

Effect of Psychosocial Skills Training on Emotional Regulation among Patients with Substance Use Disorder

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Abstract

Background: Substance use disorders are highly prevalent among youth and adult populations. Psychosocial skills training can improve the ability of those patients to cope with emotional distress and the challenges, conflicts, and adversities of everyday life by increasing their emotional regulation skills. **Aim:** This study aimed to evaluate the effectiveness of psychosocial skills training on emotional regulation among patients with substance use disorder. **Design:** A quasi-experimental study design was utilized (pretest/posttest and follow up) **Setting:** El-Abbasia Psychiatric Hospital affiliated to the General Secretariat of Mental Health and Addiction Treatment. **Subjects:** A purposive sample of 41 patients with substance use disorder with specific inclusion criteria. **Tools:** four tools were used for data collection namely: Structured interviewing questionnaire, Difficulties in Emotion Regulation Scale, Distress Tolerance Scale, and Interpersonal Competence Questionnaire. **Results:** This study revealed that there were improvements in interpersonal competence, distress tolerance and difficulties in emotion regulation among patients with substance use disorders post- psychosocial skills training implementation. Also, there were negative correlations between interpersonal competence and difficulties in emotion regulation, and distress tolerance post- psychosocial skills training implementation. While there was a positive correlation between difficulties in emotion regulation and distress tolerance post- psychosocial skills training implementation. **Conclusion:** Psychosocial skills training had a positive effect on emotional regulation among patients with substance use disorders. **Recommendations:** Integration of psychosocial skill training in the rehabilitation and relapse prevention programs of patients with substance use disorders to enhance their coping skills and regulate their emotions effectively.

Keywords: psychosocial skills training, emotional regulation, interpersonal competence, distress tolerance, substance use disorders.

Introduction

Substance use disorder (SUD) is a chronic, recurrent illness involving psychiatric, medical, familial, occupational, and spiritual issues. It disrupts lives and imposes stress on families and communities, and most individuals have psychiatric problems. It requires long-term control, as with other chronic disorders (Moghadam et al. 2020).

Substance use disorder is a significant social challenge that disrupts personal, familial, social, and cultural life in communities. Its negative impacts are a major global public health issue, affecting various aspects of an individual's life, including interactions, occupation, religion, and social relations. (Badie et al. 2020).

Emotion regulation is the process of controlling an individual's emotions through several factors such as seeking or avoiding situations, thinking about experiences, and expressing feelings. Some models, like cognitive reappraisal, mindfulness, and acceptance, promote comfort, while others, like suppression, can lead to poorer psychological outcomes (McRae & Gross 2020).

Emotion regulation is a skill that helps individuals control their emotions, express them, and moderate their reactions effectively (Ong & Thompson 2019). Additionally, researchers consider ER a mixture of physiological, behavioral, and cognitive processes that help individuals' moderate negative emotions (Edossa et al. 2018).

Caballo (1987) defines social skills as a set of behaviors a person uses in their social environment to express their feelings, desires, attitudes, opinions, or rights, while respecting others' behavior and resolving current issues while reducing the likelihood of future problems.

Furthermore, social skills training can help people with substance use disorders better manage the difficulties, conflicts, and misfortunes of daily life. This training is highly efficient and beneficial as it helps individuals transform their knowledge, attitudes, and existential values into practical and objective skills (**Javidi & Garmaroudi 2019**) Social skills training (SST) is a crucial component of treatment for individuals with substance use disorders (SUD) due to their impairments in social skills (**Schneider & Andretta, 2017**).

Psychiatric nurses play a crucial role in addressing the needs of individuals with substance use disorders providing essential care and support to help them on their journey to recovery. Consequently, social skills training can be considered to address losses caused by the disorder and enhance users of drug potential in their social collaborations both during and post therapy (**Schneider, Limberger, Novello, & Andretta, 2016**).

According to the basic idea of SUD treatment, social skills training is critical for progressing in a new lifestyle. This includes developing communication and interpersonal relationships, attracting social support, motivating change, reducing psychological distress, adjusting to life without drugs, engaging in peer support, demonstrating active participation, improving assertiveness, and reducing emotional dysregulation.

Significance of the study:

Adolescents and adults are particularly affected by substance use disorders. It is approximate that 10% of adolescents and between 20% and 30% of adults (**Centers for Disease Control CDC, 2021**).

In Egypt, 5.9% of the population is diagnosed with a substance use disorder, the population between 15-25 is the most exposed to substance abuse and between 25-35 years is

the most requested for treatment (**Addiction Treatment and Abuse Fund, 2022**). Other studies found that relapse rates following medical care can surpass 40-75% within three weeks to six months of completion (**Moradinazar, et al., 2020**).

Thus, the aim of this study was to evaluate the effectiveness of psychosocial skills training on emotional regulation among patients with substance use disorder.

Aim of the Study

This study aimed to evaluate the effectiveness of psychosocial skills training on emotional regulation among patients with substance use disorder through:

1. Assessing patients' level of emotional regulation pre/post and follow up psychosocial skills training implementation.
2. Assessing patients' psychosocial skills (interpersonal competence, and distress tolerance) pre/post and follow up psychosocial skills training implementation.
3. Designing and implementing of the psychosocial skills training program.
4. Evaluating the effectiveness of the psychosocial skills training on emotional regulation among patients with substance use disorder.

Research hypotheses:

This study hypothesized that:

Psychosocial skills training will have a positive effect on emotional regulation among patients with substance use disorder.

Working definition:

Psychosocial skills in this study are limited to distress tolerance and interpersonal competence.

Subjects & Methods

Research design:

To achieve the aim of this study, a quasi-experimental study design was utilized in one group pretest/posttest and follow up.

Setting:

The study was conducted at El-Abbasia Psychiatric Hospital in Cairo. It is the largest

and oldest hospital for treating psychiatric illnesses in Egypt, affiliated to the General Secretariat of Mental Health and Addiction Treatment (GSMHAT). It includes Addiction treatment and rehabilitation departments in the new building (2nd -3rd -4th) floor including Detox ward, rehabilitation ward, and Dual ward.

Subjects:

A purposive sample of 41 patients with substance use disorder immediately after discharge from hospital during follow up visit from the previously mentioned setting, who met the following inclusion criteria; newly diagnosed patients with no relapse history, able to communicate well, patients with no comorbid psychiatric diseases, and did not receive any previous training program regarding substance use disorder.

Sample size:

The study by Rosner (2016) detect the sample size for a study. The standard normal deviation for the sample was calculated using $Z\alpha$ and $Z\beta$, with B and C being the standard normal deviations. The group size was determined by rounding the resultant number to the next largest integer. The sample size of forty-one patients was required to achieve an 80% power and a 5% two-sided significance level, assuming an effect size of 0.50 between pairs and a standard deviation of 1.14.

Tools for data collection:

In the current study, four tools were used to collect data. These tools translated into simplified Arabic Language by language expert then translated in original language by English language expert and any discrepancy between the original tools and back translated tools were considered as translation errors:

Tool I- Interviewing questionnaire:

The researchers designed it after reviewing the related literature and composed of (2) parts:

- **Part one:** demographic characteristics of studied patients' which include age, sex, marital status, residence, occupation, educational level, and monthly income.

- **Part two:** patients addiction history which include type of substance, method of substance use, motive for use, and commitment to treatment:

Tool 2- Difficulties in Emotion Regulation Scale (DERS):

The DERS is a 36-item self-report scale adopted from **Gratz & Roemer (2004)** to evaluate various aspects of emotion dysregulation, including six subscales.

1. Nonacceptance of emotional responses domain.
2. Difficulty engaging in goal-directed behavior.
3. Impulse control difficulties.
4. Lack of emotional awareness.
5. Limited access to emotion regulation strategies.
6. Lack of emotional clarity.

Scoring of DERS:

The measure rates items on a scale from 1 to 5, with a total score range of 36 to 180 and six subscales, with higher scores indicating greater issues with emotion regulation.

3- Distress Tolerance Scale (DTS):

This questionnaire was adopted from Simons & Gaher (2005). The DTS, a 15-item self-report questionnaire, assesses an individual's perceived ability to tolerate emotional distress, including (anger, happiness, loneliness, anxiety, and depression)

Scoring of DTS:

Each item is rated on a 5-point Likert-type scale (1 = "strongly agree" to 5 = "strongly disagree"), the extent to which they believe they can experience and withstand distressing emotional states. The measure yields a total score range from 15 to 75.

Tool 4- Interpersonal Competence Questionnaire (ICQ):

The Interpersonal Competence Questionnaire (ICQ) is a tool developed by Buhrmester et al. (1988) It aims to measure an individual's ability to effectively navigate social situations and consisting of 40 items that assess social competence in five domains: initiating relationships (8 items), disclosing personal

information (8 items), asserting displeasure (8 items), providing emotional support (8 items), and managing interpersonal conflict (8 items).

Scoring of ICQ:

A 5-point rating scale measures an individual's competence and comfort in handling different situations. The scale ranges from 1 (poor) to 5 (extremely good), with a total score of 40 to 200. A higher score indicates higher interpersonal competence, with a higher score indicating better handling abilities. The measure helps individuals navigate complex situations more effectively.

Validity and reliability:

A panel of five experts, including professors and assistant professors from Ain Shams University's Department of Psychiatric and Mental Health Nursing, assessed the face and content validity of study tools in Arabic for relevance, clearance, comprehensiveness, and feasibility without any modifications.

Pilot study:

A pilot study was conducted to evaluate the applicability, feasibility, language clarity, and time required to complete the study tools. A sample of 10% of the patients was tested to assess the tool's effectiveness. The final forms were created after analyzing the pilot data and maintaining the tools used. The tool completion time was 35-45 minutes.

Data Collection procedure:

The actual fieldwork for the current study started in April 2023 and ended at the end of December 2023.

Assessment phase:

The study objectives were simply explained to patients with substance use disorders who were approved to join in the study and who fulfilled the inclusion criteria, using the previously mentioned study tools to collect baseline assessment data. The time taken to complete the study tools was 35-45 minutes in the morning shift at the outpatient clinic in the previously mentioned setting.

Planning phase:

The study analyzed literature on psychosocial skills, emotional regulation, distress tolerance, interpersonal competence, and the role of psychiatric nurses, using resources like books, articles, and periodicals. Psychosocial skills training program sessions were designed including objectives, teaching content, timing, instructions, and activities.

Implementation phase:

After the pre assessment was completed, the researchers started the intervention program's sessions. The intervention program was implemented by classifying the patients into five groups (four groups consisted of eight patients and one group consisted of nine patients). In the beginning, the researchers established a therapeutic relationship with the patients. Psychosocial skills training was written in a simple Arabic language. The content of the intervention program was achieved through (11) sessions adding to acquaintance session, closure session and follow up session.

The training program for substance-using disorders involved using various teaching methods and behavior modification techniques to help patients regulate their emotions and develop positive social skills. The sessions were conducted in groups, with patients receiving booklets, teaching media, and activities as references. Researchers provided explanations and encouraged feedback from patients, particularly during follow-up sessions. The program aimed to help patients regulate emotionally, tolerate stress, and enhance interpersonal competence.

By the end of the program, patients with substance-using disorders had acquired the knowledge and skills needed to regulate emotions, tolerate stress, and improve their interpersonal competence. The program lasted 45-60 minutes per session, and this was achieved through the following sessions:

Acquaintance session: each patient with substance use disorder acquainted the psychosocial skills training content and its objectives and answered questions of data collection tools (first assessment).

Session one: It focused on an **overview of SUDs**.

Objectives: At the end of this session, each patient should be able to identify the nature of SUDs

This session includes the concept of SUDs, risk factors, signs, and symptoms of the common type of substance abuse (physical and emotional effect of SUDs), addiction stages, and accompanied complications. Each patient analyzes the pros vs. cons of addiction's impact on self. The researchers used lecture/discussion to fulfill the aim of the session.

Sessions two & three: It dealt with **emotional regulation and its relationship with psychosocial skills**.

Objectives At the end of these sessions, each patient can identify the relationship between emotional regulation and psychosocial skills.

These sessions included the concept of emotional regulation and its importance to understand own feelings and regulate it. In this session, the researchers explained the signs of emotional dysfunction such as feeling of frustration, anger, overeating, oversleeping etc., and differentiate between healthy behaviors to regulate negative emotion such as expressing feeling, stress management etc., and the unhealthy one such as aggression, self-injury, and substance misuse. Finally, the researchers clarified the importance of psychosocial skills in developing effective emotional regulation skills. This was done by using discussion role play.

Session four: It focused on **restructuring substance use beliefs** (formative functional thought about substance use disorder)

Objectives: At the end of this session, each patient should be able to follow therapeutic measure to modify dysfunction belief about addiction in which the patients determine own belief regarding drugs and its power through using drug belief work sheet; they explored the drug-related dysfunctional belief among patients with substance use disorders such as “drugs will increase your concentration and energy”, “You wouldn't be able to be happy

without drugs”, etc. The researchers helped the patient to identify dysfunctional thoughts about drug use and replace them with functional ones. The researchers encouraged gaining these rational thoughts by homework including recording such a dysfunctional thought daily and encouraged them to replace it with a rational one. Any attempt to replace these dysfunctional thoughts is encouraged and supported by the researchers. This was done by using discussion, role play and videos.

Session five: It dealt with **emotional awareness and self-expression**.

Objectives: At the end of this session, each patient should be able to reveal his emotions.

The researchers allowed the patients to explore several types of emotions using an emotion wheel then asked them to resemble one of these emotions by their face to be able to differentiate and label different emotions. The researchers explained the importance of emotional awareness and expression. The researchers asked the patients to label their emotions in the different situations (stressful, joyful, etc.) at home and asked them to express these feelings to a friend, family member, therapist or any significant other. This was done by using discussion, role play and videos.

Sessions six & seven: it focused on **dealing with psychological distress and frustration**.

Objectives: at the end of these sessions each patient should be able to practice healthy methods for relieving psychological distress.

The researchers explained and practice in details different skills to cope with frustration and psychological distress among patients with substance use disorders such as a regular stress-relieving activities such as mindfulness, relaxation technique, physical exercises & sport, journaling, and healthy eating & sleeping habits. In addition, the researchers helped the patients to integrate these skills into their daily life though asking the patient to apply stress-relieving activities at home while facing a frustrating situation and record the associated feeling. The researchers used many teaching methods and strategies such as role-play,

videos, discussion and to help the patients to practice these strategies effectively.

Session eight: It dealt with **assertiveness & triggering situations.**

Objectives: at the end of this session each patient should be able to conduct assertive behavior

The researchers explained the concept of assertiveness, and its importance to deal with several types of addiction triggers including (environmental, emotional, behavioral, and psychological triggers). Patients were encouraged to differentiate between assertive behavior and nonassertive behavior (aggressive and passive behavior) using different scenarios of aggressive, passive, and assertive situations. Also, the researchers offered different scenarios in which every patient share in a role play including using "I" statement, expressing one's opinion, making request, and saying no to help the patients to practice assertive communication skills in the triggering situations.

Session nine: It focused on **enhancing communication skills and interpersonal relationships** among patients with substance use disorders.

Objectives: at the end of this session each patient should be able to communicate therapeutically with other

The researchers focused on how to initiate and maintain a healthy relationship with others. At the beginning of this season the patients fill in the Good and Bad Relations Worksheet to be able to evaluate their relationship with others, ex. a friend. The researchers explained tips to initiate a healthy relationship while maintaining pleasure with others. In addition, the researchers clarify concept of self-disclosure, its obstacles and how to use self-disclosure to maintain an effective relationship. The researchers emphasize the importance of nonviolent communication components, and how to apply empathy in real situations.

Session ten: It dealt with **interpersonal conflict.**

Objectives: at the end of this session each patient should be identified with the

therapeutic ways to handle interpersonal conflicts.

The researchers encouraged the patients to cope better with day-to-day interpersonal conflicts and reduce their impact on mental and physical wellbeing. The researchers explained the common causes of interpersonal conflict and effective strategies to deal with conflict such as withdrawal, collaboration...etc. Two patients were asked to share in a role play including provoked situation including interpersonal conflict and would be asked to use one of interpersonal conflict resolution strategies.

Session eleven: It focused on encouraging **social participation & seeking social support.**

Objectives: at the end of this session each patient should be able to compose a list of social activities for supporting patients.

The researchers identified the importance of engaging in different social & spiritual activities and the effect of presence of significance others during the time of stress. The researchers offered a list of different social activities as a source of happiness away from the pleasure of having the drugs. Patients were encouraged to determine their own list of pleasurable activities and develop a schedule for applying it.

Evaluation and follow up phase:

The study evaluated the impact of psychosocial skills training on emotional regulation in substance use disorder patients using the same data collection tools immediately after the training sessions and conducted a follow-up assessment three months later.

Administrative design:

The dean of the Ain Shams University Faculty of Nursing granted a formal agreement to the manager of the research setting for data collection and program application to patients with substance abuse disorder.

Ethical consideration:

The Faculty of Nursing at Ain Shams University Scientific Research Ethics Committee approved the study. After that, the researchers informed patients about the purpose, method, and written consent. Confidentiality, anonymity, and use of data were guaranteed, and participants were informed they could leave at any time.

Compliance with Ethical Standards: All procedures performed in this study followed the ethical standards of the Ethical Committee of Scientific Research of the Faculty of Nursing, Ain Shams University, and were approved (study number 22.12.46).

Statistical analysis:

The study coded and revised the data acquired using SPSS version 22. Number and percentage distributions were used to evaluate the characteristics of the patients. The pre-test (ANOVA) and Pearson correlation coefficient were used to evaluate the results of the post-test and follow-up evaluations. A 95% confidence range was used to examine the results, and a $p < 0.05$ significance level was applied. Positive and negative correlations between the research variables were examined using the Pearson correlation coefficient.

Results:

Table 1 shows that, 65.0% of the studied patient their age ranged from $30 \leq 40$ years, their mean age are 32.05 ± 4.63 years. As regard to gender and marital status, 80.7% & 47.9% of the studied patients were male and married, respectively. Also, 77.9% of them were residing in urban areas. Regarding educational level, it was found that 45.0% of them had secondary education. Also, 87.9% of the studied patients were working, 47.2% of them were workers. Furthermore, 81.4% of the studied patients, their monthly income was not enough.

Table (2) indicated that 61.4% of the studied patients with substance use disorder take opioids (Tramadol -Heroin - Morphine-

Codeine). Moreover, 88.6% & 63.6% of them take substance by mouth and for experience or curiosity, respectively. Also, 67.1% of them did not commit to treatment.

Table (3) reveals significant differences in difficulties in emotion regulation domains, including nonacceptance of emotional responses, goal-directed behavior difficulties, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity and total mean scores pre- post- and follow up of psychosocial skills training application among patients with substance use disorder, in which $f = 60.72, 46.52, 65.49, 59.19, 47.85, 77.64, \& 85.30$ at $p < 0.001$ respectively.

Table (4) showed that, the study found significant differences in interpersonal competence domains and total mean scores among patients with substance use disorder before, during, and after psychosocial skills training application, with t values of 43.74, 54.81, 35.16, 48.07, 40.71, and 70.10 at $p < 0.001$, respectively.

Table (5) showed that, there was a highly statistically significant difference between distress tolerance mean scores pre- and post- and follow up of psychosocial skills training application among patients with substance use disorder, in which $t = 73.46$ at $p < 0.001$.

Table (6) showed that, there were statistically significant negative correlations between interpersonal competence and difficulties in emotion regulation, and distress tolerance post- psychosocial skills training application among patients with substance use disorder, in which $r = -.300, \& -.387$ at $p = 0.047, \& .012$, respectively. While there was a positive correlation between difficulties in emotion regulation and distress tolerance post- psychosocial skills training application among patients with substance use disorder, in which $r = .032$ at $p = .011$

Table (1): Frequency distribution of the studied patients with substance use disorder according to their demographic data (n=41).

Items	No.	%
Age		
▪ 20≤30 years	12	29.3
▪ 30≤40 years	26	63.4
▪ >40 years	3	7.3
Mean ± SD= 32.05 ± 4.63 Max= 44 Min= 21 Range=23		
Sex		
▪ Male	32	78.1
▪ Female	9	21.9
Marital status		
▪ Single	16	39.1
▪ Married	19	46.3
▪ Divorced	5	12.2
▪ Widow	1	2.4
Residence		
▪ Rural	9	21.9
▪ Urban	32	78.1
Educational level		
▪ Illiterate	4	9.8
▪ Basic education	5	12.2
▪ Secondary education	19	46.3
▪ High education	12	29.3
▪ Post graduate studies	1	2.4
Occupation		
▪ Working	36	87.8
▪ Not working	5	12.2
If working, what is the type of work? (n=36)		
▪ Worker	19	46.3
▪ Employee	7	17.1
▪ Free business	15	36.6
Monthly income		
▪ Enough	3	7.3
▪ Not Enough	34	82.9
▪ Enough and more	4	9.8

Table 2: Frequency distribution of the studied patients with substance use disorder according to their health history (n=41).

Items	No.	%
Type of used substance*		
▪ Opioids (Tramadol -Heroin - Morphine- Codeine)	25	61.4
▪ Hashish-	11	26.4
▪ Marijuana	9	22.9
▪ Alcohol	5	12.9
▪ Cocaine	2	5.7
▪ Hypnotic and sedative drugs	10	25.0
▪ Hallucinogens	4	10.7
▪ Stimulants	4	8.6
▪ Strox	5	12.1
▪ Inhalation of substance with a pungent odor	5	12.9
▪ Shabu	12	30.0
Method of the substance abuse*		
▪ Mouth	36	88.6
▪ Nose	9	22.9
▪ Injection	5	12.9
▪ All methods	12	30.0
Motives for use		
▪ Experience or curiosity	26	63.6
▪ Overcoming problem	7	16.4
▪ Impact friends	3	6.4
▪ Getting rid of anxiety	6	13.6
Committed to treatment		
▪ Committed	13	32.9
▪ Not Committed	28	67.1

* Numbers are mutually exclusive

Table 3: Comparison between difficulties in emotion regulation domains mean scores pre- /post- and follow up of psychosocial skills training application among patients with substance use disorder (n=41).

DERS	Pre-intervention Mean±SD	Post-intervention Mean±SD	Follow up	f-test
Nonacceptance of emotional responses (max=30)	22.82±2.40	18.02±3.07	17.23±2.73	60.72**
Difficulty engaging in Goal-directed behavior (max=20)	18.36±2.52	11.85±2.94	10.59±1.78	46.52**
Impulse control difficulties (max=30)	22.53±2.20	16.07±2.66	14.47±3.98	65.49**
Lack of emotional awareness (max=9)	22.24±2.40	17.34±2.36	15.93±2.29	59.19**
Limited access to emotion regulation strategies (max=40)	29.78±3.98	21.60±2.26	19.18±2.90	47.85**
Lack of emotional clarity (max=25)	19.56±1.60	13±2.07	11.20±3.67	77.64**
Total (max=180)	135.31±10.15	97.85±11.31	88.6±17.35	85.30**

(**) *Highly statistically significant p<0.01*

Table 4: Comparison between interpersonal competence domains mean scores pre- and post- and follow up of psychosocial skills training application among patients with substance use disorder (n=41).

Interpersonal Competence Domains	Pre-intervention Mean±SD	Post-intervention Mean±SD	Follow up	f-test
Initiating relationships (max=40)	21±3.07	26.14±2.11	27.29±2.23	43.74**
Disclosing personal information (max=40)	21.63±2.52	25.34±1.27	26.26±2.80	54.81**
Asserting displeasure with others (max=40)	13.97±2.54	19.92±3.36	20.26±2.71	35.16**
Providing emotional support and advice (max=40)	16.95±2.25	23.43±1.33	24.14±1.90	48.07**
Managing interpersonal conflict (max=40)	17.53±2.75	24.27±1.87	25.53±2.19	40.71**
Total Interpersonal Competence (max=200)	91.09±8.32	119.1±9.94	123.51±8.33	70.10**

(**) *Highly statistically significant p<0.01*

Table 5: Comparison between distress tolerance mean scores pre- and post- and follow up of psychosocial skills training application among patients with substance use disorder (n=41).

Distress Tolerance (max=75)	Pre-intervention Mean±SD	Post-intervention Mean±SD	Follow up	f-test
	61.92±3.81	48.26±4.20	49.12±2.96	73.46**

(**) *Highly statistically significant p<0.01*

Table 6: Correlation matrix between the studied variables (difficulties in emotion regulation, interpersonal competence, and distress tolerance) among the studied patients with substance use disorder post- psychosocial skills training application (n=41).

Variables	Difficulties in emotion regulation		Interpersonal competence		Distress tolerance	
	r	p-value	r	p-value	R	p-value
Difficulties in emotion regulation			-.300	.047*	.032	.011*
Interpersonal competence	-.300	.047*			-.387	.012*
Distress tolerance	.032	.011*	-.387	.012*		

r = correlation coefficient test.

** Statistically significant at p < 0.05.*

Discussion

Substance use disorder poses significant threats to social, family, work productivity, physical health, and interpersonal relationships (Elsayed et al, 2020). Along with endangering political and economic stability, it also had an impact on the social structure of the nation (Rounaghi et al, 2018).

Regarding demographic data of the studied patients with substance use disorder, The study reveals that less than two-thirds of patients with substance use disorder are aged 30-40 years, with most being married, and less than half being married. Additionally, over three-quarters of these patients reside in urban areas, indicating a high prevalence of substance use disorders.

This could be related to peer pressure, cultural background, and life difficulties contribute to drug misuse in urban areas, as people often encourage and recommend drug use, while coping with these challenges is crucial for young people.

The result supported the findings of Rezaie et al. (2021), who noted that the intervention group mean age was ($M=34.05$, $SD=5.00$), and the mean age of the control group was ($M=36.02$, $SD=4.05$), also two thirds of both the groups were married and this result was in line with the findings of Ibrahim et al. (2018), who discovered that substance abuse was most common in those between the ages of 20 and 40.

The previous result was harmony with Chaman et al, (2020), who found that a higher percentage of the population under study lived in urban regions and had a larger predisposition to take drugs than those who lived in rural areas.

Regarding educational level, it was found that less than half of them had completed secondary school. Also, most of them were working, less than half of them were workers. Furthermore, the highest of them, their monthly income was not enough.

Whenever, the finding was disagreed with Ahmed et al., (2022) who found that less than half of the patients in the study obtained their university studies and had sufficient money. In addition, the findings of Ebrahim et

al. (2022) provided additional support for this finding, as they disclosed that less than three-quarters of the patients in the study were from urban areas, more than half of them were married, nearly two-thirds of the participants had completed secondary education, and most of them were employed.

Regarding the health history of the patients with substance use disorder, findings of this study indicated that, fewer than two thirds of the patients with substance use disorder take opioids (Tramadol -Heroin - Morphine-Codeine). Moreover, the majority and less than two thirds of them take substance by mouth and for experience or curiosity. Also, more than two thirds of them did not commit to treatment.

From the perspective of the participants, this finding was supported by the fact that after trying with various substances, they chose "heroin and codeine" to experience the drug's powerful effects, enhance a rapid dependence, and quickly alleviate withdrawal symptoms. Regarding "tramadol and morphine," there can be a widespread belief that these drugs heighten awareness while lowering pain and exhaustion.

This result was consistent with that of Baconi et al. (2018), who demonstrated that half of the group's patients used heroin. Furthermore, Yassa and Badea (2019) discovered that most patients took numerous medications, with tramadol a synthetic opioid that first became known in Egypt as an analgesic and over time turned into an addictive substance.

Additionally, this result was in a same line with Abdelmouttelb, et al., (2022) who said the most common substance addiction among the study's patients was heroin, followed by the stimulant tramadol. Also, this result matching with study by Abd Eldayed, & Abd Elaziz, (2018), stated that most used drugs by patients are Tramadol then the others following drugs: Hashish, Bango, Morphine, Apetryl and Cough syrups.

Concerning difficulties in emotion regulation among patients with substance use disorder pre- and post- and follow up psychosocial skills training application data, the current study revealed highly statistically significant differences between the total mean

scores pre- and post- and follow-up of psychosocial skills training application among patients with substance use disorder, and the difficulties in emotion regulation scores of "nonacceptance of emotional responses, difficulty engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity."

The results point out that psychosocial skills training had a positive impact on emotion regulation among the patients under study. Participants were able to better control their emotions, cope with interpersonal situations more skillfully, and manage their anger and frustration.

This result was agreed with by **Choopan et al. (2016)**, who noted that anger management can be helped by emotional regulation training, as patients with addictions often struggle to control their emotions. Also, these findings are in line with a study by **BİLİCAN et al. (2022)**, who found that the participants in their study discovered it easier to accept their emotional reactions, had more access to techniques for regulating their emotions, experienced an improvement in emotional clarity, and noticed a decrease in their problems with impulse control after the program.

Additionally, this result also supported the findings of **Cavicchioli et al. (2020)**, who claimed that emotional regulation and avoidance are crucial therapeutic processes for managing various disorders. Treatments significantly improved clinical indicators and overall addictive behaviors, regardless of baseline levels, with changes in emotion management significantly impacting overall improvement.

Regarding interpersonal competence among patients with substance use disorder pre- and post- and follow up psychosocial skills training application, finding of the current study found significant differences in interpersonal competence domains and total mean scores among patients with substance use disorder before, during, and after psychosocial skills training application, as well as total mean scores pre- and post- and follow up of psychosocial skills training application among patients with substance use disorder.

The improvement of interpersonal competence after training may be attributed to the psychosocial skills training sessions and teaching strategies that cater to the participant's wants and interests, enabling better emotion regulation, decreased aggression, and increased self-awareness.

This result is consistent with that of **Ebrahem et al. (2022)**, who found that psychosocial skills training helped participants regulate their emotions, cope with interpersonal conflicts, and manage their anger and annoyance. In general, patients with substance use disorders showed significant gains in assertiveness and a decrease in aggressive behavior after completing psychosocial skills training.

Furthermore, this result was in line with the findings of **Navidian et al. (2019)**, who reported that the anger score of the intervention group following the intervention was lower for those who received psychosocial skills (self-awareness, relationships, emotional management, and self-expression).

Also, this finding was agreed upon by **Haug et al., (2017)**, who discussed that the data revealed a decline in perceived stress, an enhancement in social skills, and an improvement in desirable self-management strategies such as seeking social support and palliative emotion regulation.

Concerning distress tolerance of patients with substance use disorder pre- and post- and follow up psychosocial skills training application, data analysis of the current study shows that, there was a highly statistically significant difference between distress tolerance mean scores pre- and post- and follow up of psychosocial skills training application among patients with substance use disorder.

This could be a result of the program's skill training in assertiveness and stress management, which includes applying relaxation techniques to help substance abusers manage their stress, improving emotional and coping skills, and learning different coping mechanisms to deal with anger and frustration.

According to **Ghanbari et al. (2020)**, the treatment approaches utilized in this study, ACT and QOLT, significantly enhanced

distress tolerance and self-destructive behaviors in males with drug misuse.

Moreover, this finding was in line with a study by **Moghadam, et al., (2020)**, who concluded that dialectical behavior therapy and mindfulness training were beneficial in lowering distress tolerance and enhancing sleep quality. In addition, this finding was consistent with **Rezaie et al. (2021)**, who mentioned that methadone maintenance treatment significantly enhanced emotion regulation and distress tolerance in post-test and three-month follow-up and significantly decreased craving and depression.

Concerning the correlation between difficulties in emotion regulation, interpersonal competence, and distress tolerance among patients with substance use disorder post- and follow up of psychosocial skills training application, result of the current study shows that, there were statistically significant negative correlations between interpersonal competence and difficulties in emotion regulation, and distress tolerance post-psychosocial skills training application among patients with substance use disorder. While there was a positive correlation between difficulties in emotion regulation and distress tolerance post-psychosocial skills training application among patients with substance use disorder.

Finally, this effect may be attributed to the psychological and interpersonal competencies acquired in psychosocial skills training, which support patients in gaining the ability to communicate effectively, maintain self-control, make thoughtful decisions, and enjoy active healthy lives. In addition, the training's positive feedback, group activities, and role-playing, the participants' self-esteem is typically high when they believe they can manage the problems and difficulties they face daily.

This result was in line with **Zaorska et al. (2023)**, who reported that there was a noticeable negative correlation between emotional dysregulation and distress tolerance.

Conclusion:

Based on the findings, the current study concluded that the psychosocial skills training had a positive effect on improving emotional regulation among patients with substance abuse disorder.

Recommendations:

The following recommendations are suggested based on the results of the current study:

- 1- Establishment of a counseling clinic for patients with substance use disorders and their caregivers for improving life competencies to enhance their coping capabilities to fight addiction triggers.
- 2- Developing an in-service training program for nurses to improve strategies of coping and eliminate drug cravings in patients who are addicts.
- 3- Integrating the psychosocial training into rehabilitation and relapse prevention programs for substance use disorder patients, focusing on effective emotion regulation.
- 4- Further researchers are needed to focus on the relationship between emotional regulation, and craving reduction to reuse among patients with substance use disorder.
- 5- Further researchers are needed to focus on the effect of psychosocial training program on relapse prevention among patients with substance use disorder.

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