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Research Article

Contributing and consequential correlates of illicit substance use among students

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ABSTRACT

Background: The world has made tremendous social progress during the past 30 years but opposite has occurred with problems related to drug abuse and addictive disorders. Over the last 30 years, awareness of illicit drugs, access to them and their abuse have dramatically increased. Reports from the United Nations, observations of experts, studies of crime, education, work and health - all show a general agreement that populations at highest risk are those in the age range most needed for productive work i.e., youth, indicating harmful consequences through decreased productivity and thus halting the developmental process of a nation.
The aim of this study was to explore the leading and resulting correlates of illicit use of substances (drugs) among college students of ages between 15 to 25 years studying in different institutes of Karachi, Pakistan.
Methods: It was a cross sectional study conducted among teens and youth studying in different institutes of Karachi, Pakistan in the year 2015. A questionnaire included multiple-choice and open-ended. The questions were focused on type of substance use, the reason behind, contributing factors, monthly expenditure, dependence upon drug, and effects of illicit substance use. 600 students completed the questionnaire. The data were analysed using IBM SPSS Statistics version 20 and Microsoft excel.
Results: The contributing attributes identified included easy accessibility through friends, dealers, and over the counter, Motivation through family members like parents (6%), siblings (8%), cousins/uncles (20%) or friends (50%), The reasons behind were recreational purpose (54%), social pressure (22%) and education stress (24%). The consequential correlates included behavioural, physical and psychological attributes. The results showed that 26% of the students were dependent on the drugs of their choice. Medical problems (physical and mental) identified in sample included 36% withdrawal symptoms (grouchiness, sleeplessness, decreased appetite, anxiety, cravings), 58% experienced mood swings, 40% experienced blackouts, rate15% depression and anxiety, convulsions and impaired memory and others like, hepatitis B & C, Lung infections, and increased heart..
This study also shows that substance abuser admitted behavioural changes among themselves as one-third of the students showed negligence to their families, 24% lose their friends and about 38% showed a decline in performance at school, Majority of the respondents were also found to be involved in illegal activities to obtain drugs and more than one-third arrested for the possession of contraband drugs.
Conclusions: It was found that majority of the respondents' friends were involved in drug use and less commonly their cousins and family members. Most of them started drug consumption at age between 15-19 years and were mainly doing it for recreational purposes; other reasons were social pressure or educational stress. The consequential correlates identified includes, behavioural attributes distorted relationship with family and friends, poor performance in education, and delinquent activities like imprisonment and other unlawful pursuits. Other attributes were medical including physical manifestation of substance abuse like blackouts, hepatitis B & C, increased heart rate, convulsions and lung infections. The psychological manifestations listed depression & anxiety, and impaired memory.

Keywords: Illicit substances, Substance use among students, Correlates of substance use, Contributing correlates of illicit substance, Consequential correlates of illicit substance

INTRODUCTION

The term "substance use" refers to any form of self-administration of a psychoactive substance. It is used instead of the term "substance abuse" as a broader term encompassing all levels of substance involvement, including occasional and prolonged consumption of a substance. They include drugs, such as alcohol; as well as other illicit drugs, such as cannabis, amphetamines, ecstasy, cocaine, and heroin etc.[1]

Pakistan is the worst victim of the drug trade in South Asia. Today, the country has the largest heroin consumer market in the south-west Asia region. Pakistan's geographic location next to Afghanistan, the world's largest producer of illicit opium, places the country in a vulnerable position in terms of drug trafficking as well as drug abuse. Patterns of illicit drug production, distribution and abuse change as a result of social, economic and political developments. Such changes underscore the necessity of analysis and research on drug trends in the country and region as a crucial first step in terms of policy making and drug interdiction efforts.[2]

The major consequence of this has been a significant increase in domestic consumption of heroin in Pakistan. Widespread drug abuse may be indicated by the fact that almost five per cent of the adult population is using drugs in Pakistan. As a proportion of drug abusers, heroin users have increased from 7.5 per cent in 1983 to a shocking 51 per cent a decade later in 1993.[2]

While the majority of opioid users used heroin, the remainder were using opium and other opiates. Most of the opioid users were multiple or poly drug users, i.e., they were using more than one substance at a given time or during a day. Among the opioid users, cannabis was most commonly the first substance ever used, usually at an age of around 18 years. However, many drug users had also initiated their substance use with other drugs such as alcohol, opium, heroin, benzodiazepines, opiates, tranquilizers, and inhalants.[2]

Substance consumption among students is a big hitch. The college or university students are most liable to substance use. The major concern of this age group is to acquire identity and peer adherence.[3] To cope with academic stresses, adapting to family and society's expectations, initiating intimate relationships and new commitments, make them more exposed to different psychological problems and dependencies.[4-8] They find substance use as most tempting and gratifying during this age. Several researchers reported prevalence and factors associated with substance use among students.[9-11] University life serves as a gateway towards independence from parental supervision. This change may lead to their vulnerability in search of adventurous experiences.[12,13] It is further argued that peer influence, curiosity and social pressure are the prim reasons for substance use among adolescent.[14,15]

In Pakistan the youth comprise more than 20% of the population and unfortunately they are the worst target. Drug abuse has been spreading beyond traditional groups to youth and students in Pakistani universities. [16] At present according to recent survey we have about 3.5 million drug addicts of different kinds growing on an annual rate of 7 per cent. An examination of social and demographic factors revealed that 71.5% of the drug abusers were less than 35 years of age with the highest proportion in the 20-30 years age group. Of all the drugs abusers almost 50% were illiterate. Often, substance abuse is linked to factors which are global such as the natural inclination among young people to engage in risk-taking behaviours that may involve experimenting with narcotics and alcohol, social isolation, the need to cope with unfamiliar and stressful situations, peer pressure, and the desire for social acceptance. The students from different backgrounds to whom alcohol and narcotics are easily available, seem to be the victims of this menace in Karachi. Karachi is the largest metropolitan city of Pakistan. It has an estimated population of over 23.5 million people as of 2013. [17] The rates of substance abuse by teens are rising steadily in Pakistan, thereby resulting in serious health and social implications.[18,19]

The present study aimed to investigate contributing correlates leading to of drug abuse among college/university students of Karachi and also the resultant problems faced by drug abuse to address this sensitive issue timely and effectively as youth should represent healthy and productive cadre of a nation.

METHODS

A cross-sectional study among conveniently selected 600 undergraduate students from 13 Public and private educational institutes of Karachi, Pakistan, was carried out from January 2015 to August 2015.

WHO sample size calculation software was used to calculate the required sample size. A minimum sample size of 600 was required while taking 5% bound on error of estimation, 95% confidence level, and assuming 50% prevalence of substance abuse among students. Therefore, a total of 600 students were recruited for the study. Both male and female students, of age between 15 to 25 years of age, and willing to participate in the study were eligible for the study.

Data was collected through a semi-structured questionnaire developed through literature review. The data were entered and analysed using, Microsoft Excel and IBM SPSS VERSION for Windows 20.0 software. Mean with standard deviation was calculated for age (in years) while frequency with percentages was calculated for qualitative scale variables.

RESULTS

Total 600 students of the age between15-25 years were enrolled from various educational institutes of Karachi. It was found that participants were consuming illicit substances including Marijuana, alcohol, cocaine, heroin, ecstasy and solvent drugs (Figure l). A significantly high number of students started substance abuse between 15-19 years (67%), followed by 20-25 years (22%) and 12-14 years (11%).

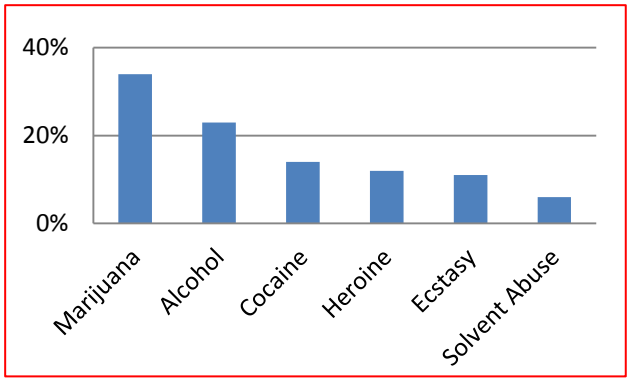

Figure 1: percentages of used substance among students.

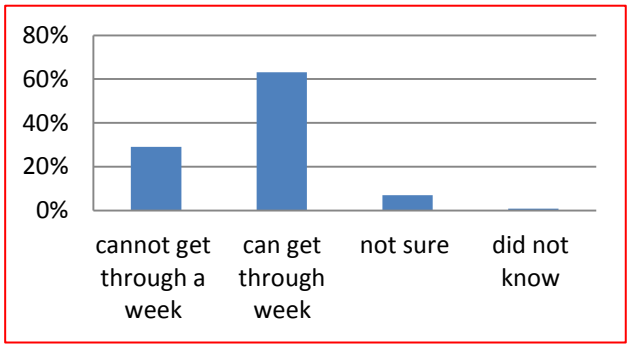

Figure 2: Respondents' ability to get through a week without substance.

The research identified that the contributing factors for substance abuse were, recreational, social pressure and stress (Figure 4). A significant number of students were pressured towards substance use. They got motivated for substance abuse by their parents, siblings, cousins/uncles, and friends who were also consuming drugs (Tables 1&2).

100% of the sample agreed on easy accessibility of substances and they get it through a friends and relatives, dealer, and over the counter.

A variety of variables along with responses were recorded about consequences of substance abuse among abusers (Table 2). The medical problems including physical and mental encountered by the students due to substance use are assembled in Table 4. The students faced a wide range of behavioral and relationship issues listed in Table 3.

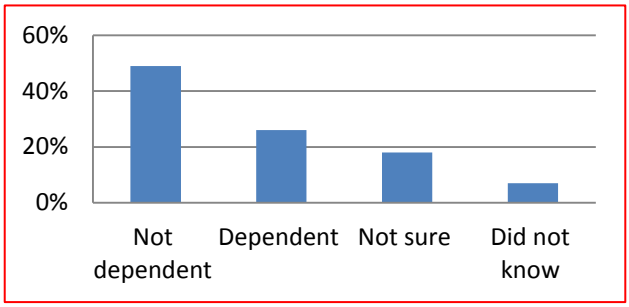

Figure 3: Dependence on the substance(s) of choice.

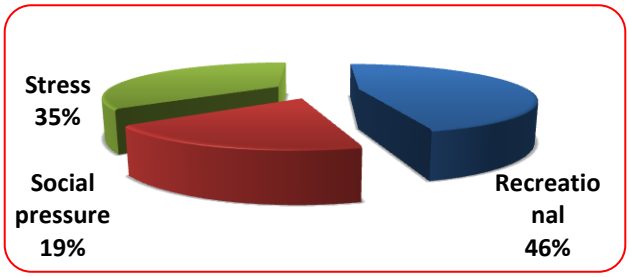

Figure 4: Motivational factor for substance use.

Table 1: Respondents' inspiration for substance use n=600.

Sr No.	Inspiration	Percentage
1.	Parents	6
2.	Siblings	8
3.	Cousins/Uncles	20
4.	Friends	50
5.	None	16

Table 2: Respondents 'reponses about different aspects of substance use n=600.

Sr. no	Variable	Response	%
1	Respondents' plan Of Complete Abstinence From Substance Use	Yes	65.2
		No	34.8
2	Respondents' experience of withdrawal symptoms (grouchiness, sleeplessness, decreased appetite, anxiety, cravings)	Yes	36
		No	64
3	Awareness about lethal dose of substance of choice	Yes	88
		No	12
4	Respondents have been pressured to take drugs for recreation	Yes	39
		No	61

Table 3: Behavioral consequences & relationship problems. n=600

Sr. no	Variable	Respon-se	%
1	Respondents with experience mood swings	Yes	58%
		No	42%
2	Neglect their family due to substance abuse	Yes	31%
		No	69%
3	Decline in study performance due to substance use	Yes	38%
		No	62%
4	loss of friends due to substance use	Yes	24%
		No	76%
5	Arrested for possessing contraband drugs	Yes	39%
		No	61%
6	Involvement in other illegal activities to obtain drugs	Yes	53%
		No	47%

Table 4: Medical (mental & physical) problems encountered due to substance use. n=600

Sr No.	Medical Problems	Percentage
1.	Blackouts	40.2
2.	Depression & Anxiety	15.6
3	Hepatitis B & C	4.5
4.	Impaired memory	8.1
5.	Lung Infections	8
6.	Increased Heart beat	6.2
7.	Convulsions	3.57
	Others	14

DISCUSSION

In this research the students were motivated by their parents (6%), siblings (8%), cousins/uncles (20%) or friends (50%) for consuming substances and the factors which compelled them to start substances use included recreational (54%), social pressure (22%) and stress (24%). Academic stress was identified as a very important factor in drug misuse. This illustrates the pressure felt by the students to excel in their studies, which could result from overly competitive environments or from very high expectations placed by teachers, family and/or friends. A conscious effort needs to be made in alleviating this pressure as much as possible without unduly decreasing the need felt by the students to study. A study done in 2005 in Karachi among students who themselves abuse drugs, 63% reported their parent's indulgence in drug as a leading cause of motivation for them[20] which is in agreement with one of the identified factors among students but the percentage is quite low according to current study. Key factors leading to drug use reported in another study done among drug users in Karachi in 2011 were problems with parental relations or break-up of a relationship (45.0%). Drugs were seen as an escape from stressful life events (28.0%) or feelings of failure (18.2%). Many drug users blamed the origins of their drug use on bad social influences (47.0%) or socioeconomic problems (23.4%). [21] In a survey 31% adolescents reported that their best friends consume drugs out of which 22% themselves were drug abusers[20] which is in agreement with current study but the percentage for friends as protagonist is 50% identified. The percentage value for having best friends who also consume drugs for frequent abusers was very high i.e. (75%). Other Studies have also shown that having peers who use drugs or hold positive beliefs about substance use increases adolescents' risk for substance abuse. Study done by Hughes[22] and Margulies[23] showed that peer drinking and peer acceptance of drinking has been associated with adolescent drinking. Kaplan, 1998 suggested that the child's social development and peer influences are the strongest mediators in adolescent drug use.[24]

Easy accessibility through friends, dealers, and over the counter was found to be one of the important contributing factors among students which promote the drug abuse by them in current study. This finding is in agreement with a study done in province of Panjab, Pakistan in which, it is one of the contributing factors for drug abuse by the students. [25]

The proportion of all drug users and abusers who end up with serious health and social problems is not known. Whatever that proportion, illicit drug use more frequently results in problems or disease rather than death. Since substance abuse is not evenly spread throughout the population, it is advisable to determine the characteristics of the specific groups involved in order to plan interventions.[26]The current study showed that students encountered a wide range of consequential issues due to their substance abuse which can be classified as behavioural, physical and psychological problems. The identified medical problems included 36% experienced withdrawal symptoms (grouchiness, sleeplessness, decreased appetite, anxiety, cravings), 58% experienced mood swings, 40% experienced blackouts, rate15% depression and anxiety, convulsions and impaired memory and others like, hepatitis B & C, Lung infections, and increased heart.

This study also recorded responses of substance abusers admitting behavioural changes among themselves as one-third of the students showed negligence to their families, 24% lose their friends and about 38% showed a decline in performance at school, Majority of the respondents were also found to be involved in illegal activities to obtain drugs and more than one-third arrested for the possession of contraband drugs. Crime and drugs may be related in several ways, none of them simple. First, illicit production, manufacture, distribution or possession of drugs may constitute a crime. Secondly, drugs may

increase the likelihood of other, non-drug crimes occurring. Thirdly, drugs may be used to make money, with subsequent money-laundering. And fourthly, drugs may be closely linked to other major problems, such as the illegal use of guns, various forms of violence and terrorism. Whether illicit drug use should be considered a crime, a disease, a social disorder or some mixture of these is debated in many countries.[26]

One aspect of this connection between drugs and crime is temporal causation: which is cause and which is effect? In the case of individual addicts, drug use may precede crime or the reverse. After examination of groups, researchers in the United States have concluded that many variations exist but that some delinquency or crime often precedes addiction. They have found that involvement in property crime generally precedes the addiction career. Researchers have found a close connection between drug abuse, criminal behaviour and social attitudes. Review of the crime/drugs literature supports three notions: heroin addicts are usually deeply involved in crime; daily opiate use increases criminality several fold; and many heroin abusers are not interested in obtaining treatment although drug treatment programmes do reduce the criminality of addicts while they are in treatment.[26]

The close connection between crime and drug use is seen in studies of arrestees. The Drug Use Forecasting Program of the United States National Institute of Justice monitors drug use among recently arrested persons in selected cities. Periodically, examinations are conducted on a sample of arrestees in booking facilities. A study of findings on males in 14 United States cities in 1989 used urine screening and selective confirmation tests for 10 drugs [27]. Preference for selection into the testing programme was given to persons charged with serious non-drug-related offences. With a total of nearly 3,000 tests, results were drug positive for cocaine for a high percentage of persons in New York (76%), Philadelphia (74%) and the District of Columbia (65%). Smaller cities had lower percentages of positive test results: Indianapolis (26%) and San Antonio (24%). The test method used detects only drugs used 2-3 days prior to arrest so that actual drug use by arrestees was probably higher than the results obtained. Upon interview, arrestees revealed a surprisingly high percentage of needle sharing, with the lowest percentages found in Detroit (10%) and San Antonio (48%). In sum, from one-fourth to three-fourths of the serious non-drug offenders tested positive for cocaine, many tested positive for other drugs, and a substantial portion of these arrestees are at significant risk of acquiring HIV and other blood-borne infections. [27]

Future challenges with neither a single cause nor a simple cure, drug abuse and its many related problems continue to increase in many regions of the world. Problems related to the abuse of drugs are severe in some parts of both the developing and the industrialized world: disease, accidents, deaths, crime, lowered productivity and many other problems are frequently reported. Not adequately monitored, drug abuse acts as a brake on human and social development and cannot be separated from endemic problems of disease, poverty, joblessness and violence.[26]

CONCLUSION

It was found that majority of the respondents' friends were involved in drug use and less commonly their cousins and family members. Most of them started drug consumption at age between 15-19 years and was mainly done for recreational purposes, other reasons were social pressure or educational stress. The consequential correlates identified includes, behavioural attributes distorted relationship with family and friends, poor performance in education, and delinquent activities like imprisonment and other unlawful pursuits. Other attributes were medical including physical manifestation of substance abuse like blackouts, hepatitis B & C, increased heart rate, convulsions and lung infections. The mental manifestations listed depression & anxiety, and impaired memory.

Limitations of study

1. Participation by female respondents was minimal due to social restrains, so it was a predominantly male sample.

2. The participation in the study was voluntary and due to convenient sampling, the data gathered for this study may not be generalized.

3. The results are based on self-reported data of substance users.

Recommendations

Setting up of a well-organized rehabilitation program for the young addicts is recommended. Treatment and rehabilitation are essential components for this problem resolution. Research has indicated that treatment, carried out under proper conditions, does change behaviour. Guidance and counselling for troubled youth should be provided. Mass media should be utilized for awareness regarding drug use, abuse and addiction.

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