Research Article

Factors Associated with Substance Abuse Among Male Illicit Drug Users in Rehabilitation Centres of Pakistan.

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Abstract |

Background: Substance abuse is one of the most challenging public health problem. Recent trends indicated that it has increased dramatically in developing countries. The present study explored the factors associated with substance dependence among male drug addicts in rehabilitation centres of Pakistan.

Methods: This cross-sectional, multi-centred, comparative study was conducted in 2014 at 12 rehabilitation centres in four major cities of Pakistan. A total of 460 patients seeking treatment for substance dependence were included. A questionnaire was used after taking verbal informed consent. The study was approved by the institutional ethical committee. Data entered and analysed by SPSS version 20. Socio-demographic variables were presented in frequencies and percentages.

Results: The majority 344(74.8%) of drug abusers in the present study were between 21 to 30 years of age and the frequency of literate and non-skilled was 321(69.8%) and 288(62.6%) respectively. Parents of most of drug addicts were illiterate (father 56.3 %; mother 85%). Heroine was most commonly used drug (38.8%) followed by cannabis (11.5%), opium (7%) and alcohol (3.9%). Drugs were taken by smoking (40.4%) while sni ng (17.6%), eating (4.8%) and injection (4.3%) were other routes used. Sixty-one percent started using drugs between 20-30 years of age. Addicted close friends were found in 87.8% cases.

Conclusion: Substance abuse was observed in all demographic strata and segments in Pakistani population. A significant association of heroin addiction was found with age 19 years, and duration of its use.

Introduction

According to the World Health Organization (WHO), substance abuse is "Harmful or hazardous use of psychoactive substances, including alcohol and illicit drug".[1,2] There are around 190 million substance abusers worldwide. According to World Drug Report 2013 by United Nation Organization for Drugs and Crime (UNODC) 14 million persons bet-ween 15 and 64 years of age are injecting drug users and 78% reside in developing countries.[3] Recent trends indicate that the use of various substance have dramatically increase in developing countries including Pakistan.[4]

Substance abuse is one of the most challenging public health problem. It has a broad range of physical and psycho social consequences and may potentially

a ect almost every person, family and community.[5] The main factors contributing for addiction of illicit substances are social, environmental and genetic predispositions. Although poverty and mental illness may increase its susceptibility, no casual relation with addiction was found.[6] Substance misuse disrupts family structure and its undesirable behaviours give rises to bothering negative outcomes for addicts by damaging their mental and physical health and also for the society.[7] The users have lower mental status, are emotionally immature with poor inner control, indicate depression, more inclined to drugs and have a strong inclination of violating the existing norms of the society.[8]

The Islamic Republic of Pakistan is still one of those countries where substance abuse is a serious public health concern and a ects almost all segments of the society[9]. Approximately 6.4 million (5.8%) of the adult population in Pakistan are involved in some kind of drug abuse. While Heroin (Cannabis) is one of the most commonly abused drugs followed by Hashish, Charas, Bhang, opium and other psycho-tropic drugs, alcohol is prevalent in the a uent and the extremely impoverished society.[10,11] A few reports have shown that the pattern of substance abuse has started to shift from opium to other drugs. However, some other studies have reported opium to be the most frequent abused substance in Pakistan.[12] This continuing increase in the number of drugs abusers poses a threat to the social and economic structure of the society.

Although the problem of substance abuse has been prevailing in Pakistan for quite a number of years, less in known about its epidemiology and associated complications.[12] Moreover, the problem status of substance abuse has been solitarily reported for a single city in the majority of the studies done in Pakistan. The present research is an attempt to examine the demographic, social and behavioural risk factors of patients attending drug rehabilitation centres in main cities of Pakistan. The study further identifies various substances commonly used by them along with the influences for taking up those sub-stances.

Methodology

This cross-sectional, multi-centred, comparative study was conducted between February to April 2014 at rehabilitations centres in four major cities of Pakistan. Three centres, each registered with the Ministry of Social Welfare were randomly selected from Karachi, Lahore, Peshawar and Quetta. A total of 460 treatment seeking patients fulfilling American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders – IV criteria for substance dependence[13] were included in the study. Patients having evidence of a serious medical illness, mentally retarded and those undergoing detoxi-cation programme were excluded from the study.

A semi-structured and self-interviewed questionnaire was administered to each study participant. The questionnaire recorded information on demographic data, pattern of substance abuse and other variables related to its use. In the present study, a single family living independently was considered as nuclear, and combined when living with their parents. Whereas many families living together were considered as extended family. The occupation of the participants was categorized as skilled (barbers, cooks, drivers, tailors, painters etc), unskilled (labourers, masons, sanitary workers etc) and professionals (doctors, engineers, auditors, businessmen etc). All the partici-pants were required to give verbal informed consent and approval was taken by the institutional ethical committee. Anonymity, confidentiality, self-estee-med and respect of each participants was assured and maintained by the researcher.

Data entered and analysed by SPSS version 20.0. Socio-demographic variables were tabulated in frequencies and percentages. Pearson Chi-square test was applied on categorical variables and p-value of 0.05 was considered statistically significant.

Results

A total of 460 male drug addicts from rehabilitation centres of Karachi 33%) Lahore (29%), Peshawar (25%), and Quetta 60(13%)) were included in the study (Table 1). The majority 344(74.8%) of the drug abusers were between the age 21 and 40 years, while only 5% were below the age of 20 years. The fre-quency of literate and non-skilled was found 69.8% and 62.6% respectively. Parents of most of the drug addicts were illiterate (father 56.3%; mother 85%), the majority of fathers were non-skilled (63%) and

only 3% of mothers were doing job. A combined family structure was reported for 52% of the respondents whereas 48% were living as nuclear family (Table 2)

Table 1: *Socio-Demographic Characteristics of the Study Participants*

Variable	N = 460	%
Distribution of participants according to cities		
Karachi	150	32.6
Lahore	133	28.9
Peshawar	117	25.4
Quetta	60	13.0
Age (in years)		
< 20	23	5.0
21–40	344	74.8
> 41	93	20.2
Mean (SD)	33.66 ± 9.23	
Educational status		
Illiterate	139	30.2
Middle	86	18.7
Matric (Secondary)	95	20.7
Intermediate (Higher Secondary)	93	20.2
Graduate	47	10.2
Marital status		
Married	243	52.8
Unmarried	217	47.2
Religion		
Islam	445	96.7
Non-Muslim	15	3.3
Income/month (in Pak Rupees)		
< 5000	60	13.0
5,001 to 10,000	132	28.7
10,001 to 20,000	127	27.6
20,001 to 30,000	46	10.0
> 30,000	95	20.7
Type of family structure		
Nuclear	164	35.7
Extended	55	12.0
Combined	241	52.4
Occupational status		
Skilled	111	24.1
Professional	61	13.3
Non-skilled	288	62.6
Father's education		
Literate	201	43.7
Illiterate	259	56.3
Father's occupation		
Skilled/Professional	169	36.7
Non-skilled	291	63.3
Mother's education		
Literate	69	15.0
Illiterate	391	85.0
Mother's occupation		
Housewife	444	96.5
Professional	16	3.5

Heroin was the most commonly addicted substance (37.8%) whereas an equal percentage (38%) use combination of drugs. Drugs were most commonly taken through smoking (40.4%) followed by administration by multiple routes (32.8%). Substance abuse was started between 20 to 30 years of age by 61%(281) of respondents. The majority (63.7%) of abusers were addicted for 5 years and usually took substance for more than 3 times a day (70.4%). Involvement of a family member and close friend to addiction was present in only 137(29.8%) and 404 (87.8%) participants respectively. The majority

Table 2: *Information Acquired Regarding Substance Abuse by Study Participants*

Variable	N = 460	%
Type of substance		
Heroin	174	37.8
Cannabis	53	11.5
Opium	32	7.0
Alcohol	18	3.9
Glue sniffing	5	1.1
Combination of drugs	178	38.7
Route of administration		
Smoking	186	40.4
Eating	22	4.8
Injecting	20	4.3
Sniffing	81	17.6
Multiple modes (more than 2 routes)	151	32.8
Age (in years) when 1st time substance abused		
< 19	73	15.9
20 to 30	281	61.1
31 to 45	106	22.2
Duration of use of substance abuse		
< 6 months	11	2.4
6 to 12 months	9	2.0
1 to 2 years	24	5.2
3 to 5 years	123	26.7
> 5 years	293	63.7
Frequency of substance usage		
Once a day	40	8.7
Twice a day	96	20.9
> three times a day	324	70.4
Dependence among family members		
Yes	137	29.8
No	323	70.2
Dependence among close friends		
Yes	404	87.8
No	56	12.2
Affordability		
Yes	350	76.1
No	110	23.9
Easy availability		
Yes	423	92.0
No	37	8.0

Table 3: *Relationship of Personal Characteristics with Heroin Addiction*

Variables	Heroin Addicts n (%) = 330	Non Heroin Addicts n (%) = 130	Total N(%)= 460	P value
Educational status				0.17
Illiterate	106 (32.1)	33 (25.4)	139 (30.2)	
Literate	224 (67.9)	97 (74.6)	321 (69.8)	
Income/month (in Pak Rupees)				0.15
Less than 10,000	143 (43.3)	49 (37.7)	192 (41.7)	
More than 10,000	187 (56.7)	81 (62.3)	268 (58.3)	
Type of family structure*				0.83
Nuclear/Extended	156 (47.3)	63 (48.5)	219 (47.6)	
Combined	174 (52.7)	67 (51.5)	241 (52.4)	
Occupational status*				0.33
Skilled/Professional	128 (38.8)	44 (33.8)	172 (37.4)	
Non-skilled	202 (61.2)	86 (66.2)	288 (62.6)	
Father's education				0.53
literate	141 (42.7)	60 (46.2)	201 (43.7)	
Illiterate	189 (57.3)	70 (53.8)	259 (56.3)	
Mother's education				0.24
literate	54 (16.4)	15 (11.5)	69 (15.0)	
Illiterate	276 (83.6)	115 (88.5)	391 (85.0)	
Age (in years) when 1st time substance abused	61 (18.5)	12 (9.2)	73 (15.9)	0.01**
19	269 (81.5)	118 (90.8)	387 (84.1)	
More than 19				
Duration of use of substance abuse				0.02**
5 years	109 (33.0)	58 (44.6)	167 (36.3)	
More than 5 years	221 (67.0)	72 (55.4)	293 (63.7)	
Dependence among family members				0.42
Yes	89 (27.0)	48 (36.9)	137 (29.8)	
No	241 (73.0)	82 (63.1)	323 (70.2)	

*: Categories have been combined for statistical significance
**: Statistically significant
: Chi square test

(76.1%) of the study participants claimed that they can a ord, while 92% had easy access to drugs. The study-found significant association of heroin addiction with age when substance was first time abused and duration of substance abuse(P<0.05) while educational status, income, family structure, occupational status, parental education and dependency to heroin were found to be non-significant (Table 3).

Discussion

According to the present study a sizeable number of participants were exclusively using heroin, followed by cannabis, opium and alcohol. A combination of substance abuse was found relatively more common (38%) than single substance except heroin. Two recently published studies also reported heroin as the most commonly abused substance among 400 participants in Karachi and Lahore.[3,14] Similarly, it was also remained to be the most abused drug reported in previous studies in Pakistan.[15]Furthermore, the easy accessibility and a ordability of heroin was found to be the highest reported factor for its use in the present study. This observation is consistent with similar findings of easy accessibility and availability as indicated in previous studies.[16] The geographical location of Pakistan has contributed in a strong influx of these substances such a heroin and potentiated the substance abuse.

It has been established that persons of younger age group are most vulnerable to get involved for substance abuse.[17-19] As observed, the majority (61%) of the study participants who reported substance abuse were of 19 to 30 years of age. Similar findings about drug abusers in Karachi, Lahore and Peshawar has also reported that most of them were between 21 to 40 years of age.[3] Since most of the substance abusers were found to be in their productive age, hence, the future outcome may indulge in immense damage to physical, mental, scholarly and moral development of the youth.

Peer pressure was found one of the strong contri-

buting and motivating factor for addiction in the present study. This observation is consistent with similar finding in studies conducted in Pakistan[3,10,20,21] and neighbouring countries of India[22] and Iran.[16] However, it is contradictory to two Indian studies where reasons to start addiction were experimentation and enjoyment rather than peer pressure[23] though a difference between experimentation and peer pressure wasn't defined. Nevertheless, it is expected that since the youth are influenced by their peers, the choice of friends will in fact determine their social behaviours.

A sizeable percentage of the present study participants 139(30%) were illiterate. This finding is consistent with a recently conducted study done in Islamabad, Pakistan[10] as well as other studies published from South Asia.[20,22] The higher proportion of non-skilled respondents with low level of education in the present study makes them ineligible for competitive employment, and with high rate of unemployment the inclination towards addiction is plausible. Further, this study found a low level of parent's education. Another study done on heroin drug addicts in Lahore, Pakistan showed that there was a strong independent association of education of mothers with addiction.[22] However, it was not found significant in our results.[25] The role of poor parental education has been a pivotal role in substance abuse and has been explored in the past studies.[24,25]

One of the limitations of this study is that only male participants were included. As women accustomed to substance abuse are stigmatized, it is considered something abnormal in Pakistani society, hence behaviours and comparisons with the opposite gender were not accessed. Secondly, ascertainment of results and its outcomes is depended on self-reported information. However, research has indicated that self-reports of substance abuse are generally reliable and valid when obtained under non-threatening environment.[22,25] Although all the precautions were taken in to consideration for obtaining reliable data in the present study, the possibility of under-reporting cannot be ignored.

This is the first population based study that focused demographics and other factors involving substance abuse from all over Pakistan. Nevertheless, the results of this study have enough evidences that may be considered for designing longitudinal studies among substance abusers. Factor like poor school performance, mood disorders, history of physical/ sexual abuse, parents abroad, loss in business and failure in examination were not taken into consideration hence were considered as the limitation of this study.

Conclusion

The present study showed prevalence of substance abuse in all demographic strata in Pakistani population especially within young age group. Therefore, it is suggested to develop public health strategies based on the factors reported in the study as well in previously published studies. An effort on national level could be advised to increase literacy rate and to conduct studies involving females.

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