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Quality of Life and Risk of Relapse in Substance Use Disorder

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Abstract:
Background: Substance use disorders (SUDs) are chronic, relapsing conditions that impair physical, psychological, and social well-being. Patients with SUD often face multiple challenges, including high relapse risk and psychological difficulties. **Aim:** The study aimed to assess quality of life and risk of relapse among patients with substance use disorder. **Research design:** A descriptive correlational research design was used in this study. **Setting:** The study was carried out at the outpatient and inpatient addiction management unit of Assiut University Neuropsychiatry Hospital and Assiut Mental Health and Addiction Treatment Hospital. **Subjects:** Convenient sample of patients with substance use disorder collected for six months. **Tools:** An interview questionnaire about socio-demographic and clinical data, quality of life scale, addiction severity index, and an advance warning of relapse questionnaire. **Results:** The most prevalent substance used was amphetamine (27.3%), followed by hashish (24%). Moreover, nearly two-thirds of patients (61%) were classified as having a high risk of relapse. There is highly statistically significant negative correlation was observed between quality of life and risk of relapse, whereas a highly statistically significant positive correlation was found between quality of life and socioeconomic status. **Conclusion:** Most patients with substance use disorder used single type of substance; the most prevalent substance used was amphetamines. A highly statistically significant negative correlation was observed between quality of life and risk of relapse **Recommendation:** Provide sustained post-treatment support to reduce the risk of relapse, introduce structured psycho-educational programs as part of treatment and aftercare services.

Keywords: Quality of life, Relapse & Substance use disorder.

Introduction:
Substance use disorder (SUD) defined as the problematic or hazardous consumption of alcohol, illicit drugs, or psychotropic substances. Continued use of these psychoactive agents may result in the development of dependence syndrome, which encompasses a range of behavioral, cognitive, and physiological manifestations. It is characterized by an intense craving for the substance, difficulty in controlling use, continued consumption despite harmful consequences, prioritizing substance use over responsibilities, the development of tolerance, and the occurrence of withdrawal symptoms upon cessation. **(Sonbol et al., 2024).**

According to the World Drug Report (2021), an estimated 275 million people worldwide used drugs in 2020, with around 5.5% of individuals aged 15–64 reporting drug use at least once during the previous year. Of these, approximately 13% (36.3 million people) experienced substance use–related disorders. Between 2010 and 2019, the number of drug users rose by 22%, partly due to global population growth. Demographic projections further suggest that illicit drug consumption will increase by 11% by 2030 **(Jia et al., 2024).**

Substance use disorders are strongly linked to a range of social disadvantages, including low educational attainment, unemployment or unstable employment, financial hardship, and poverty. These conditions can significantly impair social development, particularly when directly associated with substance abuse. Beyond individual impacts, drug use negatively affects physical and mental health, family relationships, neighborhoods, and communities at large. In turn, adverse behaviors from parents, relatives, and neighbors can reinforce harmful patterns of drug use and dependence **(Utomo et al., 2024).**

The World Health Organization defines quality of life (QOL) as an individual's perception of their position in life within the framework of their culture, value system, goals, expectations, and concerns. Similarly, QOL has also been described as a lifestyle shaped by the combined influence of health, happiness, personal well-being, education, work satisfaction, social success, freedom, justice, and the absence of oppression **(Totlibayevich et al.,2023).**

Substance abuse has consistently been associated with diminished QOL across multiple domains, including physical, psychological, social, educational, occupational, and financial functioning. In many cases, impairment is observed across all aspects of life. Individuals with substance use disorders often experience lower quality of life in relation to work, social relationships, physical and mental health, and overall well-being **(Sonbol et al., 2024).**

Relapse is the process of returning to previous unhealthy behaviors, which encourages the individual to use the substance or drug again **(Arabshahi, et al., 2023).** Relapse is one of the most challenging problems that drug users face during their treatment and recovery, among many other challenging issues. For drug users undergoing or having completed treatment, prevention, and rehabilitation, relapse is a behavioral and psychological problem that indicates the addict's inability to resist the urge to return to drug use when recovery is complete **(Mustapha et al., 2023).**

Nurses can help to prevent substance use by assisting public health practitioners, physicians, and communities in implementing evidence-based prevention policies, programs, and practices that minimize risk factors and promote prevention of drug addiction **(Aziz & Taha, 2024).**

Significance of the study:

Drug dependence represents one of the most serious challenges facing modern societies. In Egypt, substance use disorder has emerged as a growing concern. Reports from **the Fund for Fighting and Treating Addiction and Administration (2020)** indicate that the prevalence of substance abuse among individuals aged 15–60 years is approximately 5.9%.

Individuals with substance use disorder often engage in compulsive patterns of behavior that persist despite harmful consequences. The use of alcohol and drugs carries profound health, social, and economic repercussions, not only for millions of affected individuals and their families but also for society at large. Communities worldwide face the burden of drug-related problems, including traffic accidents, crime, public disturbances, increased morbidity, and premature mortality. (**Wouter et al., 2024).**

Aim of the study:

The study aimed to assess quality of life and risk of relapse among patients with substance use disorder.

Research Questions:

1. Is there a risk of relapse among patients with substance use disorder?
2. Is there a correlation between quality of life, and risk of relapse among patients with substance use disorder?

Patients and Methods:

Research design:

This research was conducted using a descriptive correlational design to examine the relationships among the study variables.

Study setting:

The study was carried out at outpatient and inpatient addiction management unit of:

Assiut University Neuropsychiatry Hospital: It's the biggest hospital in Upper Egypt and provides health services for Assiut city and most of the neighboring governorates. The addiction unit contains 8 rooms; each room contains 2 beds. The number in this unit is 8 nurses who give care and medications to drug addict people as the doctor's order

Assiut Psychiatric Mental Health Hospital: This hospital is related to the ministry of health. This hospital serves the governorates in Upper Egypt. It is the biggest hospital that provides curative and rehabilitation services. This addiction management unit contains 7 rooms: 3 for Detox unit and 4 for rehabilitation unit. Each room has 4 beds. The number in this unit is 10 nurses who give care and medications to drug addict people as doctor's order.

Study subjects:

A convenience sample of 300 patients with substance use disorder who met the inclusion criteria was collected over a period of six months. Patients were recruited from Assiut University Neuropsychiatry Hospital are 46, and patients were from Assiut Mental Health and Addiction Treatment Hospital are 254.

Inclusion criteria:

- Age: From 18 – 60 years old.
- Patients who had an established diagnosis of substance use disorder (SUD) in accordance with the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5).
- Accept participation in the study.
- Patients had been using substances for more than one year.

Exclusion criteria:

- Patients with another psychiatric disorder.
- Patients diagnosed with mental retardation or organic brain disorders.
- Patients has a chronic medical illness.

Tools of data collection:

Patients were evaluated through the following tools:

Tool (1): An interview questionnaire: It included three parts:

Part (I): Personal Data Sheet that includes age, education, marital status, occupation and residence.

Part (II): Clinical data of Drug addiction includes type of substance, frequency, route of administration, duration of abuse, intoxication and withdrawal symptoms experienced from patients

Part (III): Socioeconomic Scale: This scale was

developed by (**ElGilany et al., 2012).** This scale used to assess sociodemographic characteristics includes seven domains, educational and cultural domain for both (husband & wife), occupation, family, economic, family possessions, home sanitation and health care domain.

Scoring system: Socioeconomic status was assessed across seven domains, with a maximum possible score of 84, where higher scores reflect better socioeconomic status. The total score is classified into levels of socioeconomic status as follows:

< 42 = very low level of socioeconomic status.
42 < 63= low level of socioeconomic status.
64 < 71.4= middle level of socioeconomic status.
71.5: 84= high level of socioeconomic status.

Tool (2): Quality of life scale:

The World Health Organization Quality of Life Assessment – BREF (WHOQOL-BREF) is a questionnaire developed by the (**WHOQOL Group, 1995).** It is a shortened, 26-item version of the original WHOQOL-100, designed to assess quality of life across diverse cultural and clinical contexts. The WHOQOL-BREF covers four main domains:

1. Physical health (7 items) – e.g., activities of daily living, energy and fatigue, pain and discomfort.
2. Psychological health (6 items) – e.g., self-esteem, positive and negative feelings.
3. Social relationships (3 items) – e.g., personal relationships, social support.
4. Environmental health (8 items) – e.g., financial resources, opportunities for recreation, home environment.

Scoring system:

Each item was scored on a 5-point Likert scale ranging from 1 (very poor/very dissatisfied/never/none) to 5 (very good/very satisfied/always/extremely). Raw scores for each WHOQOL-BREF domain were first converted to a 4–20 scale and subsequently transformed into a 0–100 scale, where higher scores reflect better quality of life.

Quality of life levels distributed as follows:

- 0 > 50 is poor
- 50 >70 is fair
- 70 :100 is good

Reliability:

The internal consistency of the WHOQOL-BREF was demonstrated by high Cronbach's alpha coefficients across its domains: physical health (.79), psychological health (.82), social relationships (.81), and environmental health (.83). **(Suárez et al., 2018).**

Convergent validity Item-scale correlations demonstrated satisfactory results, with Cronbach's alpha values for the four domains ranging from 0.70 to 0.87 in the total sample. **(Lin et al., 2024).**

Tool (3): Addiction Severity Index (ASI):

The Addiction Severity Index (ASI), developed by **McLellan et al. (1985)**, is a widely used assessment tool for evaluating substance abuse treatment. For this study, the validated Arabic version was employed **(Qasem et al., 2003).** The ASI is designed to guide treatment planning through a structured interview process that assesses the history, frequency, and consequences of alcohol and drug use. In addition, it evaluates related problem areas commonly associated with substance use, including medical status, employment, legal status, family and social relationships, and psychological functioning. Questionnaires are typically administered by clinicians, researchers, or trained technicians. Higher ASI scores indicate greater problem severity and, consequently, a greater need for treatment.

Scoring system:

The Addiction Severity Index (ASI) uses composite scores to determine the severity of substance use–related problems. Ratings are assigned on a scale from 0 to 9, interpreted as follows:

0 :1–No imminent problem; treatment not indicated.
2 :3–Slight problem; treatment may not be necessary.
4 :5–Moderate problem; a treatment plan should be considered.
6 :7–Considerable difficulty; initiation of a treatment plan is recommended.
8–9: Extreme problem; treatment is essential.

Reliability: The internal consistency reliability of the Addiction Severity Index (ASI) has been demonstrated through Cronbach's alpha coefficients ranging from 0.64 to 0.77 across its different domains **(Mohamed et al., 2017)**.

Concurrent validity: alcohol (r = .31–.36), drug (r = .46), and psychiatric (r = .53–.66). Inter-item correlations of composite scores were .70 or higher across most domains, with the exception of employment (.50) and family (.52). (**McLellan et al., 1980)** concluded that (ASI) is both a reliable and valid instrument for the assessment of substance use disorders.

Tool (4): Advance Warning of Relapse Questionnaire

This is a self-report questionnaire specifically developed by **(Miller et al., 2000),** to evaluate the presence of early warning signs that may predict the risk of drug relapse. The current version of this scale comprised of 28-items and was refined from original version of 37-items after subsequent analyses. The items are scored on 1-7 Likert type rating scale, such as 1 denotes (never) and 7 denotes (always).

It was translated into simplified Arabic language. Validity was assessed by juries composed of five experts in psychiatric medicine and psychiatric mental health nursing.

Scoring system: Ranges from lowest possible score of 28 to highest possible score of 196. The total score was divided into three categories.

Category (1) low risk (score ranges from 28–69).

Category (2) refers to moderate risk (score ranges from 70–111).

Category (3) refers to high risk (score ranges from 112–196).

Reliability:

The AWARE questionnaire demonstrated high internal consistency, with a Cronbach's alpha coefficient of $\alpha = 0.92$, and acceptable test–retest reliability ($r = 0.80$). Its overall validity was reported as 0.80 **(Kelly et al., 2011).**

Convergent validity:

The results indicated good convergent validity, as correlations between each item and its corresponding hypothesized scale were satisfactory, with all values above 0.40 and ranging from 0.58 to 0.95. **(Bagherzadeh et al., 2025).**

Validity of the tools:

The tool was translated into Arabic and validated by a panel of five experts in psychiatric and mental health nursing as well as psychiatric medicine. The panel evaluated the instrument for clarity, relevance, comprehensiveness, comprehensibility, and applicability. Modifications were made as necessary based on their feedback

Pilot study:

Prior to data collection, a pilot study was carried out on 10% of the patients (N = 30). to assess the tools' feasibility, consistency and to determine the time needed to complete the tools. No changes have been made. So, the sample selected for the pilot study was included in the study sample.

Ethical considerations:

The study was approved by the Ethical and Scientific Committee of the Faculty of Nursing, Assiut University, in December 2023 (Ethical Code: 31120230727), and patients' consent informed was obtained after they had been informed of the study's nature and objectives. There is no risk to the study subject during the implementation of the study. The study adheres to the accepted ethical principles of clinical research. The confidentiality and anonymity of the patients have been safeguarded. They were informed of their right to refuse participation or withdraw from the study at any time without the need to provide a reason. The privacy of study patients was considered when data was collected.

Filed work:

An official approval letter was obtained from the Dean of the Faculty of Nursing at Assiut University, This letter was addressed to the directors of the Psychiatric and Neurological Hospital at Assiut University and Assiut Mental Health Hospital to secure permission for conducting the study. The actual fieldwork was carried out from the beginning of May 2024 until the end of October 2024. Prior to data collection, the purpose of the study was clearly explained to all patients. Informed consent was obtained from all patients, who were reassured that the information provided would remain strictly confidential. After obtaining permission, the researcher began to introduce himself to the studied sample. The investigator conducted data collection twice weekly, on Mondays and Wednesdays. Each interview took 30-40 minutes. Each patient who participated in the study was interviewed individually in the in-patient's ward or the hallway of outpatient's addiction clinic.

Statistical design:

Data entry and statistical analysis were performed using IBM SPSS Statistics version 26. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize patient's characteristics and study variables. Pearson's correlation coefficient was used to assess associations among continuous variables. Additionally, appropriate statistical tests such as the Chi-square test and one-way ANOVA were employed when relevant to compare group differences. Statistical significance was considered at a p-value < 0.05.

Results:

Table (1): Distribution of sociodemographic data of studied patients (N=300)

Items	No	%
Age		
18 < 25	121	40.3
25 < 35	143	47.7
35 < 45	35	11.7
45 < 60	1	.3
Mean ± SD	27.18 ± 6.18	
Marital status		
Single	161	53.7
Married	98	32.7
Divorced	41	13.7
Residence		
Rural	198	66.0
Urban	102	34.0
Level of education		
Not read and write	65	21.7
Read and write	12	4.0
Primary	43	14.3
Preparatory	34	11.3
Secondary	94	31.3
University	52	17.3
Occupation		
No work	45	15.0
Employee	80	26.7
Skilled manual worker/farmer	158	52.7
Student	17	5.7
Socioeconomic status		
Very low	105	35
Low	86	28.7
Middle	83	27.7
High	62	8.7
Mean ± SD	50.65 ± 14.74	

Table (2): Clinical data of the studied patients (N=300)

Clinical data		No.	%
Age of starting abuse (in years)			
Mean ± SD		22.78 ± 5.04	
Frequency in a day			
1: 2		197	65.7
3: 4		103	34.3
Mean ± SD		2.23 ± .886	
Duration of abuse (years)			
1 < 5		180	60.0
5 < 10		101	33.7
10: 15		19	6.3
Mean ± SD		4.63 ± 2.61	
Types of drug use			
Hashish		72	24.0
Amphetamines (ice)		82	27.3
Opium		36	12.0
Heroin		38	12.7
Marijuana		9	3.0
Poly substance (Hashish- Ice)		12	4.0
Poly substance (Hashish- opium)		18	6.0
Poly substance (Ice- Heroin)		7	2.3
Poly substance (Ice- Alcohol)		1	.3
Poly substance (Hashish- Alcohol)		14	4.7
Alcohol		11	3.7

Clinical data		No.	%
Methods of drug use			
Oral		47	15.7
Inhalation		128	42.7
Smoking		79	26.3
Mixed (oral-inhalation-smoking-injection)		46	15.3

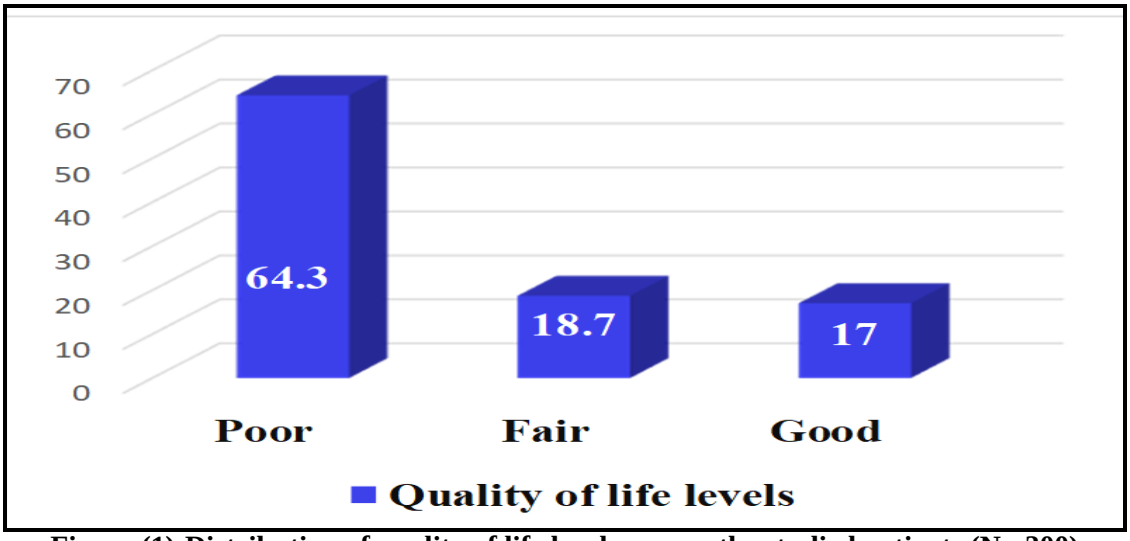

Figure (1):Distribution of quality of life levels among the studied patients (N= 300)

Table (3): Distribution of world health organization quality of life brief mean scores among the studied patients (N=300):

Quality of life domain	Domain scores range from 0 to 100
	Mean ± SD
Physical	54.71±13.74
Psychological	47.48±15.98
Social relations	52.42± 20.71
Environmental	50.78± 18.31

Table (4): Distribution of the studied patients according to addiction severity index (N=300)

ASI subscales (degree of impairment)	No problem [N (%)]	Slight problem [N (%)]	Moderate problem [N (%)]	Severe problem [N (%)]	Extreme problem [N (%)]
Medical status	203 (67.7)	48 (16.0)	48 (16.0)	1 (0.3)	0 (0.0)
Employment/ /Support status	44 (14.7)	59 (19.7)	50 (16.7)	73 (24.3)	72 (24.0)
Alcohol/ Drugs	2 (0.7)	52 (17.3)	79 (26.3)	95 (31.7)	72 (24.0)
Legal status	188 (62.7)	98 (32.7)	12 (4.0)	2 (0.7)	0 (0.0)
Family history	164 (52.7)	27 (9.0)	107 (35.7)	1 (0.3)	1 (0.3)
Family/ /Social relationship	51 (17.0)	67 (22.3)	76 (25.3)	87 (29.0)	19 (6.3)
Psychiatric status	30 (10.0)	22 (7.3)	74 (24.7)	91 (30.3)	83 (27.7)

Table (5):Distribution of the studied patients according to advanced warning of relapse questionnaire (N=300)

Advance Warning of Relapse Levels	No.	%
Low risk	41	13.7
Moderate risk	76	25.3
High risk	183	61.0
Total	300	100.0
Mean ± SD	**117.81 ± 29.82**	

Table (6): Correlation between quality of Life and risk of relapse among the studied patients (N=300)

Item	Min.	Max.	Mean± SD	(r)	P value
Quality of Life	43	116	66.69 ± 20.57	-.904	0.001*
Advance Warning of Relapse	50	150	117.81 ± 29.82		

Pearson correlation ** Highly statistically significant difference (p<0.01)*

Table (1): Illustrates the demographic profile of the study patients. The mean age of the patients was 27.18 ± 6.18 years. Nearly half (47.7%) of the patients were between 25 and 35 years old. More than half of the patients (53.5%) were single. Additionally, 66% of the patients resided in rural areas. Regarding educational background, 31.3% of the study group completed secondary school. In terms of occupation, 52.7% of the patients were skilled manual workers. Furthermore, more than one-third (35%) of the patients belonged to the very low socioeconomic status group.

Table (2): Demonstrates clinical data of the studied patients: the mean age of starting abuse was 22.78 ± 5.04. The majority of patients 65.7% reported using drugs 1 to 2 times daily, with an average frequency of 2.23 ± 0.886 times per day. As regards the duration of substance use, 60% of the patients had been using drugs for less than 5 years, with a mean duration of 4.63 ± 2.61 years. The method of drug use was inhalation, reported by 42.7% of the patients .Among the substances used, amphetamines (ice) were the most commonly used drug, reported by 27.3% of patients. Hashish followed as the second most frequently used substance, accounting for 24.0% of the patients, while heroin 12.7% and opium 12.0% were also prevalent. Polysubstance use was observed, including combinations such as hashish and alcohol 4.7%, hashish and opium 6.0%, and hashish and ice 4.0%. In contrast, marijuana 3.0% and alcohol 3.7% had relatively lower usage rates in this sample.

Figure (1): Reveals that 64.3% of patients reported a poor quality of life. 18.7% of the sample rated their quality of life as fair, and 17.0% of patients reported having a good quality of life.

Table (3): Shows that the highest mean scores of quality of Life among the studied sample were related to physical functioning and social relations, with mean scores of 54.71 ± 13.74 and 52.42 ± 20.71, respectively. On the other hand, the lowest mean scores were observed in psychological health and environmental health, with mean scores of 47.48 ± 15.98 and 50.78 ± 18.31, respectively. And the total mean score of the quality of life was 66.69 ± 20.57. This suggests that patients experience a poor quality of life.

Table (4): The findings show that the majority of the patients (67.7%) reported no medical problems. Conversely, the employment/support domain exhibited considerable impairment, with 24.3% of patients experiencing severe problems and an additional 24.0% reporting extreme problems. Regarding alcohol and drug use, 31.7% of the sample reported severe problems, while 24.0% reported extreme issues. Only a small fraction (0.7%) indicated no problems in this domain. Psychiatric status was also notably affected, with 30.3% of patients reporting severe psychiatric problems and 27.7% reporting extreme issues. Only 10.0% were free from psychiatric symptoms.

Table (5): Shows that less than two-thirds of patients (61%) were classified as having a high risk of relapse. Additionally, 25.3% of the patients fell into the moderate risk category, while only 13.7% were at low risk of relapse.

Table (6): Shows the correlations between quality of life and risk of relapse. The table reveals that there is a highly statistically significant negative correlation (r=-.904, p=0.001*) between quality of Life and risk of relapse of the studied sample.

Discussion:

Substance use disorders (SUDs) are chronic mental disorders that significantly impact both individual and societal health. The cycle of addiction often begins with the pursuit of pleasurable stimuli and the avoidance of negative experiences. This behavior is driven by specific chemicals that interact with distinct pharmacological targets within the brain's motivational circuitry. The development of SUD is influenced by a combination of factors, including the availability of highly reinforcing substances and individual vulnerabilities such as genetic predisposition, gender, age, sociocultural influences, and interpersonal relationships. Once established, the disorder is marked by compulsive drug-seeking and drug-taking behavior that persists despite severe negative consequences. A key characteristic of SUD is the loss of control over substance use, along with the emergence of a negative emotional state when access to the drug is restricted **(Cárdenas-Quesada et. al., 2024).**

This study is among the first to assess quality of life and risk of relapse in patients with substance use disorder (SUD) within the framework of the Sustainable Development Goals (SDGs).

Regarding to age, nearly half of the study patients belonged to the 25–35 age group. it indicated that

addiction predominantly affected younger individuals. This suggested that young adults particularly those in their early and mid-twenties, were more susceptible to substance abuse due to peer pressure, stress, and life instability. This finding aligns with **Saeed's., (2024)**, who reported that less than half fell within the 20-29 year age group. While this finding was incongruent with **Hughto et al., (2021)**, who reported that less than one third of individuals were (25-35) years old.

Concerning marital status, more than half of the patients were single. This pattern suggested that addiction might have been linked to social isolation, a lack of family responsibilities, or an absence of stable relationships, which could have served as protective factors against substance abuse. Single individuals experienced less social accountability, making them more vulnerable to developing addictive behaviors. This finding aligns with **Qeadan et al. (2025),** who mentioned that almost two-thirds of the individual were single. While this finding was incongruent with **Colaco et al. (2023),** who reported that the majority of patients with Alcohol use disorders were married.

The present study showed that nearly two-thirds of the patients resided in rural areas. This highlighted potential barriers to healthcare services, addiction treatment centers, and awareness programs in rural communities. Environmental and economic conditions in these areas might have contributed to substance abuse, either due to a lack of support services or as a coping mechanism for social and economic hardships. This result is supported by **Colaco et al. (2023)**, who discovered that more than half of the patients resided in rural areas. Conversely, the study disagreed with **Xia et al. (2022),** who reported that less than two-thirds lived in urban areas.

According to the level of education, the current study illustrated that, less than one-third, had only completed secondary education. This may be related to the fact that limited educational attainment might have led to a lack of awareness about the risks of substance abuse, fewer employment opportunities, and restricted access to healthcare resources, all of which could have contributed to a higher prevalence of addiction. This result is similar to **Hashemzadeh et al., (2021)** who reported that, less than one-third, had completed secondary education and congruent to **Elkalla et al., (2023)** who mentioned that nearly one-third of the patients were at an educational level of less than secondary school.

Concerning occupational status, more than half of the patients were skilled manual workers or farmers. This finding agreed with **Mohamed et al., (2020)**, who found that more than half of the patients were skilled manual workers. This may be related to the fact that job instability could increase stress levels and vulnerability to substance use.

According to socioeconomic status, more than one-third of the patients belonged to the very low socioeconomic class. This may be due to patients coming from disadvantaged backgrounds, financial difficulties, limited access to addiction treatment, and reduced availability of rehabilitation programs might have contributed to the persistence of substance abuse. Individuals from lower socioeconomic classes often faced additional stressors, including unstable living conditions and restricted healthcare access, which could have further driven substance dependence. This finding is opposite to **Hashemzadeh et al. (2021),** who reported that a minority of patients were of low socioeconomic status.

Regarding to the age of starting abuse (in years), the mean age score was **22.78 ± 5.04.** This may be related to the fact that early adulthood is a critical transition period, where individuals move from parental oversight to independence. They may be experiencing financial stress, job instability, or academic pressures, increasing susceptibility to risky behaviors or manipulative relationships. At this age, individuals are more exposed to peer pressure in social settings such as college, workplaces, or social circles. this result is similar to **Mustafaoglu et al., (2024),** who reported that the mean age score of starting abuse was **17.99 ± 5.37** and also **Mhaidat et al., (2024)**, reported that the mean age at which patients began using drugs was 19 years.

Concerning the duration of abuse, more than half of the patients had used substances for less than 5 years. This may be related to external motivations to quit health concerns, financial struggles, legal issues, or family pressures might have influenced individuals to stop using substances within a few years. Societal or religious influences could also play a role in individuals deciding to quit before reaching long-term dependence. These findings are consistent with **Darharaj et al., (2023**), who reported that more than half of the patients had used substances for more than 5 years.

Regarding the type of drug use, methamphetamine (ice) was the most commonly used substance, with more than one quarter using it; this due to potency and effectiveness: Methamphetamine provides intense euphoria, increased energy, and alertness, making it attractive to users seeking stimulation for work, studying, or nightlife additionally widespread Availability: increased drug trafficking and local production may have led to greater availability in urban and rural areas. This finding is similar to that **Saeed, (2024)**. who reported that almost one half used methamphetamine additionally **Sinclair et al., (2025)**

more than half used crystal methamphetamine, these results are in congruence with **Darharaj et al., (2023)**, who found that almost one-third used drug users used opioids.

Regarding the methods of drug use less than half used substance through inhalation, this due to drug type and availability, the method of use depends on the type of substance that explain methamphetamine (ice) is the most used substance, it is often inhaled rather than injected or swallowed in contrast to **Mohamed et al., (2020),** who reported that more than two thirds used substance orally.

Concerning the risk of relapse, the study shows that less than two-thirds of patients were classified as having a high risk of relapse. This is due to unemployment, financial stress, poor coping skills, and emotional instability often trigger relapse. This finding is similar to that **Adam et al. (2025)**, who reported that less than three-quarters of patients relapsed following substance abuse rehabilitation.

Regarding to the Addiction Severity Index (ASI). The results of the current study indicate that most of patients demonstrated severe problems in the domains of drug abuse and psychiatric status, whereas problems in the domains of family and social status were predominantly mild to moderate in severity. These findings are in the same line with **Maghawry et al., (2024**), who revealed that most patients had severe problems with drug abuse and psychiatric status, and had mild to moderate problems with family and social status.

The results also suggest that substance abuse and its associated psychiatric complications represent the most critical areas of concern among the patients, requiring urgent and intensive intervention. The relatively lower severity of problems in the family and social domains may indicate that, despite their addiction, some individuals maintain functional relationships and social connections, or that these areas have not yet deteriorated to the same extent as drug use and mental health. However, if left unaddressed, ongoing substance abuse and psychiatric distress are likely to exacerbate family and social problems over time. The alignment of these findings with those reported by **Maghawry et al. (2024)** reinforces the consistency of this pattern across different study populations, highlighting the importance of integrating psychiatric care and addiction treatment into rehabilitation programs.

Relationship between substance use disorder and quality of life:

Quality of Life (QoL) is a crucial indicator and outcome in the management and treatment of chronic diseases, including SUD. In comparison to other medical sectors, the SUD treatment sector has less carefully collected and emphasized patient quality of life. Importantly, QoL measurements include patients' subjective assessments of the effects of SUD and treatment on their QoL **Nagy et al., (2022**). SUD negatively affects patients' QoL, including work, interpersonal relationships, social activities, and physical and mental health **Simirea et al., (2022).**

Concerning the quality of life levels, less than two-thirds of patients reported that poor QoL. This result is similar to that **Muller et al. (2016)**, discovered that less than three-quarters of patients had poor QoL. **Singh et al., (2022**), also reported that nearly half of the patients had poor QoL.

The physical dimension of quality of life, with mean scores of (54.71 ± 13.74), is similar to **Adan et al., (2024**), who reported mean scores of (52.00 ± 19.68). This indicates that patients with SUD may experience physical health challenges but are not completely debilitated. Chronic substance use is known to cause various health issues such as malnutrition, liver disease, cardiovascular problems, and weakened immunity. Patients may also suffer from chronic pain, fatigue, and sleep disturbances, which further reduce their physical QoL.

Relationship between quality of Life and risk of relapse:

The study finding revealed significant negative correlation (r=-.904, p=0.001*) between quality of Life and risk of relapse of the studied sample, these findings similar to **Jia et al., (2024),** who reported that quality of life were negatively correlated with relapse tendency.

Low quality of life is often accompanied by social isolation, interpersonal conflicts, or a loss of trust in others, all of which increase vulnerability to relapse. A lack of social support can make it more difficult for individuals to maintain motivation and resist cravings, especially during times of emotional or environmental stress.

Additionally, individuals who lack employment or a sense of purpose may experience boredom, low motivation, and diminished self-worth, factors that further elevate the risk of relapse. When overall life satisfaction is low, Recovery may be perceived as meaningless or unrewarding. This mindset increases the likelihood of disengagement from treatment goals and a return to substance use.

Conclusion:

Based on the findings of the current study; it can be concluded that:

The mean age of the patients was 27.18 ± 6.18 years. Among the substances used, amphetamines (ice) were the most commonly used drug. Hashish followed as the second most frequently used substance. The risk of relapse shows that less than two-thirds of patients were classified as having a high risk of relapse. There

was a highly statistically significant negative correlation between quality of life and risk of relapse.

Recommendations:

In the light of the study's findings, the following recommendations are suggested:

1. Provide sustained post-treatment support, including peer recovery coaches, support groups, and case management
2. Introduce structured psycho- educational programs focus on coping strategies, relapse prevention, emotional regulation, as part of treatment and aftercare services.
3. Explore the underlying causes of the strong association between substance use disorders and low socioeconomic status, poor quality of life, and high relapse rates in future studies.

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