

**Prevalence and Contributing Factors of Smoking among Undergraduates in Pokhara Metropolitan City, Nepal**Pooja Khadka<sup>1</sup>, Pooja Bhandari<sup>1</sup><sup>1</sup>School of Health and Allied Sciences, Pokhara University, Pokhara, Nepal**ABSTRACT**

**Introduction:** Smoking is one of the most common preventable causes of death globally, contributing significantly to the global burden of diseases, especially chronic non-communicable diseases like cardiovascular and respiratory diseases, cancers, and stroke. It is a known fact that cigarette smoking is harmful and addictive, but very few pay attention to its deadly results. The study was conducted to assess the prevalence and contributing factors for smoking among undergraduates.

**Methods:** The purposive sampling technique was used to select the subjects. Total 220 undergraduates were chosen and a self-administered questionnaire was used to collect data.

**Results:** The respondents at around 70.0% were of age less than 21 whereas 30.0 % were of age more than 21. The mean age was  $21.01 \pm 1$  years. More than half (54.08%) of the respondents were female, while 45.09% were male. The majority (92.72%) of the respondents belonged to the Hindu religion. Regarding ethnicity, 70.93% of the respondents were from the upper caste, while less than 1.36% belonged to religious minorities. The prevalence of smoking was found to be 15.0%. Among 67.16% of the respondents initiated smoking at the age of 15-20 years. Maximum 56.71% bought smoking agents from their own pocket money. The major influencing factors for smoking were experimentation i.e. 46.26%, followed by peer pressure, 25.37%. The variables such as sex, age, religion, and educational status of a mother were found to be associated with smoking.

**Conclusion:** The prevalence of smoking among college students is low. Among them who smoke, majority of the students started smoking as experimentation and peer pressure. Strict laws against smoking should be formulated and implemented effectively. Awareness programs should be carried out focusing on harmful effects of smoking.

**Keywords:** *Contributing factors, Prevalence, Smoking, Undergraduates*

**INTRODUCTION**

Smoking is characterized as the act of inhaling cigarette smoke, and smoking habit is defined as the physical addiction to tobacco products.<sup>1</sup> The most popular material is tobacco leaves that have been rolled into a small square of rice paper to form a small, round cylinder known as a "cigarette".<sup>2</sup> Smoking has become a rapidly increasing issue of public health concern on a global scale, with about a third of the world's population aged 15 and up being smokers.<sup>3</sup>

Trends of smoking among youth and teens are a major problem that affects countries all over the world. Before becoming a frequent smoker, young people go through a series of phases that are affected by a number of factors. It is estimated that around 90.0% of smokers begin smoking prior to the age of 18.<sup>4</sup>

Smoking is the most common preventable cause of mortality in the world, adding to the global burden of diseases, especially chronic non-communicable diseases such as cardiovascular and respiratory diseases, cancers,

and stroke.<sup>5</sup> Around 80.0% or more than one billion smokers in the world live in low and middle-income countries, which bear the brunt of tobacco-related disease and death. It is a known fact that cigarette smoking is harmful and addictive, but very few pay attention to its deadly results.<sup>6</sup> Smoking affects the body with many irreversible damages and reduces the human life span by 25 years.<sup>7</sup> Various studies related to smoking show that nearly all first use of tobacco takes place before high school graduation.<sup>8</sup> It is because of the various reasons such as 'to look cool and mature', or sociable or believing that smoking use is a good medium for coping with stress and weight control.<sup>9</sup>

Smoking has various harmful consequences, which not only include health hazards but also lead to other behavioral issues. Teenagers who smoke are three times more likely to use alcohol, eight times more likely to smoke marijuana,

**Correspondence:** Pooja Khadka, School of Health and Allied Sciences, Pokhara University, Pokhara, Nepal. Email: [Khadkapuza16@gmail.com](mailto:Khadkapuza16@gmail.com)

and 22 times more likely to get into fights, carry weapons, attempt suicide, suffer from various mental problems.<sup>5</sup>

Tobacco use is responsible for an estimated 4.9 million deaths per year. If the current epidemic persists, this number is projected to increase to about 10 million by 2020, with developed countries responsible for more than 70.0% of the deaths. Smoking is a preventable behavior that generally starts in adolescence. Trends suggest that smokers who have taken up the habit in adolescence and continue to smoke regularly have a 50.0% chance of dying from tobacco-related diseases.<sup>10</sup>

According to the World Health Organization (WHO), about a fifth of Nepal's 26 million people smoke on a daily basis. The number for those who have ever smoked is much higher. Interestingly, Nepal has a much higher rate of smoking among women (18.0%), than neighboring India (5.0%) or Thailand (2.01%). The use of chewing tobacco is also widespread, especially among men, with nearly one-fifth using khaini.<sup>11</sup> According to the World Bank collection of Development Indicators 2015, in Nepal, the prevalence of smoking among females (% in adults) is 11.01%, whereas that of males (% in adults) is 37.01%.<sup>12</sup>

College is a crucial adjustment time during which young people begin to experiment with tobacco use. According to some studies, the prevalence of cigarette smoking continues to rise among college students is rapidly growing.<sup>6</sup> The study conducted among college students in Northwest Ethiopia revealed a 13.01% lifetime prevalence rate of cigarette smoking and 8.01% current prevalence of cigarette smoking. Another survey among undergraduate medical students which was conducted at Addis Ababa University shows a lifetime smoking prevalence of 9.0% whereas the current smoking prevalence was reported to be 1.08%. A survey conducted among university students in southwest Nigeria showed that the prevalence of ever smoked was 22.0%, while those that currently smoke were 13.07%. Similarly, a study conducted among university students in Cameroon reported an ever smoking prevalence of 30.01% and the current smoking prevalence of 6.03%.<sup>13</sup> This shows the increasing trend of smoking among undergraduates.

Smoking is an unhealthy behavior which is a widespread health problem and one of the major cause for morbidity and mortality in the developing countries.<sup>2</sup> In Nepal, there is not sufficient data on the prevalence of and risk factors associated with smoking.<sup>6</sup> After this study, it helps to provide first baseline datasets towards controlling, and contributing factors for smoking among undergraduate

students as well as preventing the undergraduates from initiating smoking habit along with helping them in smoking cessation is the best method for the promotion of health status of Nepal. It is also important to investigate the associated factors to design effective preventive measures against smoking. Only few studies have investigated the prevalence and factors associated with smoking. Therefore the study was done to estimate the prevalence and contributing factors.

## METHODS

Cross sectional descriptive research design was adopted to assess the prevalence and contributing factors among under-graduates students from different colleges of Pokhara Metropolitan city of Kaski district. Four colleges were selected for the data collection, i.e., School of Engineering, Pokhara College of Management, Triveni International College, and Janapriya Multiple College. The study population consisted of under-graduates students from different colleges in different faculties. The purposive sampling technique was used to select under-graduates students of different colleges. The sample size was calculated considering the prevalence rate of 17.0%.<sup>21</sup> The calculated sample size was calculated with the allowable precision of 5.0% and Z-value at 95.0% level of confidence, using the formula  $n = (Z^2 pq/d^2)$ .<sup>22</sup> The calculated sample size was 220 with a non-response rate of 20.0%. The total sample size was 220 from different colleges of different faculties. The instruments for data collection was a self-administered questionnaire, divided into three parts, i.e., Part I: socio-demographic information Part II: prevalence related information, and Part III: contributing factors related information.

Data were collected after getting approval from the concerned institutional authority. Anonymity and confidentiality were maintained by coding the information provided by the respondents. The collected data were checked and compiled manually on the same day of collection. Data were coded and analyzed in Statistical Package for Social Sciences (SPSS) version 21 software. Descriptive data were analyzed by using mean, median, frequency, percentage, and standard deviation. A Chi-square test was used to assess the association of smoking with their selected demographic variables. Ethical approval was taken from Pokhara University Research Center (PURC) and Institutional Review Committee (IRC).

**RESULTS**

Table 1: Socio- Demographic Characteristics of the

Respondents n=220

Variables	Frequency	Percent (%)
<b>Age (in years)</b>		
≤21	154	70.00
>21	66	30.00
<b>Sex of the respondent</b>		
Female	119	54.02
Male	101	45.93
<b>Religion</b>		
Hindu	204	92.72
Buddhist	11	5.300
Muslim	03	1.38
Christian	02	0.90
<b>Ethnicity</b>		
Upper cast	156	70.93
Janajati	46	20.90
Dalit	15	6.81
Religious minorities	03	1.36
<b>Residence of the respondents</b>		
Home	152	69.10
Rent and others	68	30.90

The data depicts the demographic background of the respondents shows that 70.0% of respondents were of age less than 21 whereas 30.0% were of age more than 21. The minimum age was 19, and the maximum age was 26, respectively. The mean age was  $21.01 \pm 1$  years. Most of the respondents, 54.02%, were female, while 45.98% were male. The majority of the respondents, 92.71%, belonged to the Hindu religion. Regarding ethnicity, 70.93% of the respondents were from the upper caste, while less than 1.36% belonged to religious minorities.

Out of the total, 69.10% of the respondents reside in their home whereas less than 1.83% reside in places other than home.

Table 2: Socio-Economic Characteristics of the Respondents n=220

Variables	Frequency	Percent (%)
<b>Family Income (R.s/Month)</b>		
<10000	29	13.19
10000-30000	38	17.27
30000-50000	102	46.36
>50000	51	23.18
<b>Educational status of Father</b>		
Illiterate	17	7.72
Primary	27	12.27
Secondary	31	14.09
Higher secondary	84	38.20
Bachelors and above	61	27.72

**Educational Status of Mother**

Illiterate	45	20.45
Primary	52	23.63
Secondary	58	26.36
Higher secondary	51	23.18
Bachelors and above	14	6.36

The respondents' socio-economic status shows that less than half of the respondents, 102(46.36%), had a family income range between 30,000-50,000. The minimum and maximum income (Rs/month) were 7,000 and 2,00,000, respectively. Regarding parental education, More than half, 92.33% of the respondent's fathers were literate, while most of the respondent's mothers, 79.52% were literate.

Table 3: Distribution of Respondents on the basis of Smoking habit n=220

Smoking habit	Frequency	Percent (%)
Yes	67	30.45
No	153	69.55

Out of 220 respondents, 30.45% had experienced smoking, whereas 69.55% didn't have even tried or experienced smoking.

Table 4: Distribution of Smokers based on Current Smoking status n=67

Smoking status	Frequency	Percent
<b>Current Smokers</b>	<b>33</b>	<b>49.25</b>
Yes daily	19	28.35
Yes occasionally	14	20.89
<b>Non-current smoker</b>	<b>34</b>	<b>50.75</b>

The data in the table represents the smoking status of respondents. Out of 67 smokers who have a smoking habit, 49.25% of them are current smokers. This result shows that the prevalence of smoking among undergraduates is 15.0%.

Table 5: Distribution of Respondents based on the Types of Smoker n=67

Type of smoker	Frequency	Percent (%)
Regular smoker	19	28.39
Occasional smoker	14	20.89
Past smoker	07	10.44
Experimental smoker	27	40.28

The data showed that out of 30.45% smokers, a maximum of 40.28% of respondents were experimental smokers,

28.39% were regular smokers, 20.89% were occasional smokers, whereas only 10.44% were past smokers.

Table 6: Distribution of Respondents based on the age of Smoking Initiation n=67

Age of initiation	Frequency	Percent
<15 years	12	17.92
15-20 years	45	67.16
20-25 years	9	13.43
Others	01	1.49

The maximum of the respondents, 67.16%, initiated smoking at the age of 15-20 years. Smoking at the age of fewer than 15 years was 17.92%. Similarly, 13.43% respondents initiated smoking at the age of 20-25 years, whereas only one respondent, 1.49%, initiated smoking other than these age ranges.

Table 7 : Frequency of Respondents based on the Agent used for Smoking n=67

Variable	Frequency	Percent
Types of agent used for smoking *		
Manufactured cigarettes	60	89.55
Self-rolled	04	5.97
Pipe	04	5.97
Cigars	10	14.92

Most of the respondents, 89.55%, used manufactured cigarettes, 14.92% smokers used cigars, whereas the ones using pipes and cigars were in similar percentage, i.e., 5.97%.

Table 8: Distribution of Respondents based on the Frequency of Smoking n=67

Variable	Frequency	Percent
Smoking per day(n=33)		
Once	12	36.36
Twice	05	15.15
More than twice	16	48.49
Ever smoked daily (n=67)		
Yes	16	23.88
No	46	68.66
Uncertain	05	7.46

Among the 207 respondents, 36.36% of respondents smoked once, 15.15% twice, and 48.49% of respondents smoke more than twice. Similarly, 23.88% smoked daily,

68.66% did not smoke daily ever, whereas 7.46% were uncertain on either they ever smoked daily or not.

Table 9: Description of Contributing factors for Smoking n=67

Variable	Frequency	Percent
Influencing factors for smoking *		
Peer pressure	17	25.37
Imitating	07	10.44
Experimentation	31	46.26
Stress	11	16.41
others	13	19.40
Source for buying smoking agents*		
Own pocket money	38	56.71
Family members	08	11.94
Friends	07	10.44
Others	05	7.46
Preference in place for smoking (n=67)		
College	23	32.83
Own house	06	8.95
Friend's house	16	23.88
Public places	18	26.86
Around the bushes	04	5.97

The information on contributing factors for smoking shows that most 46.26% smoked for experimentation, whereas less 10.44% smoked for imitating others. The data in table 9 represents that a maximum of 56.71% buy smoking agents from their own pocket money, 11.94% from family members, 10.44% from friends, whereas less 7.46% from other sources.

Among 32.83% respondents preferred to smoke at college, whereas only 45.97% preferred smoking around the bushes.

Table10: Smoking habit of family members and friends n=67

Variable	Frequency	Percent
Do any family members smoke (n=67)		
Yes	20	29.85
No	47	70.15
Who does smoke in the family *		
Father	13	65.00
Mother	03	15.00
Siblings	03	15.00
Other family members	06	30.00
Do the parents smoke in front of respondents (n=20)		
Yes	07	35.00
No	13	65.00



**Do parents know about respondent's smoking habit (n=67)**

Yes		
No	10	14.92

**Do anyone in the friend's circle smoke**

Yes	57	85.07
No	49	73.14

**Do any of the friend ever forced for smoking**

Yes	18	28.36
No	28	41.79

**How did the friend's force for smoking \***

Try it once	39	58.21
It's an awesome feeling	22	78.57
It will change your mood	09	32.14
It gives you confidence	03	10.71
It's a symbol of modernization	04	14.28
	05	17.55

\*Multiple response

This table highlights the information on the smoking habits of respondent's parents and friends shows that out of 67 smokers, family members of 20 respondents smoke. Fathers of the respondents contribute a maximum of 65.0%. Similarly, the data also shows that family members of 35.00% respondents smoke in front of them, and 14.92% families were aware of their child's smoking habit. The data collected on smoking among friend's circles shows that most 73.14% of the respondents had friends who smoked, and 41.79% of the respondents were even forced by their friends to smoke. Out of them, 78.57% of the respondents were forced to try it once, and only 10.71% were forced saying "it will change your mood".

Table 11: Awareness on Smoking and Methods to quit Smoking n=67

Variable	Frequency	Percent
<b>Awareness of harmful effects of smoking (n=67)</b>		
Yes	57	85.07
No	10	14.93
<b>Exposure to any smoking advertisement during the last 30 days (n=67)</b>		
Yes	20	29.85
No	47	70.15
<b>Feelings regarding advertisement related to smoking</b>		
It's irrelevant	11	16.40
It's annoying	15	22.38
Not interested	37	55.22
<b>Either advertisement influences smoking or not (n=67)</b>		
Yes	30	46.26
No	37	55.44
<b>Either tried to quit smoking or not (n=67)</b>		
Yes	42	62.68
No	25	37.32

**Methods to quit smoking (n=42)**

Avoiding smoker friends	07	16.66
Staying alone	07	16.66
Engaging in other activities	28	66.68
<b>Reason to Quit smoking (n=42)</b>		
Health hazard		54.76
Family pressure	05	11.92
Peer pressure	06	14.28
Others	08	19.04

\*Multiple response

This table represents the information regarding awareness on the harmful effects of smoking that directly or indirectly contribute to the smoking habit. Out of 67 respondents, 85.07% respondents were aware of smoking's detrimental impacts, whereas 14.93% of respondents were not aware of its implications. Among 67 respondents, 29.85% were exposed to the advertisement, whereas 70.15% were not exposed to Smoking advertisements during the last 30 days.

Similarly, 46.26% respondents answered that there is the influence of smoking advertisement in them, whereas 55.22% respondents answered that there was any influence of smoking advertisement. Out of the respondents, 16.40% found the advertisement irrelevant, 22.38% found it annoying, whereas 55.22% of respondents do not have any interest in the advertisement. Out of the 67 respondents, 62.68% tried to quit smoking, whereas 37.32% did not try to quit smoking.

Among 66.68% of the respondents engaged themselves in other activities, 16.66% avoided smoker friends, whereas 16.66% stayed alone to quit smoking. Most 54.76% of the respondents quit smoking due to health hazards, 11.09% due to family pressure, 14.28% due to peer pressure, whereas 19.04% of the respondents quit smoking due to other reasons.

Table 12: Association of Smoking with selected Demographic Variables n=220

Variable	Smoking habit		$\chi^2$	p-value
	Yes	No		
<b>Age (in years)</b>				
Median $\leq 21$	40	114	4.866	0.027*
Median $> 21$	27	39		
<b>Sex</b>				
Male	49	52	24.309	$< 0.001^*$
Female	18	101		
<b>Religion</b>				
Hindu	63	141	0.44#	0.038*
Others	04	12		

<b>Ethnicity</b>				
Upper cast	52	104	2.098	0.147
Others	15	49		
<b>Educational status of respondent's father</b>				
Illiterate	04	13	0.367	0.544
Literate	63	140		
<b>Educational status of respondent's mother</b>				
Illiterate	18	27		
Literate	49	126	5.621	0.018*

p value < 0.05 = Significant, \* = Significant, df =1, # =Yates correction factor

There was a significant association of smoking with the mother's age, sex, religion, and educational status. The result shows no association of smoking with other demographic variables, i.e., ethnicity and the Educational status of the father.

## DISCUSSION

In this study, most of the respondents, 70.0%, were of age less than 21, whereas 30.0% were older than 21. The minimum age was 19, and the maximum age was 26, respectively. The mean age was  $21.01 \pm 1$  years. This result was consistent with the study done in Jordan, which shows that the age of respondents ranged from 17-28 with a mean age of 21.2 years.<sup>15</sup> This result was contradictory to the findings of research on Prevalence and Associated Factors of Smoking among Malaysian University Students which showed that the prevalence of smoking among participants of age more than 21 were comparatively higher in percentage (51.0%).<sup>20</sup>

In this study, the prevalence of smoking was 15.0%, which was consistent with the result of study done in Pakistan, which showed a smoking prevalence of 12.0%.<sup>16</sup> Prevalence was low in comparison to the researches done on Western Nepal, which reported the prevalence of current smoker to be 31.04% and another study was done on the male population at Dharan Municipality that showed the prevalence of 41.0%.<sup>14</sup>

In this study, a maximum of 67.02% of the respondents initiated smoking at the age of 15-20 years, whereas only one respondent 1.05% initiated smoking other than these age ranges, which was consistent with the research done in Dharan, Nepal reported that 68.06% started smoking at the age of 11-20 years.<sup>14</sup>

Among 89.55% respondents used manufactured cigarettes, 14.92% smokers used cigars, whereas the ones using pipes and self-rolled cigarettes were in similar percentage, i.e., 5.97%. These findings were consistent with the study done on Jordan, which shows that the majority, 80.0% of the

current smokers, used manufactured cigarettes, 19.03% used water pipes. In contrast, only 0.4% used cigars for smoking purposes.<sup>15</sup>

Regarding the reason to smoke, most 46.6% smoked for experimentation followed by peer pressure which was consistent with the findings of research done in the U.S.A which reported major reason for smoking to be peer pressure and curiosity.<sup>17</sup>

This study found that family members of 20 respondents smoked. Most (73.14%) of the respondents had friends who smoke, and (49.79%) of the respondents were even forced by their friends to smoke. This showed that young people who have family members or close friends who smoke are significantly more likely to smoke than those who do not, which was contradictory to the result of research done on Michelle, Ethiopia, which shows no significant relationship between these factors.<sup>3</sup>

The result found that 85.07% of respondents who smoked were aware of the harmful effects of smoking. This result was contradictory to the findings of research done in Coastal South India, which revealed that only half of the current smokers were willing to quit smoking which was alarming.<sup>19</sup>

A high percentage of smokers in this study intended to stop smoking, which was similar to the findings of a study among university students in Jordan, which shows that 54.0% of the smokers attempted to quit smoking.<sup>15</sup>

In this research, an association of smoking with age, sex, religion, and educational status of mother has been found, which was consistent with the result of research done on Michelle, which showed a significant association between socio-demographic factors with current smoking, i.e., it revealed that gender, year of study, father's and mother's education, having smoking friends, alcohol consumption were found to be significantly related to current smoking.<sup>3</sup> The findings of the study reveals that there was no association of smoking among students with religion and ethnicity which is consistent with the findings of the study done in a private medical university in Rajasthan, which reported that religion and caste were not associated with smoking among students.<sup>18</sup>

## CONCLUSION

In conclusion, the prevalence of smoking among college students is low. Among them who smoke, majority of the students started smoking as experimentation and peer pressure. They started smoking at an early age. This study reveals that sex, religion, ethnicity, educational status of the mother is associated with smoking. The study suggests

that there is need to increase awareness on harmful effects of smoking in educational institutions implementing strict rules and regulation against smoking. Awareness programs on smoking should also be focused on preventing and controlling measures including alternative methods to quit smoking.

## REFERENCES

- Rose, C. Ann, David T et al "Smoking". Encyclopedia Britannica. 2021;11; 2. Available from: <https://www.britannica.com/topic/smoking-tobacco>
- Tobacco-WHO/ World Health Organization.2021. Available from: <https://www.who.int/news-room/fact-sheets/details/tobacco>
- Eticha T, Kidane F. The prevalence of and factors associated with current Smoking among College of Health Sciences students, Mekelle University in Northern Ethiopia . PLoS ONE 2014;9(10). Available from: <https://www.ncbi.nlm.nih.gov/pubmed>
- WHO. Global Report on Trends in prevalence of tobacco smoking 2000-2025. Geneva:WHO.2018(2)
- NCD Alliance.Tobacco: A major risk factor for non-communicable disease. The NCD Alliance.2017. Available from: <https://ncdalliance.org/why-ncds/risk-factors-prevention/tobacco-use>
- The Tobacco Atlas:Issue Youth. American Cancer Society.2022.Available from: <https://tobaccoatlas.org/topic/youth/>
- Jallow IK, Britton J, Langley T. Prevalence and determinants of susceptibility to tobacco smoking among students in the Gambia. Nicotine and Tobacco Research. 2019 Aug;21(8):1113-21.
- Klein H, Sterk CE, Elifson KW. Initial smoking experiences and current smoking behaviors and perceptions among current smokers. Journal of Addiction.2013;9.9Available from: <https://www.hindawi.com/journals/jad/2013/491797>
- Nitcher M. Nitcher M. Vuckovic N et al. Smoking as a weight control strategy among adolescent girls and young women: a reconsideration. Medical Anthropology Quarterly.2004;18(2).305-24. Available from: <https://www.jstor.org/stable/3655455>
- Paudel D. Tobacco use among Adolescent students in Secondary schools of Pokhara Sub Metropolitan city of Nepal. Masters [Thesis]. Tribhuvan University; 2003. Available from: <http://www.healthnet.org.np/resource/thesis/cmedicine/deepak/tobacco>
- Trading Economics. Smoking prevalence, Males(% of adults)-Nepal.2017. Available from: <https://tradingeconomics.com/nepal/smoking-prevalence-males-percent-of-adults-wb-data.html>
- Ngahane BH, Ekobo HA, Kuaban C. Prevalence and determinants of cigarette smoking among college students: a cross-sectional study in Douala. Arch Public Health .2015; 73(1):1-7. Available from: <https://www.archpublichealth.biomedical.com/articles>
- B.H Mbatchou Ngahane, H Luma , Y .N Mapoure et al. Correlates of cigarette smoking among university students in Cameroon. Int J Tubec Lung Dis.2013.12(2):270-74. Available from: <https://www.researchgate.net/publication/234132990>
- Poudel S. Gurung DK. Prevalence of Smoking and perceived health problems among Male Population of Dharan Municipality. Journal of Kathmandu Medical College.2014;2(3):129-38. Available from: <https://www.nepjol.info/index.php/JKMC/article/view/9963/8141>
- Aryal UR, Deuba K, Subedi A, Shrestha R, Bhatta L. Prevalence and determinants of cigarette smoking among the college students of Kathmandu Valley. Asian Journal Of Medical Sciences 2010;1(2):53-8. Available from: <https://www.nepjol.info/com/index.php/AJMS/artilce/view/3279>
- Al-Kubaisy W, Abdullah NN, Al-Nuaimy H, Kahn SM, Halawany G, Kurdy S. Factors associated with smoking behaviour among university students in Syria. Procedia-Social and Behavioral Sciences.2012;38:59-65. Available from: <http://www.sciencedirect.com/science/article/pii/S1877042812008038>
- Sharma KS. Nursing Research and Stastics. 2nd edition 2014, published by RELX India Private Limited, New Delhi; 140-220.
- Kumar SG, Subba SH, Unnikrishnan B, Jain A, Badiger S. Prevalence and factors associated with current smoking among medical students in coastal South India. Kathmandu University medical journal (KUMJ). 2011; 9(36):233-7. Available from: <https://pubmed.ncbi.nlm.nih.gov/22710529>
- Binu VS, Subba SH, Menezes RG, Kumar G et al. Smoking among Nepali youth-prevalence and predictors. Asian Pacific journal of cancer prevention .2010; 11(1):221-6. Available from: <https://pubmed.ncbi.nlm.nih.gov/20593960>
- Al-Naggar RA, Al-Dubai SA et al.Prevalence and associated factors of Smoking among Malaysian university students. Asian Pacific journal of cancer prevention.2011;12(3):619-24. Available from: <https://pubmed.ncbi.nlm.nih.gov/21627>
- Aslam SK, Zaheer S, Rao S, Shafique K. Prevalence and determinants of susceptibility to cigarette smoking among school students in Pakistan: secondary analysis of Global Youth Tobacco Survey. Substance abuse treatment, prevention, and policy.2014;9(1):1-10. Available from: <https://pubmed.ncbi.nlm.nih.gov/24555481>
- Sharma KS . Nursing Research And Stastics.RELX Publication.New Delhi.2014;2:140-220 Prevention. 1999 Nov 1;31(6):771-80. [GoogleScholar][PubMed]