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Factors Affecting Psychoactive Substances Use Among Bachelor Level Students of Nepalgunj Sub-Metropolitan City

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ABSTRACT

Background: Psychoactive substance use among Bachelor level students have different risk and protective biological, intrapersonal, interpersonal, and sociocultural factors. This study was conducted with the aim to explore the factors affecting psychoactive substance use among Bachelor level students of Nepalgunj sub-metropolitan city.

Methods: A qualitative cross-sectional study was conducted among Bachelor level students from different streams of Nepalgunj sub-metropolitan city. Pre-validated Interview Guidelines was used for 13 In-depth Interviews with Bachelor level students from different streams using psychoactive substances and 12 Key Informant Interviews with parents/guardians and teachers of some of the selected students. Deductive thematic analysis based on Domain model was done to explore the risk and protective factors for psychoactive substance use.

Results: The study identified different risk and protective factors affecting psychoactive substance use within each biological, intrapersonal, interpersonal, and sociocultural domain. Major risk factors identified were adolescence and teenage, male sex, curiosity and experimentation, use for fun, to relieve or cope stress/tension, inadequate awareness, peer influence and pressure, use of psychoactive substances in family, availability, advertisements, social acceptance, and lack of strict rules and regulations. Major protective factors identified were adequate awareness, negative perception, self-motivation, lack of free time/leisure, mentality/state of mind, personal responsibilities, guidance from family, negative perception of society, and reputation.

Conclusions: Increasing awareness, developing positive attitudes, reducing social acceptance, and implementation of strict rules and regulations may help minimize and/or eliminate psychoactive substance use by Bachelor level students.

Keywords: Acceptance; bachelor level students; curiosity; protective factors; psychoactive substance use; risk factors

INTRODUCTION

Adolescence has been identified as the period of first psychoactive substance use which then peaks during adulthood.[1]and key psychosocial transitions are made. Adolescence is the peak time for initiation of substance use, with tobacco and alcohol usually preceding the use of illicit drugs. Substantial variation is noted between countries in the levels, types, and sequences of substance use in young people, indicating that a young person's use of substances depends on their social context, drug availability, and their personal characteristics. The Global Burden of Disease (GBD Genetic and environmental factors have been identified to affect adolescents' substance use.[2] A study has identified perceived benefits of substance use and easy accessibility of substances as themes comprising risk factors; awareness and beliefs as theme comprising protective factors; and family influence, peer influence, and social norms as themes comprising both risk and protective factors for substance use among adolescents.[3] Different socio-economic factors, personal factors, psychiatric factors, educational factors, family factors, peer factors, and social factors have been identified as possible risk factors for drug abuse among the Nepali population aged 15 to 40 years.[4] The aim of the study was to explore factors affecting psychoactive substance use among Bachelor level students from different streams of Nepalgunj sub-metropolitan city.

METHODS

A qualitative cross-sectional study was conducted among Bachelor level students of Nepalgunj sub-metropolitan city. Interview Guidelines was used for In-depth Interviews (IDIs) with Bachelor level students

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from different streams using psychoactive substances and Key Informant Interviews (KIIs) of parents/guardians and teachers of some of the selected students. Face and content validity of the guidelines were maintained through consultation with qualitative research expert and pretesting. Approval for the study was obtained from the Institution Review Committee (IRC) of Patan Academy of Health Sciences (PAHS) [Ref: PHP2008061407]. Verbal consent was obtained from all the participants during rapport building. The decision for participation in the study was voluntary. Participants were informed about their right to withdraw from the study at any time without giving any justification. Translated documents were maintained with high privacy by the researcher in a password-protected folder of a password-protected laptop. Interviews of all the participants were provided with codes during translation and analysis. Participants were provided with codes (Students as "S", parents/guardians as "G", and teachers as "T") during the collection and analysis of information. Students using psychoactive substances and above the age of 18 years were included in the study and eligible participants who were not able to speak or understand Nepali were excluded.

Thirteen Bachelor level students from different streams using psychoactive substances selected through snowball sampling were interviewed. Six parents/guardians and six teachers of some of the interviewed students were selected purposively for KIIs. Data saturation was obtained after a total of 25 interviews, 13 in case of bachelor level students and 12 in case of parents/guardians and teachers. Participants were interviewed via telephone between August-September 2020 that were audio-recorded. All the interviews were transcribed and translated. Deductive thematic analysis based on Domain model was conducted using RQDA for R software with biological, intrapersonal, interpersonal, and sociocultural being the pre-identified themes. The overall positive percent agreement between two independent coders was 90.8%.

RESULTS

The details of the 25 participants interviewed are provided in Table 1 with the findings from deductive thematic analysis of the interviews within each theme, followed by the narratives from the participants to support those findings.

Table 1. Details of the participants.

Participant	Age	Sex	Place of residence	Study stream	Type of college	Education level	Use of any psychoactive substances
S1	24	M	Urban	Engineering	Private	Bachelors	Yes
S2	22	M	Urban	Management	Public	Bachelors	Yes
S3	20	F	Urban	Management	Public	Bachelors	Yes
S4	19	F	Urban	Management	Private	Bachelors	Yes
S5	21	M	Urban	Engineering	Private	Bachelors	Yes
S6	21	M	Urban	Management	Public	Bachelors	Yes
S7	22	M	Urban	Management	Private	Bachelors	Yes
S8	21	M	Rural	Science	Public	Bachelors	Yes
S9	22	F	Urban	Nursing	Public	Bachelors	Yes
S10	22	M	Rural	Engineering	Private	Bachelors	Yes
S11	20	M	Rural	Management	Public	Bachelors	Yes
S12	21	F	Rural	Nursing	Public	Bachelors	Yes
S13	22	M	Rural	Management	Private	Bachelors	Yes
T1	31	M	Urban			Bachelors	No
T2	39	M	Rural			Masters	No
T3	30	M	Urban			Bachelors	Yes
T4	34	M	Rural			Masters	No
T5	32	M	Urban			Bachelors	No
T6	35	M	Rural			Masters	No
G1	32	M	Urban			Bachelors	Yes
G2	52	M	Urban			Masters	Yes

G3	30	M	Rural	Masters	Yes
G4	30	M	Rural	Masters	Yes
G5	33	M	Rural	Masters	Yes
G6	35	M	Urban	Masters	Yes

Participants reported adolescence age and male sex as the major biological risk factor for psychoactive substance use.

Teenage is the age to learn and experiment new things and at this age people may get involved in use of psychoactive substances. S6

In our society use of psychoactive substances is accepted for males in comparison to females for whom they have bad perception and thus female are less likely to use such substances. S12

Participants had mixed perceptions on the effects of genetics and physiology on psychoactive substance use. Adverse health conditions and bad experiences after using substances were reported as protective factors.

If parents, grandparents are into substance use then the children might also be involved in it, they might have passed on that behavior. G5

For some people they want to get involved but their health does not allow them. S10

Curiosity and experimentation were reported as major intrapersonal factors influencing use of psychoactive substances. Use of psychoactive substances was also for fun, show-off, or to cope stress.

When I used for the first time I did it with my friend. If he is involved, then why not I try it too and I was curious, and I used it. S8

We drink alcohol and smoke to enjoy or for fun when we meet friends…I usually drink when I am happy, to have fun or to enjoy with my friends. S6

In addition, adolescents use psychoactive substances to relieve or cope with the frustration and stress they have in life. S13

Participants reported that some ethnic and religious groups had culture and tradition of using psychoactive substances, whereas some did not use such substances.

In Newari culture it is tradition to provide alcohol as "shagun". Our elders use to provide us with alcohol to taste during festivals saying that it is to be from offering to gods. S6

On the other hand, if we look at the Muslim community, they do not drink "jaad" and alcohol. In Muslim community, it is considered as a sin to even touch these substances. It is so in their culture. G5

Participants reported that students from both high or low economic status used psychoactive substances. However, the difference was in the type of psychoactive substances they used.

But the one with high economic status who can afford indulge them in branded liquors like branded whiskey, beer. As for the individuals with low economic status they drink local liquors like "jaad", "chhyang". S10

Participants also reported that economic status did not matter sharing the use of psychoactive substances among friends. However, not having money to buy psychoactive substances was reported to prevent use of psychoactive substances.

If a friend is economically sound then he/she may ask his/her friend to use psychoactive substances with them, even though the other friend has poor economic status. S1

We might want to use those substances but if we do not have the money then it also hinders the substance use. S10

Perception regarding the use of psychoactive substances was also reported to affect the use of such substances.

I think that using ganja is good than other psychoactive substances causing addiction. S1

Depending on the situation and the environment that he has been brought up and grown, if he develops a negative opinion towards it then he will not be involved in substance use. T2

Participants reported that along with knowledge of psychoactive substances, awareness and development of negative perception on their use were required to prevent their use.

More than knowledge, how an individual perceives use of psychoactive substances influences use of such substances. S12

Lack of free time, mentality/state of mind and self-motivation were identified as major intrapersonal factors preventing use of psychoactive substances.

Major factor is what an individual dedicates himself/herself on, other factors are just part of that dedication, which can either be accepted or neglected by the individual. S5

Participant reported that use of psychoactive substances was influenced by seeing family and friends use such substances. Most of the adolescents were reported to use psychoactive substances under peer influence or pressure. Moreover, lack of appropriate care and guidance from family and bad family environment acted as risk factors for use of psychoactive substances.

As we keep on seeing the use of psychoactive substances since childhood, we start copying such activities and finally start using such substances. S5

Every person in their teenage face pressure or emotional influence from their friends to use psychoactive substances. S6

If family members are unable to take care of their children, give them proper time, and identify their problem and solve it then there is a high risk of using psychoactive substances. S2

Social acceptance of the use of psychoactive substance as per culture and tradition, during festivals, and in social functions was identified as a major sociocultural risk factor for psychoactive substance use.

In my (Newari) culture, it is tradition to serve alcohol during festivals. I knew how alcohol tasted in my early age. S6

In recent times, psychoactive substances are also served in parties, which may influence their use. S4

Availability of psychoactive substances, advertisements, low cost of such psychoactive substances, and lack of strict rules and regulations were also influencing use of psychoactive substances.

In many places the substances are being traded, sold, and used. These days in many colleges too, drug paddlers have their networks in the colleges. They target one individual and use him for the sales of drugs. G2

Freedom to smoke and drink in public places and easy availability of such substances also affects use of psychoactive substances. S13

Negative perception of society on psychoactive substance use, societal reputation of an individual, and non-acceptance of psychoactive substance use were identified as protective factors.

Now if the society knows about my involvement then they would say, this XYZ also is involved in substance use and they would ignore me and start backbiting. These activities tend to make me guilty and act as a barrier this way. G1

…if it is not accepted culturally like in Muslim community where it is not culturally accepted, they are not involved in substance use. G5

Table 2. Factors identified from the deductive thematic analysis.

Themes	Factors identified
Biological Domain	Risk factors: Age, Heredity Both: Sex, Physiology
Intrapersonal Domain	Risk factors: Curiosity, Experimentation, Habit/Dependence, Relieve or cope stress/tension, Show off, Use for fun Protective factors: Employment, Mentality/State of mind Both: Awareness, Economic status, Education, Ethnicity, Familial responsibilities, Free time/leisure, Individual's perception, Knowledge about substances, Low pay jobs, Motivation
Interpersonal Domain	Risk factors: Peers' influence, Peer pressure, Seeing or copying others, Use of psychoactive substances in family Both: Care from family, Family environment, Friend circle, Guidance
Sociocultural Domain	Risk factors: Advertisement, Availability of secret places for use, Cost of psychoactive substances, Festivals, Open border, Social function, Social media Protective factors: Perception of society, Rehabilitation, Reputation Both: Availability, Culture and tradition, Residence, Rules and regulations, Social acceptance, Social environment

DISCUSSION

Adolescence age was identified in this study as the major biological risk factor for psychoactive substance use. A study conducted in the Western Development Region of Nepal among adolescents aged 12 to 18 years identified substance use to be associated with age.[5] Neurobiological studies have also identified that psychoactive drug initiation peaked during adolescence and young adulthood.[6] Males were identified to be involved more in psychoactive substance than females. Studies conducted in Nepal and elsewhere have also identified males using psychoactive substances more than females.[5,7,8] However, a study conducted in Hungary identified no significant gender differences in smoking, binge drinking, and marijuana use.[9]

Heredity was identified as a risk factor or having no effect in use of psychoactive substances in this study. Studies has provided with mixed results on effect of genetics on adolescents' substance use initiation, continuation, and problem use.[10,11] Negative experiences during use and unfavorable health conditions were identified to limit the use of psychoactive substances from this study. Studies have identified that psychoactive substance use caused many short-term and long term negative consequences.[12]

Curiosity and experimentation were identified to be the major intrapersonal risk factors influencing use of psychoactive substances in this study. Many studies have identified curiosity as a risk factor for adolescent psychoactive substance use.[13,14] Using psychoactive substances for fun or to show off was also identified as risk factor for psychoactive substance use from this study. A study in Nepal has identified "for fun sake" or "partying" as the major motivation for substance use among undergraduate medical students.[15] Stress due to broken relationships, family problems and failure in studies were identified as risk factors for psychoactive substance use in this study. Different studies have identified use of psychoactive substances to manage and forget personal and family problems and/or manage stressful situations.[3,13]

Ethnicity and religion were identified as both influencing and protecting factors for psychoactive substance use in this study. A school-based study in Nepal identified substance use among high school students to be significantly associated with ethnicity.[16] Being Muslim has been identified to be protective factor for psychoactive substance use,[17] which this study also identified. Use of psychoactive substances as per economic affordability was also identified. Significant association of socioeconomic status with psychoactive substance use was identified from a study in India.[14] However, a study in Bangladesh has identified mixed role of economic status for substance use.[18]

This study also identified inadequate awareness regarding harmful effects of psychoactive substance use as risk factor for psychoactive substance use whereas its presence as protective factor. Different studies have identified inadequate knowledge and awareness of the harmful consequences of substance use as factor increasing risk of psychoactive substance use among adolescents.[3,13,19] Perception of use of psychoactive substance as normal was identified as risk factor for psychoactive substance use. A school-based study in Ethiopia has identified low perceived risk of substance use to be significantly associated with psychoactive substance use.[8] Firm mentality and self-motivation were identified as protective factors against use of psychoactive substances from this study. Strong belief against substance use and desire to maintain good health were identified as protective factors for substance use from previous study.[3]

Use of psychoactive substances by family members, troubled family environment, and lack of proper care and guidance from the family were identified as risk factors for psychoactive substance use. Prohibition of psychoactive substance use was identified as protective factors for psychoactive substance use. Different studies have identified similar family-related protective and risk factors for psychoactive substance use.[3,20] Adolescents were more likely to use psychoactive substances under influence or pressure of their friends. However, friend circle of non-user friends acted as protective factor. A study in Nepal has identified peer factors to have significant association with drug use.[4]

This study also identified social acceptance of psychoactive substance use as part of culture and tradition, during festivals, and social functions as sociocultural factors influencing psychoactive substance use whereas negative perception on use, social reputation, and non-acceptance as protective factors. Culture and tradition, social acceptance, community norms favorable to substance use, and social acceptability of local alcoholic drinks have been identified as risk factors for psychoactive substance use in different studies.[8,16,21] Easy availability due to open border, low cost, serving at social functions, and brewing locally also acted as risk factors. Different studies have identified easy availability and accessibility of psychoactive substances as risk factors for psychoactive substance use.[3,14,19] Lack of strict implementation of rules and regulations

that controlled trade of psychoactive substances and easy accessibility to adolescents were identified as risk factors for psychoactive substance use from this study. Use of Closed Circuit Television (CCTV) for surveillance has been identified as one of the factors limiting trade of psychoactive substances.[19] Moreover, social media, advertisements, and movies were identified as risk factors for use of psychoactive substances from this study. Different studies have identified influence of media and advertisements as risk factor for psychoactive substance use.[13,22]

The qualitative nature of the study means that the findings cannot be generalized, however the findings can be considered as a starting point to initiate other exploratory study for generalization or to conduct other qualitative researches on similar topic. Measures like verification of transcribed and translated transcripts, use of software to organize codes and themes, use of international qualitative experts to validate codes from two independent coders, intercoder percent agreement, and member checking has helped maintain rigor in the analysis and minimize subjectivity.

CONCLUSIONS

Presence of risk factors within all the domains suggests that a single domain approach is not enough to prevent psychoactive substance use. Interventions targeted to increase awareness, develop positive attitudes, socially discourage psychoactive substance use, and influence positive changes in social norms would help reduce use of psychoactive substance use. Authorities from the Sub-Metropolitan City can formulate laws against selling and buying of psychoactive substances by minors and young adults and ensure strict abidance to those laws in order to ensure minimization of use of psychoactive substances by Bachelor level students.

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