The Elephant in the Room: Demographic Trends of Substance Abuse, Treatment, Admissions in South Punjab, Pakistan

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ABSTRACT

Objective: To determine pattern of demographic trends of substance abuse treatment admission in southern Punjab.
Study Design: Cross-sectional study
Place and Duration of Study: This study was conducted at the Multan Medical & Dental College, Multan, from October 2020 to December 2020.
Materials and Methods: After taking informed written consent from the participants and approval from the institutions, a self-formulated questionnaire was filled by health care professionals [physician or staff nurses] while interviewing the participants. This questionnaire included various parts related to the demographic details as well as potential risk factors. Participants were ensured confidentiality and ethical approval from relevant institution was taken. Data was entered and analyzed via SPSS version 23.0.
Results: We recruited 163 patients with substance abuse, 98.2 % (n=160) were male and 1.8 % (n=3) were females having 29.57 ± 7.33 years mean age, ranging from 18 – 60 years and 58.3% (n=95) had ages less than 30 years. Substance used for addiction was Heroine in 15.3 % (n=25), cannabis 10.4 % (n=17), Opioids 8.0 % (n=13), alcohol in 8.6 % (n=14) and 57.7% (n=94) used combination of these substances and mean frequency of daily use was 3.83 ± 1.25 (range; 1 – 6 daily). Route of administration was 3.1 % (n=5) inhalation, ingestion in 12.3 % (n=20), injection in 3.7 % (n=6), sniffing in 8.0 % (n=13) and 73.0% (n=119) had multiple routes. Mean age at 1st time was 20.13 ± 4.94 years (14 years to 32 years maximum). Peer pressure was the main cause in 76.7 % (n=125), relationship issues in 1.8 5 (n=3), family conflicts in 12.3 % (n=20), health issues in 7.4 % (n=12) and stress in 1.8 % (n=3). Dependence among family members was 31.3 % (n=51) and in friends was 80.4 % (n=131). Current admission was done by patient itself by will in 57.7 % (n=94), family by will 17.2 % (n=28) and 25.2 % (n=41) were admitted by family against the will.
Conclusion: The results of our study indicate that addiction is more common in young male adults living in poverty in joint family system having basic education. Peer pressure and dependence of close friends on drug addiction were the main causes of addiction. Heroin, Cannabis and Alcohol consumption were noted to be main substances used for addiction.
Key Words: Drug abuse, Socio-demographic, Distribution, Cannabis.

INTRODUCTION

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Substance abuse or drug dependence in general is a mammoth dilemma and a growing concern across cultures and all ages. The short-term and long-term repercussions of drug dependence create a ripple effect affecting both the individual and the society at large. It is indeed alarming and unfortunate that the recent trends show a significantly increasing frequency of drug dependency all over the world. The DSM-V defines substance use disorders as patterns of symptoms resulting from use of substances that one continues to take despite the occurrence and knowledge of harmful effects[1].

Illicit drugs are drugs for which non-medical use has been banned by international drug control treaties for half a century because they are believed to present intolerable risks of addiction to users. International

control has since been extended from plant-based drugs—heroin, cocaine, and cannabis—to synthetic drugs, such as amphetamines and methylene dioxymetam fetamine (MDMA), and pharmaceutical drugs such as buprenorphine, methadone and benzodiazepines[2].

Globally, Over 700 000 excess deaths occurred in dependent illicit drug users in 2010 compared with only 44 000 deaths which were coded as the cause of death[3]. Drug dependence and substance use disorders adds on to the economic burden on the country and results in a significant loss of potential youth and adults who may have contributed positively towards the society. In a US-based study, Relative to non-abusers, abusers had significantly higher annual health care resource utilization, leading to $14,810 in per-patient incremental annual health care cost[4]. There is also a noticeably higher risk of mental illnesses and transmissible blood-born infectious disease in such patients[5]. Pakistan is currently the 6th most populous country in the world (population: 197 million) and holds a very important strategic position in the south-Asian region. It is one of the three countries, including Iran and Afghanistan, which form the infamous 'Golden crescent' and is the principal global site for opium distribution and production. The rates of drug use and addiction have increased at an alarming rate in the last few years. A collaborative study done by the Government of Pakistan's Ministry of Interior and Narcotics Control reports that nearly 6.7 million people had used any controlled substance including misuse of prescribed drugs. Cannabis was the most commonly used drug with a prevalence of 3.6 per cent among individuals with age ranged from 15 to 64 years. About 860,000 individuals are regular heroin users and 320,000 are opium users that are about 0.8 and 0.3 per cent of the population respectively[6].

Considering the burden of substance abuse and drug dependence, the research and literature available is present but not adequate[7]. While there are some studies done on the drug users admitted in the treatment centers or present in the community[8-12]. It is largely confined to major cities and urban centers[7]. South Punjab which is often ignored and rarely reported has its own fair share of drug dwellers and is collapsing under the burden of this engulfing epidemic aggravated by poverty, limited resources and lack of knowledge. The Indian side of Punjab also complains of suffering from being the transit hub of epicenter of drug trafficking and the Pakistani side of Punjab shares the same narrative[7].

Southern Punjab is one of the most diverse yet poverty-stricken and underdeveloped areas within Pakistan. It also merges with the tribal areas bordering Baluchistan where drug trafficking is prevalent and law enforcement agencies have little authority. This study aims to collect initial data and demographic landscape of those currently admitted for drug detoxification in treatment and rehabilitation centers in Multan, the largest city in southern Punjab. The aim is to throw light on the current situation of drug users in south Punjab and to generate interest and encourage capacity development initiatives by government as well as private shareholders in the future.

MATERIALS AND METHODS

This cross-sectional study was conducted in Multan Medical & Dental College, Multan & five major drug and rehabilitation centers in Multan [including two tertiary care hospitals with inpatient psychiatric facility] using non – probability convenient sampling technique from October 2020 to December 2020. Currently admitted cases for the purpose of drug detoxification/rehabilitation and fulfilling the DSM-V criteria of substance use disorder [as assessed by a consultant psychiatrist] of either sex aged more than 18 years having history of substance abuse for more than 6 months were included in the study. Those with prior mental illness and not giving consent of participation were excluded from our study. A total of 163 patients with substance abuse were taken, sample size was calculated using $p = 12\%$ Cannabis substance abuse as reported by Prajapati et al[13], $d = 5\%$ and 95 % CI, we used single proportion formula of Epi – info of CDC for sample size calculation.

After taking informed written consent from the participants and approval from the institutions, a self-formulated questionnaire was filled by health care professionals [physician or staff nurses] while interviewing the participants. This questionnaire included various parts related to the demographic details as well as potential risk factors. Participants were ensured confidentiality and ethical approval from relevant institution was taken. Data was entered and analyzed via SPSS version 23.0. Age and duration of addiction was presented in the form of mean and SD. Socio-demographic variables like gender, residential status, socioeconomic status, literacy and occupation was presented in the form of tables and figures. Where relevant, Pearson chi-square test was applied on categorical variables and p-value of $<$ or equal to 0.05 was considered statistically significant.

RESULTS

We recruited 163 patients with substance abuse, 98.2 % (n=160) were male and 1.8 % (n=3) were females. The mean age range was 29.57 ± 7.33 58.3% (n=95) had ages less than 30 years.

Of these 163 substance abusers, 38.7 % (n=63) were from rural areas and 61.3 % (n=100) were from urban areas. Majority belonged to low income class i.e. 62.0% (n=101) while 30.1 % (n=49) were middle income and 8.0 % (n=13) belonged to high-income socioeconomic status. Of these 163 study cases, 15.3 % (n=25) were illiterate, 34.4% (n=56) had elementary level education,

15.3 % (n=25) had secondary level education, 17.2 % (n=28) had higher secondary education and 17.8 % (n=29) had done their graduation or above. Most of the study participants were unmarried i.e. 52.8% (n=86) while 42.9 % (n=70) were married and 4.3 % (n=7) were divorced.

In terms of religion, Muslims were 96.9% (n=158). It was observed that joint family system was present in 93.3 % (n=152).

Un-employment was noted in 24.5 % (n=40), unskilled workers were 35.6% (n=58), skilled workers were 26.4% (n=43) and 13.5 % (n=22) were professionals. Substance used for addiction was Heroine in 15.3 % (n=25), cannabis 10.4 % (n=17), Opioids 8.0 % (n=13), alcohol in 8.6 % (n=14) and 57.7% (n=94) used combination of these substances and mean frequency of daily use was 3.83 ± 1.25 (range; 1 – 6 daily). Route of administration was 3.1 % (n=5) inhalation, ingestion in 12.3 % (n=20), injection in 3.7 % (n=6), sniffing in 8.0 % (n=13) and 73.0% (n=119) had multiple routes. Mean age at 1st time was 20.13 ± 4.94 years (14 years to 32 years maximum).
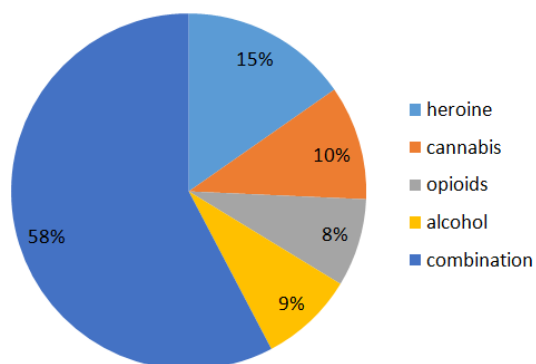
Figure No.1: Frequency of substance abused

Peer pressure was the main cause in 76.7 % (n=125), relationship issues in 1.8 5 (n=3), family conflicts in 12.3 % (n=20), health issues in 7.4 % (n=12) and stress in 1.8 % (n=3). Dependence among family members was 31.3 % (n=51) and in friends was 80.4 % (n=131). Current admission was done by patient's own self by will in 57.7 % (n=94) of cases, by family but with patient's will 17.2 % (n=28) and 25.2 % (n=41) were admitted by family against the will of patients.

DISCUSSION

Substance abuse is an important social health issue worldwide which is prevalent in all parts of the world and across all cultures, hence it is regarded as a global phenomenon[14]. Alcohol abuse and tobacco consumption are endemic almost in every society while abuse of other psychoactive agents is also growing concern in different societies like Pakistan.

We recruited 163 patients with substance abuse, 98.2 % (n=160) were male and 1.8 % (n=3) were females.

Available data reveal high burden of drug abuse among males. A study conducted by Lamptey et al [15] from Nigeria has also reported 90 % male drug abusers, similar to our results. A Study conducted in India by Prajapati et al [13] 98 % male drug abusers. Javed et al [16] reported 100 % male drug abusers, similar to our results. While the figures show male predominance in inpatient units, we cannot assume the same in community without any evidence.

Mean age was 29.57 ± 7.33 years mean age, ranging from 18 – 60 years and 58.3% (n=95) had ages less than 30 years. Demirci et al [17] also reported drug abuse being more prevalent among youth. Another study by Randhawa et al [18] reported 27.25 years mean age. This strongly indicates that in order to tackle this issue, we need to focus our attention on the youth and initiate drug awareness campaigns and screening clinics for the school and college population of urban and rural Pakistan.

Of these 163 substance abusers, 38.7 % (n=63) were from rural areas and 61.3 % (n=100) were from urban areas. Majority were from lower income group indicating multiple socio-economic factors at play which lead to drus dependence. Rather et al [19] from India reported 58 % poverty in drug abusers. Of these 163 study cases, 15.3 % (n=25) were illiterate, 34.4% (n=56) had elementary level education, 15.3 % (n=25) had secondary level education, 17.2 % (n=28) had higher secondary education and 17.8 % (n=29) had done their graduation or above. A study conducted by Lamptey et al [15] from Nigeria has also reported 18.4 % had tertiary level of education, 34.5 % had secondary level of education and 12.6 % had basic level of education, showing similar trends of literacy among drug abusers. A Study conducted in India by Prajapati et al [13] reported 28 % drug abusers were graduate, also indicating high burden of drug abuse among qualified young adults. Rather et al [19] from India reported 53.5 % drug abusers had high school education.

Un-employment was noted in 24.5 % (n=40), unskilled workers were 35.6% (n=58), skilled workers were 26.4 % (n=43) and 13.5 % (n=22) were professionals. A study conducted by Lamptey et al [15] from Nigeria has also reported similar results. A Study conducted in India by Prajapati et al [13] reported 47 % drug abuse in skilled workers.

Substance used for addiction was Heroine in 15.3 % (n=25), cannabis 10.4 % (n=17), Opioids 8.0 % (n=13), alcohol in 8.6 % (n=14) and 57.7% (n=94) used combination of these substances and mean frequency of daily use was 3.83 ± 1.25 (range; 1 – 6 daily). Route of administration was 3.1 % (n=5) inhalation, ingestion in 12.3 % (n=20), injection in 3.7 % (n=6), sniffing in 8.0 % (n=13) and 73.0% (n=119) had multiple routes. Another study form India by Randhawa et al [18] reported similar results.

Mean age at 1st time was 20.13 ± 4.94 years (14 years to 32 years maximum). Demirici et al [17] also reported 13 years mean age at the start of addiction. Peer pressure was the main cause in 76.7 % (n=125), relationship issues in 1.8 5 (n=3), family conflicts in 12.3 % (n=20), health issues in 7.4 % (n=12) and stress in 1.8 % (n=3).

The authors strongly feel that these two factors mentioned above are very crucial. The young age of onset as well as peer pressure being the most frequent factor leading to drug use again emphasizes the fact that government policies need to be targeted and customized for youth. There is a dire need for estimating the extent of the problem and realizing that it is severely impacting the productivity of young people in Pakistan. Dependence among family members was 31.3 % (n=51) and in friends was 80.4 % (n=131). A Study conducted in India [13] reported 62 % dependence in friends.

Our study helps in throwing light at the concerning issue of rampant drug use in the South Punjab region and builds a case to conduct more research in this area. It also serves as a reminder for the non-governmental organizations as well as government policy makers to address this issue with all seriousness and sincerity.

CONCLUSION

The results of our study indicates that in South Punjab, addiction appears to be more common in young male adults living in poverty in joint family system having basic education. Peer pressure and dependence of close friends on drug addiction were the main causes of addiction. Heroin, Cannabis and Alcohol consumption were noted to be main substances used for addiction.

Further robust research is needed to ascertain the extent of the problem and to embark on the journey towards its eradication.

Author's Contribution:

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