



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.03

TPI 2020; 9(3): 139-143

© 2020 TPI

[www.thepharmajournal.com](http://www.thepharmajournal.com)

Received: 07-01-2020

Accepted: 09-02-2020

**Raghunandan Mudium**

Assistant Professor, Department  
of Pharmacology, Raichur  
Institute of Medical Sciences,  
Raichur, Karnataka, India

**Mohammad Arshad**

Associate Professor, Department  
of Pharmacology, Raichur  
Institute of Medical Sciences,  
Raichur, Karnataka, India

**Mohd Fayazuddin**

Assistant Professor, Department  
of Pharmacology, Raichur  
Institute of Medical Sciences,  
Raichur, Karnataka, India

**Vasant R Chavan**

Professor, Department of  
Pharmacology, Raichur Institute  
of Medical Sciences, Raichur,  
Karnataka, India

**Corresponding Author:**

**Mohammad Arshad**

Associate professor, Department  
of Pharmacology, Raichur  
Institute of Medical Sciences,  
Raichur, Karnataka, India

## A study to identify knowledge, attitude and perception among final year medical students regarding using psychoactive drugs

**Raghunandan Mudium, Mohammad Arshad, Mohd Fayazuddin and Vasant R Chavan**

DOI: <https://doi.org/10.22271/tpi.2020.v9.i3d.4461>

### Abstract

#### Objectives

1. To assess the knowledge and attitude regarding the use of psychoactive drugs
2. To know the awareness of the health consequences of psychoactive drugs and their short term & long term complications

**Material and Methods:** A cross sectional observational study by presenting pretested semi structured questionnaire to medical undergraduate students at Raichur institute of medical sciences (RIMS) Raichur. Student opinions were summarized and analyzed in a Microsoft Excel worksheet, and the results were analyzed.

**Results:** Majority of students (>60%) identified almost all psychoactive substances like codeine, ganja, morphine, heroine, tobacco, alcohol etc. 95% of the students felt that psychoactive substance use is unacceptable. 88.5% of the students felt that the use of psychoactive substances will slow down the progress activity at school. 67.14% of students agreed that there are no potential benefits associated with psychoactive substances use. 18.57% of students admitted to have a friend who is abusing the psychoactive substances. Alcohol (40%) & tobacco (31.43%) were the most common psychoactive substances abused by their friends. Majority of students were aware of short term and long term complications of psychoactive substance use. Two students volunteered that they were using psychoactive substance especially alcohol.

**Conclusion:** Most students could identify the commonest psychoactive substances mainly alcohol, heroine, ganja, morphine and tobacco They are aware that there is possibility of drug addiction from continued use & the use of psychoactive substances can slow down progress activity at colleges. Few admitted that they have friends who is abusing the psychoactive substances especially alcohol & tobacco. Majority were aware about various short term, long term complications of addictive, stimulant abused drugs. We feel educating the students regarding the areas where they further lack adequate knowledge would be beneficial to them.

**Keywords:** Psychoactive substance, health consequences, complications of drugs, medical undergraduate students

### Introduction

Psychoactive drugs abuse and their associated problems are of global concern. The recent WHO estimate shows that total burden of worldwide psychoactive substance use is: around 2 billion alcohol users, 1.3 billion smokers and 185 million drug users. The students abused tobacco, alcohol, cannabis and certain allopathic drugs for various reasons despite their known ill effects. Studies conducted worldwide including India have estimated a prevalence rate of substance abuse to be around 20-40 per cent among students from various streams including the medical field<sup>[1, 2, 3]</sup>, however, these restrict themselves to tobacco or alcohol use and many of these are gender biased.

The use of tobacco, alcohol and psychoactive substances in society, and by very young users poses a severe social problem. The consumption of alcohol is quite common. Medical students consume alcohol during get-together, after announcement of results and in family functions. Relief from psychological stress, easy availability, emotional immaturity, student abuse, family history of alcoholism & smoking especially by parents are the commonest risk factors associated with increased incidence of substance abuse in medical undergraduates, which

needs additional exploration as physical & psychological grooming of a medical undergraduate can be impaired or completely inhibited by abusing psychoactive substances [4]. Health professionals including medical students are said to be at higher risk of substance abuse because of relatively easy access to psychoactive substances, high levels of work related stress, frequent contact with illness and death, relative isolation of medical school and disrupted sleep and social life [5]. Substance use pattern is of interest due to potential impact of drug related functional impairments on medical students i.e. accidents, decline in academic and professional performance etc. In addition, substance use is shown in some studies to be a proxy of psychiatric morbidity as well which can further impair medical education. Alongside the negative effects of substance use on medical student physical and mental health, it may also threaten their ability to provide adequate patient care and be a role model for healthy lifestyle. The objective of the present study is to assess the knowledge, awareness and attitude regarding use of psychoactive substance & to explore the trends & patterns of various types of psychoactive substances/drugs among the medical undergraduates. We also believe that their role is imperative as they will be the future doctors involved in providing health care to various segments of society. Therefore, the results & recommendations of the present study will be helpful to plan preventive programs & interventional strategies at this level by the college establishment. Hence, the present study was undertaken to estimate the prevalence of substance abuse and associated factors among the medical students in a medical college situated in a semi-urban region in south India.

## Material & Methods

**Material and Methods:** The study was approved by institutional ethics committee of RIMS Raichur. For our study

70 students volunteered to participate by answering the questionnaire. Our study is a cross sectional observational study and data is obtained by presenting pretested semi structured questionnaire. A structured questionnaire based on literature review in this area was constructed by the research team in English language. The initial part of the questionnaire focused on demographics of the participants. The later part concentrated on perceptions of medical students regarding substances of abuse and their complications. In the terminal part, respondents were asked about their own experiences of substance intake. All possible measures were taken to ensure the confidentiality of all participants [4].

The opinion of the students was compiled in an excel (XL) sheet, and results were analyzed. All the quantitative data are expressed as percentage and qualitative data is expressed by providing the range of the parameter.

## Results

### Social demographics

**Age range:** 19-22

**Sex:** Male (31), Female (39)

**Pattern of lifestyle incorporated:** Yoga-(6 students), Gym-(4 students), Dancing-(9 students), Swimming-(2 students).

### Family details

|        | Education range            | Occupation range       | Income range        |
|--------|----------------------------|------------------------|---------------------|
| Father | Illiterate to postgraduate | Farmer to Business     | 3000 to 10000/month |
| Mother | Illiterate To postgraduate | House wife to business | Zero to 80000/month |

**Table 1:** Identification of psychoactive substance among students

| Substance                        | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) | Number of students who did not answer NA | Percentage (%) |
|----------------------------------|-------------------------------|----------------|------------------------------|----------------|--|----------------|
| Codeine                          | 60                            | 85.71          | 01                           | 1.43           | 09                                       | 12.86          |
| Ganja/Bhang/Marijuana/Cannabis   | 66                            | 94.29          | 00                           | 0.00           | 04                                       | 5.71           |
| KHAT/MIRA                        | 41                            | 58.57          | 05                           | 7.14           | 24                                       | 34.29          |
| Alcohol                          | 62                            | 88.57          | 06                           | 8.57           | 02                                       | 2.86           |
| Heroin                           | 65                            | 92.86          | 02                           | 2.86           | 03                                       | 4.29           |
| Tobacco (smoking/chewable/snuff) | 56                            | 80.00          | 02                           | 2.86           | 12                                       | 17.14          |
| Diazepam                         | 40                            | 57.14          | 14                           | 20.00          | 16                                       | 22.86          |
| Morphine                         | 52                            | 74.29          | 06                           | 8.57           | 12                                       | 17.14          |
| Others (please specify)          | 1-LCD                         | 1.43           |                              |                | 69                                       | 98.57          |

**Table 2:** Students opinion towards using psychoactive substance

| Questions   | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) | Number of students who did not answer | Percentage (%) |
|---|-------------------------------|----------------|------------------------------|----------------|---------------------------------------|----------------|
| Do you accept the use of psychoactive substances?   | 03                            | 4.29           | 67                           | 95.71          | 00                                    | 0.00           |
| Do you think the use of psychoactive substances can slow down progress activity at school?                  | 62                            | 88.57          | 05                           | 7.14           | 03                                    | 4.29           |
| Will you advice your friend to abuse psychoactive substances?   | 04                            | 5.71           | 66                           | 94.29          | 00                                    | 0.00           |
| Is there any possibility of drug addiction from continued use?  | 65                            | 92.86          | 05                           | 7.14           | 00                                    | 0.00           |
| Is it possible for a person to protect himself or herself from psychoactive substances abuse by will power? | 61                            | 87.14          | 07                           | 10.00          | 02                                    | 2.86           |
| Are there any potential benefits associated with psychoactive substances abuse?                             | 20                            | 28.57          | 47                           | 67.14          | 03                                    | 4.29           |
| Is it easily available of drugs for abuse?  | 44                            | 62.86          | 24                           | 34.29          | 02                                    | 2.86           |

**Table 3:** Details pertaining to friends of students

| Questions   | Variable category        | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) | Number of students who did not answer NA | Percentage (%) |
|---|--------------------------|-------------------------------|----------------|------------------------------|----------------|--|----------------|
| Do you have a friend who is abusing the psychoactive substances?  |                          | 13                            | 18.57          | 57                           | 81.43          | 00                                       | 0.00           |
| Would you prefer a friend who is abusing psychoactive substances? |                          | 06                            | 8.57           | 62                           | 88.57          | 02                                       | 2.86           |
| Type of a psychoactive substance abused by their friends          | Alcohol                  | 28                            | 40             | 03                           | 4.29           | 39                                       | 55.71          |
|   | Solvents/glue or petrol  | 00                            | 00             | 09                           | 12.86          | 61                                       | 87.14          |
|   | Bhang/Marijuana/Cannabis | 03                            | 4.29           | 08                           | 11.43          | 59                                       | 84.29          |
|   | Codeine                  | 01                            | 1.43           | 09                           | 12.86          | 60                                       | 85.71          |
|   | Tobacco/Cigarette        | 22                            | 31.43          | 03                           | 4.29           | 45                                       | 64.29          |
|   | Diazepam                 | 03                            | 4.29           | 08                           | 11.43          | 59                                       | 84.29          |
|   | KHAT/MIRAA               | 00                            | 00             | 09                           | 12.86          | 61                                       | 87.14          |
|   | Heroin                   | 02                            | 2.86           | 09                           | 12.86          | 59                                       | 84.29          |
| Others (please specify)   | 02 (Morphine)            | 2.86                          |                | 03                           | 4.29           | 65                                       | 92.86          |

**Table 4:** Students opinion towards complications of addictive drugs (e.g., opium, heroin, morphine)

| Complications of addictive drugs                               | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) | Number of students who did not answer NA | Percentage (%) |
|--|-------------------------------|----------------|------------------------------|----------------|--|----------------|
| Miosis (constricted pupil of eye)                              | 54                            | 77.14          | 08                           | 11.43          | 08                                       | 11.43          |
| Dry mouth  | 54                            | 77.14          | 04                           | 5.71           | 12                                       | 17.14          |
| Constipation   | 58                            | 82.86          | 01                           | 1.43           | 11                                       | 15.71          |
| Mydriasis (dilatation of pupil)                                | 25                            | 35.71          | 20                           | 28.57          | 25                                       | 35.71          |
| Kidney damage and failure                                      | 43                            | 61.43          | 04                           | 5.71           | 23                                       | 32.86          |
| Diarrhea   | 28                            | 40.00          | 12                           | 17.14          | 30                                       | 42.86          |
| Brain damage   | 45                            | 64.29          | 04                           | 5.71           | 21                                       | 30.00          |
| False perception, Seeing unreal images that others can't see   | 66                            | 94.29          | 00                           | 0.00           | 04                                       | 5.71           |
| False perception, Hearing unreal sounds that others can't hear | 50                            | 71.43          | 04                           | 5.71           | 16                                       | 22.86          |
| Any others: (Please write it down)                             |                               |                |                              |                |  |                |

**Table 5:** Students opinion towards complications of stimulant drugs (e.g., ecstasy, hashish, ganja)

| Complications of stimulant drugs                               | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) | Number of students who did not answer NA | Percentage (%) |
|--|-------------------------------|----------------|------------------------------|----------------|--|----------------|
| Miosis (constricted pupil of eye)                              | 26                            | 37.14          | 16                           | 22.86          | 28                                       | 40.00          |
| Dry mouth  | 36                            | 51.43          | 06                           | 8.57           | 28                                       | 40.00          |
| Constipation   | 24                            | 34.29          | 13                           | 18.57          | 33                                       | 47.14          |
| Mydriasis (dilatation of pupil)                                | 38                            | 54.29          | 05                           | 7.14           | 27                                       | 38.57          |
| Kidney damage and failure                                      | 34                            | 48.57          | 10                           | 14.29          | 26                                       | 37.14          |
| Diarrhea   | 37                            | 52.86          | 08                           | 11.43          | 25                                       | 35.71          |
| Brain damage   | 46                            | 65.71          | 02                           | 2.86           | 22                                       | 31.43          |
| False perception, Seeing unreal images that others can't see   | 61                            | 87.14          | 01                           | 1.43           | 08                                       | 11.43          |
| False perception, Hearing unreal sounds that others can't hear | 48                            | 68.57          | 05                           | 7.14           | 17                                       | 24.29          |
| Any others: (Please write it down)                             |                               |                | Nil                          |                |  |                |

**Table 6:** Students opinion towards short-term complications of drug abuse

| Short-term complications                     | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) | Number of students who did not answer NA | Percentage (%) |
|--|-------------------------------|----------------|------------------------------|----------------|--|----------------|
| Anxiety (Mental tension) and depression      | 53                            | 75.71          | 08                           | 11.43          | 09                                       | 12.86          |
| Euphoria (short term wellness) and happiness | 64                            | 91.43          | 02                           | 2.86           | 04                                       | 5.71           |
| Improved memory and learning ability         | 23                            | 32.86          | 25                           | 35.71          | 22                                       | 31.43          |
| Aggressiveness                               | 60                            | 85.71          | 00                           | 0.00           | 10                                       | 14.29          |
| Raised self-confidence                       | 51                            | 72.86          | 07                           | 10.00          | 12                                       | 17.14          |
| Pessimism (self-defending)                   | 44                            | 62.86          | 09                           | 12.86          | 17                                       | 24.29          |
| Personality disorder                         | 40                            | 57.14          | 11                           | 15.71          | 19                                       | 27.14          |
| Sleep disorder                               | 61                            | 87.14          | 02                           | 2.86           | 07                                       | 10.00          |
| Forgetfulness                                | 49                            | 70.00          | 05                           | 7.14           | 16                                       | 22.86          |
| Dependence to drugs                          | 55                            | 78.57          | 06                           | 8.57           | 09                                       | 12.86          |
| Eating disorders                             | 39                            | 55.71          | 11                           | 15.71          | 20                                       | 28.57          |
| Voiding problems (Urine and faeces)          | 40                            | 57.14          | 07                           | 10.00          | 23                                       | 32.86          |
| Any Others (please write down)               |                               |                |                              |                |  |                |

**Table 7:** Students opinion towards long-term complications of drug use

| Long-term complications                       | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) | Number of students who did not answer NA | Percentage (%) |
|---|-------------------------------|----------------|------------------------------|----------------|--|----------------|
| Mental disorientation                         | 67                            | 95.71          | 00                           | 0.00           | 03                                       | 4.29           |
| Schizophrenia/Mania                           | 58                            | 82.86          | 02                           | 2.86           | 10                                       | 14.29          |
| Cardiac (heart failure) problems              | 57                            | 81.43          | 04                           | 5.71           | 09                                       | 12.86          |
| Jaundice                                      | 44                            | 62.86          | 07                           | 10.00          | 19                                       | 27.14          |
| Gangrene                                      | 30                            | 42.86          | 12                           | 17.14          | 28                                       | 40.00          |
| COPD (Chronic pulmonary disease-lung disease) | 40                            | 57.14          | 09                           | 12.86          | 21                                       | 30.00          |
| Cancer  | 56                            | 80.00          | 03                           | 4.29           | 11                                       | 15.71          |
| Gastritis                                     | 46                            | 65.71          | 03                           | 4.29           | 21                                       | 30.00          |
| Any Others (please write down)                |                               |                |                              |                |  |                |

**Table 8:** Regarding use of psychoactive substance by the students

| Question                                  | Number of students saying YES | Percentage (%) | Number of students saying NO | Percentage (%) |
|---|-------------------------------|----------------|------------------------------|----------------|
| Have you ever used psychoactive substance | 02                            | 2.86           | 68                           | 97.14          |

The 2 students who used psychoactive substance were further questioned with the following questions

| Questions  | 1 <sup>st</sup> student | 2 <sup>nd</sup> student       |
|--|-------------------------|-------------------------------|
| Psychoactive substance used-   | Alcohol                 | Alcohol                       |
| What is the name of the psychoactive substance you used for the 1st time   | Alcohol                 | Alcohol                       |
| At what age you used drugs for the 1st time?   | 19                      | 21                            |
| How much psychoactive substance do you use every time?   | 250ml                   | 250                           |
| Frequency of psychoactive substance use-last month/last 12 months/in life time   | Life time               | Twice In Last 12 months       |
| What motivated you to abuse drugs at first time-social norms/inquisitive nature/healing of diseases/stress release/i do not know | I do not know           | Social norms                  |
| Who gave you the drugs to abuse  | Relative                | Relative                      |
| Where was the place where you first used the psychoactive substance  | At home                 | At home & at public gathering |
| Consequences encountered upon using psychoactive substance   | No                      | No                            |
| What are the health consequences you have suffered due to use of psychoactive substances?  | Not Answered            | Not answered                  |
| Impact of quitting the use of psychoactive substance   | Not answered            | Not answered                  |
| what physical or psychological changes after drug use  | Not answered            | Not answered                  |
| what psychoactive substance are you using currently  | Not answered            | Not answered                  |
| Are you aware of the Deaddiction measures for the substances you have used? Write your opinion in brief                          | Not answered            | Not answered                  |

## Discussion

The results of the study are not comparable with other studies, because the variable factors are not matching pertaining to demographic distribution and educational level of students.

**Psychoactive substance identification:** Majority of students (>60%) identified almost all psychoactive substances like Codeine, Ganja, Morphine, Heroin, Tobacco, Alcohol etc. this may be because as the participants are medical college students hence are more aware about psychoactive drugs.

## Opinion towards using psychoactive substance

95% of the students felt that psychoactive substance use is unacceptable. 88.5% of the students felt that the use of psychoactive substances will slow down the progress activity at school and that 94.2% of the students said that they would not advise their friends to use psychoactive substances. 92.86% of students felt that there is possibility of drug addiction from continued use and 87.14% of students said that with strong will power one can control use of psychoactive substance. 67.14% of students agreed that there are no potential benefits associated with psychoactive substances abuse though 28.57% of them said some medical benefits are associated with psychoactive drugs & 62.86% agreed that psychoactive drugs are not easily available drugs.

## Details pertaining to friends of students:

18.57% of students admitted that have a friend who is abusing the psychoactive substances. Alcohol (40%) & Tobacco (31.43%), are the most common psychoactive substances abused by their friends followed by ganja (4.29%), diazepam (4.29%), heroine (2.86%).

## Which of the following are the complications of addictive drugs (e.g., opium, heroin, morphine etc.).

Majority of the students could identify the complications of addictive drugs as the research participants are medical MBBS students. Around 94% of students said visual hallucinations, around 80% no of students said miosis, constipation, dry mouth as complications followed by auditory hallucination (71.43%), brain damage (64.29%) & kidney damage (61.43%).

## Which of the following are the complications of stimulants (e.g., ecstasy, hashish, ganja)?

Majority of the students could identify the complications of stimulant drugs as the research participants are basically medical MBBS students. Common complications identified by students are visual hallucinations (87 %), followed by auditory hallucination (68%), brain damage (65%) mydriasis 54% diarrhea 52% dry mouth 51 & kidney damage (48%).

**Which of the following are the short-term complications of drug abuse?**

Majority of the students could identify the short-term complications of drug abuse as the research participants are basically medical undergraduate students. Most common complications identified by students are euphoria (91.43%), sleep disorder (87.14%), aggressiveness (85.71%), dependence to drugs (78.57%) & anxiety (75.71%).

**Which of the following are the long-term complications of drug use?**

Majority of the students could identify the long-term complications of drug abuse as the research participants are basically medical undergraduate students. Most common complications identified by students are mental disorientation (95.71%), schizophrenia/mania (82.86%), Cardiac (heart failure) problems (81.43%), Cancer (80.00%) & Gastritis (65.71%).

**Details about students using psychoactive substance**

Two students volunteered that they were using psychoactive substance. Both students were using alcohol which they started at 19-21yrs of age, the frequency of drinking is occasional i.e. twice in last 12 months motivated by social norms & relatives at home & public gatherings and they have not provided other details regarding its health consequences & deaddiction measures.

**Conclusion**

Most students could identify the commonest psychoactive substances mainly alcohol, heroine, ganja, morphine and tobacco They are aware that there is possibility of drug addiction from continued use & the use of psychoactive substances can slow down progress activity at colleges. Few admitted that they have friends who is abusing the psychoactive substances especially alcohol & tobacco. Majority were aware about various short term, long term complications of addictive, stimulant abused drugs. We feel educating the students regarding the areas where they further lack adequate knowledge would be beneficial to them.

**Acknowledgment**

We would like to acknowledge the director & principal of Raichur institute of medical sciences and other teaching staff, who helped us to make data collection process easier.

**References**

1. Arora A, Kannan S, Gowri S, Choudhary S, Sudarasan S, Khosla PP. Substance Abuse Amongst The Medical Graduate Students In A Developing Country: Indian J Med Res 143, 2016, 101-103.
2. Haq Nawaz, Aftab Alam Khan, Saima Bukha. Use of Psychoactive Drugs among Medical Undergraduates In Abbottabad J Ayub Med Coll Abbottabad, 2017, 29(4).
3. Nazish Imran, Imran Ijaz Haider, Muhammad Riaz Bhatti, Atif Sohail, Mohsan Zafar. Prevalence of Psychoactive Drug Use among Medical Students in Lahore: Annals, 2011, 17(4).
4. Zulfikarali RV, Vankar GK. Psychoactive Substance Use among Medical Students Indian J Psychiat. 1994; 36(3):138-140.
5. PWhitehorne-Smith, Mitchell C, WD Abel, Harrison J. Psychoactive Substance Use among Medical/Health Faculty Undergraduate Students: WIMJ Open. 2015; 2(1):11.