18.4)	16 (24.6)	

School Performance

Excellent (3.00-4.00 GPA)	74 (23.5)	10 (15.4)	0.03 *
Fair (3.5 – 4.0 GPA)	131 (41.6)	30 (46.2)	
Poor (less than 3 GPA)	111 (34.9)	24 (38.5)	

Education Level

Graduate	94 (29.8)	14 (21.5)	0.02*
Under-graduate	221(70.2)	51 (78.5)	

Amount of Pocket Money

1 to 2 USD a day	45 (14.3)	11 (16.9)	
3 to 4 USD a day	240 (76.2)	43 (66.2)	0.01*

5 to 6 USD a day	30 (9.5)	11 (16.9)

*(p-value <0.05)

This table shows association between the socio-demographic characteristics and the status of smoking and shows significant relationship between age of the respondent and status of smoking with p-value (0.05) less than 0.05. It also shows significant relationship between accommodation and the status of smoking and also shows the significant relationship between the school performance of and the status of smoking.

Table 11 :- Association of the socio-demographic characteristics and types of tobacco used.

This table shows that age, accommodation, school performance was significantly associated with the types of tobacco used with p-value less than 0.05.

	Types of tobacco used		p-value
	Burning Tobacco	Smokeless Tobacco	
Age			

18-19	126(46.8)	16 (35.6)	0.06 *
20-22	77 (28.6)	16(35.6)	
23-24	66 (24.5)	13 (28.9)	
Gender			
Male	185 (68.8)	37(82.2)	0.04 *
Female	84 (31.2)	8 (17.8)	
Religion			
Hindu	195 (72.5)	33(73.3)	
Buddhist	10 (22.2)	64(23.8)	0.4
Christian	10 (3.7)	2 (4.4)	
Accommodation			
Parents	94 (34.9)	17 (37.8)	
Cousin	31(11.5)	5 (11.1)	0.007 *
Friends	102 (37.9)	7 (15.6)	
Alone	42 (15.6)	16 (35.6)	
School Performance			
Poor (less than 3 GPA)	89 (33.1)	20 (44.4)	0.01*
Fair (3.5 – 4.0 GPA)	69 (25.7)	9 (11.1)	
Excellent(3.00-4.00 GPA)	111 (41.3)	20 (44.4)	

Education Level			
Graduate	81 (30.1)	13 (28.9)	0.03*
Under-graduate	188 (69.9)	32 (71.1)	

Amount of Pocket Money			
1to 2 USD a day	41 (15.2)	4 (8.9)	
3to 4 USD a day	202 (75.1)	37 (82.2)	0.03*
5 to 6 USD a day	26 (9.7)	4 (8.9)	

*(p-value <0.05)

Table 12 :-Association of environment factors and the types of tobacco

	Types of Tobacco		Chi-
	Burning Tobacco	Smokeless Tobacco	square
Close Friend Smoking			
Yes	222 (82.5)	43 (95.6)	0.000 **
No	47 (17.5)	2 (4.4)	
Family Member Smoking			
Yes	155 (57.6)	28 (62.2)	0.009*
No	114 (42.4)	17 (37.8)	
Seen any teacher smoking			
Yes	183 (68)	31 (68.9)	0.011*
No	86 (32)	14 (31.1)	

Seen any Tobacco advertisement			
Yes	85 (31.6)	20 (44.4)	0.011*
No	184 (68.4)	25 (55.6)	
Price of tobacco			
Yes	144 (55.2)	31 (70.5)	0.00 **
No	117 (44.4)	13 (29.5)	

*(p-value <0.05)   **(p-value< 0.001)

This table shows the association of the environmental factors with the type of tobacco used and shows the significant relationship between all the environment factors i.e. family member smoking (p-value 0.00), close friend smoking (p-value 0.009) , any teacher smoking (0.011), any tobacco advertisement (0.011) and price of tobacco (p-value 0.00) less than 0.05 with the types of tobacco.

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Table 13 :-Association of socio-demographic characteristics with amount of burning tobacco

The amount of pocket money provided to the respondent is also significantly related with amount of burning tobacco used which shows p-value of 0.01 which was less than 0.05. Accommodation of the respondent (p-value 0.03 was less than 0.05).

Hence, this shows that the place where respondent lived had significant relationship

with the use of amount of burning tobacco.

	Amount of Burning Tobacco				p-value
	1-3 sticks a day	4-6 sticks	7-9 sticks	9-12 sticks	
Age					
18-19	36 (46.5)	37 (52.1)	35 (38.9)	18 (60)	0.05
20-22	23 (29.9)	15 (21.1)	36 (40)	5 (10)	
23-24	18 (23.4)	19 (26.8)	19 (21.1)	7 (30)	
Gender					
Male	57 (74)	53 (74.6)	53 (58.9)	21 (70)	.17
Female	**20** (26)	18 (25.4)	37 (41.1)	9 (30)	
Religion					
Hindu	61 (79)	51 (73.2)	62 (68.9)	20 (66.7)	
Buddhist	16 (20.8)	17 (23.9)	22 (24.4)	8 (26.7)	0.4
Christian		2 (2.8)	6 (6.7)	2 (6.7)	
Education Level					
Graduate	16(20.8)	24(33.8)	25 (27.8)	16(53.3)	0.00 **
Under-graduate	**61** (79.2)	47 (66.2)	65 (72.2)	14 (46.7)	
Accommodation					
Parents	32 (41.6)	27 (38.0)	26 (28.9)	9 (30)	0.006*
Cousin	7 (9.1)	11 (15.5)	8 (8.9)	5 (16.7)	

Friends	22 (28.6)		45 (50)	11 (40)	
Alone	17 20.8)	22 (31) 11 (15.5)	11(12.2)	5 (13.3)	

School Performance

Excellent(3.00-4.00 GPA)

	18 (23.4)	16 (22.5)	28 (31.1)	6(20.0)	

Fair (3.5 – 4.0 GPA)

	33 (42.9)	40 (56.3)	27 (30)	11 (36.7)	.013*

Poor (less than 3 GPA)

	26 (33.8)	15 (21.1)	35 (38.9)	13 (43.3)	

Amount of pocket money.

1 to 2 USD a day	15 (19.5)	13 (18.5)	10 (11.1)		
3 to 4 USD a day	54 (70.1)	49 (69) 7 (9.9)	68 (75.6)	25 (96.5)	0.013*
5 to 6 USD a day	6 (7.8)		12 (13.3)	5 (3.3)	

*(p-value<0.05)   **(p-value <0.001)

This table shows that school performance, amount of pocket money and gender have statistically significant relation with the amount of smokeless tobacco used. Gender of the respondent with p-value 0.02 which is less than 0.05. Hence, this shows that gender had relationship with the use of amount of smokeless tobacco.

This showed that more male are likely to use smokeless tobacco. The amount of pocket money (p-value 0.03>0.05) . Hence, the amount of pocket money had significant relationship with use of amount of smokeless tobacco. School performance was p-value 0.01 which was less than 0.05. Hence, the table shows that the student with poor performance had significant relation with use of amount of smokeless tobacco.

Table 14 :- Association of socio-demographic characteristics with the frequency of smokeless tobacco.

	Frequency of Smokeless Tobacco				p-value
	Once a day	2- 4 times	5-7 times	7-10 times	
Age					
18-19	5 (44.4)	12 (50.0)	6 (44.4)	5 (66.7)	0.7
20-22	5 (44.4)	12 (50.0)	5 (44.4)	6 (33.3)	
23-24	6 (11.1)		7 (11.1)		
Gender					
Male	6 (66.7)	21 (87.5)	8 (88.9)	5 (66.7)	0.02 *
Female	5 (33.3)	5 (12.5)	5 (11.1)	5 (33.3)	
Amount of pocket money					
1 – 2USD a day		5 (12.5)	5 (11.1)		

3 - 4USD a day	9 (100)	18 (75.0)	7 (77.8)	5 (100)	0.5
5 – 6 USD a day			5 (11.1)		
School performance					
Excellent	5 (11.1)	5 (4.2)	5 (22.2)		0.03 *
Fair	5 (55.6)	9 (37.5)	5 (55.6)	5 (66.7)	
Poor	5 (33.3)	14 (58.3)	5 (22.2)	5 (33.3)	
Accommodation					
Parents	5 (44.4)	8 (33.3)	5 (44.4)	5 (33.3)	
Cousin	6 (11.1)	6 (25.0)			0.1
Friends	7 (22.2)	5 (8.3)	6 (11.1)		
Alone	6 (22.2)	8 (33.3)	5 (44.4)	6 (66.7)	

*(p-value<0.05)

This table shows that there is significant relationship between the school performance, gender of the respondent and their frequency of using smokeless tobacco.

Table 15 :- Association of the socio-demographic characteristics and frequency of burning tobacco.

This table shows that gender, amount of pocket money, school performance and accommodation of the respondent had significant relation with the frequency of burning tobacco.

	Frequency of Burning tobacco				p-value
	Once a day	2- 4 times	5-7 times	7-10 times	
Age					
18-19	16 (66.7)	73 (62.9)	56 (55.4)	21 (77.8)	0.036*
20-22	7 (29.2)	37 (31.9)	44 (43.6)	5 (18.5)	
23-24	5 (4.2)	6 (5.2)	6 (1.0)	5 (3.7)	
Gender					
Male	19 (79.2)	87 (75.0)	61 (60.4)	17 (63.0)	0.01*
Female	5 (20.8)	29 (25.0)	40 (39.6)	10 (37.0)	
Amount of pocket money	8 (33.3)	21 (18.1)	11 (10.9)		
1 – 2 USD a day	14 (58.3)	85 (73.5)	78 (77.2)	24 (88.9)	0.05*
3– 4 USD a day	5 (8.3)	10 (8.6)	12 (11.9)	5 (11.1)	
5– 6 USD a day					

School performance					
Excellent	5 (20.8)	23 (19.8)	25(24.8)	5 (14.8)	
Fair	11 (45.8)	57 (49.1)	38 (37.6)	11 (40.7)	0.02*
Poor	8 (33.3)	36 (31.0)	38 (37.6)	12 (44.4)	
Accommodation					
Parents	11 (44.4)	44 (33.3)	30(29.7)	9 (33.3)	
Cousin	9 (11.1)	34 (25.0)	46 (45.5)	12 (44.4)	0.017*
Friends	7 (22.2)	14 (8.3)	13(12.9)	5 (7.4)	
Alone	6 (22.2)	24 (33.3)	12 (11.9)	5 (14.8)	
Education Level					
Graduate	5 (20.8)	29 (25)	33 (32.7)	14 (51.9)	0.032*
Under-graduate	18 (79.2)	87 (75)	68 (67.3)	13 (48.1)	

*(p-value < 0.05)

Table 16 :- Association of the environment and amount of burning tobacco used

The table shows that any tobacco users in the family and among the close friends, price of tobacco, advertisement seen anywhere, education level, the teacher's smoking were significantly associated with the amount of burning tobacco used.

	Amount of Burning Tobacco used				p-value
	1-3 sticks a day	4-6 sticks a day	7-9 sticks a day	9-12 sticks a day	
Tobacco Users in Family	51 (66.2)	52 (73.2)	37 (41.1)	15 (50.0)	0.00 **
Yes	26 (33.8)	19 (26.8)	53 (58.9)	15 (50.0)	
No					
Tobacco Users in Friends	67 (87.0)	60 (84.5)	72 (80.0)	23 (76.7)	0.002*
Yes	10 (13.0)	11 (15.5)	18 (20.0)	7 (23.3)	
No					
Price of Tobacco					
Yes	46 (61.3)	35 (50.7)	51 (59.3)	12 (40.0)	0.00**
No	29 (38.7)	34 (49.3)	35 (40.7)	18 (60.0)	
Advertisement seen about tobacco					
Yes	0 (28.6)	0 (47.9)	0 (21.1)	9 (30.0)	0.007 *
No	55 (71.4)	37 (52.1)	71 (78.9)	21 (70.0)	
Ever seen teacher					

smoking	63 (81.8)	43 (60.6)	64 (71.1)	13 (43.3)	0.001*
Yes	14 (18.2)	28 (39.4)	26 (28.9)	17 (56.7)	
No					

*(p-value <0.05)   **(p-value< 0.001)

Table 17 :- Association of environment and frequency of burning tobacco

	Frequency of Burning Tobacco				p-value
	Once a day	2-5 times	6-8 times	9-12 times	
Close Friend Smoking					
Yes	22 (91.7)	96 (82.8)	83 (82.2)	21(77.8)	
No	2 (8.3)	20 (17.2)	18 (17.8)	6 (22.2)	0.002*
Family Member Smoking					
Yes	18 (75)	78 (67.2)	44 (43.6)	15 (55.6)	0.001*
No	6 (25)	38 (32.8)	57 (56.4)	12 (44.4)	
Seen any teacher smoking					
Yes	19 (79.2)	84 (72.4)	68 (67.3)	12 (44.4)	0.026*
No	5 (20.8)	32 (27.6)	33 (32.7)	15 (55.6)	
Seen any Tobacco advertisement					
Yes	6 (25.0)	46 (39.7)	23 (22.8)	9 (33.3)	0.04*

No	18 (75.0)	70 (60.3)	78 (77.2)	18 (66.7)

Price of tobacco

Yes	14 (58.3)	68 (60.7)	48 (49.5)	14 (51.9)	0.01*
No	10 (41.7)	44 (39.3)	49 (50.5)	13 (48.1)	

*(p-value<0.05)

The table shows the association between environment factors and frequency of burning tobacco and shows significant relation between all the environment factors and frequency of burning tobacco which means that all the environment factors influence the frequency of burning tobacco.

Chapter V

Conclusion, Discussions and Recommendation

The objectives of this research were to assess the patterns of tobacco use among the adolescent of international college in Kathmandu, Nepal. The results revealed that there were about 70% male and 30% female respondent. The result showed

that the respondent in the graduate and under-graduate level have the same result overall.

The overall prevalence of tobacco use among the male and female adolescent were high. 88% of the male and female adolescent were still found to be current smokers.

More male (81%) were in the age range of 18-20 and mostly females were among the age of 23-24. Age had significant relationship with the status of smoker. Adolescents of small age seem to be using more cigarette compared to the elder adolescent. The age of the respondent also seem to affect the number of tobacco used and the times they use it. Mostly the younger adolescent of age 18-19 seem to use tobacco more frequently and in high numbers. This study revealed that about 50% of the adolescent started at the age of 13-15 years. In contrast to this study, one of the study done in junior and senior school in 1990 reported that current smoking rate increased with age, more years of age with more smokers. One of the study on tobacco use among the youth, Global youth Tobacco Survey, 2010, Nepal revealed that students started to smoke at the age of 10 years. The difference shown in the study done in 2010 and this study is that the age of initiating cigarette was in the younger age whereas now they have started to smoke in the later age.

In this study, there were about 70% male and 30% male. This study revealed that about 90% of the male and female respondents had tried smoking. About 90% of the male and 80% female respondent currently smoked. This study shows that

females smoked as equally as men smoked. There was significant relationship between the gender of the adolescent and the types of tobacco, amount and frequency of tobacco use. Though, the male adolescent had high percentage of smoking but the results showed that the females use tobacco more frequently and in high number than the male adolescent. One of the studies by Global Adult Tobacco Survey in the central region of Nepal, 2008 among 300 students, 30 % male and 18% female currently smoked tobacco. The study in 2008 showed that male smoked more than female. In contrast with this study which shows that the male and female adolescent smoked equally. The study in 2008 also showed that male adolescent who smoked were also low compared to this study. The drastic change can be seen in the last three year and now that the tobacco use among male and female adolescent have gone increased drastically. Despite of the culture prevail in Nepal, female smoke smoking rates have increased as they follow the actresses who presents smoking as a fashion statement and a method of maintaining weight.

This study reveals that most of the male adolescent (35%) lived with parents and friends and more female adolescent (40%) and only (32%)lived with friends and parents respectively. The accommodation during the study also had influence with the use , amount and frequency of tobacco with p-value 0.006. The results showed that the respondents living with parents and friends tend to use tobacco more. In

one of the previous report, 1996 about the factors related to smoking behavior among the male vocational school students, Thailand revealed that residence was significant relationship. The study showed that the children who lived alone smoked more than those living with parents which is totally in contrast with this study which reports that adolescents staying with parents smoked equally.

This study revealed that most of the male and female adolescent had poor performance in studies. The poor performance in the study has shown significant relationship (p-value 0.02) with the use of tobacco. One of the studies done in Thailand in, 2007 students from government and private school revealed that their school performance was associated with smokers. One of the studies that the Thai youth, reported that male youths who achieved good performance were found to be smoking less. Comparing it with this studies, has similar results that shows that the adolescents who had poor school performance tend to smoke more.

Receiving pocket money plays an important role with the type, amount and frequency of tobacco use. This study revealed that all of the adolescents almost 70% of the male and female received around 3-4 USD per day which was high amount of pocket money. This study also revealed that amount of pocket money had strong significant relationship (p-value 0.01) with the types of tobacco use, amount and frequency of tobacco use. 30 % of the adolescent spend around 1 to 2 USD per day on burning tobacco and spent same amount on smokeless tobacco.

One of the studies done by NCT, India, 2004 revealed that more than a third of total respondents reported to spend their significant part of their pocket money on tobacco consumption with about 9.6 %. This study also revealed that the likelihood of using tobacco was higher among the ones who got pocket money.

There were more students who were studying in the under-graduate level than the graduate level. The education level was found to be significant with using tobacco (p-value 0.00). The results shows that the students in the under - graduate level are more likely to smoke more than the graduate level students. In contrast to this study, one of the study done in Japan, the students who studied in graduate level smoked more than those who smoked in the under-graduate level.

More than 50% of the adolescents said that any member of their family smoked and when they were asked whether they smoked or not, 50% among them said that they will defiantly not smoke. This study revealed that tobacco user among family highly influenced the amount and frequency of tobacco use. The adolescents whose family members smoked tend to smoke more than other adolescent. Similar study have been done about Pattern of tobacco use among school children, NCT, 2004 was observed that the parents of 59% of the children discussed harmful effects of tobacco consumption. The use of tobacco among the parents were also significantly associated with current tobacco use. The study also revealed that about 30% of them initiated first cigarette by their family members/ relatives.

Seventy percent of the adolescents said that any of their close friends smoked and if they will be offered to smoke by their friends, more than 50% of them said that they will defiantly smoke. Tobacco use among friends highly influenced the use of tobacco. In one of the research results about influencing smoking behavior among 456 junior high school students in Nonthaburi province, found that peer smoking was significantly related to smoking (Lerdpiromlak, 2004). The study also revealed that 37.8% of them were first introduced by their friends.

Sixty percent of the adolescent said that they have seen their teacher's smoke and most of their teachers have asked them to buy tobacco products. The study shows that the more than 50 % of their teachers had not discussed about the harmful effects of tobacco use. All the respondents said there were tobacco shops near the school. 50 % of the adolescents said that the tobacco product was easily accessible and they can easily buy tobacco products. The availability and accessibility of tobacco products were highly significant with the amount and frequency of tobacco products. In one of the study about Prevalence and Correlates of tobacco use among junior collegiate in twin cities of western Nepal, 2008 showed that the availability and accessibility of tobacco products tend to increase the use of tobacco products. The adolescents who had easy accessibility of tobacco products smoked more number of tobacco and more frequently.

This research revealed that 50 % of the male have seen tobacco advertisement in magazines/ newspaper. This study revealed that more male have seen tobacco advertisement than the female adolescent. Information about tobacco product had high influence (p-value < 0.007) with the amount and frequency of burning tobacco. In one of the study about Prevalence and Correlates of tobacco use amongst junior collegiate on twin cities of western Nepal, 2008 revealed that 83% of the respondents were exposed to tobacco advertisements through magazines/newspaper and advertising hoardings. It was found that cigarette advertising influenced older children to smoke.

Forty percent of the said that the price of tobacco was high and almost all of the respondents said that their pocket money was not enough to buy tobacco products. The price of tobacco is also seen to influence the use of tobacco products strongly from this research. If the price of tobacco is high the amount of tobacco use is less whereas if the price of tobacco us less and is enough to buy tobacco product then the use of tobacco product is high.

In this study, the most common form of tobacco used was found to be burning tobacco (70%) whereas the use of smokeless tobacco was less compared to burning tobacco. The use of smokeless tobacco was found to be more in female than in male adolescent. The mostly used burning tobacco was cigarette (60%) and the commonly used smokeless tobacco was khaini (11%). Similar results was revealed in

the study about 'Pattern of alternative tobacco among cigarette smokers, which revealed that 60% of the adolescent smoked cigarette. Only 20.8% of the adolescents had ever tried smokeless tobacco.

This research revealed that 30 % of the adolescent smoked around 7-9 sticks of burning tobacco. The highest number of burning tobacco used was 7-9 sticks per day. 7% of the adolescent used around 1-2 packets of smokeless tobacco per day. It was the highest number of smokeless tobacco packets per day. One of the study, on tobacco use among young people in informal education, 2004 states that 40% of the adolescent smoked up to 10 cigarette/ day and 60% of them smoked 11 to 20 cigarette per day. This shows that the amount of use of tobacco has decreased compared to the study done now and that in 2004.

This study revealed that 30% of the adolescents smoked burning tobacco for 2 to 5 times a day. Female adolescent were more likely to smoke more frequently than the male adolescents. Nine percent of the adolescent were reported to use smokeless tobacco 2 to 4 times a day. Male adolescents were more likely to use smokeless tobacco more frequently than female adolescent. The study on tobacco use among the adolescent of Pokhara metropolitan schools, 2010 reports that the more male adolescents used burning tobacco and smokeless tobacco more frequently for around 10 to 15 times per day. In the previous years, Tobacco use among the adolescent in Western Nepal, 2008 it was reported that the adolescents used about

11-20 sticks per day whereas in this study it was reported that the highest number of sticks used per day was 7-9. Though the amount and frequency of tobacco use has decreased but the prevalence and user number has gone up drastically.

Conclusion

This research studied the pattern of tobacco use among the adolescents of Nepal. Half of the adolescents were in between the age group of 18-19. All of the respondents got average amount of pocket money. Forty percent of the adolescents lived with their parents and with friends. Fifty percent of the adolescents initiated smoke at the age of 13 -15 years and majority of them tried out of curiosity. This study reports that the about 88% of the adolescents currently smoked and commonly used tobacco was burning tobacco (70%). Half of the adolescent responded that the tobacco product was easily accessible everytime and they were reported to smoke in public places. Half of the adolescents responded that any of their family member and friends smoked.

There are many factors influencing the use of tobacco products. There was significant relationship between the independent and dependent variables studied. Accommodation , school performance and education level, amount of pocket money was significant with the adolescent being smoker. (p-value <0.05) .Close friends smoking highly influenced (p-value 0.00<0.001) the type of tobacco they used. Age of the respondent, accommodation during stay, school performance and

amount of pocket money were significantly associated with the amount of tobacco they used. Adolescent of younger age and those living with friends smoked around 7-9 sticks per day and more frequently i.e 5-7 times a day.

The use of tobacco among the family members were highly associated with the amount of tobacco they used. Around 50% of the adolescent whose family members smoked wee reported to use 7-9 sticks per day and more frequently i.e 6-8 times. The easy availability of the tobacco highly influenced the use of tobacco more frequently. Around 60% of the adolescent smoked 1-3 sticks per day (p-value <0.05). The price of the tobacco also influenced the use of tobacco products. The exposure to tobacco products also affected the use of tobacco use. Forty seven percent of the adolescents smoked 4-6 sticks of tobacco per day (p-value <0.05) compared to those who has not been exposed to tobacco advertisement.

This research reports that the amount of pocket money, accommodation during the study, their school performance influences the use of tobacco products. Similarly, having smokers as the family member and friends, teachers and the easy availability of the tobacco product also influences the use of tobacco products frequently in the adolescents.

Limitation

The study was based only in one college, so the result would not be enough to generalize it to the whole population.

For Further researchers, I would like to suggest them to conduct the study in larger population. Exploring more aspects of the patterns of tobacco use would also be a good chance to get further knowledge on the situation of tobacco use. Research can also be conducted on the implementation of the tobacco law in the country.

Re-commendation

1. School based educational programs focusing on all forms of both smokeless and burning tobacco should be planned. School curriculum based on tobacco harmfulness and hazardousness should be taught in the school and teachers should discuss about tobacco harmfulness with the students.

2. School and the nearby premises of the school should be declared as the smoke free zone to discourage the use of tobacco use among the adolescents.

3. There should be law on prohibiting the use of tobacco in the public places which might help to decrease the use of tobacco products and certain amount as penalty should be charged.

4. Strong law should be enforced about banning the tobacco. The tax on the tobacco should be increased in-order to control the selling of the tobacco products. The rate of female smokers have gone up which is because they

take smoking as one of the reason to maintain their figure and as a fashion statement. So, role- models and actresses who don't smoke should be used to promote the tobacco campaigns so that the adolescent would get attracted to the advertisement and follow their role model and actress.
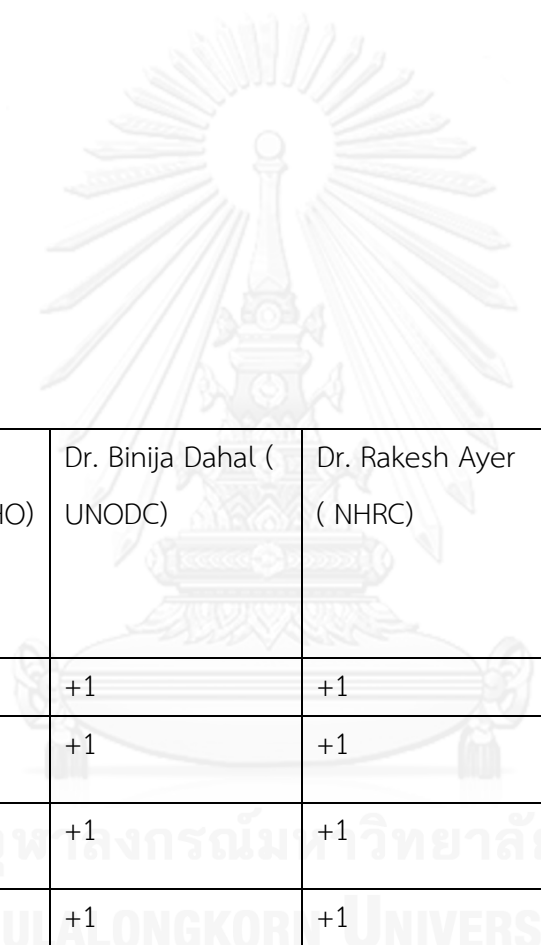
5. In the school, an anti-tobacco group of non- smokers should be made and they should encourage anti-tobacco campaigns inside school to discourage the use of tobacco.

6. Parental counseling is necessary to inform them about the influence of their tobacco on their children. Programs to protect every adolescent from being exposed to the tobacco use of others are necessary.

7. 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. More anti- tobacco message in the print, radio and or television should be done.

8. Different anti-tobacco campaigns should be done and adolescents should be included in the campaigns which will increase their knowledge and give them sense of understanding about not using the tobacco products.

Appendix I

Question Number.	Dr. Prakash Ghimire (WHO)	Dr. Binija Dahal (UNODC)	Dr. Rakesh Ayer (NHRC)	Index of Item Objective Congruence	Ref: Range (-1 to +1)
1	+1	+1	+1	+1	√
2	-1	+1	+1	+0.67	√
3	+1	+1	+1	+1	√
4	+1	+1	+1	+1	√
5	+1	+1	+1	+0.67	√
6	+1	+1	+1	+0.67	√
7	+1	+1	+1	+0.67	√
8	-1	+1	0	0	√
9	+1	+1	+1	+1	√
10	+1	+1	+1	+1	√

Congruence Index

Question Number.	Dr. Prakash Ghimire (WHO)	Dr. Binija Dahal (UNODC)	Dr. Rakesh Ayer (NHRC)	Index of Item Objective Congruence	Ref: Range (-1 to +1)
21	+1	+1	+1	+1	√
22	-1	+1	+1	+0.67	√
23	+1	+1	+1	+1	√
24	+1	+1	+1	+1	√
25	+1	+1	+1	+0.67	√
26	+1	+1	+1	+0.67	√

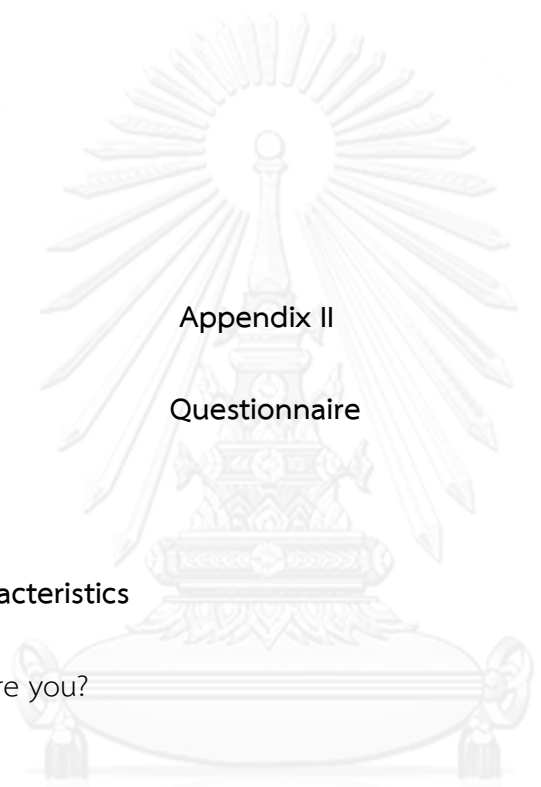| Question Number.	Dr. Prakash Ghimire (WHO)	Dr. Binija Dahal (UNODC)	Dr. Rakesh Ayer (NHRC)	Index of Item Objective Congruence	Ref: Range (-1 to +1)
11	+1	+1	+1	+1	√
12	-1	+1	+1	+0.67	√
13	+1	+1	+1	+1	√
14	+1	+1	+1	+1	√
15	+1	+1	+1	+0.67	√
16	+1	+1	+1	+0.67	√
17	+1	+1	+1	+0.67	√
18	-1	+1	0	0	√
19	+1	+1	+1	+1	√
20	+1	+1	+1	+1	√

Question Number.	Dr. Prakash Ghimire (WHO)	Dr. Binija Dahal (UNODC)	Dr. Rakesh Ayer (NHRC)	Index of Item Objective Congruence	Ref: Range (-1 to +1)

27	+1	+1	+1	+1	√
28	-1	+1	+1	+0.67	√
29	+1	+1	+1	+1	√
30	+1	+1	+1	+1	√
32	+1	+1	+1	+0.67	√
33	+1	+1	+1	+0.67	√
34	+1	+1	+1	+0.67	√
35	-1	+1	0	0	√
36	+1	+1	+1	+1	√
37	+1	+1	+1	+1	√
38	+1	+1	+1	+1	√
39	+1	+1	+1	+1	√

Appendix II

Questionnaire

Background Characteristics

1. How old are you?

   ....Years

2. Gender :　　[　　]　　Male

   [　　]　　Female

3. Religion :　[　　]　　Hindu　[　　]　　Buddhist

   [　　]　　Christian　[　　]　　Muslim

4. Occupation : □ Employed

   □ Un- employed

5. Marital Status : □ Single

   □ Married

6. Education level : □ Graduate

   □ Under-graduated

7. How is your performance in school ?

   □ Excellent □ Fair

   □ Poor

8. Whom do you live with ?

   □ Parents □ Friends

   □ Cousin □ Alone

9. Do your parents support you for pocket money?

☐ Yes   ☐ No

10. How much is your pocket money?

☐ 3 to 4USD. per day

☐ 5 to 6 USD. per day

☐ 7 to 8 USD . per day

☐ 9 to 10 USD. per day

Tobacco Smoking

11. Have you ever tried any kind of smoking ? (IF Not, skip to 12)

☐ Yes   ☐ No

12. How old were you when you tried smoking at first ?

☐ 10 to 13 years old   ☐ 13 to 15 years

☐ 15 to 18 years old   ☐ 18 to 21 years old

13. What were the reasons for your initiation?

| | Curiosity | | Peer pressure |

| | Imitation | .... Others (specify) |

14. Do you currently smoke any tobacco products ? (If Not, skip to 18)

| | Yes | | No |

15. If Yes, have you smoked in the past 30 days ?

| | Yes | | No |

16. If Yes, what kind of tobacco product do you use ?

| | Burning tobacco | | Smokeless |

[If you use burning tobacco and both , continue with question. no 15]

[If you use smokeless tobacco, continue with question. no 19]

17. If you use burning tobacco, which kind of tobacco do you mostly use?

| | Cigarette | | Bidis |

| | Pipe |

18. If you have use burning tobacco in the past 30 days, how many times a day did you smoked?

[ ]   Once a day   [ ]   2 to 3 times a day

[ ]   6 to 8 times a day   [ ]   10 to 15 times a day

19. If you use burning tobacco, how many sticks a day do you use in a day ?

[ ]   1 cigarette per day   [ ]   2 to 5 cigarette per day

[ ]   6 to 9 cigarette per day   [ ]   9 to 12 cigarette per day

20. In the past 30 days, how much have you spend on the burning tobacco?

[ ]   1 to 2 USD a day   [ ]   3 to 4 USD a day

[ ]   4 to 5 USD a day   [ ]   6 to 7 USD a day

Smokeless Tobacco Use

21. If you use smokeless tobacco product, have you used it in the past 30 days ?

Yes	No

22. If you use smokeless tobacco, which kind of tobacco do you mostly use?

Khaini	Zarda
Pan Masala	Gutkha

23.   If you have smoked in the past 30 days , how many times a day do you smoke?

Once a day	2 to 4 times a day
5 to 7 times a day	7 to 10 times a day

24. If you have used smokeless tobacco in the past 30 days, how many packets do you use ?

1 to 2 packets a day   3 to 7 packets a day

☐   8 to 10 packets a day   ☐   10 to 12 packets a day

25. In the past 30 days, how much did you spend on smokeless product ?

☐   ☐

1 to 2 USD a day   3 to 4 USD a day

☐   5 to 6 USD a day   ☐   7 to 8 USD a day

26. Is your pocket money enough to buy any kind of tobacco product?

☐   Yes   ☐   No

☐   Don't Know

Environment

27. Where do you usually smoke tobacco product ?

☐   ☐

At home   outside school premises

☐   At friend's places   ☐   At social events

☐

In public places

28. Do any of your family member smoke any kind of tobacco product?

☐ Yes   ☐   No (If No, skip to

question 25.)

29. If any of your family member offered you any kind of tobacco product, would
   you smoke tobacco product ?

☐   Definetly Yes   ☐

Probably Not

☐   Definetly No   ☐

Probably Yes

30. Do any of your close friends smoke any kind of tobacco product?

☐   Yes   ☐

No

31. If any of your friend offered you any kind of tobacco product, would you
   smoke tobacco product?

	Definetly Yes	

Probably Not

	Definetly No	

Probably Yes

32. Have you ever seen any of your teacher's smoking ?

	Yes		No

33. Have any of your teacher ever asked to buy any kind of tobacco product ?

	Yes		

No

34. Has any of your teachers discussed the harmful effects of tobacco use?

	Yes		

No

35. Is it easy to buy any kind of tobacco product near your college?

	Yes		

No

36. Is the tobacco product easily accessible to you?

	Yes		No

Information about media and advertisement

37. Have you ever seen smoking advertisement in any media ?

☐   Yes   ☐

No

38. In which media, have you mostly seen the advertisement ?

☐   Television   ☐

Radio   ☐   ☐

Magazines / Newspaper

Hoarding Board

.... Other (specify)

39. Have you ever been offered free cigarette from any company ?

☐   Yes   ☐

No

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APPENDIX

VITA

PRATIBHA SHAHI

Date of birth : 1st December 1989

Permanent Address : Bulbule 7, Chabahil

Kathmandu, Nepal

Marital Status : Single

Nationality : Nepalese

Religion : Hindu

Email : mepratibha@hotmail.com

Cell Phone : +977 9841144125, 9849187855

Residence:- 01- 4498685

PERSONAL PROFILE

Pro-active and result orientated individual looking for challenging job. Good team player, quick learner with a can do attitude, good communication skills and ability to work independently along with strong problem solving and interpersonal skills. Passionate in regards to public health, social issues affecting the health of the people.

ACADEMIC QUALIFICATIONS

Master's in Public Health in Chulalongkorn University, Bangkok, Thailand. Major areas Reproductive Health, Community Assessment, Health Behavior , Field Study and Addictive Behavior, Thesis.

Research on Patterns Of Tobacco Use Among The Adolescents In The International College In Kalanki , Kathmandu, Nepal.

Completed Bachelor's in Public Health from Purbanchal University, major areas Epidemiology, Research methodology.

Research conducted on Factors affecting the compliance of iron supplementation in post natal mothers in AMDA hospital, Jhapa.

Name of course   Intermediate in Science

Board   Higher Secondary Education Board

College   Prasadi Academy

Year of completion   2008

Percentage   60%

Name of Exam   School leaving certificate

Board   Government of Nepal

University   Nepal Institute Of Health Sciences

Year of completion   2006

Percentage   71.65%

PROFESSIONAL EXPERIENCE + FIELD

Public Health Officer and Health Advisor in Chevs (Community for Health , Education and Volunteering Service) Nepal. [May 2011- January 2012].

• Planning and implementing programs in different District with the health of International and National volunteers.

Support Program Supervisor Of VSO :-

• Supervision of Volunteers along with the main program supervisor.

• Guide the volunteers emotionally and professionally.

• Maintains a work environment for Nepali as well as British volunteers

- Ensure volunteers are safe and they have required basic needs in the community.

- Meetings with the host homes volunteers are staying and with the main focal teachers of the school they work at.

- Helping in Reference writing.

- Other duties that are assigned by the main supervisor.

Vice- President of VSO Alumni Association

- Overall direction and vision to alumni association.

- Taking responsibility in the absence of president.

- Programmatic intervention.

- Supervising membership secretary and event organizer.

INTERNSHIP IN VSO

- Worked as an intern in VSO since two weeks.

- Responsible for building corporate relation along with the partner building officer to the partner organization.

- Documenting and filing the documents of the finance.

- Been to two official field visits, once for the review of volunteering phase in Surkhet for two days and to see the security and risk assessment of the volunteers in Myagdi, Baglung and Kaski.

- Preparing reports in the office.

VOLUNTEERING IN SURKHET

• Worked as a Volunteer, International Citizen Service in Voluntary Service Overseas (VSO) Nepal on the project of Health and Sanitation in Surkhet district from 26th April 2012 till date for 3 months with British volunteers.

• Carried different campaigns and events in the schools.

• Gave lessons on personal hygiene and menstrual hygiene.

• Planned and delivered water purification, waste management training, earthquake preparedness training to the students and teachers.

• Formed cricket club which also focused on health and sanitation.

• Managed the budget in the CAD (community action day).

• Facilitated sessions on MPR (mid-phase review which was led by volunteers themselves of the review of the program).

• Worked as Volunteer, International Citizen Service in VSO on Health and Sanitation in Hetauda for 3 days.

Activities :-

• Worked as Local supervisor for the 2 days polio program conducted in Baneshwor in 2011 under WHO.

• Public Health Advisor of CHEVS (Community for Health, Education and Volunteering Service).

• One month long Comprehensive Field Practice in DHO of Nawalparasi District (As a part of the third year course study)

• One month long Community Diagnosis program in Lamjung District (As a part of the second year course)

• Participated in many discussion programs related to Health and Civic Issues.

• Interpreted and facilitated sessions on Gender Awareness on school teachers of Baglung District from VSO.

TRAININGS:

- Participated in one day training on water purification given by EDS (Environment Development Society).

- Participated in one day training on waste management given by EDS (Environment Development Society).

- Participated in three days long training of Saath Saath Project in SAC.

- Participated in one week long HIV/AIDS training for children given by UNICEF.

- Participated in training on Health Service Management on DHO (District Health Office), Nawalparasi.

- Training provided on the topic of water purification and waste management to school children, community people and the youth clubs of Surkhet and Hetauda.

SKILLS ACQUIRED

- Computer   : Ms-word, Ms- excel

    SPSS, EPI-Data, Powerpoint

- Good concept in epidemiology and research methodology.

- PRA/PLA Tools and Technique.

LANGUAGE

- Fluent in English, Nepali writing and speaking.

- 1 months course on English Preparation Course in American Language Centre.

- Partial knowledge on French and Hindi.

INTERESTS

- Research

- Visiting new places

- Social service

- Reading books