

## Self -Stigma and Depression among Patients with Substance Use Disorders: Role of Perceived Social Support

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### Abstract

**Background:** Substance abuse is a significant global problem, and reports indicate that individuals suffering from substance use disorders (SUDs) exhibit elevated levels of self-stigma. Self-stigma is defined as the existence of unfavorable judgments, attitudes, feelings, and beliefs that can lead to depression and loss of self-worth. A social support network is a crucial component that needs to be taken into account to lessen the stigma and depression associated with SUDs. **Aim:** To evaluate the effect of perceived social support on self- stigma and depression among patients with SUDs. **Design:** A descriptive correlational design was utilized. **Subjects:** A purposive sample of 100 patients with substance use disorders. **Study setting:** Zagazig University Hospital outpatient clinic's addiction clinic, Zagazig City, Egypt. **Tools:** Demographic and Addiction history of the patients with substance use disorders, Self-Stigma in Substance Abuse Questionnaire, Beck Depression Inventory Scale, and Multidimensional Scale of Perceived Social Support. **Results:** The majority of the substance abusers had moderate levels of self-stigma, more than half of the participants suffered from severe depressive symptoms ,and slightly over half of the participants had low social support. Social support was negatively correlated with self- stigma( $r = -0.503$ ) and depression( $r = -0.382$ ).Social support , marital status, age and income significantly influence self-stigma. **Conclusion:** Social support significantly impacts self – stigma, and depression among patients with substance use disorders. **Recommendation:** Psychosocial therapies aimed at enhancing their perception of support from friends and family could be beneficial in mitigating the detrimental consequences of self-stigma and depressive symptoms.

**Keywords:** Self- Stigma, Depression, Perceived Social support, Substance Use Disorders.

### Introduction

Substance Use Disorders (SUDs); problematic alcohol or substance use affects more than 29 million people globally which results in obvious distress and clinically significant impairment. Arab nations have a surge in the use of illegal substances over the past 20 years, specifically, in Egypt, 12.4% of people report having SUDs, more than twice the global average of 5% (*Hamdi, et al., 2016*).

With the prevalence of SUDs co-morbidity, concerns have been raised regarding the problem as most affordable and easily accessible drugs, such as tramadol and bango, have low quality and cause serious cognitive and behavioral disorders (*El-Genady and Wahab, 2020*). SUDs patients have a greater likelihood of dying young, developing severe infections, having poor mental and physical health, and engaging in criminal activity. Their use of illegal substances is also viewed as a deviant social behavior, which contributes to the broad stigma they endure (*Volkow and Blanco, 2023*).

Stigma is a social phenomenon in which people attribute SUDs patients to their weakness, violence, and danger. As well, these patients are at the bottom of the status hierarchy established by the public, which are unfairly excluded, rejected, and treated (*Şamar, et al., 2023*). The designation of being a "drug user" poses a major threat to an individual's survival since it deprives them of possibilities for social engagement, networks, appropriate work and income, housing, education, health care, and insurance. People with various stigmas report that drug-related prejudice is the worst stigma (*Shahzadi. Etal; 2023*).

According to (*Krendl, and Perry. 2023*), stigmatized group member's identification, internalization, and response to public stigma are collectively referred to as self-stigma. This process frequently entails embracing and projecting unfavorable society ideas onto oneself. Behavioral and cognitive factors contribute to self-stigma: disengaging from personal values, fear of future stigma, dread of internalized stereotypes, judgments, and shame, and self-devaluation (e.g., internalized stereotypes, judgments, and shame) (*Sibley et al., 2023*).

Stigmatization has a significant detrimental impact on one's mental and physical well-being. Stigmatized patients share used needles, engage in self-harm, criminal activity and risks during sexual behaviors. Stigma also prevents people from seeking care and from recovering (Brooks and McHenry, 2023). Unfortunately, only 1 out of 6 SUD patients receive treatment, and most patients don't complete the treatment process despite the availability of effective therapies for SUDs. This reluctance of treatment could be owned to higher stigmas perception, fear of being rejected by care providers, or having legal problems (Petrillo, 2023).

Stigmatized SUDs patients suffer from “why try” phenomenon in which they can't pursuing life goals that would lead to stress reactions; physical, cognitive, emotional and even result in mental illnesses such anxiety and depression (Sibley et al., 2023). Chronic stress leads to developing shame feelings, unable to regulate one's emotions and depletion of internal resources (Kundert and Corrigan, 2022).

Most people with SUDs suppress their unpleasant emotions, which leads to frequent rumination and intrusions - that is, a recurring cycle of thought that revolves around unfavorable self-perceptions—which makes it even harder to solve problems and accomplish goals. As a result, individuals experience discomfort, depressive symptoms, poor social functioning, low self-efficacy and self-esteem, a sense of helplessness, and a negative quality of life (Stellern, et al., 2023).

Stigma's damaging effects might lead to depressive symptoms such as feelings of shame or unworthiness before long. High percentages of co-occurring SUDs and depressive symptoms have been repeatedly reported in previous research. Those with drug or alcohol dependence had four and nine times higher odds of experiencing major depression, respectively, than those without substance abuse difficulties (Saffari et al., 2022).

Addictive behaviors are regrettably common among depressed people, particularly in the context of substance addiction. Drug use as a coping strategy to get away from symptoms could account for some of the close connections between SUDs and depression (Crowe, et al., 2023). Not only are depressive symptoms and

drug addiction highly prevalent, but they also have detrimental effects that can increase the risk of overdose, morbidity, and death, as well as increase medical expenses and psychosocial impairment and dysfunction (Armoon, et al., 2021).

One of the key elements that can influence the depressed symptoms of individuals with SUDs is social support, which is the perception of having a solid social network made up of friends, family, and significant others as well as feeling cared for by others (Wang, et al 2022). Perceived social support has been shown in some prior research to certainly correlate with psychological well-being and to guard against depressive symptoms and psychological distress. On the other hand, mental health will be negatively impacted by social isolation or a lack of social support. In example, social support keeps drug and alcohol use disorders from occurring and is linked to better outcomes from addiction treatment (Yang et al., 2022).

One can obtain social support, which encompasses social, emotional, practical, and informational companionship, from their social networks. According to (Frank and Oscar, 2023), social support can be classified into two categories: perceived and received. Perceived social support is the viewpoint of individuals or their degree of satisfaction with the help they get from others in their social network. More crucially, research on social support perceptions—that is, the conviction that one can always find help from the social sector - has consistently shown a higher positive impact on health than research on social support actualization (Zanjarietal, 2022).

Notably, SUDs patients are extremely vulnerable to rejection, marginalization, insults, shunning, and severe stigma from close and important people, including as friends, partners, and family (Krendl and Perry, 2023). Social support and internalized stigma were found to be negatively correlated in prior studies; SUDs patients may experience less internalized public perceptions and internalized stigma if they feel supported by close friends or family (Broman et al., 2023).

Furthermore, the concept of social support is one of the essential elements that may influence the depressive symptoms that individuals with

SUDs experience. Previous studies have demonstrated a positive link between psychological well-being and perceived social support, which also acts as a protective factor against psychological discomfort and depressive symptoms. However, a lack of social support or social isolation will be detrimental to mental health (*Sadaqat et al 2023*).

### Significance of the study

Addiction to drugs by young people has been a major global public health issue that has an impact on social, economic, and health conditions. The United Nations informed that an estimated 271 million people, or 5.5 percent of the global population aged 15–64, had abused substances in the prior year, and 14.1% of people between the ages of 18 and 25 had a diagnosis of a substance addiction disorder (*United Nations . World Drug Report, 2019*). One of the most avoidable risk factors for early death is substance abuse. People who had these issues, meanwhile, did not receive the proper care they needed. People with problematic substance use may find it difficult to get professional help because of self-stigmatization associated with their use of drugs.

Depressive symptoms are a common psychosocial concern among people with SUDs. In addition, painful feelings brought on by stigma can quickly translate into depressive symptoms like shame or unworthiness. Additionally, Social support is one of the affecting factors on self – stigma and depression during SUD treatment. Thus, the purpose of the study was to investigate the impact of perceived social support on self-stigma and depression among patients with substance use disorders.

### Aim of the Study

**The aim of this study was to** evaluate the effect of perceived social support on self- stigma and depression among patients with SUDs. Through the following objectives:

1. Assess the level of self-stigma among patients with SUDs.
2. Identify the level of depression among patients with SUDs.
3. Assess the level of perceived social support among patients with SUDs.

4. Determine the effect of perceived social support on self-stigma and depression among patients with SUDs.

### Research questions:

- What is the level of self -stigma among patients with SUDs?
- Is depression prevalent among patients with SUDs?
- What is the level of perceived social support among patients with SUDs?
- What is the impact of perceived social support on self-stigma and depression among patients with SUDs?

### Subjects and Methods

#### Research Design:

The descriptive correlational design was used in this study.

#### Study Setting:

The study was carried out at the outpatient clinic for addiction at Zagazig University. The clinic provides diagnosis, treatment, and medical examinations to patients abusing drugs to determine the amount of drugs abused .To aid in the psychological and behavioral rehabilitation of addicted individuals, therapy sessions and consultations should be provided without any accommodations. Working hours are three days a week, from 10 am to 2 pm.

#### Subjects:

A purposive sample consisted of 100 drug abusers' patients from an addiction clinic present at outpatient clinics of Zagazig University Hospitals, according to the following **inclusion criteria:**

- (1) Age: between 18 and 45 years.
- (2) The following SUDs were included: cannabis, opioid, sedatives, hypnotics ,and stimulants.
- (3) Accept to participate in the study.

**Exclusion Criteria:** Patients with substance-induced problems or co-occurring mental diseases.

#### Sample Size

The sample size was calculated by the software Epi-info package, assuming a prevalence of self- stigma among adults is 63.9%

*Lami et al., (2022)* from 120 subjects coming to outpatient clinics through 6 months, a level of confidence 95%, margin of error 5% and power of test were 80%. The sample size will be 90 subjects. After adding 10% dropout, the final sample size = 100 subjects.

### **The sample size**

The sample size determined according to the following equation;

$$n = \frac{N \times P(1-P)}{[N-1 \times (d^2 - z^2)] + P(1-P)} \quad (\text{Steven K. Thompson, 2012})$$

### **Thompson, 2012)**

The estimated sample size was:

**n** = sample size.

**N**: population size

**Z**: the value of standard normal distribution for type I error probability for the sided test and equals [confidence level at 95% (1.96)<sup>2</sup>].

**p**: probability (50%).

**d**: Error proportion(0.05)<sup>2</sup>

### **Tools of data collection:**

#### **Tool I: A structured interview questionnaire:**

It was made by the researchers to collect the data required for the investigation. It was split into two sections:

#### **Part 1: Demographic characteristics of the studied drug abusers' patients:**

Information on the age, place of residence, degree of education, work status, marital status, and income of the study participants .

#### **Part 2: Addiction history of the patients with substance abusers**

Questions about the history of addiction were asked in this section, including the age at which addiction first appeared, how long it lasted, what kind of drugs were abused, how long treatment lasted , and the frequency of drug abuse each day.

#### **Tool II: Self-Stigma in Substance Abuse Questionnaire.**

This questionnaire was developed by *Luoma et al. (2013)*. The 40 items evaluate four dimensions of self-stigma associated with substance abuse including: self-devaluation, fear of stigma being enacted, avoidance of stigma, and values disengagement.

The items are graded on a five-point Likert scale from 1 for "never or almost never" to 5 for "very often." A higher overall score denotes a higher level of self-stigma.

#### **Scoring system:**

Three levels are identified based on the overall score: low self-stigma (40-93), moderate self-stigma (94-147), and high self-stigma (148-200).

#### **Tool III: Beck Depression Inventory Scale:**

This is one of the most used tools for gauging the intensity of depressive symptoms; it is a self-report assessment developed by Beck et al., (1996),for those who are not clinically depressed, it can be used as a screening tool for depression. It consists of 21 self-report items that evaluate whether depression symptoms were present and how severe they were during the two weeks prior.

These twenty-one items are associated with depressive symptoms including hopelessness, anger, guilt, and a sense of punishment as well as physical symptoms like exhaustion and a lack of interest in sex.

#### **Scoring System**

The Beck Depression Inventory Scale had twenty-one items, each of which had several statements about symptoms of depression. The items are rated on a four-point Likert scale that goes from 0 (the least amount of depression symptoms) to 3 (the most levels of depression symptoms). Each item's score was added, and the final score was compared to a key to ascertain the degree of depressive symptoms.

#### **Total depression score was calculated as**

- **0–13 degree: minimal depression** of total depression score.
- **14–19 degree: mild depression** of total depression score.
- **20–28 degree: moderate depression** of total depression score.
- **29–63 degree: severe depression** of total depression score.

#### **Tool IV: Multidimensional Scale of Perceived Social Support (MSPSS)**

This scale was created by Zimet et al, (1988) to measure social support from three different sources: family, friends ,and significant others. The scale had 12 items, divided into three sub-

dimensions: family support, friend support, and significant other support. Each item was scored on a 7-point Likert scale, with 1 denoting very strongly disagree and 7 denoting very strongly agree. Higher felt social support was reflected by higher scale scores.

### The Scoring system

Regarding the responses "very strongly agree," "strongly agree," "mild agree," "neutral," "mild disagree," "strongly disagree," and "very strongly disagree," the Perceived Social Support items scored 7,6,5,4,3,2, and 1, respectively. The level of social support was ascertained by adding together the entire item scores for each area and comparing the resultant total to a key.

### Total perceived social support score was calculated as:

- **Low level of social support: 12-48** of total social support score.
- **Moderate level of social support: 49-68** of total social support score.
- **High level of social support: 69-84** of total social support score.

### 2.6. Preparatory phase:

After revising the literature, the researchers formed the data gathering tools that involved socio-demographic and clinical history information, Self-Stigma in Substance Abuse Questionnaire, as well as The Beck Depression Inventory Scale and Multidimensional Scale of Perceived Social Support (MSPSS)

### 2.7. Content validity:

Three experts from Zagazig University's Faculty of Nursing and Faculty of Medicine, who specialize in psychiatric mental health nursing and psychiatric medicine, translated the study's tools and then corrected for clarity, application, and content validity. Some modifications were finished in accordance with their suggestions.

### 2.8. Content reliability:

The reliability test was performed using Cronbach's Alpha,

Scale	Cronbach's Alpha
Self-stigma	0.801
Depression	0.922
social support	0.944

### 2.9. Pilot study:

Before the main study, a pilot study including 10 cases, or 10% of the patients, was conducted to validate the instruments. Next, the final tool form was acquired, and an estimate of the time needed to finish each tool was completed. The pilot study was eventually excluded from the larger research group.

### 2.10. Fieldwork:

Once gaining permission, the researchers visited with the doctors and nurses at the addiction clinic two to three times a week to discuss their objectives within this research. Then begin meeting with each patient alone in the waiting area. The criteria for inclusion were used to choose the patients. There were typically six patients interviewed each week. After informing each patient of his rights, the purpose of the study was defined and the patients were invited to participate. The interview was conducted by the researchers utilizing data collection methods after the subjects gave their consent to participate. The researchers went over the questionnaire, clarified its contents, and noted the answers.

The questionnaire took between thirty and forty-five minutes to complete in total. The fieldwork took place from the 1<sup>st</sup> August, 2022 to the end of November, 2022.

Some patients were reluctant to speak since their families were there. In addition, individuals who were female were not included in the study because they did not attend at the clinic.

### Administrative and Ethical Considerations:

A formal letter from the dean of Zagazig University's faculty of nursing was sent by the researchers to the director of the selected hospital requesting permission to conduct the study. The letter included a copy of the forms used to collect data as well as explanations of the study objectives and methods. The study was then given formal approval by Zagazig University's Faculty of Nursing's Scientific Research Ethics Committee (ID/Zu.Nur.REC#:0088). Patients gave their agreement to participate in the study and were advised that they might stop at any moment without giving a reason or endangering the services they were receiving at the time of withdrawal or the follow-up care. The patients involved in the study experienced no adverse

effects, and they were informed that the information gathered would only be used for scientific purposes.

### Statistical Design:

All information was gathered, tallied, and subjected to statistical analysis with SPSS 20.0 for Windows (SPSS Inc., Chicago, IL, USA 2011).

Quantitative data were expressed as the mean  $\pm$  SD and qualitative data were expressed as absolute frequencies (number) & relative frequencies (percentage). ANOVA (One way analysis of variance) test was used for comparison between more than two different groups of quantitative data which were normally distributed. The student "t" test was used for comparison of means of two independent groups of quantitative data which were normally distributed. Percent of categorical variables were compared using Chi-square test. Pearson correlation coefficient was calculated to assess relationship between study variables, (+) sign indicate direct correlation & (-) sign indicate inverse correlation, also values near to 1 indicate strong correlation & values near 0 indicate weak correlation. Multiple linear regressions (step-wise) was also used to predict factors which affect total Self -stigma score. Cronbach alpha coefficient was calculated to assess the reliability of the scales through their internal consistency. P-value  $< 0.05$  was considered statistically significant, p-value  $< 0.001$  was considered highly statistically significant, and p-value  $\geq 0.05$  was considered statistically non-significant.

### Results

**Table (1)** presents socio-demographic data for a group of 100 patients with SUD. The age distribution shows that 52% of the patients were between 20-30 years old, 30% were between 30-40 years old, 10% were  $>40$  years old and 8% were  $<20$  with an average age of approximately 29.65. Regarding gender, all the patients were male, and about (77%) lived in rural areas. Concerning social status, (45%) of the patients were single, whereas most of the participants lived with their families (92%). More than three-fifths of the participants were intermediate educated (63%) and slightly over half had a work (54%) and (60%) had an insufficient monthly income.

**Table (2)** clarifies the addiction history of the patients. Regarding the age at onset of substance abuse, slightly more than three-quarters of the participants had the onset of addiction at the age of 20-40 years (76%) where the addiction duration was less than five years (77%). Regarding the type of substance abuse, more than half of the participants were heroine abusers (56%), most of the participants had a daily usage of drugs (91%) and (79%) took the drugs from 1-3 times per day. More than half of the patients had family members who abused drugs (54%) and most of the participants had friends abused drugs (91%). As regards the beginning of the treatment, the majority of the participants started the treatment from 1-3 months ago (82%).

**Figure (1)** shows that; the majority of the participants had moderate levels of self-stigma (81%).

**Figure (2)** purifies that; more than half of the participants suffered from severe depressive symptoms (58%).

**Figure (3)** shows that; slightly over half of the participants were low socially supported (54%).

**Table (3)** revealed the mean score of self-stigma domains which included: Self -devaluation ( $25.70 \pm 6.81$ ), fear of enacted stigma ( $29.69 \pm 7.13$ ), stigma avoidance ( $34.35 \pm 11.56$ ), and values disengagement ( $28.18 \pm 9.61$ ) with an average total mean score ( $117.92 \pm 19.38$ ). Whereas the total mean score of depression was ( $32.03 \pm 11.67$ ) and Social support was ( $46.90 \pm 18.28$ ) among patients with SUD.

**Table(4)** displays the relationship between social support, self-stigma, and depression among SUD patients. There was a statistically significant difference between social support and self-stigma ( $p=0.001$ ). As well, there was a statistically significant relation between social support and depression ( $p=(0.002)$ ). It was evident that the patients with a high level of social support were low in self-stigma (72.7%) and had minimal depression (60%).

**Table (5)** outlines the correlation between social support, self-stigma and depression among patients with SUD. There was a highly statistically negative correlation between social support and self-stigma ( $r=0.503, p=0.001^{**}$ ) and depression ( $r=-0.382, p=0.001^{**}$ ). On the

other hand, there was a highly statistically significant positive correlation between self-stigma and depression ( $r=0.647, p=0.001^{**}$ ).

**Table (6)** clarifies multiple linear regressions for predicting factors which affect self-stigma among patients with SUD. Self-stigma was negatively influenced by marital status, age, income, and social support ( $p=0.001^{**}$ ). However, self-stigma was positively influenced

by depression and frequency of drug abuse per day.

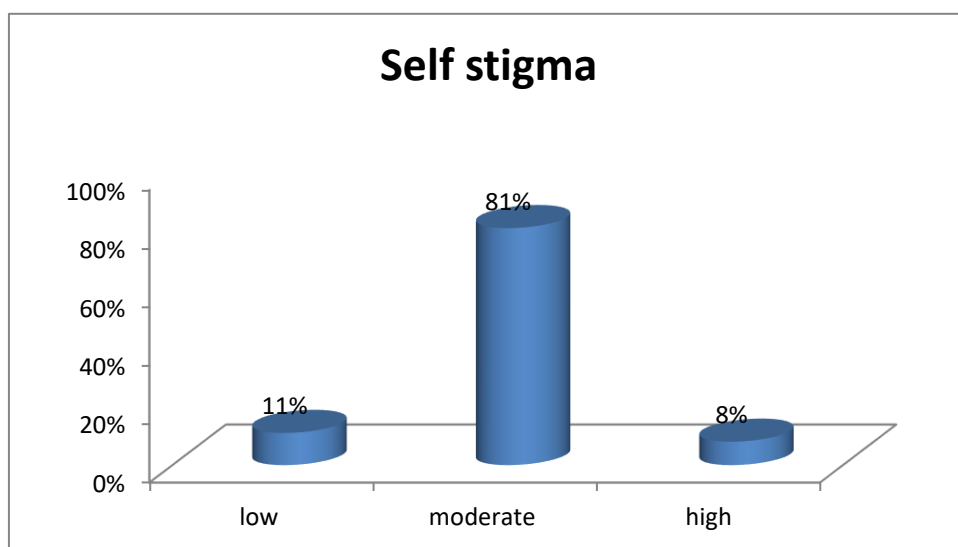
**Table (7)** reveals multiple linear regressions for predicting factors which affect depression among patients with SUD. Depression was negatively influenced by social support and marital status. Though, it was positively influenced by family history.

**Table (1): Frequency and percentage distribution of the patients with SUD according to their socio-demographic characteristics (N=100).**

Socio-demographic Characteristics	no.	%
<b>Age (years)</b>		
<20	8	8.0
20-<30	52	52.0
30-<40	30	30.0
>40	10	10.0
Mean $\pm$ SD	29.65 $\pm$ 7.83	
male	100	100.0
female	0	0.0
<b>Residence</b>		
Rural	77	77.0
Urban	23	23.0
<b>Social status</b>		
Married	28	28.0
Divorced	21	21.0
Widower	6	6.0
single	45	45.0
<b>who living with</b>		
Alone	8	8.0
Family	92	92.0
<b>Occupation</b>		
Work	54	54.0
Not work	46	46.0
<b>Educational level</b>		
Illiterate	0	0.0
read and write	2	2.0
Intermediate education	63	63.0
University education	35	35.0
<b>Family Income</b>		
Sufficient	40	40.0
Insufficient	60	60.0

**Table (2): Frequency and percentage distribution of Addiction history among patients with SUD. (N100).**

Clinical characteristics	no.	%
<b>Age at onset of addiction</b>		
less than 20 years	22	22.0
20-40 years	76	76.0
More than 40 years	2	2.0
<b>Duration of addiction (years)</b>		
<5	77	77.0
5-<15	20	20.0
≥15	3	3.0
<b>Type of substance abuse</b>		
Heroin	56	56.0
Cannabis	34	34.0
Tramadol	10	10.0
<b>Daily use of drugs</b>		
Yes	91	91.0
No	9	9.0
<b>How many times a day did you take drugs?</b>		
1-3	79	79.0
>3	21	21.0
<b>Feeling guilty after taking drugs?</b>		
Yes	69	69.0
No	31	31.0
<b>Having a family member who uses drugs?</b>		
Yes	54	54.0
No	46	46.0
<b>Having any friends who use drugs</b>		
Yes	91	91.0
No	9	9.0
<b>Starting treatment a few months ago</b>		
1-3	82	82.0
4-6	5	5.0
>6	13	13.0

**Figure (1):** Bar chart showing total score of self -stigma



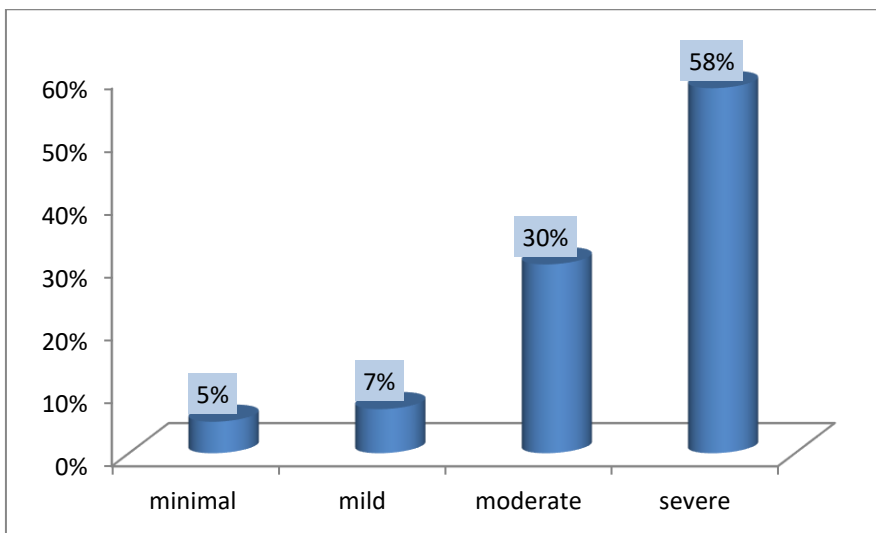


Figure (2): Bar chart showing total score of depression

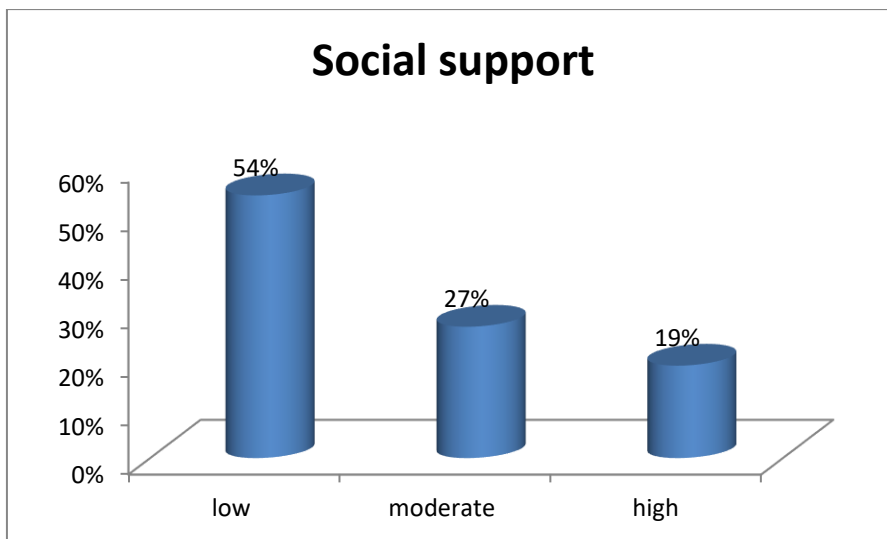


Figure (3): Bar chart showing total score of social support

Table (3): Means and Standard Deviations of self-stigma, Depression and Social support among patients with SUD (N = 100):

Item	Mean ± SD
<b>Self- stigma domains</b>	
-Self devaluation	25.70±6.81
-Fear of enacted stigma	29.69±7.13
-Stigma avoidance	34.35±11.56
-Values Disengagement	28.18±9.61
<b>Total of self- stigma</b>	117.92±19.38
<b>Depression</b>	32.03±11.67
<b>Social support</b>	46.90±18.28

**Table (4): Relation between total Self –stigma, Depression and social support scores (N=100).**

Scores	Social support						$\chi^2$ (p-value)
	Low (n=54)		Moderate (n=27)		High (n=19)		
	no.	%	no.	%	no.	%	
<b>Self -stigma</b>							
Low(n=11)	0	0.0	3	27.3	8	72.7	31.04 (0.001**)
Moderate (n=81)	46	56.8	24	29.6	11	13.6	
High (n=8)	8	100.0	0	0.0	0	0.0	
<b>Depression</b>							
Minimal=5	0	0.0	2	40.0	3	60.0	20.420 (0.002**)
Mild=7	4	57.1	0	0.0	3	42.9	
Moderate=30	11	36.7	11	36.7	8	26.7	
Severe=58	39	67.2	14	24.1	5	8.6	

$\chi^2$  : Chi square test, \*\*: statistically highly significant ( $p < 0.001$ ).

**Table (5): Correlation matrix between total Self –stigma, Depression and social support scores (N=100).**

scores	Self -stigma		social support	
	r	p-value	r	p-value
Depression	0.647	0.001**	-0.382	0.001**
social support	-0.503	0.001**		

\*\*: statistically highly significant ( $p < 0.001$ ), r: correlation coefficient

**Table (6): Step wise multiple linear regression for predicting factors which affect Self -stigma.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	195.596	15.179		12.886	.000	165.454	225.738
Marital status	-10.452	1.355	-.702	-7.713	0.001**	-13.143	-7.761
How many times a day did you take drugs?	7.568	1.232	.480	6.145	0.001**	5.123	10.014
income	-14.854	3.108	-.377	-4.779	0.001**	-21.027	-8.682
Social support	-.377	.086	-.356	-4.411	0.001**	-.547	-.207
Age	-.586	.224	-.237	-2.619	0.001**	-1.031	-.142
Depression	0.049	0.281	0.503	5.762	0.001**	0.184	0.377

\*: statistically significant ( $p < 0.05$ )

\*\* :highly significant ( $p < 0.001$ )

R-square=0.531, ANOVA: F=17.523 P<0.001

Variables entered and excluded: residence, who living with, occupation, educational level, age at onset of addiction, duration (years), type of substance abuse, daily use of drugs, feeling guilty after taking drugs, having a family member who uses drugs and starting treatment a few months ago.

**Table (7): Step wise multiple linear regression for predicting factors which affect depression.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	62.101	6.144		10.108	.000	49.904	74.298
Social support	-.387	.061	-.606	-6.360	0.001**	-.508	-.266
Family history	5.871	2.120	.252	2.769	0.007**	1.662	10.080
Marital status	-2.004	.764	-.223	-2.622	0.010*	-3.521	-.487

\*: statistically significant ( $p < 0.05$ )

\*\* :highly significant ( $p < 0.001$ )

R-square=0.334, ANOVA: F=11.910 P<0.001

Variables entered and excluded: age, residence, who living with, occupation, educational level, income, age at onset of addiction, duration (years), type of substance abuse, daily use of drugs, How many times a day do you take drugs, feeling guilty after taking drugs, starting treatment a few months ago, and self -stigma

## Discussion

Substance use disorders pose a significant global health challenge, contributing to substantial socioeconomic and public health burdens in modern societies (*Lawrence et al., 2023*). Individuals grappling with substance abuse often face both pronounced public and internalized stigma. Moreover, those with Substance Use Disorders (SUDs) are at an increased risk of experiencing depressive disorders. Social support stands out as a crucial factor influencing depressive symptoms and stigma levels among patients with SUDs (*Carl et al., 2023*).

According to addiction history among substance use disorders patients, the study findings highlighted a specific pattern within the participants, as in the majority of cases, the patients experienced the onset of addiction between the ages of 20 and 40, with the duration of addiction being less than five years. Slightly over half of the participants reported being heroin abusers, and a significant portion engaged in daily drug use. Considering these patterns is vital for developing effective prevention, intervention, and rehabilitation plans suited to the unique needs of patients within these characteristics.

These results diverge from the findings of the study conducted by *Filiz & Polat (2023)*, who investigated 170 outpatients undergoing treatment for substance use disorder in Turkey and reported that the mean age of starting substance use at 17.4 years, with alcohol being the predominant substance for 41.8% of patients and marijuana for 42.4%. Unlike, the study findings also differed from the study by *Smith et al. (2023)*, conducted in the United States with 46 men and 26 women, which concluded two-thirds of participants had been addicted for less than 6 years. These disparities might stem from variations in sample demographics, geographic locations, or methodologies employed in the respective studies.

The outcomes of the existing study indicated that the majority of substance use disorder patients exhibited moderate levels of self-stigma with a total mean  $\pm$  (SD)  $117.92 \pm 19.38$ . This might be attributed to the fact that the stigma that surrounds substance

use issues in society could be the reason for this. Negative views, social rejection, and discrimination are commonplace for people with substance use problems, and these experiences can cause internalized emotions of inadequacy and humiliation. Patients may develop a severe degree of self-stigma as a result of internalizing societal stigma, which can negatively affect their sense of self-worth, self-esteem, and general well-being. The treatment and recovery process must address self-stigma since it can have a major negative influence on the patient's (*Chen & Stuart, 2021*).

These results align with a research conducted by *Chen et al. (2022)*, which investigated Self-stigma among patients with substance use disorders in China, and demonstrated that individuals with substance use disorders (SUDs) exhibited elevated levels of self-stigma. Also, *Chang et al. (2022)*, which studied psychological distress and self-stigma among substance abusers, reported that the patients experienced high levels of self-stigma. Moreover, *Judd et al. (2023)*, documented in a study about Understanding stigma among people with opioid use disorder that the majority of the patients experienced self-stigma.

The current study revealed that more than half of patients demonstrated severe levels of depressive symptoms with a total Mean ( $\pm$ SD)  $32.03 \pm 11.67$ . This might be taken to mean that self-stigma and feelings of shame are encouraged by myths and preconceptions regarding addiction. The recurrent and chronic nature of substance use disorders can exacerbate feelings of social isolation, pessimism, and self-blame.

This result was in accordance with an Egyptian study which examined anxiety and depression among substance use disorder and found that that nearly three quarters of the substance abusers experienced severe depressive symptoms (*Mohamed et al., 2020*). In contrast to these results, *Nkyi & Ninnoni (2024)* found that the majority of study participants had low levels of depression in their study entitled Purpose in life, loneliness, and depression among patients with drug use

disorders in the psychiatric institutions in Ghana.

Regarding Perceived social support, the result indicated that slightly over half of the studied sample reported low levels of social support with a total Mean  $\pm$  (SD)  $46.90 \pm 18.28$ . This could be seen in light of the stigma and misconceptions surrounding substance use disorders, which can cause people to feel guilty or scrutinized by their friends and support systems. A person may lose the support of friends and family due to substance use disorders, which can also strain relationships and cause conflict in social groups. It can also be difficult for people with drug use disorders to establish good relationships and have enough social support due to symptoms like mood swings, erratic conduct, and impaired decision-making. All things considered, those who experience low levels of social support may be a result of the complexity of substance use problems and the way society views them (*El Hayek et al., 2024*).

These results were supported by *Chang et al. (2022)* who demonstrated in a study about the role of perceived social support on perceived stigma and depression among people diagnosed with substance use disorders that the participants suffered from low levels of social support. Also, *Çetin et al. (2024)* studied the effect of depression and social support on Suicidal ideation among substance abusers and observed that the majority of patients experienced low levels of social support.

The core objective of the current study was to explore the impact of social support on self-stigma and depression among patients with substance abuse. Firstly, the results indicated a statistically significant negative correlation between self-stigma and social support, and the regression analysis revealed that social support was a significant negative predictor of higher self-stigma. This might be related to the fact that the stigma and discrimination that people with substance use disorders frequently experience in society, which can cause emotions of shame and self-stigma. As a result, individuals could be reluctant to ask for or accept social help from others out of fear of being rejected or judged. Furthermore, having self-stigma can affect how one feels about themselves and if they are

deserving of care, which might make them less likely to seek out social support systems (*Krendl & Perry, 2023*).

This observation was supported by *Akdağ et al., (2018)* who studied the relation between internalized stigma, depression and perceived social support in opioid use disorder which indicated there was a negative correlation between internalized stigma score and multidimensional perceived social support which decreased in internalized stigma as the perceived social support increased in opioid users. Therefore, it is vital to obtain family support for those patients and to include other social support systems, to decrease internalized stigma that helps to increase adherence to the treatment. As well, *Li et al., (2020)*, discovered that social support was a powerful tool for lessening the damaging effects of internalized stigmatization. The detrimental effects of internalized stigmatization on people's mental health have been demonstrated to be less pronounced in environments with strong levels of social support. Conversely, *Silverman, (2020)*, reported that no significant connection between perceived stigma and perceived social support among adults with substance use disorders.

Secondly, the results indicated a statistically significant negative correlation between depression and social support and the regression analysis revealed that social support was a significant negative predictor of depressive symptoms. The possible explanations might be related to several factors, such as the stigma associated with substance use disorders, which can cause feelings of social spotlessness and isolation. Furthermore, due to their addiction, people with drug use disorders may find it difficult to preserve positive relationships, which puts additional stress on their social support network. Depression can also make it difficult to get and keep social support, which can lead to a vicious cycle in which feeling down is made worse by a lack of support.

This study's outcomes also prolong earlier conclusions on the converse association between social support and depression among substance abusers as higher perceived social support was strongly associated with lower chances of depression, supporting the conception that strong social support is a buffer against depressive symptoms (*McConnell et al., 2015, Kecojevic et*

*al.,2019, Rubio et al., 2020,Shah et al ., 2021& Li et al .,2023).*

The study results revealed there was a statistically positive correlation between self-stigma and depression and the regression analysis showed that depression was a significant positive predictor of self – stigma. Multiple variables could be influencing this. Primarily, people who suffer from self-stigma could absorb unfavorable ideas and perspectives about themselves, which could result in emotions such as guilt, inadequacy, and despair. The onset or worsening of depressive symptoms may be attributed to these unfavorable feelings. Also, because substance use disorders are stigmatized in society, those who suffer from them may experience emotions of discrimination and isolation, which exacerbates depressive symptoms. Overall, the positive relationship between self-stigma and depression among patients with substance use disorders emphasizes the importance of specific interventions that should be addressed to decrease the impact of stigma in this population and encourage self-compassion and acceptance in treatment approaches for these patients. (*Prizeman et al,2023).*

These results were consistent with the findings of *Garg & Kaur .,(2020)*, which reported that the burden of self-stigma significantly exacerbates depression levels, supporting the idea that self-stigma can have negative impacts on mental health. As well, *Saffari et al,(2022)* observed in study entitled temporal associations between depressive features and self-stigma in people with substance use disorders, that there were Positive associations between depressive features and self-stigma substance abusers. Although these associations may be bidirectional longitudinally, the directions from depressive features to self-stigma may be stronger than the converse directions, suggesting treatment of depression in prior stages may inhibit self-stigmatization and consequent negative effects for people with substance use disorders.

Finally, regarding linear regression, marital status, monthly income, age, and social support exhibited a negative predictive effect on participants' self-stigma. These outcomes could be explained by the fact that having a committed relationship can provide both practical and emotional support, which could lessen feelings of

stigma and loneliness. Patients suffering from substance abuse who earn more money each month might have easier access to options like support groups and mental health treatments. Due to their life experiences, older people may have a better grasp of their illness and may be less likely to stigmatize themselves. Furthermore, people who are not subject to these kinds of societal pressures could find it simpler to disassociate themselves from the stigma attached to substance misuse. These findings were inconsistent with the study conducted by *Sattler et al., (2021)* which noted a significant relation between gender and self-stigma, which contrasts with the results of the current study. As well, an Egyptian study conducted by *Elkalla et al., (2023)* indicated that the self - stigma score was significantly correlated with the severity of substance abuse but not with age.

### **Conclusion**

Based on the current study's findings, the patients with SUD encounter moderate levels of self – stigma, more than half of the patients experienced severe depressive symptoms and were low socially supported. There was a statistically significant negative correlation between social support and both self- stigma and depression. While, there was a statistically significant positive correlation between self-stigma and depression. Demographic factors such as age, marital status ,and income negatively influence self- stigma. As well, marital status negatively influences depression.

### **Recommendations:**

In particular, defusing, mindfulness and acceptance, and commitment therapy may reduce self- stigma and depression in a substance abuse population.

A Psychosocial intervention program to increase perceived social support support from family and friends would help address the negative effects of self- stigma and depressive symptoms among individuals diagnosed with substance use disorders.

Further longitudinal study is needed to examine the potential causal role of social support in self-stigma and depressive symptoms among SUD patients.

Future research with a large sample size is necessary since the small sample size prevented results from being generalized.

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