

Knowledge and Attitude on Substance Abuse among Higher Secondary Schools Adolescents in Kathmandu District

Sharmila Neupane ¹, Gayetri Darshandhari (Kapali) ²

¹ Hon'ble Member, Province Public Service Commission, Bagmati Province

² Lecturer, Maharajgunj Nursing Campus, Tribhuvan University, Institute of Medicine

Corresponding Author: Gayetri Darshandhari (Kapali), Email: gayetrins_9@yahoo.com

ABSTRACT

Background: Substance abuse creates a great threat to the health, social and economic condition of individual, family, community and to the nation. In the past two decades' abuse of substances is an important public health concern especially among adolescent which creates tremendous burden on society. So, researchers were interested to assess the knowledge and attitude of adolescents on substance abuse in higher secondary schools of Kathmandu district.

Methods: A cross-sectional descriptive study design was used to assess the knowledge and attitude of adolescence on substance abuse. At first seven school and colleges was selected by the probability simple random sampling technique with 630 sample studying management and humanities. Data collection was done through self-administered questionnaire.

Results: More than half (59.2%) respondents have poor knowledge whereas only 8.6% have good level of knowledge on substance abuse, as only few have good level of knowledge on substance abuse. There is significant association between the level of knowledge with age group (p value 0.011), Sex (p value 0.001), Ethnicity (p value 0.001), type of family (p value 0.001) and father's education (p value 0.027) mother's education (p value 0.009), father occupation (p value 0.036), and relationship between parents (p value 0.01).

Conclusion: More than half respondents have poor knowledge whereas only 8.6% have good level of knowledge on substance abuse. Though awareness campaigns exist in the country, but findings of this study suggest that still these activities need to be made more strengthen in order to make aware to the youth.

Keywords: Substance abuse, Adolescents, Knowledge, Attitude, Kathmandu

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INTRODUCTION

Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Adolescent is the transition period from childhood to adulthood. Various physical, psychological, social and emotional changes occur during this time and vulnerable time of different influences.¹ In the past two decades substance abuse is an important public health concern among people, especially among adolescents.² Globally it is estimated that five million preventable deaths occur every year

attributable to substance use.³ Globally it's estimated that around 318,000 deaths in 2016 were the direct result of a substance use disorder.⁴ Substance use and especially the use of alcohol and tobacco products was common among the young peoples seniors and peers in all sites, particularly among males and among young people in the sites in Vietnam. In the Philippine sites young people used a wider variety of substances than youngsters in the sites in Thailand and Vietnam, especially in respect of illicit substances.⁵ In a study half of the adolescents had

moderate and 30% had inadequate level of knowledge on substance abuse in India.⁶

The small scale, cross sectional survey was done on 115 students from selected higher secondary school of Biratnagar which revealed that among them, 11.12% had average knowledge on substance abuse.⁷ The types of 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. 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.⁸ Peer pressure, curiosity and lack of awareness, social environment, family influences are considered as the main reasons for youth getting involved in drug use.¹

The current study will help to generate, sensitize and update the latest status regarding knowledge and attitude on substance abuse which tend to create more pressure to relevant authorities. If substance abuse preventable consequences are not addressed timely, nation will lose productive & creative human resources as well as increase possibility of criminal activities.⁸ The objective was to find out the knowledge and attitude of adolescents on substance abuse in higher secondary Schools in Kathmandu district.

METHODOLOGY

A cross-sectional descriptive study design in which population was higher secondary schools students of Kathmandu district. At first School was selected through the probability simple random sampling technique. Sample size was calculated by using the modified Kish Leslie formula based on the 50% prevalence of scientific study done by Bhattarai and Chudal with 630 sample. Stratified random sampling technique was used for section selection in selected school. Each section was considered as one stratum for this study. Complete enumeration technique was used to select the respondents from selected section. Ethical approval was taken from Institutional Review Board of TU, IOM. Formal permission was taken from the concerned school authority. Written Informed consent was taken from each respondent before starting the self-administered

questionnaire. Students who are studying in 11 & 12 classes and willing to take part for the study was included. The Self-administered questionnaire which was in English language in printed form was prepared by extensive literature review, consulting with subject matter expertise, research expertise. Knowledge related Questions was open ended, multiple choice questions and attitude statements were measured through likert scale. Modification on the questionnaire was done based on the findings of pre-testing on annual income, relationship with parents.

In knowledge part respondents were asked on what is substance abuse, commonly available substances, different routes of abusing, vulnerable phase of substance abuse, reasons of starting to use drugs, substances that contains nicotine, Smoking hazards, Alcohol hazards, type of health problem, type of social and family problem, type of psychological effects, school related problem, behavioral problems, important measures to Protect from Drug Abuse, ways for prevention and treatment of drug abuse. Attitude was measured through likert scale with statement like it is okay to take alcohol, tobacco and other drug occasionally. Substance abuse is a disease. Drugs have negative effects on nervous system and lungs. If the addictive substance is used for one time, it is not harmful. Addictive substances remove people from problems. Drugs affect driving. The Effect of Media in Drug Abuse. Once a person develops habit of substance abuse he/she cannot get out of it. Substance abuse is preventable. Beginning of substance abuse from early age possesses greater likelihood of developing substance abuse disorder in later life. Data was collected from April 21st to July 7th 2021 for 11 weeks duration in the presence of researchers through self-administered questionnaire by maintaining anonymity of the respondents. Based on the scores, the level of knowledge was graded in following ways Poor Knowledge <50%, Satisfactory Knowledge 50-75% Good Knowledge >75% (Yadav & Parajuli, 2021). Attitude was analyzed with individual statement. The Collected data were manually checked and entered into Microsoft excel and exported to IBM SPSS 20.0 version software for further analysis frequency, percentage, mean and standard deviation and association were identified using Pearson Chi-square test.

RESULTS

Socio-demographic characteristics revealed that most of the respondents (95.1%) were of 18 years of age with mean age of 17.7 ± 9.08 . More than half of them (55.7) were male students. Nearly half of them (47.6%) belong to Brahmin and Chhetri, followed by Janjati/adibasi whereas most of them (81.7%) followed Hinduism. Nearly two third (67.9%) were from nuclear family. Majority (82.1%) of respondent's state the vulnerable phase of life for substance abuse is adolescents phase. Nearly two third respondents state the reasons to start drugs is bad relationship between parents and children (60%) followed by little parental support (35.7%). The respondent revealed the problems that might arise due to substance abuse physical weakness (74.9%) as health problem, isolation from friends or Family (55.4%) as social problem, absence in class (68.9%) as school related problems.

More than two third (70.2%) respondent stated psychological effect from substance abuse is poor memory and poor judgment. Nearly two third (64.1%) respondent expressed aggressiveness and irritability is common behavioral problems (Table 2). More than half (59.2%) respondents have poor knowledge whereas only 8.6% have good level of knowledge on substance abuse (Table 3) More than two third (75.4%) respondent state good relationship between parents and children is main for protection young form drug abuse followed by emotional support from parents (52.7%).

Regarding Attitude on substance abuse respondents (35.1%) do not support taking alcohol, tobacco and other drugs occasionally also. Respondents (49.4%) agree with statement substance abuse is disease. Respondent (36.5%) agree that drugs does affect health and have negative effects on nervous system and lungs. Respondent (29.1 %) agree that in substance abuse, drugs affect in social life. Respondent (35.7%) disagree that there is effect of media in drug abuse followed by neutral attitude with 29%. Nearly one third (31.4%) state Once a person develops habit of substance abuse he/she cannot get out of it followed by 23.3% with strongly agreed attitude on it (Table 4). Respondent's knowledge level of drug abuse was significantly associated by their age group (p value 0.011), Sex (p value 0.001), Ethnicity (p value 0.001), type of family (p value 0.001) and father's education (p value 0.027) (Table 5).

Table 1: Knowledge on Health, Social, Family and School Related Problems due to substance abuse

| Variables | Frequency | Percent |
|--|-----------|---------|
| Health problems | | |
| Cough | 318 | 50.5 |
| Physical weakness | 500 | 79.4 |
| Increased heart rate | 306 | 48.6 |
| Bad breathe | 283 | 44.9 |
| Cancer | 307 | 48.7 |
| Heart disease | 258 | 41.0 |
| Lungs disease | 255 | 40.5 |
| Liver disease | 200 | 31.7 |
| Contracting HIV/AIDS, Hepatitis | 96 | 15.2 |
| Social and family problems | | |
| Isolation from friends or family | 349 | 55.4 |
| Financial burden | 313 | 49.7 |
| Decrease in prestige | 262 | 41.6 |
| Dysfunctional families and relationship | 288 | 45.7 |
| Poor social skills and association with peer group | 157 | 24.9 |
| School related Problems | | |
| Ignoring school assignment and homework | 402 | 63.8 |
| Absence in class | 434 | 68.9 |
| Suspension or other problems at school | 342 | 54.3 |
| Declining grades | 249 | 39.5 |
| Dropping out from schools | 243 | 38.6 |

Table 2: Knowledge on Psychological effects and behavioral problems from Substance abuse

| Variables | Frequency | Percent |
|---|-----------|---------|
| Psychological effects | | |
| Poor decision making power | 332 | 52.7 |
| Poor memory and poor judgment | 442 | 70.2 |
| Participating in risky behaviors | 327 | 51.9 |
| Altered perceptions | 142 | 22.5 |
| Behavioral problems | | |
| Aggressiveness and irritability | 404 | 64.1 |
| Decreased food intake | 344 | 54.6 |
| slurred speech | 268 | 42.5 |
| Decrease sleep | 287 | 45.6 |
| Involve in illegal work and criminal activities | 357 | 56.7 |
| Sexual promiscuity | 139 | 22.1 |

Table 3: Level of Knowledge on Substance Abuse

| Variables | Frequency | Percent |
|----------------|-----------|---------|
| Poor Knowledge | 373 | 59.2 |
| Satisfactory | 203 | 32.2 |
| Good Knowledge | 54 | 8.6 |

Table 4: Attitude on Substance Abuse

| SN | Adolescents Attitude | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Median (Q3-Q1) |
|----|--|----------------|------------|------------|------------|-------------------|----------------|
| 1 | It is okay to take alcohol, tobacco and other drug occasionally | 32 (5.1%) | 64 (10.2%) | 109(17.3%) | 221(35.1%) | 204 (32.4%) | 4(5-3) |
| 2 | Substance abuse is a disease | 151(24%) | 311(49.4%) | 59(9.4%) | 56(8.9%) | 53(8.4%) | 2(3-2) |
| 3 | Drugs have negative effects on nervous system and lungs | 101(16%) | 230(36.5%) | 197(31.2%) | 74(11.7%) | 28(4.4%) | 4(4-4) |
| 4 | If the addictive substance is used for one time, it is not harmful | 35(5.6%) | 145(23%) | 184(29.2%) | 182(28.9%) | 84(13.3%) | 3(4-2) |
| 5 | Addictive substances remove people from problems | 48(7.6%) | 67(10.6%) | 155(24.6%) | 199(31.6%) | 161(25.6%) | 4(5-3) |
| 6 | Drugs affect driving | 146(23.1%) | 186(29.1%) | 210(33.3%) | 65(10.3%) | 23(3.6%) | 4(4-4) |

Table 5: Association of Knowledge Level of Drug abuse and Selected Socio-demographic variables

| Variables | | Level of Knowledge | | | Total | P value |
|--------------------|--|--------------------|----------------------|--------------|-------------|---------|
| | | Poor; No (%) | Satisfactory; No (%) | Good; No (%) | | |
| Age : | <17 | 77(12.2%) | 50(7.9%) | 21(3.3%) | 148(23.49%) | 0.011* |
| | ≥17 | 296(47.0%) | 153(24.3%) | 33(5.2%) | 482(76.50%) | |
| Sex: | Male | 221(35.1%) | 90 (14.3%) | 40(16.3%) | 351(55.71%) | 0.001* |
| | Female | 152(24.1%) | 113 (17.9%) | 14 (2.2%) | 279(44.28%) | |
| Religion | Hinduism | 305(48.4%) | 161(25.6%) | 49 (7.8%) | 515(81.74%) | 0.144 |
| | Buddhism | 56(8.9%) | 39(6.2%) | 5(0.8%) | 100(15.87%) | |
| | Others | 12(1.9%) | 3(0.5%) | 0(0.0%) | 15(2.38%) | |
| Ethnicity | Brahman/chhetri | 168(26.7%) | 94(14.9%) | 38(6.0%) | 300(47.61%) | 0.001* |
| | Janajati/Adhibasi | 186 (29.5%) | 85(13.5%) | 13(2.1%) | 284(45.07%) | |
| | Others | 19(3.0%) | 24(3.8%) | 3(0.5%) | 46((7.30%) | |
| Family Type | Nuclear | 233 (37.0%) | 159 (25.2%) | 36 (5.7%) | 428(67.93%) | 0.001* |
| | Joint | 140(22.2%) | 44(7.0%) | 18(2.9%) | 202(32.06%) | |
| Father's education | | | | | | |
| | Unable to read and write | 47(7.5%) | 37(5.9%) | 9(1.4%) | 93(14.76%) | 0.027 |
| | Able to read and write and primary education | 87(13.8%) | 48(7.6%) | 4(0.6%) | 139(22.06%) | |
| | Secondary edu. & above | 239(37.9%) | 118(18.7%) | 41(6.5%) | 398(63.17%) | |

DISCUSSION

Our study result showed that More than half (59.2%) respondents have poor knowledge, 32.2% have satisfactory knowledge whereas only 8.6% have good level of knowledge on substance abuse. The findings

was inconsistent with the study done in India which revealed that 94% students have high knowledge level on the substance use.⁹ In contrast to the present findings study done in biratnagar, Nepal 87.88% had good knowledge, 11.12% had average knowledge and

only 2.6% had poor knowledge on over all substance abuse.⁷ The inconsistent findings was in study of Tsering D et al found where majority of the respondents reported having adequate knowledge about the harm of substance use.²¹

More than half (63.2%) knew about the substance abuse. which is in accordance to the study done in chitwan by Paudel Chaurasia & Nurmala, Muthmainnah, Hariastuti, Devi Nurvita Ruwandasari.^{10,11} Majority (82.4%) of them state oral route followed by inhalation (63.7%) is the routes of abusing substance. Majority (88.1%) of respondents expressed alcohol is one of the commonly available substances followed by tobacco (56.8%), Cannabis (22.5%). These findings are in contrast to the other study findings done in Egypt which stated as Cannabis was the commonest in all regions followed by Alcohol (28.6% of total use) as the 2nd common substance of use in all Egyptian.^{11, 12} The probable difference for this explanation might be different background with their own observation and exposure.

Present study findings showed that 82.1% of respondent's state the vulnerable phase of life for substance abuse is adolescents phase. This finding resembles the study done in biratnagar where 80.3% state this phase is more vulnerable, consistently matched the findings of study in Indonesia.^{8, 11} Our study revealed that bad relationship between parents and children (60%) followed by friends pressure (40.2%) as a reason to start drugs, another study explored in Chitwan, Nepal the consistent findings which depicts that Majority of the participants were familiar about the main cause as teenage curiosity/peer pressure, relationship between parents and child (96.9%).¹² The consistent findings was found in which majority of respondent responded causes of drug abuse is bad relationship with family, to feel relax, failed in exam and film stars and idols which are shown on television.^{13,11} This parallel findings could be because of familiarly with in our socio cultural context.

More than two third (69.5%) respondents articulated damage to internal organs occur as hazards of alcohol followed by mental and physical problems (57.9%) whereas only 14.3% state it cause traffic accidents. The consistent findings was appraised in 2012 India explored that alcohol affects almost every organ in the body and has been associated to cause >60 medical conditions. Alcoholism also increases the risk

of mortality from acute causes such as traffic accidents and injuries.^{14, 15}

In the present study more than half (55.4%) respondents revealed as effect of substance abuse as isolation from friends or Family as social problem followed by financial burden (49.7%), absence in class (68.9%) as school related problems. Similar findings were noted by Yadav & Parajuli, Pathak & Pokharel, Central bureau of statistics, 2069 in Nepal that isolation, bad relationship with family, peer pressure, family problem, study problem as a cause of substance abuse.^{12, 16, 17} In psychological effect from substance abuse more than two third (70.2%) respondent stated poor memory and poor judgment followed by Poor decision making power (52.7%). Contrast findings are expressed in the article paper discussed by McLellan in American context, Yadav & Parajuli in Nepal that Substance abuse significantly alter a person's behavior and habits that is changes in behavior such as increased aggression or irritability, changes in personality or attitude.¹⁸

More than two third (75.4%) respondent state good relationship between parents and children is main for protection young form drug abuse followed by emotional support from parents (52.7%). Majority (72.4%) of respondent revealed providing family and social support is treatment of drug addiction followed by (61.1%) enhancing individual motivation to quit substance. The result was consistent with the findings from Paudel, Chaurasia, Bhurtyal & Karki state that Supportive therapy, Awareness program, involve in peer to peer and prevention program and counselling are ways to prevent and treat from drug abuse.^{12, 9}

On attitude towards substance abuse of respondents each statement was analyzed individually. More than one third (35.1%) respondents were not ok to take alcohol, tobacco and other drugs occasionally. Nearly half of the (49.4%) respondents believed that substance abuse is disease and only just 8.9% strongly disagree with it. More than one third (36.5%) agree that drugs have negative effects on nervous system and lungs whereas 4.4 % strongly disagree. Unexpectedly nearly one third (29.2%) stay on impartial attitude if the addictive substance is used for one time it is not harmful whereas only 13.3% strongly disagree. The study done in school students in India on substance abuse attitude varies towards substance use.⁹ The study findings in Egypt illustrated that three quarter and over

half students respectively have negative attitudes about drug abuse. The findings of this study match with the results of other research by Heydarabadi et al who noted that majority (90%) of students had a moderate and a good Attitude towards this.

The result of our study indicate that all the variables, like age group, sex, ethnicity, type of family, father education, mother's education, father occupation and relationship between parents have significant association with the level of knowledge. Similar association on education level, family occupation was noted on studies by Bhattarai & Chudal.⁸ On the contrary, study conducted by Paudel, Chaurasia, Bhurtyal & Karki, Begum & Devi has shown no any significant association between these variables.^{9,10} On the contrary, other study conducted by Bhattarai & Chudal has shown a significant association between these variables. This inconsistent findings may be due to different study population and setting.⁸

Limitation: The school were selected through simple random sampling technique which consist all private school so findings might not be generalized. Data collection period was affected due to Covid -19 pandemic situation and scenario.

CONCLUSION

More than half of the respondents have poor knowledge whereas only few have good level of knowledge on substance abuse in which respondent states the reasons

to start drugs is bad relationship between parents and children, hazards of smoking and alcohol are respiratory disease and damage to internal organs, poor memory and judgment is one of the psychological effect from substance abuse. Good relationship between parents and children is main for protection from drug abuse. Respondent attitude on substance abuse varies with each statement in which respondent opined surprising responses on; addictive substance is not harmful using for first time, and addictive substances remove people from problem. There is significant association between the level of knowledge and sociodemographic variables. Community education and awareness campaigns exist in the country, but this evidence findings suggest that still these activities need to be made more strengthen in order to enhance to better educate and make aware to the youth so that to overcome with its associated problem and negative health consequences.

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