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Prevalence of Recreational Drug Use among Medical Student of Pakistan

Hira Liaqat[1], Ayesha Shahid Sheikh[2] & Eyman Iqbal Chaudhary[3]

[1]*Centre for Clinical Psychology, University of the Punjab, Lahore, Email: hiraliaqat.ccpsy@pu.edu.pk*
[2]*Consultant Clinical Psychologist, Hameed Latif Hospital, Email: ayeshasheikh37@hotmail.com*
[3]*Centre for Clinical Psychology, University of the Punjab, Lahore, Email: eiqbalchaudhary@gmail.com*

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Corresponding Author:
Eyman Iqbal Chaudhary
Email:
eiqbalchaudhary@gmail.com

ABSTRACT

This study investigated the prevalence of psychological distress, recreational drug use, and help-seeking behavior among 273 medical students from five institutions in Lahore, Pakistan. High levels of mental health issues were found using the Depression Anxiety and Stress Scale (DASS-21) and a specially designed drug use questionnaire. Of the students, 41% reported moderate to severe depression, and 79.4% reported anxiety. Notable rates of recreational substance use included 5.8% reporting usage of alcohol or benzodiazepines, 10.1% using cannabis, and 28.8% smoking cigarettes. Due in large part to stigma, fear of being judged, and confidentiality issues, professional help-seeking remained low despite these concerning rates. These findings highlight the critical need for institutional initiatives to raise awareness of mental health issues, lessen stigma, and offer easily available support services to Pakistani medical students.

Introduction

Recreational drug use has become of the most prominent issues when dealt with medical students. As medical students have an easy access to psychotropic drugs thus they are comfortable in using these drugs recreationally (Millikan, 1999). Substance related problems in physicians are alarming as well. There is widespread data on the prevalence of substance use in physicians and medical students. A number of studies suggested that the prevalence rate of drug abuse in physicians is not much different from general public or people from any other profession (McAuliffe et al., 1999; McGovern et al., 2006).

Physicians are more at risk to use prescription drugs as they are easily available to them. The study also reported that 10-15% physicians in United States, develop chemical dependence during their lifetime. Trainee physicians and medical doctors are at risk of developing addiction due to

recreational drug use or abuse (Webb et al., 1998). A study conducted by Imran et al. (2011), conducted a research on Pakistani Medical students to evaluate the perception about alcohol use According to the findings, 10% of the 1299 students in the study thought that occasionally drinking alcohol improved their mood and academic performance. Another study conducted in Lahore, Pakistan, measured the prevalence of drug use in medical students. The data was collected from 1299 medical students, out of which 17% that is two hundred and twenty two students admitted to use of psychoactive substances. It was revealed that the students mostly experimented with cigarettes, alcohol, cannabis and amphetamines in most cases for recreational purposes. It was also concluded that alcohol was used to manage stress and improve concentration by 38% of the sample (Imran et al., 2010).

Another study was conducted in 2013 where data was collected from 604 students from Beheshti Medical University in Tehran, Iran. The study evaluated the prevalence of drug abuse in medical students of the university in Tehran. The prevalence scores indicated that 34.4% of male students from the sample indulged in some kind of drug abuse, while 4.2% of female students also indulged in some kind of drug abuse. The most commonly abused drugs were found to be cigarettes, Hash shish and opium. While psychotropic drugs were the third most used drugs in medical students. The students reported that they mostly used the drugs in the presence of their peers or during phases of stress. It has been seen that academic stress, curiosity, family conflicts, and peer pressure are majorly the reasons that lead the students to misuse drugs (Gjeruldsen et al., 2003; Shafiq et al., 2006).

Stress and anxiety is regarded as an important factor that affects the productivity of students. There are a number of evidences that point towards the stress and anxiety in medical students. A study conducted by Liaqat, Saleem, Yousaf and Shahid (2018), determined the psychiatric morbidity in 273 medical students of Pakistan. The results showed that 41% of the students in sample showed moderate to severe levels of depression. While the percentage of anxiety was the highest, with 79.4% students reporting some kind of anxiety. It was further revealed that female medical students had significantly higher symptoms of depression as compared to male medical students.

A multi-ethnic study was conducted in order to gain insight about the stress, anxiety and depression of medical students. The sample consisted of 575 Asian, American, Saudi and Emirates national students studying medicine. The study was spanned for five years in which the students filled the DASS-21 questionnaire twice. The results revealed that depression, anxiety and stress had high prevalence 43%, 63% and 41% respectively in the medical students (Kulsoom & Afsar, 2015). It has been reported that there are chances of the students to develop symptoms of stress, anxiety and depression after they have commenced their studies. The competition, graduate training and tough job opportunities are also found to be important triggers to poor psychological wellbeing of medical students (Yusoff, Abdul Rahim, Baba, Ismail, Pa, Esa, 2013; Dyrbye, Thomas, Eacker, Harper, Massie, Power, Huschka, Novotny, Sloan, Shanafelt, 2007).

The evidence also supports the fact that suicidal ideation is found to be high in medical students as compared to general population. The medical students are more vulnerable to depressive symptoms due to perfectionist routine, high competition and high educational demands from authorities which leads to suicidal ideation at times (Schernhammer & Colditz, 2004).

Medical students are more likely to experience psychological anguish than students in other fields, despite the fact that they share many characteristics. Medical students' stress and burnout are the main causes of the suffering. (Pagnin & de Queiroz, 2015; Block, Wu, Feldman, Yeh, & Desai,

2013; Dahlin & Runeson, 2007). It has also been seen that the risk factors of developing psychological problems increases in medical students because they rarely seek help for their symptoms (Givens & Tjia, 2002; Tjia, Givens, Shea, 2005). As the management and prevention from the psychological distress is not done in early times of a problem, thus the severity of problem increases many folds resulting in suicidal ideation and sometimes unhealthy coping mechanisms such as drug intake or risky behaviors (Jennings & Slavin, 2015).

Students who develop the psychological triggers in medical school rarely see a professional for help. The stigma attached to a doctor seeing a psychologist is one of the biggest factors that hampers consulting a psychologist. In a recent study 977 students were identified who reported psychological distress and 171 (17%) reported consulting a medical health professional. Out of these, 87.5 percent were using alcohol occasionally while 17 percent used recreational drugs in the past 4 weeks of study (Matheson, Barrett, Landine, McLuckie, Soh & Walter, 2016).

Studies have shown that medical students show particularly higher prevalence of burnout and depression as compared to other students. Despite these psychological problems, the medical students seldom seek professional help regarding mental health. The reason of not seeking medical help is reported to be embarrassment, stigmatization and confidentiality issues (Dyrbye, Eacker, Durning, Brazeau, Moutier, Massie, ... & Shanafelt, 2015; Schwenk, Davis, Wimsatt, 2010; Givens, Tjia, 2002). A systematic review about mental health related stigma on help-seeking by medical students was conducted by Clement, Schauman, Graham, Maggioni, Evans-Lacko, Bezborodovs,., .. and Thornicroft (2015). The study included 144 studies with a number of 90189 participants. It was revealed that treatment related stigma was the fourth highest barrier that hindered professionals from help-seeking. Stigma was found to have a negative effect on help-seeking by medical students by mental health professionals.

Mackenzie, C. S., Erickson, J., Deane, F. P., & Wright, M. (2014) conducted a meta-analysis based on studies of 40 years. The study included 22 studies with a sample size of 6796. The selected studies were conducted from 1968 to 2008. A cross temporal meta-analysis was done in order to analyze the data in researches. It was revealed that help-seeking attitude in students have declined over time. The study also shed a light on the factor of stigmatization related to seeking help from a mental health professional.

Overall, studies have pointed towards the fact that burn out and stress is increased in progressive years for students studying medicines. Many students report recreational drug use and drug abuse as a coping mechanism to relieve stress. Addiction is another important issue that creates a peril in the lives of students of medicine. Stress, anxiety and depression along with drug abuse at times calls for seeking-help from a mental health expert. It is also seen that the students of medicine show reluctance in consulting a mental health professional for their issues. Mostly the reasons of not consulting a mental health professional are fear of biasness, privacy issues, stigmatization of society or peers, among others (Gold, J. A., Johnson, B., Leydon, G., Rohrbaugh, R. M., & Wilkins, 2015; Kopera, Suszek, Bonar, Myszka, Gmaj, Ilgen & Wojnar, 2015). The current research aimed to explore the relationship between symptoms of anxiety, stress, depression, recreational drug use among medical students with that of attitude towards professional help-seeking. The current study will add meaningful literature in the light of Pakistani medical students and will help in dealing with the issues of mental health.

Method

This cross sectional study was conducted at five medical universities of Pakistan which included two government institutions, two private institutions, and one semi-government institution. A total of 273 students participated in the study out of which 86 were males while 192 were females. The age range of the participants lied between 18 to 28 years.

Three assessment measures were administered on the participants which included Depression Anxiety and Stress Scale (DASS-21), a questionnaire regarding recreational drug use and demographic questionnaire.

The Depression Anxiety and Stress Scale is a 21 item, four point likert scale having three subscales designed to measure the emotional states of depression, anxiety, and stress. Each of these three subscales consisted of 7 items each. The subscale of depression assesses hopelessness, dysphoria, lack of interest, worthlessness, anhedonia and inertia. Anxiety subscale assesses autonomic arousal, anxious arousal etc. while stress subscale measures difficulty in relaxing, nervous arousal, agitation etc.

Second questionnaire regarding the recreational use of the drug was constructed for this study. It included questions first substance used, age, place, and name of the substance, questions regarding smoking and other substances like opium, opioids, heroine, cocaine, tobacco, marijuana etc.

Demographic questionnaire was developed according to the requirements of this research. The information focused on the participant's age, education, questions related to education system, birth order, family system, general home atmosphere and history of drug use.

For the intention of data collection, different medical colleges of Lahore were visited and after taking permission from the authorities, medical students were approached for data collection.

Results

Table 1: *Frequency and Percentage of Recreational Drug Use Among Medical Students (N = 273)*

Drug	**Frequency (%)**
Opium	8 (2.9)
Opioids	8 (2.9)
Heroine	0 (0)
Alcohol	16 (5.8)
Benzodiazepine	16 (5.8)
Cocaine	0 (0)
Chewable Tobacco	4 (1.4)
Marijuana	12 (4.3)
Cannabis	28 (10.1)
Barbiturates	2 (.7)
Methamphetamine	8 (2.9)
Stimulant	0 (0)
Other	16 (5.8)

Table 2: *Frequency and Percentage of Cigarette Consumption Among Medical Students (N = 273)*

Number of cigarettes smoked per day	**Frequency (%)**
Occasionally	38 (13.7)

Less than 5	12 (4.3)
5 to 10	10 (3.6)
More than 10	20 (7.2)
Total	80 (28.8)

Discussion

The incidence of recreational drug use among Pakistani medical students and its correlation with psychological discomfort and help-seeking behavior are both well-explained by the current study. The findings show that this population has alarmingly rates of substance abuse and mental health problems.

Approximately 28.8% of the students reported smoking cigarettes, while 10.1% reported using cannabis. The use of alcohol and benzodiazepines was reported by 5.8% of students each. These results align with other local research, including Imran et al. (2011), which discovered that 17% of medical students reported using psychoactive substances, with alcohol, cannabis, amphetamines, and cigarettes being the most often used drugs. In a similar vein, Shafiq et al. (2006) found that Pakistani medical students used drugs at high rates.

Similar trends have been noted worldwide. According to a research at Tehran's Beheshti Medical University, stress and peer pressure were the main causes of drug misuse, which was reported by 34.4% of male students and 4.2% of female students (Gjeruldsen et al., 2003; Shafiq et al., 2006). This implies that the problem of drug use among medical students for recreational purposes is not unique to Pakistan but rather is a regional and worldwide issue.

The current sample had a startlingly high level of psychological suffering. According to the DASS-21 scores, 41% of students showed moderate to severe depression and 79.4% of students reported having anxiety of some kind. These results are consistent with those of Liaqat et al. (2018), who examined psychiatric morbidity among Pakistani medical students and found comparable numbers. Kulsoom and Afsar (2015) discovered that medical students worldwide had comparatively high rates of stress (41%), anxiety (63%), and depression (43%). Previous literature has provided ample evidence of the high prevalence of psychological illness among medical students. Academic pressure, long hours, and fierce rivalry are all known to contribute to depression and burnout among medical trainees (Dyrbye et al., 2007). In a similar vein, Pagnin and de Queiroz (2015) highlighted that compared to students in other areas, medical students endure higher levels of stress and psychiatric symptoms.

The low rate of help-seeking activity, in spite of the obvious psychological strain, was a crucial finding of this study.It can be stated that students were reluctant to seek help from a mental health professional because of social stigma, concerns about confidentiality violations, and feelings of social condemnation. These obstacles align with earlier research. For example, Givens and Tjia (2002) discovered that medical students' use of mental health services was considerably decreased by worries about stigma and privacy. Similarly, one of the biggest obstacles to getting care is stigma, according to Clement et al. (2015), who conducted a comprehensive analysis of 144 research with over 90,000 participants.

When psychological symptoms are ignored, avoiding professional assistance might result in risky coping strategies like substance abuse. According to Matheson et al. (2016), 87.5% of troubled

students occasionally drank alcohol and 17% used recreational drugs, frequently as a form of self-medication. This is consistent with the current study, which found that students reported peer pressure, stress, and academic pressure as causes of substance use.

Additionally, previous research by Liaqat et al. (2018) and Dyrbye et al. (2015), which observed that there are gender disparities in the incidence and expression of psychiatric disorders among medical students, is supported by the conclusion that female students had considerably greater levels of discussion.

In net shell, the findings of this study highlight the critical need for focused treatments, stigma reduction, and mental health promotion in healthcare facilities. More students may seek assistance if educational workshops, anonymous counseling services, and institutional policy changes are implemented. Help-seeking attitudes have decreased over decades, as demonstrated by the meta-analysis by Mackenzie et al. (2014), underscoring the need for proactive institutional interventions.

Conclusion

It has been clarified that the alarmingly high rates of psychological discomfort and recreational drug use among Pakistani medical students. In addition to using drugs including alcohol, benzodiazepines, cannabis, and cigarettes, a sizable fraction of the sample reported having symptoms of stress, anxiety, and depression. The results showed a reluctance to seek professional care despite obvious mental health issues, frequently because of stigma, concerns about confidentiality, and fear of social judgment. This pattern reflects global trends and highlights a significant disconnects between future healthcare workers' real help-seeking behavior and their mental health requirements. The findings highlight the critical need for medical education programs to address mental health awareness, de-stigmatize asking for help, and offer focused interventions.

Limitation

1. The study's cross-sectional design limits the ability to establish causal relationships between psychological distress and substance use.
2. The sample was limited to medical students from Lahore, which may not be representative of all medical students in Pakistan.
3. Self-reported data on drug use and mental health symptoms may be subject to social desirability and recall biases.
4. The study did not assess the severity or frequency of substance use beyond basic prevalence.

Suggestion

1. Future research should employ longitudinal designs to better understand the temporal relationship between psychological distress and substance use.
2. Expanding the sample to include medical students from diverse geographic and institutional backgrounds would enhance generalizability.
3. Medical colleges should implement confidential counseling services and anti-stigma campaigns to encourage help-seeking.
4. Curriculum reforms that address stress management and mental health literacy are recommended.

5. Further qualitative research could provide deeper insights into the barriers to help-seeking and the personal experiences of students regarding substance use.

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