

## Demographic and Associated Factors Influencing Addiction Among Adults in Kabul, Afghanistan

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### ABSTRACT

**Background:** Substance addiction poses a critical public health challenge globally, with increasing prevalence in low-income, conflict-affected countries such as Afghanistan. Despite widespread drug use, limited empirical research has explored the demographic and socio-contextual factors influencing addiction in Kabul, the nation's capital. This study aimed to assess the prevalence of substance use and examine the associated demographic, economic, and social factors contributing to addiction among adults in Kabul, Afghanistan.

**Methods:** A cross-sectional study was conducted among 82 adults aged 18–60 years in Kabul. Participants were selected through purposive sampling. Data were collected using a structured, pre-tested questionnaire covering socio-demographic characteristics, substance use history, and associated risk factors. Descriptive statistics and Somers' D correlation were used to analyze the data using SPSS version 26.

**Results:** The majority of participants were male (95.1%) and between the ages of 20–30 years (42.7%). Opium was the most commonly used substance (57.3%), followed by hashish (34.1%). Key risk factors included unemployment (93.9%), frequent association with addicts (97.6%), and ease of access to drugs (84.1%). A strong peer influence was observed, with 82.9% reporting increased drug use in the presence of addicted friends. Somers' D correlation confirmed significant associations between addiction and ease of access, family conflict, and peer networks.

**Conclusion:** The findings highlight a complex interplay between socio-economic hardship, peer influence, and drug accessibility in driving addiction among adults in Kabul. Addressing these factors through community-level interventions, employment support, and peer-based harm reduction strategies is essential for effective addiction prevention and treatment in Afghanistan.

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## Introduction

Substance addiction is a pervasive global health concern with profound medical, psychological, and socio-economic consequences. The World Health Organization (WHO) defines addiction as the repeated involvement with a substance or activity despite the substantial harm it causes, often due to the perceived pleasure or value it provides (1). Individuals affected by addiction frequently suffer from comorbid conditions, including human immunodeficiency virus (HIV) and hepatitis C—primarily resulting from shared injection equipment or unprotected sexual activity—as well as infective endocarditis, cellulitis, stroke, various malignancies, and chronic respiratory conditions (2,3).

The scope of substance use has expanded significantly in recent years. According to the United Nations Office on Drugs and Crime (UNODC), approximately 296 million individuals were reported to use addictive substances in 2021—a 23% increase over the past decade (4,5). The affected population spans ages 15 to 64, with the greatest rise observed in low-income nations. South Asia—including Afghanistan, Bangladesh, Bhutan, India, Nepal, and Sri Lanka—has seen a rapid and widespread increase in substance use (5).

Afghanistan faces a particularly severe addiction crisis, driven by a combination of widespread poverty (6), decades of armed conflict, mass displacement (7), and persistent psychological trauma (8). These conditions collectively increase vulnerability to drug use and intensify its health and social repercussions (9,10). The country's addiction problem is further exacerbated by high illiteracy rates, poor maternal and child health indicators, criminal activity, family instability, adverse economic conditions, unemployment, and malnutrition (11).

Currently, an estimated 4 million Afghans—nearly 10% of the national population—are affected by substance use disorders (12). The booming opium economy plays a central role in this crisis. In 2007 alone, approximately 509,000 Afghan families were engaged in opium cultivation, generating over USD 4 billion in revenue, much of which benefited local farmers. This has not only facilitated easier access to drugs but has also entrenched substance use in local communities. Reports indicate that 14% of Afghan children are directly or indirectly affected by drug-related issues (13). Furthermore, in provinces such as Herat, Nimroz, and Badakhshan, opioids are frequently used as analgesics, further normalizing drug use and expanding its reach (13–15).

While global studies have consistently identified access to drugs, poverty, chronic illness, unemployment, and low educational attainment as key risk factors for substance abuse and antisocial behavior (16), limited research has been conducted on the specific demographic and contextual factors influencing addiction in Afghanistan. In particular, empirical data from Kabul—the nation's capital and urban hub—are lacking.

This study aims to address this gap by evaluating the prevalence and socio-demographic determinants of addiction among adults in Kabul, Afghanistan. The findings are expected to inform targeted, evidence-based interventions and contribute to the broader understanding of substance use in conflict-affected and resource-limited settings.

## Methodology

### Study Design and Setting

This study employed a cross-sectional design and was conducted in Kabul, the capital city of Afghanistan. As the most populous and diverse urban center in the country, Kabul experiences significant internal migration, socio-economic disparities, and varying levels of exposure to illicit drug markets, making it a critical site for examining addiction-related patterns.

### Study Population and Sampling

The study targeted adults aged 18 years and older who resided in two selected areas of Kabul city and had a history of substance use or were currently using addictive substances. A purposive sampling method was used due to the sensitivity of the topic and the challenge of accessing this specific population. Community-based outreach workers helped identify eligible individuals within these neighborhoods.

### Sample Size Calculation

Using Cochran's formula for cross-sectional studies and assuming a prevalence of 50% (to account for maximum variability), a 95% confidence level, and a 5% margin of error, the required sample size was calculated as 73. To account for a potential 10% non-response rate, the target was increased. Ultimately, 82 participants were successfully enrolled and completed the interview process.

### Inclusion and Exclusion Criteria

#### Inclusion criteria:

- Adults aged 20 years or older,
- Residents of Kabul for at least the past six months,
- Individuals currently using or with a history of substance use,
- Willingness to provide informed written consent.

#### Exclusion criteria:

- Individuals with severe psychiatric disorders that prevented meaningful participation,
- Temporary visitors or non-residents of the study area.

### Data Collection Tool and Procedure

Data were collected via a structured, pre-tested questionnaire administered through face-to-face interviews by trained data collectors. The questionnaire included the following sections:

- Demographic information: age, gender, education level, marital status, income, and place of residence.
- Substance use details: types of substances used, frequency, duration, source of access, and perceived pleasure or motivation for use.
- Associated factors: social influences (friends, family), economic hardship, unemployment, access to drugs, and household environment.

The questionnaire was adapted from previously validated addiction research tools and translated into Dari for local comprehension. Prior to data collection, a pilot study with 30 individuals was conducted to ensure reliability and clarity. Feedback from this pilot was used to refine the final instrument.

## Ethical Considerations

Ethical approval was obtained from the Kateb University Ethical Review Committee. All participants were provided with verbal and written explanations of the study and gave informed written consent. Participation was voluntary, and respondents could withdraw at any time. To protect confidentiality, participants were assigned unique identifiers, and all personal identifiers were excluded from the analysis.

## Data Analysis

Data were entered and analyzed using IBM SPSS version 26. Descriptive statistics (frequencies, percentages) were used to summarize participant characteristics and substance use patterns. For inferential analysis, Somers's D correlation was used to evaluate associations between the dependent variable (tendency toward addiction) and independent variables, including:

- Ease of access to drugs,
- Family conflict,
- Interaction with addicted peers,
- Economic and social factors.

A p-value <0.05 was considered statistically significant. Results were presented in narrative form and supported by structured tables to highlight key findings.

## Results

A total of 82 adults aged between 20 and 60 years participated in the study. The demographic characteristics of respondents are summarized in Table 1. The majority of participants were male (95.1%), with females comprising only 4.9% of the sample. The most represented age group was 20–30 years (42.7%), followed by 31–40 years (35.4%). In terms of educational attainment, 32.9% of participants had completed primary education, 26.8% had finished high school, 17.1% had secondary education, while only 8.5% had attained higher education. A significant portion (14.6%) were illiterate.

Substance use patterns among participants revealed opium as the most commonly used drug, reported by 57.3% of respondents, followed by hashish (34.1%) and powder substances (4.9%). Alcohol and crystal meth were reported by only 2.4% and 1.2% of respondents, respectively (Table 2). When asked about their main addiction, powder was most cited (36.5%), followed by opium (24.3%) and Tablet K (14.6%).

Regarding access to substances (Table 3), 29.3% of participants reported obtaining drugs through direct cultivation, while 26.8% accessed drugs via financial means. Peer influence (22.0%) and other informal sources (22.0%) were also noted as common access routes. These findings suggest that environmental availability, especially local cultivation, plays a major role in drug accessibility.

The frequency of substance use was also explored. As shown in Table 4, the most commonly reported usage pattern was every 2–3 days (43.9%), followed by daily use (18.2%) and irregular use (14.6%). This pattern indicates a substantial level of drug dependence among the study population.

Several social and economic variables were examined to identify potential contributing factors to addiction (Table 5). Unemployment was strongly associated with drug use, with 93.9% of respondents agreeing or strongly agreeing that lack of employment contributes to addiction. Similarly, 97.6% agreed that frequent

interaction with addicts increases the risk of drug use. Ease of access to substances was another significant factor, with 84.1% agreeing that it increases the likelihood of addiction. Additionally, 70.8% of participants cited low economic status as a key contributing factor, while 69.6% attributed addiction to family-level poverty. In contrast, only 24.4% reported that conflicts between parents had a strong influence on their drug use behavior, suggesting that economic and peer-related pressures outweigh intra-family dynamics in this context.

The influence of peers was further confirmed in Table 6, where 82.9% of respondents stated that they were more encouraged to use drugs in the presence of addicted friends. Moreover, 80.5% reported that peer influence played a direct role in initiating drug use. The majority of participants (71.9%) reported meeting addicted friends either daily (39.0%) or every 2–3 days (32.9%), indicating regular exposure to drug-using social networks.

Finally, inferential statistical analysis using Semers' D demonstrated statistically significant and positive correlations between ease of drug access, family conflict, and peer association with the tendency toward addiction. These results validate the study's hypotheses and highlight a complex interplay of socio-economic hardship, environmental availability, and social influence in shaping addiction behaviors among adults in Kabul.

Table 1. Demographic Characteristics of Respondents (N = 82).

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	78	95.1
	Female	4	4.9
Age Group (years)	20–30	35	42.7
	31–40	29	35.4
	41–50	12	14.6
	51–60	6	7.3
Education Level	Illiterate	12	14.6
	Primary	27	32.9
	Secondary	14	17.1
	High School	22	26.8
	Higher Education	7	8.5

Table 2. Types of Substances Used by Respondents

Substance	Frequency (n)	Percentage (%)
Opium	47	57.3
Hashish	28	34.1
Powder	4	4.9
Alcohol	2	2.4
Crystal Meth	1	1.2

**Key Insight:** Opium was the most commonly used substance, reported by 57.3% of respondents.

Table 3. Access Routes to Addictive Substances

Access Method	Frequency (n)	Percentage (%)
Cultivation	24	29.3
Money	22	26.8
Friends	18	22.0
Other	18	22.0

**Key Insight:** Drug cultivation and economic access were the most reported means of obtaining substances.

Table 4. Frequency of Drug Use When Accessible

Usage Frequency	Frequency (n)	Percentage (%)
Every 2–3 days	36	43.9
Daily	15	18.2
Weekly	11	13.4
Every 10 days	8	9.7
Irregularly	12	14.6

**Key Insight:** The majority (43.9%) reported using drugs every 2–3 days, indicating a high pattern of dependency.

Table 5. Psychosocial and Economic Risk Factors for Addiction

Risk Factor	Strongly Agree (%)	Agree (%)	Combined Agreement (%)
Unemployment	51.2	42.7	93.9
Peer Association with Addicts	67.1	30.5	97.6
Ease of Drug Access	39.0	45.1	84.1
Family Poverty	9.8	59.8	69.6
Low Economic Status	15.9	54.9	70.8
Strong Interest in Addicts	76.8	18.3	95.1
Family Conflict (Father-Mother)	4.9	19.5	24.4

**Key Insight:** Peer influence, unemployment, and ease of access were the strongest factors linked to addiction. Family conflict had a lesser reported impact.

Table 6. Influence of Friends on Drug Use Behavior

Question	Yes (%)	No (%)
Do you feel more encouraged to use drugs around addicted friends?	82.9	17.1
Have friends influenced your drug addiction?	80.5	19.5
How often do you meet addicted friends? (Daily or every 2–3 days total)	71.9	28.1

**Key Insight:** Social interactions with addicted peers significantly influenced respondents' drug use behavior and frequency.

## Discussion

This study investigated the demographic characteristics and associated factors contributing to substance addiction among adults in Kabul, Afghanistan. The findings

underscore the significant influence of socioeconomic hardship, peer associations, and access to drugs in shaping addiction patterns in this population.

The predominance of male participants (95.1%) aligns with regional and global trends indicating higher rates of substance use among men compared to women. Studies from neighboring countries have similarly reported that cultural, religious, and societal norms contribute to underreporting and underrepresentation of female addiction cases in research and treatment settings (17, 18). The majority age group in our study was between 20–30 years, which is consistent with prior evidence that young adults are at greater risk of initiating substance use due to identity formation, peer pressure, and economic instability (19, 20).

A striking 57.3% of respondents reported opium use, followed by 34.1% using hashish. These findings reflect Afghanistan's status as one of the world's largest producers of opium (21), and highlight the local availability and normalization of its use. The widespread cultivation of opium and the ease of access to these substances—reported by 29.3% of respondents via cultivation—echo findings from UNODC reports and prior Afghan-based studies that attribute high addiction rates to the drug economy's entrenchment in rural and urban communities (21, 22).

Unemployment (93.9%) and poverty (70.8%) were identified as key risk factors. These findings are consistent with global literature indicating a strong association between socio-economic deprivation and substance use disorders (23, 24). The Afghan context, shaped by prolonged conflict and weak infrastructure, further exacerbates these vulnerabilities. The fact that 63.4% of participants had monthly household incomes between 5,000–10,000 Afghanis illustrates the limited economic opportunities available, which may lead individuals to seek escape or coping mechanisms through drug use.

Social environment emerged as a particularly influential domain. A majority (82.9%) of respondents felt more encouraged to use drugs when around addicted friends, and 80.5% attributed their addiction to peer influence. These findings strongly support the social learning theory of addiction, which posits that behaviors are acquired through observation and interaction with others in close social networks (25, 26). Similar results have been reported in studies from Iran, Pakistan, and India, where peer pressure and normalization of drug use in social circles are dominant drivers of substance abuse (27, 28).

Interestingly, while family-level poverty and unemployment were highlighted as important contributing factors, direct parental conflict (e.g., father–mother disputes) was not seen as highly influential by most participants (only 24.4% reported it as a high factor). This diverges from some literature suggesting that household conflict is a key predictor of youth substance use (29), and may indicate that in the Afghan setting, external structural factors (poverty, war, displacement) exert a stronger influence than familial conflict alone.

Inferential analysis further confirmed significant positive associations between addiction and three main factors: ease of drug access, peer association, and family conflict. These findings reinforce the multifactorial nature of addiction, wherein biological vulnerability interacts with social, environmental, and psychological stressors (30, 31).

## Implications

This study highlights the urgent need for targeted public health interventions in Kabul, particularly among economically disadvantaged and socially isolated populations. Strategies should include:

- Community-based awareness campaigns,
- Employment support and vocational training,
- Peer group counseling programs,
- Better regulation and monitoring of local opium cultivation.

Furthermore, addiction treatment services must be expanded to address not just individual behavior, but the broader social determinants that drive substance use.

## Limitations

This study has several limitations. First, the sample was limited to 82 individuals from two areas of Kabul, which may affect generalizability. Second, due to the sensitive nature of substance use, self-report bias is possible. Finally, while the study employed cross-sectional design, it cannot establish causality between variables.

## Conclusion

This study shows that addiction among adults in Kabul is strongly influenced by unemployment, poverty, peer networks, and the widespread availability of drugs—especially opium. Young men were the most affected group, reflecting broader social and economic vulnerabilities. Peer influence emerged as the most powerful driver of drug use, while family conflict played a comparatively smaller role. These findings highlight the need for community-based prevention programs, employment support, and expanded addiction treatment services. Although limited in sample size, the study provides essential evidence for developing targeted interventions to address Afghanistan's growing addiction crisis.

## Contributors

Conception and design of the study: AAR, MR

Writing the paper: MR, ES, YS, ZR,

Data collection: MR

Data Entry: ES

Data Analysis: MR, AAR

Declaration of interests

The authors declare no conflicts of interests.

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