Prevalence of Co-Occurring Physical and Mental Health Problems in People with Drug Addiction in Pakistan

Naveed Sultan1*, Shabana Noureen2, Anam Saher3

Abstract
Drug addiction is a relapsing, chronic disorder in which drug abusing and compulsive drug-seeking behaviors are prevalent. The objective of the research was to explore the prevalence of different types of drug addictions along with co-occurring physical and mental health problems. Since 2021, a team of Happy Life Psychological Services (HLPS), Pakistan has dealt with 6000 triages and 156 admissions. The sample of the study was 156 participants with drug addiction collected from February 2021 to January 2023. The outcome of the study reflected that male have higher number of drug addiction (78.8%) compared to females and the most common age of drug addiction is middle adults (67.9%). In people with drug addiction, the highly used drug was tobacco (23.41%), the most common mental health problem was anxiety disorders (28.62%), the most common medical comorbidity was Hepatitis B & C (50%), and they had higher level of suicidal thoughts (49.32%). The study recommends nationwide concerted actions to decline the illicit demands of drugs. Mass media, law enforcement, medical practitioners, local communities, NGOs, international agencies, and affected families are the possible stakeholders that should be included to make up strategies to manage the issue of drug addiction in Pakistan.

Keywords: Drug Addiction, Happy Life Psychological Services, Mental Health Problems, Physical Problems, Suicidal Intentions

Received: 14 May 2023; Revised Received: 10 September 2023; Accepted: 15 September 2023

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Introduction
Drug addiction is not a hallmark of lack of willpower or moral failure, but it is a complicated disease that requires extensive, long-term management similar to any other chronic condition. People who struggle with drug addiction may find it complex to get insight about the reason behind the use of drugs (Heilig et al., 2019). Although there are multifaceted factors that increase the probability of using drugs and the consequences of using drugs are life-damaging. Every case is unique, but there are some general questions that show why individuals use drugs, how drug addiction develops, and what its associated consequences on the person and society as a whole (Ceceli et al., 2022). Drug addiction is a relapsing, chronic disorder in which drug-taking behavior and compulsive drug-seeking behavior are prevalent (Pickard, 2020). However, the reasons behind the use of drugs differ, but the majority of individuals start using drugs to escape the psychological pain. In few individuals, drug addiction is caused due to untreated psychological issues such as depression or anxiety (Moll et al., 2021). The
pleasure associated with drugs can give temporary solace from sufferings such as trauma, abuse, psychological illness, poverty, relationship issues, stress, loss of loved ones, low self-esteem, medical condition or enduring pain. When the drug addiction is started, it spirals more and more out of their control (Heilig et al., 2019).

In many individuals, the initial decision to involve in drug addiction is voluntary, but it swept up towards the cycle of addiction in which the neural pathways of the brain are changed. Then the individuals who use drugs are less able to control their behavior and stop their intense impulses (Moll et al., 2021). With the use of more drugs, the brain anticipates more substance-fueled pleasant sensations. The brain becomes wired for addiction; therefore, it is quite complex to stop it. Eventually, tolerance to drugs is built up with time and then addictive behavior does not provide any pleasure and its use became a way to avoid withdrawal. Of this, individuals need drugs to keep their feelings at a normal level (Ruisoto & Contador, 2019).

Not every individual who uses drugs becomes addicted because there is not any single factor that predicts whether someone is addicted but a combination of biological, environmental, and developmental factors. Genetics, along with the combination of environment, account for fifty percent of the vulnerability of a person to addiction. Especially the probability of having drug addiction is higher in males compared to females (Babaei et al., 2020). Furthermore, socioeconomic status, friends, and family have a significant influence on a person's probability of making an addiction. Sexual or bodily abuse, stress, peer pressure, or parental supervision can highly influence the use of drugs. Besides, the developmental factors reflect that the person can be addicted at any age but the earlier use of drugs results in serious addiction in the later part of the person's life (Walke et al., 2021).

The worst evidence is that more illnesses, deaths, and disabilities are caused due to drug addiction compared to any other preventable health condition. The prolonged use of drug dependency affects every organ of the human body (Moll et al., 2021). The different drugs have different damage effects on different body parts. The most evident impact of drug addiction is on immune system that maximizes the vulnerability to infection, heart diseases (such as collapsed veins or heart attacks), vomiting, nausea, abdominal pain, liver overexertion, liver failure, strokes or seizures. The increased damage affects attention, decision-making, or memory and sometimes causes permanent brain damage to users (Ruisoto & Contador, 2019).

The worst effects of substance abuse are not even health-related. Drug addiction has various damaging consequences on the users' emotional or social wellbeing, such as loss of employment, incarceration, relationship loss, financial trouble, homelessness, or risky sexual behavior (Heilig et al., 2019). Many conditions can be minimized, but some emotional or health issues cannot heal. The effective way to prevent enduring damage is to get professional help to limit the use of drug addiction (Pickard, 2020).

The usage of drugs without medical supervision is associated with significant health risks and also leads to develop addiction disorder. Drug addiction, when left untreated, increases morbidity and mortality for individuals as well as imposes high costs to community due to the loss of productivity, augmented health care expenses, premature mortality, and costs associated with criminal justice, communal consequences, and social welfare (Lüscher et al., 2020). As per World Health Organization (WHO), 270 million individuals that are 5.5% of the global population aged 15-64, had used psychoactive drugs in 2022 and 35 million
developed substance use disorder (Babaei et al., 2020). Around 0.5 million deaths are reported annually, in which 350,000 males and 150,000 females deaths are reported (Mizoguchi & Yamada, 2019). Opioid-related deaths have altered the mortality trends in few developed countries. More than 42 million years of healthy life loss were attributed to substance abuse in 2017, which was 1.3% of the worldwide disease burden (Mohamed et al., 2020). As per the statistics, 11 million people inject drugs, 1.4 million lives with HIV and 5.6 million lives with hepatitis C (WHO, 2023). In Pakistan, there is limited information about the use of Drugs as about 7 million Pakistanis takes drugs, especially 4 million use Cannabis and 3 million use opioids. Anti-Narcotics Force Pakistan is instructed by the Government of Pakistan to counter-narcotics covered by all facets. From 2005 till now, 14,388 patients throughout Pakistan have been treated (Ur Rahman, 2021). The knowledge gap is seen in the existing literature as there is no data available about how much people suffer from mental health issues due to drug addiction. Therefore, Happy Life Psychological Services (HLPS) started a cohort study to ensure data validation and proper multistage diagnosis of the patients without any biasness. The study aims to explore the prevalence of different types of drug addictions and co-occurring physical and mental health problems.

**Method**

The current research used a cross-sectional design to assess the prevalence of different drug addictions and co-occurring problems.

**Sample**

Since 2021, the team of Happy Life Psychological Service has dealt with 6000 triages and 156 admissions. In 156 clients, different mental health, social and medical issues have been assessed from the rigorous work of past two years, from February 2021 to January 2023. The study sample was individuals with drug addiction reported in HLPS in Pakistan in the past two years i.e., 156 participants. Both male and female participants take part in the study. The cases reported in the HLPS are the representative of the broader issue of Drug Addiction of Pakistan. The inclusion criteria were the participants who were reported in the HLPS in Pakistan with the issue of addiction. The participants with any physical disability were excluded from the research.

**Instruments**

The data was collected through in-depth unstructured interviews in one-on-one interactions. These participants were initially screened for the type of drugs they used, and then physical health problems were diagnosed by physicians and mental health problems by licensed clinical psychologists through different reliable and valid diagnostic tools.

**Procedure**

Data was collected through face-to-face interviews with participants and their referrals in the current study. The interviews were conducted in Urdu language to ensure a smooth flow of information during the interview. After data collection, the data were analyzed using descriptive statistics and graphical representations through SPSS 25. The descriptive statistics such as frequency, percentage, mean, and standard deviation of the demographic variables were taken. Besides, the prevalence was given through pictorial description in the form of bar chart. Ethical considerations were maintained in the study. The informed consent was taken from the participants prior to the study. The study participants were informed that the shared information would be kept confidential and would be used for the research purpose only.
Results

Table 1

Demographic Characteristics of Study Participants (N=156)

<table>
<thead>
<tr>
<th>Demographics</th>
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<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>123 (78.8%)</td>
<td>Unmarried</td>
<td>74 (47.7%)</td>
</tr>
<tr>
<td>Female</td>
<td>33 (21.2%)</td>
<td>Married</td>
<td>74 (47.7%)</td>
</tr>
<tr>
<td>Age (M=30.84, SD=11.93)</td>
<td></td>
<td>Dual Married</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Children</td>
<td>07 (4.5%)</td>
<td>Divorced</td>
<td>7 (4.5%)</td>
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<tr>
<td>Adolescents</td>
<td>04 (2.6%)</td>
<td></td>
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<tr>
<td>Young Adults</td>
<td>30 (19.2)</td>
<td></td>
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<tr>
<td>Middle Adults</td>
<td>106 (67.9)</td>
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<tr>
<td>Older Adults</td>
<td>09 (5.8%)</td>
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Note. f = Frequency, %age = Percentage, M = Mean, SD = Standard Deviation

Table 1 shows the demographic details of the study participants. The details showed that males have high numbers of drug addicts (78.8%), and the most common age of drug addiction is middle adults (67.9%).

Figure 1

Prevalence of Most Commonly used Drugs by People with Drug Addiction
Figure 1 shows that the highly used drug is smoking, which is about 23.41% compared to other drugs. The second most commonly used drug is tobacco at 17.27%, followed by Cannabis at 17.05%, amphetamines at 10.91%, sedative sleeping pills at 9.55%, alcohol at 8.64%, opioids at 7.73%, Hallucinogens 4.77%, Cocaine 0.45%, and Inhalant 0.23%. Surprisingly, the use of inhalants and cocaine was less reported compared to other types of drug addiction.

Figure 2
Prevalence of Mental Health Problems in People with Drug Addiction

Figure 2 shows that individuals with drug addictions have the most common mental health problem of anxiety disorders, with 28.62%. The second leading mental health problem is personality disorders 26.92%, followed by 26.6% depressive disorders and 17.85% psychotic disorders.
Figure 3 shows the prevalence of physical health problems in individuals with drug addiction. The most common medical comorbidity in individuals with drug addictions is Hepatitis B & C, with 50%, followed by 25% HIV AIDS, 16.67% cardiovascular diseases, and 8.33% lung diseases. The patients with physical health problems were treated for addiction by collaboration with the general physician so these patients were treated not in the same facility, but comparatively different protocols were developed as per the need of the patients.
Figure 4 shows that 49.32% of individuals with drug addictions reported suicidal thoughts, 26.03% had suicidal attempts, and 24.06% reported self-harming behaviors.

**Discussion**
Drug addiction has been considered the most common public health issue influencing society at multifaceted levels. Within the past few years, drug addiction has been significantly maximized worldwide, especially in countries located in South Asia, such as Pakistan. Within Pakistan, human devastation has increased its tentacles to each nook and corner. The scope of the problem of drug addiction is broad because the ratio of people with drug addiction is increasing day by day. Even the single platform of HLPS, located in Islamabad, reported 156 cases of drug addiction, which is a huge ratio. It shows the immense need to work on the issues related to drug addiction and explore the underlying causes that increase the chances of drug addiction.

The study outcomes reflected that the admission of males was higher than that of females in the past two years. It suggests that females are also involved in drug addiction in the developing countries. The empirical evidence reflects the general risk factors for drug addiction, but there is a need to explore the specific factors that promote individuals to get involved in drug addiction within third-world countries like Pakistan. The study results are supported by which showed that drug addiction is higher in males than females (Quigley et al., 2021).

Similar to the existing study, the current study explored that drug addiction can start at any age 4.5% of the cases were of children in
the study (Walke et al., 2021) that continued up to older adults with 5.8% (Tanweer et al., 2019). It means that there is not any specific age to get involved in drugs, but a person can be involved in drug addiction at any age, so they need to tackle issues that result in drug addiction. The statistics reflected that middle aged adults (age range 25-54) are at the risks of drug addiction because it is the critical age in which individuals move towards the professional and practical life where they face various changes and somehow involved in ill practiced due to inability to manage these problems. The most interesting information found in the study was that an equal number of married and unmarried cases were reported within the past two years of drug addiction. It gives a glimpse that married and unmarried people have different underlying reasons for being motivated to use drugs.

In addition, the study reflected that smoking is a highly used drug in Pakistan because of its low prices, steady population growth, lack of awareness about its dangers, and immense marketing of tobacco factor. Even secondhand smoke causes disease, death, and disability. WHO report supports this outcome that almost 24 million adults use tobacco in any form. It is a need of time to monitor and control the use of tobacco, protect other people from tobacco smoke, warn people about the dangers of tobacco, raise taxes on tobacco, and even impose bans on tobacco promotion, advertising, and sponsorship. WHO is closely working with the Government of Pakistan to curb tobacco use due to its injurious health issues (Mohamed et al., 2020).

The present study showed that the most widely prevalent medical disease prevalent in people with drug addiction is hepatitis B & C, followed by HIV Aids, Cardiovascular diseases, and lung cancer. The latest research by WHO supports the outcomes reflected that 1.4 million lives with HIV and 5.6 million lives with hepatitis C worldwide (WHO, 2023). Similarly, Pakistan also has such physical health problems that were not reported earlier in the existing studies, so the current study provided detailed information on the associated problems of drug addiction. Due to drug addiction, people have suicidal thoughts, attempts, and self-harming behavior. Therefore, it is required to provide appropriate management to drug users so that their quality of life can be improved. Management can be possible only if the organization maintain the proper record of the information collected from the different cases. There is a huge responsibility imposed on the clinical psychologists and higher authorities to work for the better life of people with drug addiction by providing them with appropriate management plans.

The study is highly informative in the cultural context as the patients reported in HLPS were not merely from Islamabad, but from different areas of Pakistan that reflected that the drug addiction is the cultural issue that prevails in every culture. There is the need to resolve this issue at the broader level through psycho-educating people about the harsh long-lasting effects of drug addiction.

**Conclusion**

Drug addiction is a multidimensional issue, so it should be viewed from multiple perspectives. It is an immense need to provide proper address to this particular issue. Drug addiction is increasing day by day, which results in numerous medical and psychological problems as well as increases the burden on the country. In Pakistan, cases are not recorded in detail; therefore, proper treatment plans cannot be established for
these people. A limited number of drug addiction centers in Pakistan provide complete management of drug addiction. Individuals with drug addiction are eager to get rid of drugs, but they hardly find any way out. For this purpose, nationwide concerted actions are required to decline the illicit demands of drugs.

**Implications**
The current study provided detailed information about the prevalence of different types of drugs along with the associated medical, psychological, and suicidal issues. Future studies should explore the prevalence of drugs in terms of users' age, gender, socioeconomic status and other demographics to better understand the prevalence of drugs in specific groups. In addition, mass media, law enforcement, medical practitioners, local communities, NGOs, international agencies, and affected families are all possible stakeholders that should be incorporated while making up the strategies. Elaborated national plans are required to increase motivation in the young generation for involvement in study and productive endeavors. Effective drug legislation and policy should be incorporated along with the drug addiction damages in the syllabus.

**Limitations**
The current study has only focused on the data collected from the HLPS, Islamabad. Future studies should broaden their sample to other areas to get better insights. Besides, the future studies should include socioeconomic factors to get insight about the prevalence of drug addiction in people with different socioeconomic status so that the appropriate management plans can be developed accordingly.

**Contribution of Authors**
Naveed Sultan: Conceptualization, Methodology, Writing - Reviewing & Editing, Supervision
Shabana Noureen: Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft
Anam Saher: Data Curation, Formal Analysis, Writing – Original Draft

**Conflict of Interest**
There is no conflict of interest declared by the authors.

**Source of Funding**
The authors declared no source of funding.

**Data Availability Statement**
The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [N.S.] upon the reasonable request.

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