

# A Qualitative Exploration of Substance Abuse among the Nursing Students of Coastal Karnataka

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## Abstract

**Background:** To explore the various perceived causes and solutions for substance abuse among the nursing students in Mangalore, Karnataka, India.

**Methods:** Group of nursing students belonging to the second year participated in the study. A method of free listing and pile sorting was employed to discover the causes and solutions for substance abuse.

**Conclusion:** The primary cause of substance abuse was found to be peer pressure with a salience value of (0.945) followed by enjoyment (0.614), family problems (0.486). Cognitive mapping revealed the causes of being grouped under three major headings: psychological imbalance, adaptation to modern lifestyle, and unhealthy family environment. The solutions suggested by the students were counseling and rehabilitation with the highest salience value (0.751), awareness about the adverse effects at an early age (0.637). Cognitive mapping portrayed the solutions grouped into headings like therapies and treatment, external sources, family care, and support. Factors such as peer pressure, academic pressure, and easy availability of drugs can be looked into by external institutions to root out the evils of substance abuse

**Keywords:** drug abuse, nursing students, substance abuse

## Introduction

Substance abuse disorder is one of the significant concerns globally. World health organisation (WHO) defines the term substance abuse as “Persistent or sporadic use of a drug inconsistent with or unrelated to acceptable medical practice”<sup>1</sup>. Substance abuse

indicates the use of dangerous psychoactive substances such as tobacco, alcohol, and other drugs like heroin, amphetamine, and cannabis<sup>2</sup>. Use of substance has caused intolerable sufferings in terms of mortality and financial crisis causing menace to social life around the world<sup>3</sup>.

The initiation of drug abuse is observed in the period of adulthood, which significantly increases the probability of more severe drug problems later in life<sup>4</sup>. Globalization, urbanization, deteriorating cultural values, conflicts, and violence force young adults to use substances<sup>5</sup>. Studies conducted to determine the prevalence of substance abuse among the various streams, including the medical stream, were found

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to be 20-40 %<sup>6</sup>. Research shows that indulgence in substance abuse can be a result of exposure to violence and post-traumatic stress<sup>5</sup>. The prevalence of substance use among health care students ranges from 5% to 67%<sup>7-12</sup>, with higher percentages (67%) being reported in developed countries like the United States<sup>8</sup>. Among developing countries such as Iran<sup>9,10</sup>, Ethiopia<sup>11</sup>, Nepal<sup>12</sup>, and India<sup>6</sup>, substance uses among health care students varies from 5% to 48%.

Taken together, there is a strong need to assess substance use among health care students as they hold greater responsibility in society. The present study was undertaken for the qualitative exploration of perceived causes of substance abuse and possible solutions for the same among nursing students from selected nursing colleges of Mangalore.

### Methodology

The present qualitative study was done among 15 second-year students from selected nursing colleges of Mangalore, Karnataka. The sample size of 15 was reached after applying the rule of saturation for the qualitative study. Study was conducted after obtaining the ethical clearance from the institutional ethics committee. (No: 19050). Permission was obtained from the heads of the nursing institutes, and consent was taken from the nursing students before the commencement of the study. A method of free listing and pile sorting<sup>13,14</sup> were employed to discover the perceived causes for initiation of substance abuse and possible solutions to address these problems among students of nursing colleges in Mangalore.

Free listing: For the free listing, students were asked

two probe questions:

(1) In your opinion, what do you think are the causes for substance abuse among your age group of students in your field? (2) Suggest the possible solutions to eradicate the use of substance abuse among this age group of students in your field?

Students were asked to provide a list of various perceived causes and possible solutions for substance abuse individually. Statistical program **ANTHROPAC** was used to compute Smith's Saliency Index and frequency for free list data. Smith's saliency index refers to the "importance, representativeness, or prominence of items to individuals or the group. Twenty responses as causes and fifteen solutions were taken for pile sorting. Obtained results were subjected to analysis using Visual Anthropic

*Pile sorting:* First, the identified salient items were written on cards with their respective numbers. Participants were then allowed to group; selected perceived reasons and solutions based on their own criteria. Participants were asked to explain the reason for piling. Successive pile sorting was done with similar causes and solutions, followed by items with less similarity. Process continues until all the groups are clustered into a single pile.

### Results & Discussion

**Table 1** shows the perceived causes of substance abuse among nursing students. The most predisposing factor for substance abuse is peer pressure with the highest salience value of 0.945, followed by just for temporary enjoyment with the salience value of 0.614.

Perceived causes for substance abuse among the nursing students: TABLE 1	
Causes	Salience value
Peer pressure	0.945
Just for enjoyment	0.614
Family problems	0.486
Socio-economic status	0.334
Parental influence	0.254
Stress	0.224
Break-up	0.222
Loneliness	0.214
Curiosity	0.171

Cont...

Easy accessibility	0.165
Anxiety	0.164
Emotional trauma	0.149
Ignorance	0.120
Social media influence	0.120
Temporary happiness - effect of substance abuse	0.118
Inadequate parental supervision and care	0.117
Adaptation to modern lifestyle	0.105
Social gatherings	0.102
Migration from rural to urban area	0.101
Depression	0.085

Cognitive mapping reveals the distribution of various reasons into three major categories. **Figure 1** shows the cognitive mapping of the causes of substance abuse done by nursing students.

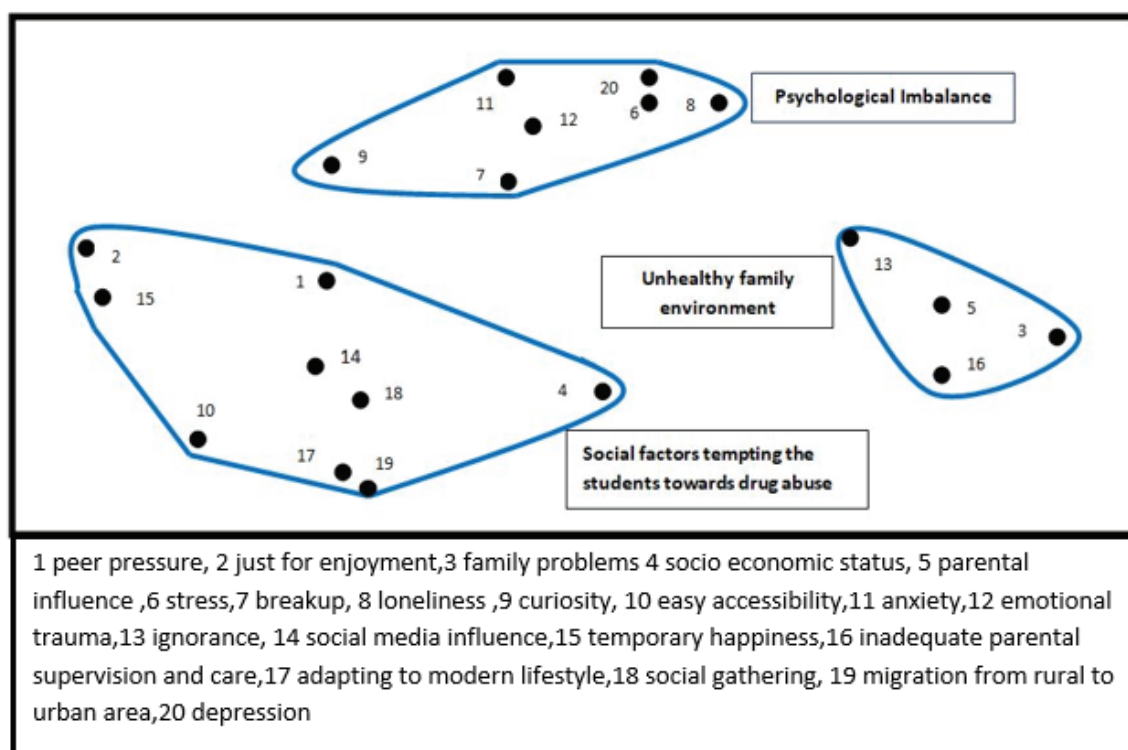


Figure 1 : Cognitive map-causes of substance abuse among nursing students:

**Pile 1** includes causes like anxiety, depression, emotional trauma, loneliness, breakup, stress, and curiosity, which were piled up under the title psychological imbalance.

**Pile2-** Students classified reasons such as peer pressure, temporary happiness, just for enjoyment, easy accessibility, media influence, social gathering, adapting to modern lifestyle, migration from rural to urban areas, and socioeconomic status as social factors tempting the students towards drug abuse.

The rest of the causes, such as ignorance, parental influence, family problems, inadequate parental care, and support were assorted under **pile 3** with headings like family influence, lack of parental support, care, and unhealthy family environment.

From the assorted groups in figure1, it is observed that the major reasons for substance abuse are psychological imbalance, curiosity, and environmental factors such as peer influence and other social factors.

**Table 2: Perceived solutions for substance abuse among the nursing students:**

Solutions	Salience value
Counseling	0.751
Awareness about the side-effects at an early age	0.637
Rehabilitation centre	0.394
Parental support and care	0.369
Behavioral therapy	0.302
Extra-curricular activities	0.211
Limit the availability of drugs near college institutions	0.186
Identify the cause and treat accordingly	0.167
Diversional therapy	0.085
Proper treatment	0.067
Socializing with the right people	0.065
Choose the right friends	0.061
Emotional support	0.033
Set goals and work towards achieving them	0.019
Self-control	0.010

Solutions enumerated by nursing students are depicted in Table 2 in the order of decreasing salience value. It is observed from **Table 2** that counselling, rehabilitation centres, awareness about the side-effects at an early age, parental support, and care were commonly suggested solutions. Students also stated that trying

out therapies such as behavioural therapy, diversional therapy, and socializing with the right people will help in preventing the use of substances.

Cognitive map - solutions for substance abuse suggested by nursing students: Figure 2

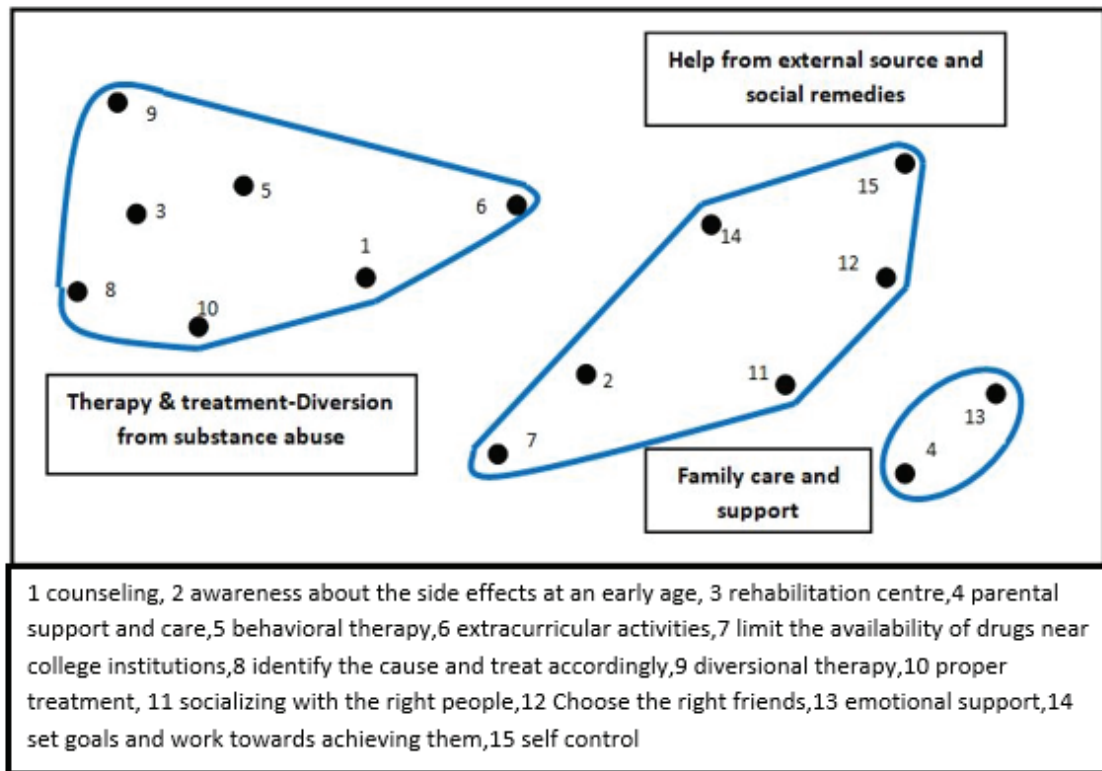


Figure 2 portrays the cognitive mapping of the solutions given by the nursing students.

Nursing students assorted reasons such as diversional therapy, behavioral therapy, rehabilitation centre, counseling, proper treatment, extracurricular activities and identify the cause and treat accordingly into **Pile 1** named therapies and treatment, diversion from substance abuse. Solutions like limiting the availability of drugs near college institutions, awareness about the side effects at an early age, socializing with the right people, self-control, and choosing the right friends were grouped into **Pile 2** under the headings self-help best help, help from an external source and social remedies.

**Pile 3** consists of two solutions, emotional support and parental care and support, which were grouped under the title family care and support.

From **Figure 2** it is evident that recreational activities, surrounding yourself with right and positive people, parental care and supervision, and limiting the availability of drugs to students can emerge to be of immense aid to reduce the prevalence of drug abuse among the students.

The present study shows that the predominant perceived cause for substance abuse among nursing

students is peer pressure. The present finding is consistent with the study conducted in Nepal by Bimala Panthee et al.(2017)<sup>15</sup> among the health care students. Cognitive mapping depicts reasons such as peer pressure, social media influence as the current trend in the modern era. Few nursing students reported that they used substances for pleasurable purposes in a study conducted by Jashmid Ahamdi et al(2004)<sup>16</sup>. It was also observed that parental influence<sup>17</sup> and inadequate parental support and care were major governing factors in substance abuse initiation. The study conducted by Gouri Kumari Padhy et al.(2014)<sup>18</sup> supports this reason. Family problem was found to be a determining reason for drug abuse. Study conducted by Mohan .D(1980)<sup>21</sup> reveals that students belonging to nuclear families had the least prevalence of drug abuse.

In addition to this, easy accessibility to drugs was found to be a major cause. It was reported that heavy alcohol drinking and cigarette smoking were the significant predictors of substance use among Nepalese health care students<sup>15</sup>. In the present study, students opined that curiosity is also one of the factors to indulge in alcohol abuse. Peer pressure, academic stress, and



social media influence were also found to be the main reasons for initiating drug use in a few published studies<sup>20, 22</sup>. 98% of substance abusers were aware of the adverse effects of substance abuse but were continuing the same. This showed carelessness towards self- health and a lack of proper health education. Previously published studies shows that the college environment favoured substance abuse since many have initiated the use of drugs after joining medical colleges<sup>19, 23</sup>. The most common reasons reported in the present study for using such substances were a relief from psychological stress, occasional celebration followed by to reduce tiredness, peer pressure, easy availability, experimental use and community acceptance<sup>18</sup>.

The majority of the students believe indulging in extracurricular activities and exploring your hobbies alleviate stress levels and help them choose healthier options over drugs, which was consistent with the previously published study<sup>26</sup>. The nursing students had suggested therapies such as diversional therapy and behavioural therapy. They also agreed that parental care and attention, healthier family relations would decrease the use of substance abuse, as reported in other studies<sup>18, 24</sup>. Other possible solutions suggested by the students were choosing the right friends circle and attending counselling sessions<sup>25</sup>. Other predominantly stated solutions were limiting the availability of drugs near college institutions and spreading awareness about the toxic effects of substance abuse at an early age. Benegal.V et al. (1998)<sup>20</sup> conducted a study that depicts the commonly reported solutions as similar to these.

Present qualitative study explores the causes of substance abuse among the health professional students. Psychological imbalance and stress due to various external factors forced the students to use various forms of drugs. In addition to this, easy accessibility to drugs was found to be an essential factor in substance abuse initiation. Solutions enumerated by the students include parental support and guidance, help from private organisations, having self-control, indulging in various co-curricular activities, and choosing the right friends. Limiting the availability of drugs near college institutions is a commonly reported solution.

### Conclusion

The present qualitative study explores the causes and solutions for substance abuse among nursing students through a method of free listing and pile sorting.

It is clearly evident that the most predisposing factor is peer pressure. Limiting the availability of drugs near college institutions was a commonly reported solution. In addition to this, students suggested therapies like diversional therapy and behavioral therapy.

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**Conflict of Interest:** Nil

### References

1. World Health Organization. Lexicon of alcohol and drug terms. Geneva: World Health Organization: (1994).
2. Tufel Ahad Baba, Abdul Majid Ganai, Syed Shuja Qadri, Mushtaq Ahmad Margoob, qazi mohammad iqbal, zahid ali khan. An epidemiological study on substance abuse among college students of north India ( Kashmir valley). *Int J Med Sci Public Health*.(2013); **2(3)**:562-567
3. William B. Hansen, Anderson Johnson, Brian R. Flay, John W. Graham and Judith Sobel. Affective and social influences approaches to the prevention of multiple substance abuse among seventh grade students: results from project smart. *Preventive Medicine*. (1988); **17**:135-154
4. Patel DR, Grey Danvs DE. Substance abuse: A paediatric concern. *Indian J Pediatr*. (1999);**66(4)**:557-67.
5. de Jong JT, Komproe IH, Van Ommeren M. Common mental disorders in post conflict settings. *Lancet*. (2003);**361(9375)**:2128-2130
6. A. Arora, S. Kannan, S. Gowri, S. Choudhary, S. Sudarasan, and P.P. Khosla . Substance abuse amongst the medical graduate students in a developing country. *Indian J Med Res*. (2016); **143(1)**: 101–103.
7. Kenna G, Wood MD. Substance use by pharmacy and nursing practitioners and students in a northeastern state. *Am J Health Syst Pharm*. (2004);**61**:921–930.
8. Ahmadi J, Fallahzadeh H, Salimi A, Rahimian M, Salehi V, Khaghani M, et al. Analysis of opium use by students of medical science. *J Clin Nurs*. (2006);**15**:379–386.
9. Ahmadi J, Maharlooy N, Alishahi M. Substance

- abuse: prevalence in a sample of nursing students. *J Clin Nurs.* (2003);13:60–64.
10. Deressa W, Azazh A. Substance use and its predictors among undergraduate medical students of Addis Ababa University in Ethiopia. *BMC Public Health.* (2011); 11:660
11. Shyangwa PM, Joshi D, Lal R. Alcohol and other substance use/abuse among junior doctors and medical students in a teaching institute. *J Nepal Med Assoc.* (2007); 460:126–129.
12. Khanal P, Ghimire RH, Gautam B, Dhungana SK, Parajuli P, Jaiswal AK, et al. Substance use among medical students in Kathmandu valley. *J Nepal Med Assoc.* (2010); 49:267–271
13. Amol R Dongre, Pradeep R Deshmukh. Farmers suicides in the Vidarbha region of Maharashtra India: a qualitative exploration of their causes. *J Inj violence Res* (2011) ; 1: 2-6
14. Hung-Wen Yeh, Byron J. Gajewski, David G. Perdue, Angel Cully, Lance Cully, K.Allen Greiner, Won S. Choi, and Christine Makosy Daley. Sorting it Out: Pile Sorting as a Mixed Methodology for Exploring Barriers to Cancer Screening. *Qual Quant.* (2014) ; 48(5): 2569–2587
15. Bimala Panthee, Suresh Panthee, Saroj Gyawali, Norito Kawakami. Prevalence and correlates of substance use among health care students in Nepal: a cross sectional study . *BMC public health* ;(2017) :article no. 950
16. Jamshid Ahmadi, Najmeh Maharlooy, Mohammadjavad Alishahi. Substance abuse: prevalence in a sample of nursing students. *Journal of clinical nursing.* (2004) ; 13(1):60-64.
17. Joseph W. LaBrie,, Savannah Migliori, Shannon R. Kenney Andrew Lac. Family History of Alcohol Abuse Associated With Problematic Drinking Among College Students. *Addict Behav.* ; (2010) ;35(7): 721-725
18. Gouri Kumari Padhy, Sangeeta Das, Trilochan Sahu, Sourajit Parida. Prevalence and Causes of Substance Abuse Among Undergraduate Medical College Students. *Indian Medical Gazette* (2014);276-282
19. Al-Haqwi AI, Perception among medical students in Riyadh, Saudi Arabia, regarding alcohol and substance abuse in the community: a cross – sectional survey, *Subst Abuse Treat Prev Policy,* (2010);22 5;2
20. Benegal V., Kulbhushan., Seshadri S., Karott M. — Drug Abuse Among Street Children in Bangalore. A Project in collaboration between NIMHANS, Bangalore and the Bangalore Forum for Street and Working Children. Monograph (1998)
21. Mohan D. — Drug Problems in Socio-Cultural context, WHO, Geneva;(1980); 42-47,
22. Ali I. Al-Haqwi, Hani Tamim, Ali Asery Knowledge, attitude and practice of tobacco smoking by medical students in Riyadh, Saudi Arabia *Ann Thorac Med.* (2010) ; **5(3):** 145–148.
23. Budhathoki N, Shrestha MK, Acharya N, Manandhar A, Substance use among third year medical students of Nepal. *J Nepal Health Res Counc*.(2010);(**1**):15-8
24. Dong-Eok-Shin, Jorge Delva, A Study of the Relationship between Parental Alcohol Problems and Alcohol Use among Adolescent Females in Republic of Korea, *J Prev Med Public Health* ,(2004);37(3);232-237
25. Grayson W. Armstrong, Giacomo Veronese, Paul F. George, Isacco Montroni, Giampaolo Ugolini , Assessment of Tobacco Habits, Attitudes, and Education Among Medical Students in the United States and Italy: A Cross-sectional Survey, *J Prev Med Public Health* ,(2017); **50(3):** 177-187.
26. Carlos Tejedor-Cabrera ,Omar Cauli. Alcohol and Cannabis Intake in Nursing Students, *Medicina(Kaunas),* (2019);**55(10):**628