

Survey of Drug Addiction in Rehabilitation Centers of Multan: An Observational Study

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Abstract

Introduction: Drug addiction and abuse is becoming a serious threat to developing and developed countries. This has been also identified as a major public health issue in Pakistan. **Aim of the study:** This survey aimed to assess the frequency of addiction, cause of customary use of the drug, and notify the current condition in Multan, Pakistan. **Methodology:** In private rehabilitation centers, a cross-sectional study was conducted using an organized questionnaire. Descriptive and inferential statistics were applied for data analysis by using Microsoft Excel and SPSS version 24.0. **Results:** When interviewed, 100 subjects completed the questionnaire out of 117 subjects. All the subjects were male of which half of the subjects (50%) were of the age group 18- 30 yrs. More than half (65%) of subjects were married, 34% were smokers and 95% can afford the treatment. **Conclusion:** The study concluded that the frequency of drug abusers increasing and is a threat to society. The cheap and facilitating availability of drugs in Pakistan is also a leading factor to increase the inappropriate use of drugs.

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Introduction

One of the social problems that blowout in our culture and make it very difficult for our country to develop is drug addiction (Jaiswal, 2018). Many drugs are abused by people and if the drug is used deliberately to reduce the withdrawal effects then addiction is originated (Lindesmith, 1938). World Health Organization (WHO) defined drugs as “any substance when consumed by the living Original organism may alter one or more functions (Zafar & ul Hasan, 2002).“Drug addiction can be viewed as a transition from entertaining drug use to obsessive drug-seeking habits, neutrally underpinned by a transition from prefrontal cortical to striatal control over drug-seeking and taking as well as a progression from the ventral to the dorsal striatum” (Everitt & Robbins, 2016). Most drugs that are addictive are psychomotor stimulants, alcohol, nicotine, benzodiazepines, barbiturates, and phencyclidine

(Glass, 2016). Drug addiction contributes to a major public health concern and has a considerable effect on human suffering as well as societal expenses. From the last 2 decades, significant growth in drug addiction has been occurred (Sagi et al., 2018).

Globally, 76.3 million people have an alcohol addiction and 15.3 million people are drug users as declared by the world health organization (WHO) (Lynch, Nicholson, Dance, Morgan, & Foley, 2010). Heroin is the most addictive drug in Pakistan (Nessa, Latif, Siddiqui, Hussain, & Hossain, 2008). In the southeast Asian region, Pakistan faces the major heroin use market (Unisa, Gul, & Naz). In Pakistan, the number of drug addicts increases every year. The prevalence of heroin addicts was almost zero in Pakistan in 1981 but gradually this number increased to 1.3 million in 1990 and greater than 2.5 million by 1994 (Soomro, Qureshi, & Baloch, 2018). The drug addicts firstly use the drugs for curiosity, to cope with their stressful situation, to enhance their social interaction, to change their physiological conditions but when they

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don't have any drug they will do whatever they desire to get those drugs to fight the withdrawal (Ali, Bushra, & Aslam, 2011). In the occupational category, the drug abuser frequency for Heroin is 48% followed by cannabis (28%) (Ghazal, 2019). Peer pressure (96%), curiosity (88%), scholastic stress (90%) (Shafiq et al., 2006), and family conflicts, all are remarkably affiliated to increase the frequency of drug users especially in adolescence (Farrell & White, 1998). Drug addiction harms the quality of life by increasing the symptoms and greater distress (Armiya'u et al., 2019).

Aim of the Study

The study aims to determine the frequency of addiction and cause for the rapidly increasing problem of drug addiction and underline the current situation in Multan.

Methods

In the private rehabilitation center of Multan, a cross-sectional study was conducted using a structured questionnaire. A convenient sampling method was used to include the participants in the study. For the conduction of research private rehabilitation centers of Multan were included. The study was approved by the ethical committee of the Department of Pharmacy Practice, Faculty of Pharmacy, BZU, Multan, Pakistan. The permission was granted from Medical Superintendent of rehabilitation center.

Materials

Information was collected by face to face interview of 100 subjects through a validated questionnaire. The questionnaire comprising of questions regarding the socio-demographic data including age, occupation, financial aspects, smoking history of family & friends, number of dependents, place of residents. We evaluated the addicting behavior of subjects by cross-questioning. The subjects who were unable to answer the

question due to mental disorders were exempted.

Statistical Analysis

Preliminary data analyses were conducted in Microsoft Excel version 2007 and Statistical package for social science (SPSS) version 24. To summarize the data descriptive statistics (frequencies and percentages) were calculated. Pearson's Chi-Square test was used to analyze the association between categorical independent and dependent variables. A p-value <0.05 was considered significant.

Results

When interviewed, 100 subjects completed the questionnaire out of 117 subjects. Table 1 showed that in rehabilitation centers only male (100%) was seen with the majority of subjects (50%) of the age group between 18-30 years. 65% of subjects were married, 34 % were smokers and 95% can afford the treatment. The occupation of people was as private job holders (45%), businessman (36 %), a landlord (11%), students (3%), and others (2%). The majority of respondents (51%) had a monthly income of 20,000-50,000 PKR, 34% had monthly income in the range of 51,000- 10,000 PKR while only 4% had a monthly income of 100,000 PKR. The majority of respondents (61%) working hours were 9-16 hours, 35% of respondent's working hours were 1-8 hours and only 4 % of respondents were with zero working hours.

Description of study parameters related to addiction

Table 2 demonstrates the frequency of smokers was 34% and non-smoker was 66%. Drug addiction frequency for drugs such as heroin was (42%) followed by tranquilizers (17%), marijuana/narcotics (14%), alcohol (3%), powder (3%), opium

(3%), chars (3%) and white crystals (1%). The majority of subjects (46%) had treatment costs ranging between 2100-3000 PKR, 31% of subjects had 3100-4000 PKR, 20% of subjects had 1000-2000 PKR and only 3% had treatment costs in the range of 4100-5000 PKR. The majority of subjects (95%) were affording the treatment cost in centers.

Table 3 showed that the level of addiction had a significant association with the occupation and living status of respondents ($P=0.025$). The level of addiction was significantly higher ($P < 0.001$) in private

jobs holder (20%) and businessmen (9%) than students, landlords, farmers, and government jobholders. A significant association ($P=0.03$) was found between age and treatment cost. A high significant association ($P=0.01$) with treatment cost (2100-3000) was noted in respondents (25%) who earned 20,000-50,000 per month. High treatment cost was reported in the income category of 20,000-50,000. Addiction level of heroin was found higher in males living with families (4%) as compared to others who were living alone (2%).

Table 1: Indicates the demographic details of the participants included in the survey of drug addiction in private rehabilitation centers of Multan, Pakistan.

Demographic characteristics of study participants

| Demographic character | N (%) | |
|-----------------------|------------------|-----------|
| Gender | Male | 100 (100) |
| | Female | 0 (0) |
| Age (years) | 18-30 | 50 (50) |
| | 31-50 | 47 (47) |
| | 51 or more | 3 (3) |
| Marital status | Married | 65 (65) |
| | Un-married | 35 (35) |
| Living status | Family | 81 (81) |
| | Alone | 19 (19) |
| Occupation | Private job | 45 (45) |
| | Businessman | 36 (36) |
| | Student | 3 (3) |
| | Landlord | 11 (11) |
| | None | 2 (2) |
| | Farmer | 2 (2) |
| | Government job | 1 (1) |
| Income | 20000-50000 | 54 (54) |
| | 51000-100000 | 38 (38) |
| | More than 100000 | 4 (4) |
| Working hours | 0 | 4 (4) |
| | 1-8 | 35 (35) |
| | 9-16 | 61 (61) |

Note: All the frequencies and percentages based upon observed values, missing values were excluded from the study.

Table 2: Indicates the description of study variables e.g. smoking, addictive drugs, working hours, cost, and affordability of treatment.

Description of study parameters related to addiction

| Variable | N (%) | |
|-----------|-----------|---------|
| Smoking | Yes | 34 (34) |
| | No | 66 (66) |
| Addiction | Heroin | 42 (42) |
| | Marijuana | 14 (14) |

| | | |
|----------------------------|----------------|---------|
| | Tranquilizers | 17 (17) |
| | Narcotics | 14 (14) |
| | Alcohol | 3 (3) |
| | Powder | 3 (3) |
| | Opium | 3 (3) |
| | White crystals | 1 (1) |
| | Chars | 3 (3) |
| Treatment cost | 1000-2000 | 20 (20) |
| | 2100-3000 | 46 (46) |
| | 3100-4000 | 31 (31) |
| | 4100-5000 | 3 (3) |
| Treatment | Affordable | 95 (95) |
| | Unaffordable | 5 (5) |
| Working hours (hrs) | 0 | 4 (4) |
| | 1-8 | 35 (35) |
| | 9-16 | 61 (61) |

Note: All the frequencies and percentages based upon observed values, missing values were excluded from the study

Table 3: indicates the inferential statistics chi-square test to point out the association between independent and dependent variables with a value less than 0.05 to be considered as a statistically significant level. Study results were carefully tabulated and interpreted in the following manner.

Table:3 Association of study parameter of addiction e.g. smoking, drug addiction, treatment cost, affordability, and working hours with independent variables

| P values | | | | | |
|--------------------------------|--------------|-----------------------|----------------------|-------------------|---------------|
| Variables | Age | Marital status | Living status | Occupation | Income |
| Smoking | 0.44 | 0.39 | 0.063 | 0.255 | 0.252 |
| Drug Addiction | 0.85 | 0.06 | 0.025 | <0.001 | 0.703 |
| Treatment cost/ day | 0.032 | 0.55 | 0.022 | 0.314 | 0.01 |
| Treatment Affordability | 0.092 | 0.313 | 0.219 | 0.676 | 0.972 |

Note: p-value for Pearson chi-square.

Discussion

We survey the rehabilitation center to collect data regarding the current situation of drug addiction in Multan. The most commonly used drugs are heroin and marijuana. According to a study by (Bukhtawer et al., 2014), mostly drug addicts were male of age range 20 to 30 years and this study results have consistency with the previous study. Some people have an addiction to multiple drugs. The drug abuser frequency for heroin (42%) followed by tranquilizers (17%), marijuana/narcotics (14%), alcohol, powder, opium, chars (3%), and white crystals was (1%) while researchers in England and Wales reported that abuser frequency for cannabis (24%), cocaine (3%), amphetamine (9%), volatile and other substances were 10% (Hamilton, Monaghan,

& Lloyd, 2019). The most commonly used route of administration was sniffing followed by the parenteral route and oral route. Some addicts stole the money to buy the drug. A large number of drug users informed the major cause of drug addiction to a bad relationship with their family or the collapse of the relationship. Previously study was done in Quetta about drug addiction in which they revealed that their loved one (Brother, Uncle, Cousin) is addicted from 2 to 3 years (Unisa et al.).

As reported by researchers in Karachi, the cultivation of drugs like opium, heroin, and marijuana in Pakistan is directly referred to ease and cheap availability of drugs in Pakistan (Ali et al., 2011) but this survey additionally finds out that good cultivation of drugs in Pakistan and Afghan border and

rapid smuggling through Afghanistan is also responsible for cheap availability of drugs. A large number of addicts reported major cause of drug addiction was varying relationships with their parents or the collapse of relationships (Armiya'u et al., 2019) while according to this study it contributes approximately 45 %. Sometimes to cure mental disorders (depression, anxiety, insomnia) doctors recommend to their patients legal psychotropic/tranquilizer drugs but their prolonged use leads to drug addiction. To control drug addiction in Pakistan Government has established the "Control of Narcotic Substances Act, 1997" which extends to the whole of Pakistan while India established the Narcotic Drugs and Psychotropic Substances Act, 1985 ("NDPS Act") (Jaiswal, 2018) and Iran established Narcotic Drugs Act, 1961 (Emran M. Razzaghi, 1998-1999).

Conclusion

Drug abusers are a threat to society in the area where they live. Addicts spend a lot of money to buy the drug, so the proper treatment of abusers can return them to their normal life and can save society. To alleviate the habitual use of a drug, the social and psychological factors that contribute to the inappropriate use of the drug should be conveyed through media.

Recommendations

From research findings following recommendation should be considered. As cases of drug addiction are increasing day by day the number of drug rehabilitation centers should be increased. The government should arrange or conduct educational seminars to acknowledge the younger generation about the side effects of drug addiction. An awareness campaign should be arranged to assist in advertising against drug addiction.

Compliance with Ethical Standards

Conflict of interest: All the authors declare that they have no conflict of interest.

References

- Ali, H., Bushra, R., & Aslam, N. (2011). Profile of drug users in Karachi city, Pakistan. *EMHJ- Eastern Mediterranean Health Journal*, *17* (1), 41-45
- Armiya'u, A. Y. U., Bamidele, L. I., Hassan, Z., & Davou, F. J. (2019). Family Characteristics and Quality of Life of Substance Abusing Clients at a Nigerian Rehabilitation Center. *Psychology and Behavioral Sciences*, *8*(1), 1.
- Bukhtawer, N., Muhammad, S., & Iqbal, A. (2014). Personality traits and self-regulation: comparative study among current, relapse and remitted drug abuse patients. *Health*, *6*(12), 1368.
- Emran M. Razzaghi, M. D. A. R. M., M.D.; Mehdi Hosseini, M.D.; Saeid Madani, M.Sc. (1998-1999). *RAPID SITUATION ASSESSMENT (RSA) OF DRUG ABUSE IN IRAN. DRUG ABUSE*.
- Everitt, B. J., & Robbins, T. W. (2016). Drug addiction: updating actions to habits to compulsions ten years on. *Annual review of psychology*, *67*, 23-50.
- Farrell, A. D., & White, K. S. (1998). Peer influences and drug use among urban adolescents: Family structure and parent-adolescent relationship as protective factors. *Journal of consulting and clinical psychology*, *66*(2), 248.
- Ghazal, P. (2019). Rising trend of substance abuse in Pakistan: a study of sociodemographic profiles of patients admitted to rehabilitation centres. *Public health*, *167*, 34-37.
- Glass, I. B. (2016). *The international handbook of addiction behaviour*: Routledge.
- Hamilton, I., Monaghan, M., & Lloyd, C. (2019). Rising numbers of older and female cannabis users seeking treatment in England and Wales. *Drugs: Education, Prevention and Policy*, *26*(2), 205-207.
- Jaiswal, P. (2018). *Drugs & Law in India wrt Treatment of Drug Addicts/Abusers*. *GLOBAL JOURNAL OF PHARMACEUTICAL EDUCATION AND RESEARCH*, *6*(1-2).
- Lindesmith, A. R. (1938). A sociological theory of drug addiction. *American Journal of Sociology*, *43*(4), 593-613.
- Lynch, W. J., Nicholson, K. L., Dance, M. E., Morgan, R. W., & Foley, P. L. (2010). Animal models of

substance abuse and addiction: implications for science, animal welfare, and society. *Comparative medicine*, **60**(3), 177-188.

Nessa, A., Latif, S., Siddiqui, N., Hussain, M., & Hossain, M. A. (2008). Drug abuse and addiction. *Mymensingh medical journal: MMJ*, **17**(2), 227-235.

Sagi, M. R., Aurobind, G., Chand, P., Ashfak, A., Karthick, C., Kubenthiran, N., . . . Arora, S. (2018). Innovative telementoring for addiction management for remote primary care physicians: A feasibility study. *Indian journal of psychiatry*, **60**(4), 461.

Shafiq, M., Shah, Z., Saleem, A., Siddiqi, M. T., Shaikh, K. S., Salahuddin, F. F., . . . Naqvi, H. (2006). Perceptions of Pakistani medical students about drugs and alcohol: a questionnaire-based survey. *Substance abuse treatment, prevention, and policy*, **1**(1), 31.

Soomro, S., Qureshi, M. B., & Baloch, F. (2018). Drug Addiction Scenario In Pakistan Effects And Consequences Over Youth. *Grassroots*, **48**(2).

Unnisa, Z., Gul, A., & Naz, A. Analysis on The Role of Rehabilitation Centers and its Effects on The Reducation of Drug Addiction in Quetta City.

Zafar, T., & ul Hasan, S. (2002). A sociodemographic and behavioral profile of heroin users and the risk environment in Quetta, Pakistan. *International Journal of Drug Policy*, **13**(2), 121-125.