Knowledge Regarding Drug Addiction among the Students of Selected Higher Secondary School of Biratnagar, Nepal

Bhattarai J[1]* and Chudal S[2]*

[1]Department of Medicine, Tribhuvan University, Nepal

[2]Department of Nursing, Nobel Medical College & Teaching Hospital, Nepal

Corresponding authors: Ms. Jamuna Bhattarai, Institute of Medicine, Birgunj Nursing Campus, Tribhuvan University, Nepal, Tel no: 00977-9842060511; Email: jgbhattarai@gmail.com
Ms. Sabita Chudal, Senior Staff Nurse, Nobel Medical College & Teaching Hospital, Biratnagar, Nepal, Tel no: 9868331931; Email: sbchudal@gmail.com

Abstract

Introduction: Drug abuse and its illicit trafficking is a matter of multilateral concern and is one of the most prominent social problems in many countries including Nepal.
Objectives: To assess the level of knowledge regarding drug addiction among students of selected higher secondary school of Biratnagar.
Methodology: Cross-sectional research design was adopted. A higher secondary school was selected purposively and total enumerative sampling was used to students of grade 11 and 12. Self -administered semi-structured questionnaire was used to assess the knowledge. Data was analyzed by using descriptive, inferential statistics and univariate logistic regression.
Results: Study showed that half (50%) had adequate knowledge, 45.5% had moderate knowledge and 4.5% had inadequate knowledge regarding drug addiction.
Conclusion: The study revealed that half of the respondent had adequate knowledge, and few had inadequate knowledge. The knowledge was found statistically significant with education level, family occupation and family members involved in drug addiction. Policy makers, health workers, and religious leaders must collaborate to build awareness programs for adolescents.

Keywords: Knowledge; Drug Addiction; Higher Secondary School; Biratnagar

Abbreviations: WHO: World Health Organization; NMCTH: Nobel Medical College Teaching Hospital; NCC: National Co–ordination Committee for Drug Abuse Control; MHA: Ministry of Home Affairs.

Introduction

Drug abuse and its illicit trafficking is a matter of multilateral concern and is one of the most prominent social problems in many countries including Nepal [1,2]. Age limit of drug addiction is shifted to the younger age groups, even at the age of 8 years and median age is 17 years and especially is troubling the increase in number of injection drug users [1,3]. According to WHO the harmful use of alcohol results in 3.3 million deaths each year. At least 15.3 million persons have drug use disorders. Injecting drug use reported in 148 countries, of which 120 report HIV infection among this population [4].

Nepal is multicultural, metalinguistic Nation where the use of alcohol and cannabis (ganja), was regulated by social norms Some drugs such as cannabis and alcohol were traditionally used did not create major social problems in the traditional social structure of Nepal. The history of modem drug abuse in Nepal, as most drug specialists believe, dates back to the 1960s, when its ties with the western world began to expand. The types of drugs or substances abused shifted from cannabis to synthetic opiates and sedatives-hypnotics, and their modes of administration also changed from smoking or ingesting to injecting which becomes one of the major causes of HIV infection in Nepal. So, drug abuse nowadays in Nepal has become a multi-dimensional problem and drug control, a challenge for the government [2,3,5]. Ministry of Home Affairs, the Central Bureau of Statistics Nepal conducted a survey on hard drug users in Nepal in the FY 2063/64. Using indirect method of estimation in 17municipalities [3].

Altogether there were 46,309 current hard drug users of which 92.8% accounted to male and 7.2% accounted to female. Most of them were of age 18 years with median age being 24 years. Youth 15-24 years comprises 53% of the total hard drug users [2,3]. The costs of substance abuse in Nepal are never assessed. In Australia, social cost of drug abuse was $55.2 billion in 2004/05, in USA seldom are they comprehensively assessed but drug abuse, the annual cost in 1992 was estimated at $98 billion and in 1995, this estimate rose to $110 billion. Which include health care expenditures, productivity losses earnings, premature death, crime and victims and other impacts criminal justice, social welfare [6,7].

Young people who persistently abuse substances often experience an array of problems, including academic difficulties, health-related problems (including mental health), poor peer relationships, and involvement with the juvenile justice system. Additionally, there are consequences for family members, the community, and the entire society [8]. Recent epidemiologic studies have shown that between 30 percent and 60 percent of drug abusers have concurrent mental health [8,9]. Health-related consequences of teenage substance abuse include accidental injuries, physical disabilities and diseases, and the effects of possible overdoses. Death through suicide, homicide, accidents, and illness may be the final outcome for youth involved with alcohol and other drugs [10].

Substance-abusing youth often are alienated from and stigmatized by their peers and society [8]. Declining grades, absenteeism from school and other activities, and increased potential for dropping out of school are problems associated with adolescent substance abuse.

The social and economic costs related to youth substance abuse are high [3,8]. As the first experience of substance abuse often starts in adolescence, and studies have shown that drug use is mainly related to cigarette and alcohol consumption, evidence shows that nearly three fourth (73.1%) current hard drug users had experience of first time drug intake before they reach 20 years. Majority of the hard drug users have level of education below SLC [3]. Both licit and illicit substance use was associated more with male students and the use of a substance by family members had a significant impact on its use by their children. "Enjoyment" and "Curiosity" were found to have the major influence in their decision to use a substance [11].

This study is targeted to young age group whose most of the time spent in school and is vulnerable period to start the substance abuse. As school environment and peer-group are strong determinant or influencing factor for developing this type of behavior [3,12]. Onset of drug use prior to the age of 15 is a consistent predictor of later drug abuse [12]. The present study is designed to find out whether the students have adequate knowledge about drug abuse in higher secondary school of Biratnagar. This study could help the government to better understand the current situation and accordingly make changes to address the factors that contribute to drug abuse among our youth. The study might provide the baseline data regarding the level of knowledge on drug addiction among the selected higher secondary school students so that various programme to create awareness on drug addiction can be planned. The findings may also be very useful to guardians, education providers, health providers and spiritual leaders in dealing with the thoughts and emotions that shape behavior, so that the students can learn assertive skills and say no to drug abuse.

Materials and Methods

Cross-sectional research design was adopted to assess the knowledge regarding drug addiction among students of selected higher secondary school of Biratnagar. A higher Secondary School was selected purposively and total enumerative sampling was used to students of grade 11 and 12. Self -administered semi-structured questionnaire was used to assess the knowledge regarding drug addiction. Questionnaire consist of 2 sections. Section A consists of socio demographic data and Section B consists of Assessment of knowledge regarding drug abuse. The maximum knowledge score was 17.

The interpretation of knowledge score was distributed as good level of knowledge: >75 % of score, satisfactory level of knowledge: 50 - 75 % of score, poor level of knowledge:

< 50 % of score [13]. Validity was established by the review of literature and consulting with the research guide and experts. Necessary changes are made as per the suggestion. Tool was translated to Nepali language and verified by language expert. Pretesting was conducted by taking 10% of the respondents in similar setting, subjects included in pretesting will be excluded in the study. The approval was obtained from concerned authority of NMCTH (Nobel Medical College Teaching Hospital) before data collection. Data was collected from 072/10/24 to 072/11/7.Informed verbal consent was obtained from all respondents. Questionnaire was distributed to students and thirty minutes was given to fill questionnaire. The completed format was rechecked to ensure completeness of the information and entered in excel 2010 and exported into SPSS version 17.0 for analysis. Data was analyzed by using descriptive, inferential statistics and univariate logistic regression. The p value was calculated and significance level was determined at 95% confidence interval.

Results

Table 1 depicts that 56.1% respondent were in age group below 18 years. Regard to sex, more than half of the respondent were female i.e.54.5%. With regard to ethnicity, majority of the respondent were disadvantaged Janajati i.e.42.4%. Nearly half of the respondent (53%) was from class 11.

Characteristics	Response	Frequency (n=66)	Percent
Age in years	Below 18	37	56.1
	Above 18	29	43.9
Mean ± SD=18.15±1.327			
Sex	Male	30	45.5
	Female	36	54.5
Ethnicity	Disadvantaged Janajati	28	42.4
	Disadvantages Non-dalitTerai caste group	20	30.3
	Religious Minorities	4	6.1
	Upper caste group	14	21.2
Education level	Class 11	35	53.0
	Class 12	31	47.0

Table 1: Socio-demographic Information of the Respondents.

Table 1.1 presents, mother of 31.8% respondent were illiterate whereas in relation to family occupation, 56.1% family was involved in agriculture. With regard to family monthly income, 81.8% respondent family income is Nepalese rupee 24001/- per month.

Characteristics	Response	Frequency (n=66)	Percent
Mother's education	Illiterate	21	31.8
	Literate and above	9	13.6
	Primary level	20	30.3
	Secondary level	9	13.6
	Higher secondary and above	7	10.6
Family monthly income	Below 15000	23	34.8
	15001-20000	26	39.8
	20001-24000	5	18.2
	24001 and above	12	81.8
Mean ± SD=18272.73±5009.362			

Table 1.1: Socio-demographic Information of the Respondents (continued…)

Characteristics	Response	Frequency	Percent
Relation with parent	Very good	44	66.7
	Good	15	22.7
	Normal	7	10.6
Relation between parent	Quarrelling	7	10.6
	Understanding	53	80.3
	Separated	6	9.1
Relation with friend	Very good	30	45.5
	Good	28	42.4
	Normal	8	12.1
Family members involved in drug addiction?	No	54	81.8
	Yes	12	18.2
Staying with?	Parent	53	80.3
	Relatives	13	19.7
What do you do in the leisure time?	Roam with friends	16	24.2
	Sports	15	22.7
	Internet	20	30.3
	Simply take rest	15	22.7

Table 1.2: Socio-demographic Information of the Respondents (continued…)

With regard to pocket money, 40.9% respondents were getting enough pocket money whereas 40.9% respondents were getting little pocket money. With regard to relation with parent, 66.7% respondents were having very good relation with parent whereas 22.7% respondents were having good relation with parent. With regard to relation between parent, 80.3% parent were having understanding relation whereas 10.6% parent were having quarreling relation and 9.1% parents were separated. In relation to family member involved in drugs, 81.8% family members were not involved in drugs whereas 18.2% family members were involved in drugs addiction. With regard to staying with, 80.3% respondents were staying with their parents and 19.7% respondents were staying with their relatives similarly, in leisure time, 30.3% were spending their leisure time using internet, 24.2% were spending their leisure time roaming with friends, 22.7 % were spending their leisure time in sports, and 22.7% were spending their leisure time simply taking rest.

Table 2 depicts that 100% had heard about drug addiction, 40.9% had heard from school. Majority (87.9%) had responded that drug addiction is bad for health. Majority (87.9%) had bad perception about drug addiction whereas 12.1% had good perception about drug addiction. More than two third (69.7%) of the respondents had responded that addiction is perceived as a bad habit in society.

Characteristics	Response	Frequency (n=66)	Percent
Where did you heard about drug addiction?	Friends	23	34.8
	Media	10	15.2
	Internet	6	9.1
	School	27	40.9
In your opinion, what is drug addiction? (Bad for health)	Correct	58	87.9
	Incorrect	8	12.1
How do you perceive drug addiction? (Bad)	Correct	15	87.9
	Incorrect	51	12.1
How is the addiction perceive in the Society? (As a bad habit)	Correct	46	69.7
	Incorrect	20	30.3

Table 2: Distribution of respondents according to knowledge regarding drug addiction.

Table 3 depicts that 72.7% of the respondents responded that teenage curiosity to be the reason for drug addiction whereas 27.3% disagree about it. 33.3% of the respondents responded joy seeking to be the reason for drug reason whereas majority i.e. 66.7 disagree the joy seeking to be the reason for drug addiction, 37.9% of the

respondents said psychological disorder to be the reason for drug addiction and the majority i.e. 62.1% denied for it. Out of 66 respondents 59.1% denied that lack of knowledge about complication of drug to be the reason for drug addiction whereas 37.9% accepted it.25.8% of the respondents said that parent relationship to be the reason for drug addiction whereas others 74.2% disagree about it.

Characteristics	Response	Frequency (n=66)	Percent
What may be the reason for drug addiction?			
Teenagers curiosity	Yes	48	72.7
	No	18	27.3
Joy seeking	Yes	22	33.3
	No	44	66.7
Psychological disorder	Yes	25	37.9
	No	41	62.1
Lack of knowledge about complication of drug addiction?	Yes	27	40.9
	No	39	59.1
Parent relationship	Yes	17	25.8
	No	49	74.2

Table 3: Respondent Knowledge Regarding Reason for Drug Addiction.

Table 4 depicts that 80.3% had responded that vulnerable age group for drug addiction is 16-20 years.75.8% had mentioned drug is abused for relieving stress, before participating in sports, family problems, relationship problem. Half (48.5%) had said that commonly available drug for abuse are gaja, marijuana, cannabis, heroine, chares, cocaine. More than two third (77.3%) had responded that cigarette, powder, tablet, injection, drinking liquid knowledge about forms of drug available others i.e. 22.7% are unaware about it, and 54.5% had knowledge about symptoms of drug addiction. About half (53%) had knowledge about effect of drug in his or her life whereas 47% had inadequate knowledge about effect of drug in his or her life. Out of 66 respondents, 87.9% had knowledge about effect of drug to the family and 78.8% had knowledge about effect of drug to other people whereas 21.2% are unaware about it.

Characteristics	Response	Frequency (n=66)	Percent
Which age group is vulnerable for drug addiction? (16-20 years)	Correct	53	80.3
	Incorrect	13	19.7
Why people abuse the drugs? (Relieving stress, before participating in sports, family problems, relationship problem)	Correct	50	75.8
	Incorrect	16	24.2
Do you have any idea about commonly available drug for abuse? (gaja, marijuana, cannabis, heroine, chares, cocaine)	Correct	32	48.5
	Incorrect	34	51.5
What are the forms available? (Cigarette, powder, tablet, injection, drinking liquid)	Correct	51	77.3
	Incorrect	15	22.7
What are the symptoms of drug addicted people? (Toxication)	Correct	36	54.5
	Incorrect	30	45.5
What is the effect of drug in his or her life? (Deterioration of physical and mental health, lack of Interest in work)	Correct	35	53
	Incorrect	31	47
What is the effect of drug to the family? (Financial burden, quarrel and fights)	Correct	58	87.9
	Incorrect	8	12.1
How does drug addict effect other people? (By spending time and money on drugs)	Correct	52	78.8
	Incorrect	14	21.2

Table 4: Percentage Distribution of Respondent According to Forms, Symptoms and Effect of Drug Addiction.

Table 5 depicts that 59.1% responded that physical fight may occur sometimes due to drug addiction. 93.9% said that accident or injury may occur sometimes due to drug addiction, 54.5% responded that serious problem with parent may occur always due to drug addiction, 68.2% responded that serious problem with friend may occur sometimes due to drug addiction, 34.8% responded that perform poorly at work or school may occur always due to drug addiction, 66.7% responded that victimized by robbery or theft may occur sometimes due to drug addiction. Two third (66.7%) responded that trouble with police may occur sometimes due to drug addiction, 68.2% thought that hospitalized or admitted to an emergency may occur sometimes due to drug addiction,

Characteristics	Response	Frequency	Percentage
Physical fight	Never	12	18.2
	Sometimes	39	59.1
	Always	15	22.7
Accident or injury	Sometimes	62	93.9
	Always	4	6.1
Serious problem with parent	Never	7	10.6
	Sometimes	23	34.8
	Always	36	54.5
Serious problem with friends	Never	4	6.1
	Sometimes	45	68.2
	Always	17	25.8
Performed poorly at school or work	Never	20	30.3
	Sometimes	23	34.8
	Always	23	34.8
Victimized by robbery or theft	Never	12	18.2
	Sometimes	44	66.7
	Always	10	15.2
Trouble with police	Never	12	18.2
	Sometimes	44	66.7
	Always	10	15.2
Hospitalized or admitted to an emergency room	Never	13	19.7
	Sometimes	45	68.2
	Always	8	12.1

Table 5: Respondent Knowledge Regarding Event Faced by Drug Addicted (n=66).

Characteristics	Response	Frequency	Percent
What is the source of income for drug addicted people? (Stealing, by borrowing money with friends and relatives, by earning, by doing illegal works)	Correct	52	78.8
	Incorrect	14	21.2
Where do the addict people generally, take place? (Lonely place)	Correct	51	77.3
	Incorrect	15	22.7
Do you think a person once drug addicted can get out of it?	Yes	50	75.8
	No	16	24.2
What could be the reason that addicted person can't get out of it? (No family support, habituated to it, can't think about other source of entertainment)	Correct	37	56.1
	Incorrect	29	43.9
How can we control drug addiction? (Awareness Programme, counseling)	Correct	45	68.2
	Incorrect	21	31.8
How do media help to control drug addiction? (By delivering knowledge about drugs)	Correct	53	80.3
	Incorrect	13	19.7
What are the ways to treat drug addiction? (Rehabilitation, providing counseling, use of medicine)	Correct	44	66.7
	Incorrect	22	33.3

Table 6: Knowledge Regarding Prevention and Management of Drug Addiction (n=66).

Table 6 depicts that 78.8% had knowledge about source of income for drug addiction whereas 21.2% are unaware about it. Majority (77.3%) had knowledge about place that drug addict generally takes place. More than two third (75.8%) mentioned that people can get rid from drug addiction. About half (56.1%) had mentioned about reason that addict person can't get out of addiction. Around two third (68.2%) had responded that drug addiction can be control by awareness programme, counseling whereas others i.e. 31.8 % are unaware of it. Out of 66 respondents, 80.3% had said that media help to control drug addiction by delivering knowledge about drugs. Two third (66.7%) had said drug addiction can be treated with rehabilitation, providing counseling and use of medicine.

Table 7 depicts that majority of the respondents i.e. 50% had good level of knowledge regarding drug addiction whereas 45.5% had satisfactory level of knowledge and only 4.5% had poor level of knowledge. Mean score±SD was 12.29±2.63 and mean percentage±SD was 72.28±15.47.

Level of knowledge	Category	Frequency	Percent (%)
Good level of knowledge	>75%	33	50%
Satisfactory level of knowledge	50-75%	30	45.5%
Poor level of knowledge	<50%	3	4.5%
Mean score± S.D = 12.29±2.63			
Mean percentage± S.D = 72.28±15.47			

Table 7: Respondents Level of Knowledge Regarding Drug Addiction.

Table 8 and 8.1 depicts the association of knowledge score regarding drug addiction among respondents with their socio demographic variables. The obtained Independent t-test shows that there is significant association by age i.e. p<0.01, education level i.e. p<0.01, family occupation i.e. p=0.01 and family members involved in drug addiction i.e. p<0.01.

Characteristics	Response	Frequency (n=66)	Mean±SD	t/F	df	p Value
Age	Above 18	37	67.41±16.79	t=9.44	64	p<0.01**
	Above 18	29	78.50±11.04			
Sex	Male	30	74.71±11.78	t=1.37	64	p>0.05
	Female	36	70.26±17.89			
Religion	Hindu	61	72.23±15.86	F=0.01	1,64	p>0.05
	Muslim	5	72.94±10.69			
Education level	Class 11	35	67.56±16.90	t=0.58	64	p<0.01**
	Class 12	31	77.61±11.80			
Mother's education	Illiterate	21	72.83±18.74	F=1.095	4,61	p>0.05
	Literate and above	9	77.78±10.51			
	Primary level	20	71.76±16.26			
	Secondary level	9	74.51±9.75			
	Higher secondary and above	7	62.18±11.69			
Family occupation	Agriculture	37	74.72±10.64	F=4.15	4,15	p=0.01**
	Business	12	75.49±15.43			
	Government	11	58.29±20.95			
	Private service	6	76.47±19.33			

Table 8: Association of Knowledge Score with Socio-Demographic Variables (n=66).

Characteristics	Response	Frequency	Mean±SD	t/F	Df	P value
Relation between parent	Quarrelling	7	66.39±29.36	F=0.59	2,63	p>0.05
	Understanding	53	71.57±9.42			
	Separated	6	73.14±13.63			
Family members involve in DA	Yes	54	63.73±20.66	t=-2.18	64	p<0.01**
	No	12	74.18±13.59			
Relation with parent	Very good	44	72.19±17.46	F=0.27	2,63	p>0.05
	Good	15	74.12±11.07			
	Normal	7	68.91±10.02			

Table 8.1: Association of Knowledge Score with Socio-Demographic Variables (n=66).
*** = Perfectly significance
S=Significant at 5% level (i.e. p<0.05)
p=Level of significance
T= t test value
F=ANOVA test
df=degree of freedom

Discussion

Drug abuse is the critical and multidimensional problem of Nepal. It affects every aspect of individual, family, social life and National prosperity. Increase involvement of adolescents in addiction, increase in multi-drug use, rising trend in addiction through syringe have further aggravated and complicated the problem. If this human problem is not tackled in time, the state will lose productive and creative human resources as well as there is possibility of increase in criminal activities [2]. So providing adequate knowledge on drug abuse and its effects to adolescent, creating healthy school, social and family environment for children and adolescent is most necessary to prevent this problem. The aim of this study was to assess the level of knowledge regarding drug addiction among Adarsha higher secondary school students of Biratnagar. This study finding showed that 50% has adequate knowledge, 45.5% of the respondents have moderate knowledge and 4.5% have inadequate knowledge regarding drug addiction. The study conducted by Haddad L. among Jordanian adolescent supports the above findings that it showed students of both sexes were knowledgeable about aspects of substance abuse [14].

Another study conducted by Billalli SF. at Degree College in Davangere contradicts with above findings as it revealed that students had average knowledge regarding the drug abuse which showed majority 26 (65%) had inadequate knowledge and 14 (35%) had moderate knowledge regarding drug abuse and its ill effects [13]. The contradiction may be because of different setting. The study conducted among students in high schools of West Bengal, India found that level of knowledge was very high (urban 84.6% and rural 61.5%) than present study, this contradiction may be because of different setting. In present study 34.8% said friends are the most frequent source of information whereas another study conducted in West Bengal, India stated media as the most frequent source of information [15]. Teenagers curiosity, joy seeking, psychological disorder, lack of knowledge about complication of drug addiction, parental relationship easy availability of substances, especially the licit ones, has been the most common reason for drug abuse. These reasons have been cited even by other [15,16].

Present study findings showed that 53% had knowledge about effect of drug in his or her life, 87.9% had knowledge about effect of drug to the family and 78.8% had knowledge about effect of drug to other people. The study conducted among Jordanian adolescent supports present study as it showed students was knowledgeable its harmful effects on the body and society and reported that even occasional or frequent use of cigarettes, alcohol, and other drugs was extremely harmful. A majority of the students perceived substance abuse as a problem [14]. This study showed knowledge regarding drug abuse is significantly associated with education level, family occupation and family members involved in drug addiction. Research has shown that there is strong relationship between adolescent substance abuse and family drug usage, family peer pressure, family interaction patterns [17].

In Nepal, the Narcotics Drugs (Control) Act, 1976 (2033 BS) is the legal framework for drug control issues. Any person violating this Act shall be punished by up to 20 years of imprisonment and a fine. While the non–physician prescribed consumption of narcotics drugs is a criminal offence. The Act has provision for the prevention and treatment of drug users. Rules under this Act have, as yet, not been framed. The Department of Narcotics Control under the Ministry of Home Affairs (MHA) has

overarching responsibility for narcotics issues in Nepal. The MHA has established a National Co–ordination Committee for Drug Abuse Control (NCC) under the Home Minister for co–operation and co–ordination of national efforts, and a strengthening of management procedures, policy and strategy [18]. It has been realized by all relevant parties that the said policy was not able to do away with the increasing and complex problem of addiction as expected because the problem is increasing day by day as we are getting massage every day and effective national mechanism should also be established to implement the commitments made by Nepal under international conventions [2].

Conclusion

The study revealed that half of the respondent had adequate knowledge, and few had inadequate knowledge. The knowledge was found statistically significant with education level, family occupation and family members involved in drug addiction. Policy makers, health workers, and religious leaders must collaborate to build awareness programs for adolescents.

References

1. Mesic S, Ramadani S, Zunic L, Skopljak A, Pasagic A, et al. (2013) Frequency of Substance Abuse Among Adolescents. Mater Sociomed 25(4): 265-269.

2. Nepal Law Commission (2006) National Policy for Drug Control, 2063 (2006).

3. Government of Nepal Central Bureau of Statistics (2069). Facts SS, Hard Drug Users in Nepal.

4. World Health Organisations (2014) Facts and figures.

5. Chatterjee A, Uprety L, Chapagain M, Kafle K (1996) Drug abuse in Nepal: a rapid assessment study. Bull Narc 48(1-2): 11-33.

6. Cartwright WS (1999) Costs of drug abuse to society. J Ment Health Policy Econ 2(3): 133-134.

7. Collins DJ, Lapsley HM (2008). The costs of tobacco , alcohol and illicit drug abuse to Australian society in 2004 / 05.

8. Crowe AH (1998) Drug Identification and Testing Summary.

9. IA L (1999). Drug Abuse and Mental Disorders: Comorbidity Is Reality. National Institute of Drug Abuse (Advancing Addiction Science).

10. Maccoun RJ, Kilmer B, Reuter PH (2003) Research on Drug-Crime Linkages : The Next Generation. RAND Corporation, pp. 65-95.

11. Pal R, Dasgupta A, Tsering D (2010) Licit and illicit substance use by adolescent students in eastern India: Prevalence and associated risk factors. J Neurosci Rural Pract 1(2): 76-81.

12. National Crime Prevention Centre (2009) School-Based Drug Abuse Prevention: Promising and Successful Programs, pp. 1-27.

13. Billalli SF, Paramesh GM, Prasannakumar DR (2017) A Study To Assess the Knowledge Regarding Drug Abuse and its Ill Effects among First Year Degree Students at D.R.M Science College in Davangere. Int J Adv Nurs Manag 5(1): 70-72.

14. Haddad L, Shotar A, Umlauf M, Al-Zyoud S (2010) Knowledge of Substance Abuse Among High School Students in Jordan. J Transcult Nurs 21(2): 143-150.

15. Tsering D, Pal R, Dasgupta A (2010) Substance use among adolescent high school students in India: A survey of knowledge, attitude, and opinion. J Pharm Bioallied Sci 2(2): 137-140.

16. Geramian N, Akhavan S, Gharaat L, Tehrani AM, Farajzadegan Z (2012) Determinants of drug abuse in high school students and their related knowledge and attitude. J Pak Med Assoc 62(3 suppl 2): S62–S66.

17. Dennis-Antwi J, Adjei S, Asare JB, Twene Robert (2003) A national survey on prevalence and social consequences of substance (drug) use among second cycle and out of school youth in ghana. Ministry of Education, Ghana Narcotics Control Board, pp. 1-99.

18. Drug abuse law in Nepal.