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Knowledge and Attitude of Substance Abuse among Iraqi College Students

Sara Kefah Jaafar ^{1*}, Nibras Riyadh Kadhim ², Maysaa Adil Hameed ³

^{1,2} College of Dentistry, Al-Turath University, Iraq

³ Department of Public Health, School Health Unite, Iraq

* Corresponding Author: Sara Kefah Jaafar

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Abstract

Background: Youth populations are particularly vulnerable to drug use and are more heavily impacted by substance use disorders in many regions. Among college students, approximately 23% engage in substance use that meets the criteria for abuse and dependence. Influencing factors include peer pressure, the desire for self-validation, and negative or neglectful family dynamics, all of which can push young individuals toward alcohol and drug misuse.

Methods: A descriptive cross-sectional study was conducted from February 1st to June 1st 2024, all College students aged 18 to 30 enrolled in various educational universities living in Baghdad, Iraq. The study was conducted online using a convenience sampling technique to select college students. The association of categorical data was examined by using Chi-square.

Results: The study sample consists of 285 participants, they were nearly equal distribution of males and females, and an average age of 22.8 ± 2.8 years. Around 65.61% of the participants demonstrated a fair level of knowledge about addiction. Notably, more than half of both male and female participants identified crystal meth as the most addictive substance, while approximately 47% of the participants exhibited a positive attitude towards addiction.

Conclusion: there are gaps in awareness, particularly regarding the risks and consequences of addiction. Although many students identified peer pressure and curiosity as the main causes of addiction, the perception of addictive substances and their effects varied significantly between genders.

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Introduction

Substance Use Disorders (SUDs) are chronic, treatable conditions characterized by a persistent pattern of substance use that leads to health problems, social difficulties, and an inability to control usage. These disorders are identified by a combination of cognitive, behavioral, and physical symptoms, indicating continued substance use despite its harmful effects. SUDs can vary in severity from mild to severe and affect individuals despite of their race, gender, income level, and social class ^[1]. Globally, the issue of drug use is significant. Research indicates that in the United States, approximately one in seven individuals aged 12 or older reports having experienced an SUD. In Iraq, including the Kurdistan Region, the Iraq National Household Survey on Alcohol and Drug Use (INHSAD) reported lifetime prevalence rates of 28.8% for tobacco use, 8.1% for alcohol use, 2.9% for the nonmedical use of prescription drugs, and 0.7% for illicit drug use ^[2]. In 2021, the global estimate of people who inject drugs reached 13.2 million reflecting an 18% increase from earlier estimates. Additionally, more than 296 million people worldwide used drugs in 2021, representing a 23% rise over the previous decade. The number of individuals suffering from drug use disorders surged to 39.5 million, marking a 45% increase over ten years.

However, only 20% of people with drug-related disorders received treatment for drug use in 2021, highlighting significant disparities in treatment access across different regions. Youth populations are particularly vulnerable to drug use and are more heavily impacted by substance use disorders in many regions [3]. Among college students, approximately 23% engage in substance use that meets the criteria for abuse and dependence. Influencing factors include peer pressure, the desire for self-validation, and negative or neglectful family dynamics, all of which can push young individuals toward alcohol and drug misuse [4, 5]. Young substance abusers encounter a range of challenges, including academic problems such as declining performance, absenteeism, and a higher likelihood of dropping out. They also face health risks, including accidental injuries, physical disabilities, illnesses, and overdoses. Moreover, accidents, or illness further compound their struggles [6]. The rates of substance abuse in Arab countries are rising rapidly, largely due to swift economic development, drug abuse and addiction have far-reaching socioeconomic, cultural, religious, and ethnic implications, despite the Iraqi government's efforts to combat this issue, there has been a notable increase in cases, particularly among young adolescents and college students. This surge has contributed to a rise in cultism, violence, and mental health disorders [7]. This study aims to assess the level of knowledge and attitudes of college students regarding substance abuse.

Methods

A descriptive cross-sectional study was conducted from February 1st to June 1st 2024, all College students aged 18 to 30 enrolled in various educational universities living in Baghdad, Iraq. The study was conducted online using a convenience sampling technique to select college students. A questionnaire form was developed for the purpose of the study after extensive reviewing of the relative materials and articles which was administered online, it was translated to Arabic for better understanding of the participant, no name or phone number was collected for the confidentiality purpose. The questionnaire constructed to collect information composed of four parts: The first part was the Sociodemographic characteristics of students contain five questions, including age, gender, father's educational level,

and mother's educational level (classified as illiterate, primary education, secondary education, college, and higher education), as well as father's occupation (classified as employee, self-employed, unemployed, and retired); The second part focused on gathering general information about substance they considered most popular or commonly heard of, as well as their familiarity with various medical drugs; The third part focused on the Knowledge section, consist of 9 questions aimed at measuring students' knowledge. One point was given for the most appropriate answer, and zero points for other answers. Topics included the definition of drug abuse, causes of addiction, addiction symptoms, effects of addiction (both physical and psychological), ways to prevent addiction, drug addiction treatment, and short-term and long-term complications; The fourth part, the attitude section, contained 9 questions aimed at measuring students' attitudes. A three-point Likert scale was used: 1 point for disagree, 2 points for I don't know, and 3 points for agree. The statements included whether alcohol is more dangerous than drugs, if addiction causes serious problems affecting college students, the availability of drugs to college students, the effectiveness of drug awareness, the role of strong family relationships and better education in preventing addiction, whether avoiding addictive friends can prevent addiction, whether addiction can be controlled, and if using addictive drugs one time cannot cause harm.

Results

The total study sample consisted of 285 participants, with an average age of 22.8 ± 2.8 years, ranging from 18 to 30 years. Among the males, 81 (57.44%) were aged between 23-27 years, while 75 (52.08%) of females fell within the 18-22 age range. The sample had a near-equal male-to-female distribution. Approximately two-thirds of both groups came from families with 5-8 members. Regarding fathers' education, 60 males (42.55%) had fathers with secondary education, while 63 females (43.75%) had fathers with college or higher education. In terms of mothers' education, 57 males (40.42%) had mothers with secondary education, whereas 55 females (38.19%) had mothers with primary education. For fathers' occupations, 51 males (36.17%) had unemployed fathers, while 54 females (37.5%) had fathers who were retired as shown in table 3.1

Table 1: Distribution of the demographic variables of the sample

| Variable n=285 | | Male | | Female | |
|------------------|------------------------------|------|-------|--------|-------|
| | | F | % | F | % |
| Age | 18 - 22 | 57 | 40.42 | 75 | 52.08 |
| | 23 - 27 | 81 | 57.44 | 57 | 39.58 |
| | >27 | 3 | 2.12 | 12 | 8.33 |
| Gender | | 141 | 49.47 | 144 | 50.52 |
| Family number | 1-4 | 12 | 8.51 | 18 | 12.5 |
| | 5-8 | 96 | 68.08 | 108 | 75 |
| | >8 | 33 | 23.4 | 18 | 12.5 |
| Father education | Illiterate | 3 | 2.12 | 3 | 2.08 |
| | Primary education | 27 | 19.14 | 33 | 22.91 |
| | Secondary education | 60 | 42.55 | 45 | 31.25 |
| | College and higher education | 51 | 37.17 | 63 | 43.75 |
| Mother education | Illiterate | 12 | 8.51 | 13 | 9 |
| | Primary education | 39 | 27.65 | 55 | 38.19 |
| | Secondary education | 57 | 40.42 | 52 | 36.11 |
| | College and higher education | 33 | 23.4 | 24 | 16.66 |
| Job | No work | 51 | 36.17 | 41 | 28.47 |
| | employee | 33 | 23.4 | 19 | 13.19 |
| | Personal work | 18 | 12.76 | 30 | 20.83 |
| | Retired | 39 | 27.65 | 54 | 37.5 |

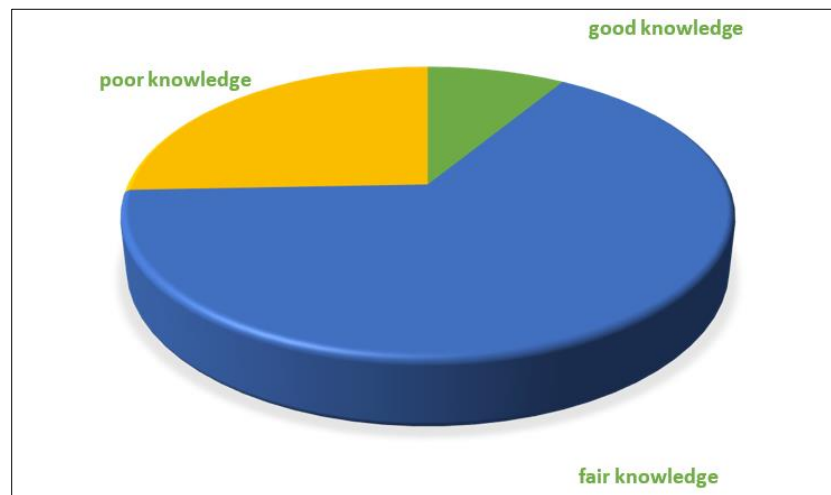


Fig 1: College Students Level of Knowledge About Substance Abuse.

The findings revealed that 187 students, representing 65.61% of the participants, demonstrated a fair level of knowledge about addiction, as illustrated in Figure 1

Table 2: Knowledge of the university students about the most popular addictive substances.

| Variables | | Male F (%) | Female F (%) |
|-----------|----------------|------------|--------------|
| Substance | Hashish | 3 (2.12) | 15 (10.41) |
| | Shisha | 6 (4.25) | 0 |
| | Nicotine | 27 (19.14) | 9 (6.25) |
| | Crystal | 78 (55.31) | 89 (61.8) |
| | Cocaine | 15 (10.63) | 19 (13.19) |
| | Heroin | 12 (8.51) | 12 (8.33) |
| Drug | Morphine | 66 (46.8) | 45 (31.25) |
| | Antibiotics | 0 | 6 (4.16) |
| | Antidepressant | 24 (17) | 52 (36.11) |
| | Pain killer | 33 (23.4) | 25 (17.36) |
| | Don't know | 18 (12.76) | 16 (11.11) |

Regarding the knowledge of addictive substances, 78 males (55.31%) and 89 females (61.8%) reported being most familiar with crystal meth. As for the most commonly known

addictive medical drugs, 66 males (46.8%) identified morphine, while 52 females (36.11%) recognized antidepressants as shown in table 2.

Table 3: Students' Ways of Preventing Substance Abuse.

| | | Male F (%) | Female F (%) |
|----------------------|---|------------|--------------|
| Prevention variables | Supportive therapy | 18 (12.76) | 12 (8.33) |
| | Awareness program | 84 (59.57) | 84 (58.33) |
| | Involve in peer peer prevention program | 9 (6.38) | 0 |
| | Counselling | 30 (21.27) | 48 (33.33) |

Regarding substance abuse prevention, the majority of participants 84 males (59.57%) and 84 females (58.33%)

identified awareness programs as the most effective preventive measure, as shown in Table 3

Table 4: Students' Knowledge of Substance Abuse Treatment

| | | Male F (%) | Female F (%) |
|---------------------|------------------------------------|-------------|--------------|
| Treatment variables | Leave the person alone | 0 | 3 (2) |
| | Provide Calm environment | 6 (4.25) | 6 (4.16) |
| | Involve person in regular activity | 9 (6.38) | 13 (9) |
| | Rehabilitation | 126 (89.36) | 122 (84.72) |

Concerning the students' knowledge of substance abuse treatment, 126 males (89.36%) and 122 females (84.72%)

identified rehabilitation as the preferred method, as shown in Table 4.

Table 5: Students’ Knowledge Related to Complications of Substance Abuse.

| | | Male F (%) | Female F (%) |
|--|----------------------------------|-------------|--------------|
| Short Term Complications of Drug Abuse | Lung cancer | 0 | 9 (6.25) |
| | Hepatitis | 27 (19.14) | 37 (25.69) |
| | Affect in person decision making | 114 (80.85) | 79 (54.68) |
| | Pneumonia | 0 | 19 (13.19) |
| Long term Complication | Headache | 21 (14.89) | 12 (8.51) |
| | Irritability/ aggressiveness | 69 (48.93) | 49 (34) |
| | Dependence to drugs | 51 (36.17) | 83 (57.63) |

In relation to the knowledge of substance abuse complication, for short-term complications, 114 males (80.85%) and 79 females (54.68%) reported that substance abuse affects their decision-making, long-term complications, 69 males

(48.93%) identified irritability/aggressiveness, while 83 females (57.63%) mentioned dependence on drugs as shown in table 5.

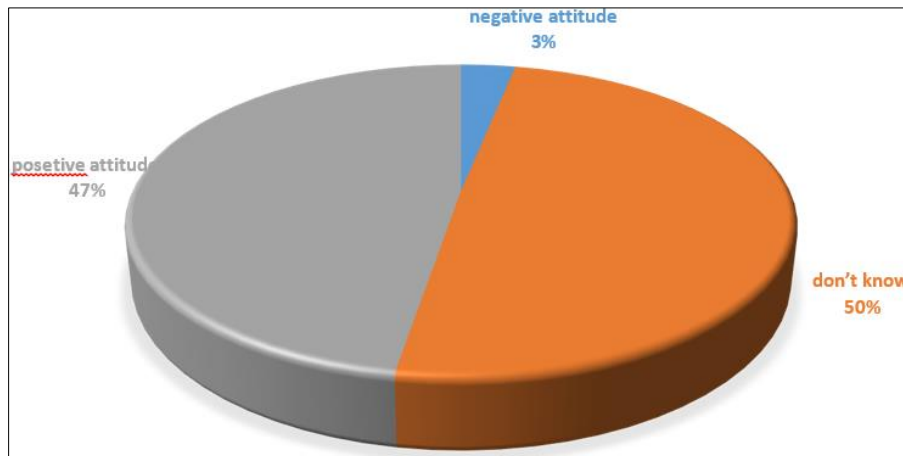


Fig 2: Student’s Attitude Towards Substance and Drug Abuse Questions.

The level of students’ attitude about substance abuse shows in figure (2), 141(49.47%) had mutual attitude towards substance abuse, 135(47.36%) had positive attitude and only 9(3.15%) had negative attitude to substance abuse.

Discussion

The study sample consists of 285 participants, they were nearly equal distribution of males and females, and an average age of 22.8 ± 2.8 years. Around 65.61% of the participants demonstrated a fair level of knowledge about addiction. Notably, more than half of both male and female participants identified crystal meth as the most addictive substance, while approximately 47% of the participants exhibited a positive attitude towards addiction. Out of 285 187 participants (65.61%) demonstrated a fair level of knowledge about substance abuse. This contrasts with findings from a study conducted in Southern India [8] (Das *et al.*, 2024), which involved 2,170 participants and reported that students generally had poor knowledge of substance abuse. However, the level of knowledge in the present study is lower than that found in a Nigerian study [9] (Obi AI *et al.*, 2024), where 664 out of 771 respondents (97.2%) were reported to have good knowledge of substance abuse. The variations in knowledge levels could be attributed to cultural and educational differences, as well as the impact of public health campaigns in each region. Participant demographics, including age and socio-economic background, may also influence these findings. Furthermore, differences in the assessment methods and criteria used across studies could explain the discrepancies in results. The findings of the present study suggest that socio-demographic characteristics

do not influence the level of knowledge, consistent with a study conducted in Riyadh (Qadhi *et al.*, 202 participants, 2024) [10]. However, this contrasts with a study from Jamuhar, Rohtas, India (Singh *et al.*, 100 participants, 2021) [11], which found that age and gender significantly affected knowledge levels. This discrepancy may be attributed to differences in population characteristics and backgrounds. Additionally, a study in India by Das *et al.* [8] reported a significant association between parents' level of education, fathers' occupation, and knowledge levels. This study found that more than half of the students identified crystal meth as the most addictive drug, which contrasts with a study from Saudi Arabia [10] where 97.4% of participants considered cannabis the most addictive substance. However, our findings align with both the Saudi study and a study from Namibia (Kadhila *et al.*, 45 participants, 2023) [12] in identifying morphine as the most addictive medical drug. In this study, 251 students (88%) correctly defined drug abuse, which contrasts with a study from Tikrit, Iraq (Mohammed *et al.*, 450 participants, 2021) [14], where only 43% of participants had accurate knowledge of the definition. However, it is more in line with a study from Nigeria (Chioma *et al.*, 276 participants, 2022) [15], where 74.3% of participants correctly understood the definition of drug abuse. This study results stated that 254 (89.12%) of the students stated the most cause of addiction were curiosity and peers pressure, which against study in Turkey (Adibelli *et al.*, 238, 2016) [13] which stated 42% of students thinks that most cause of Our study's findings align with research conducted in Sweden on young patients in substance abuse treatment. The Swedish study Richert *et al.* [16], highlighted depression and difficulties in controlling

aggressive behavior as prevalent mental health issues. Similarly, our study, which assessed the knowledge of students regarding drug addiction, found that 43% recognized aggressiveness as a common symptom of addiction. Additionally, 90% of students reported that drug addiction increases aggressiveness, and 40% believed it leads to depression. While the Swedish study focused on actual addicts undergoing treatment, our study reflects the knowledge and perceptions of students about substance abuse. Despite the difference in populations, both studies underscore the significant impact of drug addiction on aggressive behavior and mental health. This parallel suggests a broader recognition of these issues, whether among those directly affected by addiction or those learning about it. In this study, 125 students (47.36%) displayed a positive attitude toward substance use, which is consistent with a similar study in Maharashtra (Traveli *et al.*, 100 participants, 2016)^[17], where 41% had a positive attitude. However, this percentage is lower than findings from a study in South India (Das *et al.*)^[18] where 86.5% of participants had a positive attitude, and also lower than the study in Minia (Mohammed *et al.*, 400 participants, 2021)^[18], which reported 75% having a positive attitude towards substance use. In our study, only 12 male participants (8.51%) and 27 female participants (18.75%) agreed that alcohol is more dangerous than substance abuse. This contrasts with findings from a study in Tikrit^[14], where 59.6% of male and 41.6% of female participants held this view. These differences are likely due to cultural and regional variations, as well as differences in levels of awareness or educational programs in Tikrit regarding alcohol and substance abuse. In the present study, drug abuse is recognized as a serious problem among college students, with 57 males (40.42%) and 73 females (50.69%) agreeing with this assessment, highlighting significant concern within the studied population. In contrast, a study conducted in Irbil, Iraq^[19] (Saeed *et al.*, 368 participants, 2024), reported a substance use prevalence of 8.7%, with females exhibiting a significantly higher prevalence than males. While our study focuses on the perception of drug abuse as a serious issue, reflecting attitudes and awareness, the Irbil study provides data on actual substance use rates, demonstrating a difference in both perception and substance use prevalence across contexts.

Limitation of the study

The sensitivity of the topic and the use of a self-reported questionnaire may have introduced bias, as participants might have been reluctant to provide accurate information due to stigma or fear of judgment. Additionally, the sample is not fully representative, as it includes students from only a subset of universities, limiting the generalizability of the findings to the broader student population.

Conclusions

This study highlights that while a majority of college students possess a fair level of knowledge about substance abuse, there are still gaps in awareness, particularly regarding the risks and consequences of addiction. Although many students identified peer pressure and curiosity as the main causes of addiction, the perception of addictive substances and their effects varied significantly between genders. Additionally, the study reveals that attitudes towards addiction prevention are generally positive, with most students recognizing the importance of awareness programs, better education, and

family support in mitigating substance abuse.

Recommendations

1. Enhanced awareness programs: Universities should implement more comprehensive and targeted educational programs on substance abuse, focusing on both the risks of specific substances like alcohol and drugs and the long-term consequences of addiction.
2. Support systems: Strengthening family relationships and peer support networks can play a key role in preventing substance abuse.
3. Expand research scope: Future studies should include a larger and more diverse sample from multiple universities to ensure more generalizable findings and provide a broader understanding of substance abuse among college students.

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