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Effect of psycho-educational program and relaxation techniques on anxiety among drug addict people at assiut university hospital

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Abstract

Psycho-educational program is an aspect of therapy that offers information, and support for people in treatment for drug addiction and relaxation techniques can help patients to deal with anxiety that are linked to relapse and early treatment termination.

This study aimed to: Evaluate the effect of psycho-educational program and relaxation techniques on anxiety among drug addict people. Quasi- Experimental pretest posttest controlled design was used.

Subjects and Method: The studied sample consisted of 100 drug addict people, 50 were study group & 50 were control group.

Tools: personal data, socioeconomic status scale, pattern of drug addiction questionnaire, Beck Anxiety Inventory.

Results: The majority of drug addict people had severe levels of anxiety in preprogram intervention. However, post program intervention; less than half of study group had minimal levels of anxiety. While, more than half of control group had severe levels of anxiety.

Conclusion: Psycho-educational program and relaxation techniques were effective to improve levels of anxiety among study group than control group.

Recommendations: Proper follow-up and management of psychological problems among drug addict people to prevent relapse.

Keywords: Drug addict people, anxiety, psycho-educational program, relaxation techniques

1. Introduction

Addiction is a chronic, relapsing brain disease that is characterized by repeated and increased use of a substance, the deprivation of which gives rise to symptoms of distress and an irresistible urge to use the agent again which leads also to physical and mental deterioration [1].

National Council for Fighting and Treating Addiction reported that, roughly 8.5% of Egypt's populations, approximately 6 million people are addicted to drugs. The majority Egypt's populations of drug addict are aged between 15 and 25, this statistic is not casual users, which is 25-30% of the population and includes consumers of hashish and alcohol, it means 5-7% are abusing drugs harmfully and are dependent, which is incredibly high [2].

Drug addict people in Egypt are spending $2.9 billion on drugs each year. Estimates on how many people are addicted to opiates, cannabis, amphetamine-type stimulants or heroin vary greatly, but range between 600,000 and 800,000. Half the 129,850 people who entered drug rehabilitation were addicted to cannabis, while another 43% were dependent on opiates of various types. Another 7% were addicts of amphetamine-type stimulants that would include ecstasy and methamphetamine [3].

Globally, it is estimated that, between 162 million and 324 million people, corresponding to between 3.5% and 7.2% of the world population aged 15 to 64, had used an illicit drug mainly a substance belonging to the cannabis, opioid, cocaine or amphetamine type stimulants group at least once in the previous year [4].

Anxiety commonly presents as a symptom of drugs withdrawal, initially in the form of 'shakes and sweats' as the blood alcohol level declines. Most people with drug addict and anxiety experience them independently, but having both can be a bad cycle. The symptoms of one illness can make the symptoms of another worse. Treating drug addiction will not eliminate an anxiety, so it's usually necessary to treat both together, particularly to reduce the chance of relapse. People with anxiety and drug addiction are at an increased risk for abuse as well as potentially dangerous interactions when they use prescription medication. So medications should prescribe with low abuse potential that are considered safe should a relapse occur [5].

Anxiety and drug addiction are the most frequent problems in the United States 53% of people with drug addiction suffer from at least one other mental disorder such as anxiety. In the United States, anxiety and drug addiction are some of the most common psychiatric problems with lifetime rates of 28.8% and 14.6% respectively [6].

Nurses play vital role in the care of patient experiencing intoxication and withdrawal symptoms, including the physical and psychological effects such as anxiety. So, nurses must assess patient for signs and symptoms, level of anxiety and physical reactions to anxiety (e.g., verbalization of feeling anxious, insomnia, restlessness, tachycardia, and

elevated blood pressure). Nurses must educate drug addict people to make deep breathing exercises and progressive muscles relaxation to decrease anxiety and maintain calmness [7].

Psycho-education increases the chances of long-term recovery in many ways; addiction is a chronic disease that affects the brain. Psycho education provides ways to understand the complex science of addiction in simple terms. Psycho education provides valuable information that helps alleviate anxiety. Psycho education provides an opportunity for patients to ask questions even if the subject is difficult or embarrassing [8].

Relaxation techniques have been strongly recommended as health promotion and disease prevention approaches by the World Health Organization. Relaxation techniques also have been shown to positively promote psychological wellness as well as effectively reduce anxiety associated with drug addiction [9].

1.2 Significance of the study

Drug addiction is considered one of the most serious problems that worry the people in Egypt. The most of age group affected by drug addiction is adolescents due to negative consequences on both developmental and legal aspects. More than 12% of Egyptian adolescence is dependent on drugs [10]. High prevalence of anxiety has been found among drug addict people in the world. Around 25% of people in the community in the United States were alcohol dependence and 43% of drug dependent people had anxiety [11]. Anxiety makes symptoms of drug addiction worse, resulting in a destructive cycle of addiction. Drug addiction and anxiety also increases negative consequences like hospitalization, accidental injury, self-isolation and suicidal ideation [12]. So, the present study could be helpful in providing psycho educational program and relaxation techniques to reduce anxiety, increase rate of progress, decrease the rate of relapse and positive treatment outcome.

1.3 Aim of the study

This study aimed to design, implement and evaluate the effect of psycho-educational program and relaxation techniques on anxiety among drug addict people.

1.4 Research hypotheses

Psycho-educational program and relaxation techniques could be helpful in decrease the levels of anxiety in study group than control group.

2. Subjects and Method

2.1 Research design

Quasi- Experimental pretest posttest controlled design was used to conduct this study.

2.2 Setting

The study was conducted at inpatient of addiction management unit of Assiut University Hospital.

2.3 Sample

Non probability (purposive) sample were utilized. It consists of fifty (50) drug addict people (study group) received psycho-educational program and relaxation techniques and fifty (50) drug addict people (control group) didn't be receive psycho-educational program and relaxation techniques.

The sample of this study selected according to the following criteria

Inclusion criteria: Accept to participate in the study; diagnosed with drug addiction and the age range between (15 to 50 years). Drug addict people who fit for relaxation techniques (such as patients hadn't severe pulmonary disease, patients haven't fracture…).

Exclusion criteria: Drug addict people with mental retardation; organic brain disorder; and history of surgical operation.

2.4 Tools of the study

2.4.1 Tool (1) Socio demographic data

Developed by the researcher that included age, marital status, residence, occupation and level of education.

2.4.2 Tool (2) Scale for measuring family socioeconomic status

This scale has been developed by **[13]** and was updated scale included all the variables of the previous one and translated into Arabic by **[14]** and back translated into English to check validity and reliability. It consists of 7 domains, it includes education and cultural, occupation, family, family possessions, economic, home sanitation, and health care that assess socioeconomic status of the family. This scale has a total score of 84, and levels of socioeconomic status are categorized as following: (<42) = very low level of socioeconomic status, (42< - 63) = low level of socioeconomic status, (63<-71.4) = middle level of socioeconomic status, (71.4:84) = high level of socioeconomic status.

2.4.3 Tool (3) Pattern of drug addiction questionnaire

This questionnaire developed by the researcher. It included: route of administration (oral, inhalation, injection, others); age of starting abuse (years); duration of abuse (less than one year, more than one year); motivation for use (bad friends, trial, increase strength and energy, escape from life stressors, weakness sexual ability) and desired effects (extraversion, elation, stimulation to work, sexual potency, happiness).

2.4.4 Tool (4) Beck Anxiety Inventory (BAI)

It was developed by [15] and translated into Arabic by **[16]** and back translated into English to check validity and reliability. It consists of a 21 items, it multiple- choice self- report inventory that measures the severity of an anxiety and covers the major cognitive, affective, and physiological symptoms of anxiety. Scoring system is rated on 4 point likert scale used (0) not at all, (1) mildly; It did not bother me much, (2) moderately; It was very unpleasant, but I could stand it, (3) severely; I could barely stand it. The scoring system was categorized as **(**0-7) minimal level of anxiety, (8-15) mild anxiety, (16-25) moderate anxiety, and (26-63) severe anxiety. Cronbach's alpha showed a strong reliability with a standardized alpha of 0.92 to 0.94 among the 21 items.

2.5 Administrative and Ethical consideration

1. An official permission was granted from the Dean of the faculty of Nursing and directed to the Head of the Neurology and Psychiatric department.
2. Research proposal approved ethical committee in the faculty of Nursing.
3. There is no risk for the study subjects during application of the research.
4. The study follows common ethical principles in clinical research.
5. Informed oral consent was obtained from every patient after explaining the purpose of study.
6. Privacy and confidentiality were assured during the whole study steps.

2.6 Pilot study

A pilot study was conducted out before stating data collection. It was carried out on ten patients to clarity, and applicability of the study tools and to estimate the time needed to collect data. These 10% patients were included in the study because on modification was done.

2.7 Field work

The field work was performed a period of six months, from July 2018 to end February 2019.

2.7.1 Assessment phase

- Screen for all drug addict people attending at inpatient an addiction management unit according to determined criteria at the beginning of the study by using Beck Anxiety Inventory (BAI). Patients who have score on Beck Anxiety Inventory ranged from (8-15) identified as having anxiety.
- According to the previous steps, participants were grouped into two categories: fifty (50) study groups were received psycho-educational program and relaxation training (deep breathing exercises and progressive muscle relaxation) and another fifty (50) control group. Based on the assessment phase, simple booklets were prepared by the researchers. The program content was revised by group of experts for content validity and relevancy based on the opinion of the experts and results of pilot study.

2.7.2 Implementation phase

First group: drug addict people (Study group)

- The implementation phase included the program strategy (Time and number of session, interaction methods). The number of session was three session per week (The session lasting about 60 to 90 minutes) for each study group, each study group ranged from 3 to 5 patients. The interaction session was conducted at inpatient of addiction management unit at Assiut university hospital.

- Pre- designed booklet by the researcher was given to each patient. Psych- educational program is included 6 sessions:-

***Frist session:** Introduce the meaning of drug addiction and causes that lead to drug addiction, signs and symptoms of drug addiction according to the type of drugs.

***Second session:** Help drug addict people to identify the health risks and complications of drug addiction which affected by the psychological, social, family aspects.

***Third session:** Help drug addict people to review and identify the health risks and complications of drug addiction that effect on organic systems of the body.

***Fourth session:** Help drug addict people to recognize the strategies that help them to change their behavior. Also, Help drug addict people to identify the meaning of relapse and methods of prevention.

***Fifth session:** Help drug addict people to identify the meaning of anxiety and its relationship with drug addiction; symptoms of anxiety that appear to them.

***Sixth session:** Help drug addict people to learn about relaxation techniques that help in reducing their anxiety. Also, they will learn benefits and steps to achieve the best results from their exercise. They will learn how to apply and practice deep breathing exercises and progressive muscle relaxation.

2.7.3 Evaluation phase

Drug addict people (Study group) were assessed immediately after program implementation by Beck Anxiety Inventory (BAI).

Second group: drug addict people (Control group)

- The control group consisted of (50) drug addict people received their treatment of drug addiction only and didn't participate in psycho-educational program and relaxation techniques.

2.8 Statistical analysis

The data were computerized and verified using the SPSS (Statistical Package for Social Science) version 20 to made tabulation and statistical analysis. For quantitative data, the frequencies, percentages, paired t-test; Pearson correlation coefficient, mean and standard deviation were calculated. For qualitative data, comparison between two groups and more was done using Chi-square test ($\chi 2$). P- Value is considered significant if it was less than 0.05.

3. Result

Table 1: Comparison between study and control groups regarding personal data

Variables	Study (n=50) group		Control (n=50) group		P. value
Age					
Range	**(18-50)**		**(18-50)**		
Mean ±SD	**29.06±7.55**		**29.48±6.80**		
Variables	**No.**	%	**No.**	%	
Age group					
16-20 years	3	6.00	3	6.00	.333
21-30 years	32	64.00	26	52.00	
31-40 years	10	20.00	18	36.00	
41-50 years	5	10.00	3	6.00	

Marital status					
Single	30	60.00	27	54.00	.545
Married	20	40.00	23	46.00	
Residence					
Rural	33	66.00	35	70.00	.668
Urban	17	34.00	15	30.00	
Occupation					
Not work	2	4.00	1	2.00	.890
Employee	8	16.00	7	14.00	
Farmer	5	10.00	3	6.00	
Student	2	4.00	2	4.00	
Manual workers	33	66.00	37	74.00	
Educational level					
Primary	5	10.00	2	4.00	.609
Preparatory	10	20.00	9	10.00	
Secondary	29	58.00	34	68.00	
University	6	12.00	5	18.00	

* Statistically significant difference ($p<0.05$) ** statistically significant difference ($p<0.01$)

Table (1) illustrates personal data of study and control groups. As regard age, the mean age of the study group was 29.10±7.66, while control group was 30.26±6.27. About 64% of study group and 52% of control group were age group from 21 to 30 years old. As regard marital status; 60% of study group and 54% of control group were single. Regarding residence, 66% of study group and 70% of control group were from rural area. Regarding occupation, 66% of study group and 74% of control group were manual workers. As regard level of education, 58% of study group and 68% of control group graduated from secondary school. There were no significant differences between study and control group regarding personal data.

Table 2: Comparison between study and control groups regarding pattern of drug addiction

Variables	**Study (n=50) group**		**Control (n=50) group**		P. value
	No.	%	**No.**	%	
Diagnosis					
Poly-drug addict	30	60.00	26	52.00	.420
Single-drug addict	20	40.00	24	48.00	
Types of drug use					
Tamol or tramadol	8	16.00	12	24.00	.694
Hashish	4	8.00	3	6.00	
Opium	5	10.00	7	14.00	
Cocain	3	6.00	2	4.00	
Mixed (Tamol, tramadol-Hashish or Opium)	30	60.00	26	52.00	
Methods of drug use					
Oral	38	76.00	38	76.00	.904
Inhalation	4	8.00	3	6.00	
Injection	8	16.00	9	18.00	
Age of starting abuse (in years)					
Range	15:40		16:34		
Mean± SD	22.88±5.89		22.96±4.44		
Duration of abuse					
Less than one year	1	2.00	5	10.00	.092
More than one year	49	98.00	45	90.00	
Motivation for use					
Bad friends	20	40.00	16	32.00	.576
Trial	6	12.00	11	22.00	
Increase strength and energy	16	32.00	13	26.00	
Escape from life stressors	2	4.00	4	8.00	
weakness of sexual ability	6	12.00	6	12.00	
Desired effects					
extraversion	15	30.00	20	40.00	.713
Stimulation to work	27	54.00	23	46.00	
The feeling of sexual potency	6	12.00	6	12.00	
Happiness	2	4.00	1	2.00	

* Statistically significant difference ($p<0.05$) ** statistically significant difference ($p<0.01$)

Table (2) shows comparison between study and control groups regarding pattern of drug addiction which indicates that 60% of study group and 52% of control group were poly drug addict. 60% of study group and 52% of control group used mixed types as (Tamol, tramadol-Hashish or Opium). Regarding methods of drug use, 76% of study and control group used drug orally. The mean age of starting abuse of the study group 22.88±5.89, while of control group

was 22.96±4.44. As regard duration of abuse; 98% of study group and 90% of control group used drug more than one year. As regard motivation for use; 40% of study group and 32% of control group were motivated for use drugs by bad friends. Desired effects for drug addict more than half 54% of the study group and less than half 46% of control group were stimulation to work. There were no significant differences between study and control groups regarding pattern of drug addiction.

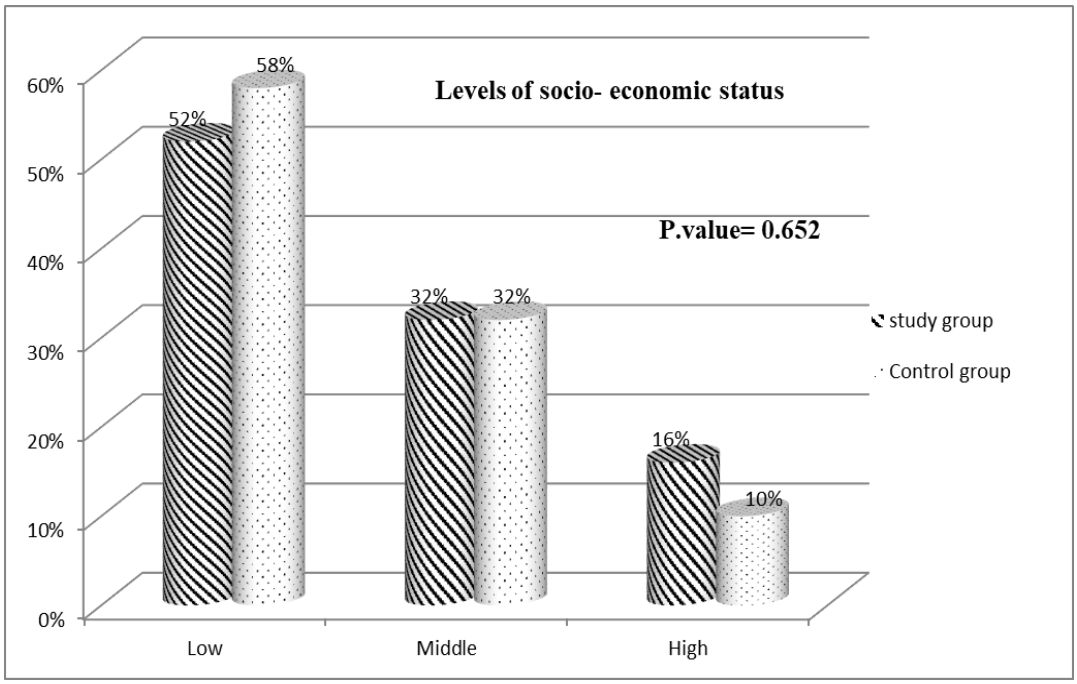

Fig 1: Comparison between study and control groups regarding socio-economic levels

Figure (1) shows a comparison between study and control groups regarding socio-economic levels. More than half 52% of study group and 58% of control group had low level of socio- economic status. There were not statistically significant differences between study and control groups regarding socio-economic status levels (p=0.652).

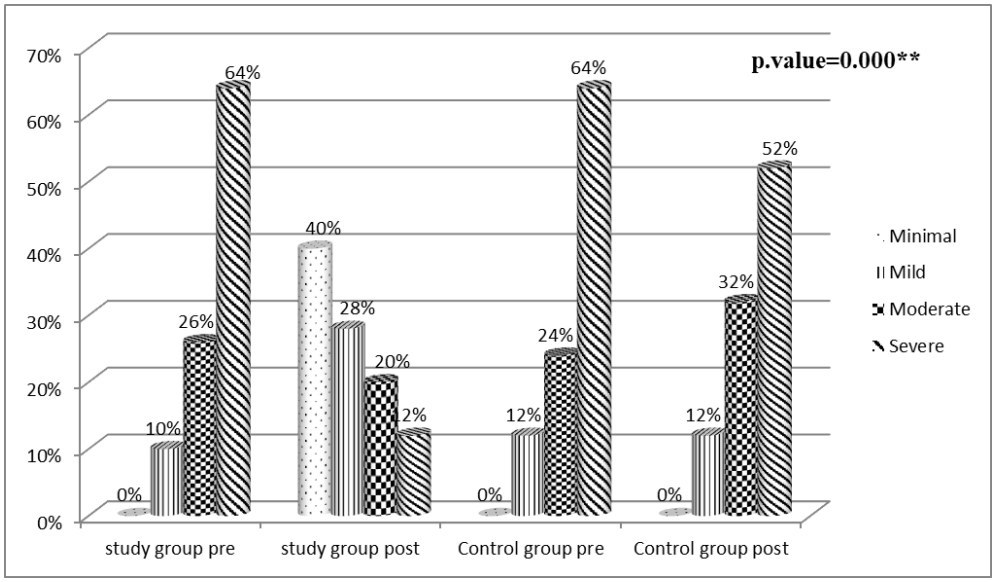

Fig 2: Comparison between pre and post program intervention of drug addict people for study and control groups regarding anxiety levels according to Beck Anxiety Inventory

Figure (2) shows a comparison between pre and post program intervention of drug addict people for study and control groups regarding anxiety levels. This table illustrates that, 64% of study and control groups have severe level of anxiety in pre-program intervention. As regard post-program intervention, 40% of study group had minimal anxiety while, 52% of control group had severe anxiety. There were statistically significant differences between pre and post program intervention of study and control groups regarding levels of anxiety (p=0.000**).

Table 3: Relationship between personal data and socio-economic status levels among study and control groups

Variables	Study (n=50) group							Control (n=50)group						
	Levels of socio-economic status						P. value	Levels of socio –economic status						P. value
	Low (n=26) **52%**		**Middle** (n=16) **32%**		**High** (n=8) **16%**			**Low** (n=29) 58%		**Middle**(n=16) 32%		**High** (n=5) 10%		
	No	**%**	**No**	**%**	**No**	**%**		**No**	**%**	**No**	**%**	**No**	**%**	
Age groups														
16-20 years	2	7.7	1	6.2	0	0.0	.984	1	3.4	2	12.5	0	0.0	.407
21-30 years	17	65.4	10	62.5	5	62.5		17	58.6	7	43.8	2	40.0	
31-40 years	5	19.2	3	18.8	2	25.0		9	31.0	9	56.2	3	60.0	
41-50 years	2	7.7	2	12.5	1	12.5		3	10.3	0	0.0	0	0.0	
Marital status														
Single	16	61.5	9	56.2	5	62.5	.932	19	65.5	7	43.8	1	20.0	.103
Married	10	38.4	7	43.8	3	37.5		10	34.5	9	56.2	4	80.0	
Residence														
Rural	21	80.8	9	56.2	3	37.5	.047*	22	75.9	11	68.8	2	40.0	.269
Urban	5	19.2	7	43.8	5	62.5		7	24.1	5	31.2	3	60.0	
Occupation														
Not work	2	7.7	0	0.0	0	0.0	.180	1	3.4	0	0.0	0	0.0	.001*
Employee	2	7.7	3	18.8	3	37.5		1	3.4	2	12.5	4	20.0	
Farmer	4	15.4	0	0.0	1	12.5		2	6.9	1	6.2	0	0.0	
Student	1	3.8	0	0.0	1	12.5		1	3.4	0	0.0	1	20.0	
Manual workers	17	65.4	13	81.2	3	37.5		24	82.8	13	81.2	0	0.0	
Level of education														
Primary	5	19.2	0	0.0	0	0.0	.000*	2	6.8	0	0.0	0	0.0	.000*
Preparatory	4	15.4	4	25.0	2	25.0		4	13.8	2	12.5	3	60.0	
Secondary	17	65.4	11	68.8	1	12.5		22	75.9	12	75.0	0	0.0	
University	0	0.0	1	6.2	5	62.5		1	3.4	2	12.5	2	40.0	

* Statistically significant difference ($p<0.05$) ** statistically significant difference ($p<0.01$)

Table (3) shows that there were no statistically significant differences between personal data and levels of socio-economic status among study group except residence (p=0.047*) and level of education (p= 0.000*). Also, there were no statistically significant differences between personal data and levels of socio-economic status among control group except occupation (p=0.001*) and level of education (p= 0.000*).

Table 4: Relationship between pattern of drug addiction data and socio-economic status levels among study and control groups

Variables	Study(n=50) group							Control (n=50)group						
	Levels of socio-economic status						P. value	Levels of socio -economic status						P. value
	Low (n=26) 52%		**Middle(n=16) 32%**		**High (n=8) 16%**			**Low (n=29) 58%**		**Middle(n=16) 32%**		**High(n=5) 10%**		
	No.	**%**	**No.**	**%**	**No.**	**%**		**No.**	**%**	**No.**	**%**	**No.**	**%**	
Diagnosis														
Poly drug addict	16	**61.5**	10	62.5	4	50.0	.818	10	34.4	13	81.2	3	60.0	.010*
Single- drug addict	10	38.5	6	37.5	4	50.0		19	**65.6**	3	18.8	2	40.0	
Types of drug use														
Tamol or tramadol	5	19.2	2	12.5	0	0.0	.029*	9	31.0	1	6.2	2	40.0	.050*
Hashish	2	7.7	2	12.5	0	0.0		3	10.2	0	0.0	0	0.0	
Opium	3	11.5	2	12.5	0	0.0		5	17.2	2	12.5	0	0.0	
Cocain	0	0.0	0	0.0	3	37.5		2	6.9	0	0.0	0	0.0	
Mixed(Tamol, tramadol-Hashish or Opium)	16	61.5	10	62.5	5	62.5		10	34.4	13	81.2	3	60.0	
Methods of drug use														
Oral	21	80.8	12	75.0	5	62.5	.396	20	69.0	13	81.2	5	100.0	.491
Inhalation	2	7.7	2	12.5	0	0.0		3	10.3	0	0.0	0	0.0	
Injection	3	11.5	2	12.5	3	37.5		6	20.7	3	18.8	0	0.0	
Duration of abuse														
Less than one year	1	3.8	0	0.0	0	0.0	.624	4	13.8	1	6.2	0	0.0	.530
More than one year	25	96.2	16	100.0	8	100.0		25	86.2	15	93.8	5	100.0	
Motivation for use														
Bad friends	9	34.6	7	43.8	4	50.0	.281	10	**34.5**	4	25.0	2	40.0	.084
Trial	3	11.5	3	18.8	0	0.0		6	20.7	2	12.5	3	60.0	
Increase strength and energy	11	42.3	4	25.0	1	12.5		9	31.0	4	25.0	0	0.0	
Escape from life stressors	1	3.8	1	6.2	0	0.0		3	10.3	1	6.2	0	0.0	

weakness of sexual ability	2	7.7	1	6.2	3	37.5		1	3.4	5	31.2	0	0.0	
Desired effects														
extraversion	7	26.9	5	31.2	3	37.5	.050	10	34.5	5	31.2	5	100.0	.011*
Stimulation to work	17	**65.4**	9	56.2	1	12.5		17	**58.6**	6	37.5	0	0.0	
The feeling of sexual potency	2	7.7	1	6.2	3	37.5		1	3.4	5	31.2	0	0.0	
Happiness	0	0.0	1	6.2	1	12.5		1	3.4	0	0.0	0	0.0	

* Statistically significant difference ($p<0.05$) ** statistically significant difference ($p<0.01$)

Table (4) shows that, there were no statistically significant differences between pattern of drug addiction data and levels of socio-economic status among study group except types of drug use (p=.029*) and desired effect (p=.050). While there were no statistically significant differences between pattern of drug addiction and levels of socio-economic status among control group except diagnosis (p=.010*) and types of drug use (p= .050*) and desired effects (p= .011).

Table 5: Relationship between pre and post program intervention for mean score of anxiety and personal data among study and control groups

Variables	Study (n=50) group Mean±SD of anxiety		P. value	Control (n=50)group Mean±SD of anxiety		P. value
	pre	post		pre	post	
Age groups						
16-20 years	30.33±4.93	16.00±11.53	.001	21.00±11.00	20.33±10.02	.002
21-30 years	24.38±8.31	9.34±4.96		26.07±9.31	23.84±8.14	
31-40 years	28.40±8.35	13.50±7.90		28.19±7.48	26.19±6.51	
41-50 years	25.00±6.92	18.40±12.033		20.00±5.19	19.33±4.04	
Marital status						
Single	26.26±7.73	11.76±7.08	.000	24.83±8.87	22.55±1.45	.000
Married	24.60±8.70	11.05±7.93		29.52±7.13	27.39±6.27	
Residence						
Rural	25.81±8.63	12.06±7.93	.000	26.77±8.44	24.77±7.31	.000
Urban	25.17±7.16	10.35±6.20		26.20±8.99	24.10±7.87	
Occupation						
Not work	33.50±6.36	16.50±.71	.012	33.00±.00	29.00±.00	.099
Employee	28.88±6.66	15.50±7.96		28.87±6.07	27.14±4.98	
Farmer	25.00±13.34	11.60±9.66		34.33±5.13	29.67±9.01	
Student	31.50±6.36	10.50±9.19		28.00±5.66	27.00±4.24	
Manual workers	24.06±7.38	10.85±6.06		25.30±8.98	23.40±7.74	
Level of education						
Primary	18.40±6.23	10.60±9.29	.007	17.00±.00	17.00±.00	.500
Preparatory	25.40±8.49	12.60±8.43		20.60±10.31	19.00±8.60	
Secondary	25.14±6.99	10.66±6.92		27.05±8.72	24.76±7.64	
University	34.16±8.11	14.33±7.03		30.33±3.61	28.56±2.60	

* Statistically significant difference ($p<0.05$) ** Statistically significant difference ($p<0.01$)

Table (5) shows that there were statistically significant differences between pre and post program intervention for mean scores of anxiety and personal data among study and control groups except occupation (p=.099) and level of education (p=.500) in control group.

Table 6: Relationship between pre and post program intervention for mean score of anxiety and pattern of drug addiction among study and control groups

Variables	Study (50) group Mean±SD of anxiety		P. value	Control (50)group Mean±SD of anxiety		P. value
	pre	post		pre	post	
Diagnosis						
Poly drug addict	25.75±9.03	11.05±6.96	.000	27.57±7.53	25.38±6.52	.000
Single-drug addict	**25.50±7.56**	**10.17±7.73**		**25.54±9.47**	**23.66±8.31**	
Types of drug use						
Tamol or tramadol	**25.28±5.90**	**10.42±6.41**	.017	**25.41±8.33**	**23.41±7.19**	.019
Hashish	24.00±12.56	14.00±3.53		27.14±10.36	25.57±9.36	
Opium	27.00±7.43	13.25±4.50		25.33±13.27	22.66±10.96	
Cocain	21.00±.00	7.66±2.31		21.00±15.56	20.00±14.14	
Mixed (Tamol or tramadol-Hashish Opium)	54.32±14.02	41.02±10.83		55.42±15.35	50.98±3.27	
Methods of drug use						
Oral	26.02±7.91	11.31±7.89	.000	27.13±7.76	24.97±6.74	.000

Variables	Study (50) group		P. value	Control (50)group		P. value
	Mean±SD of anxiety			Mean±SD of anxiety		
	pre	post		pre	post	
Inhalation	27.00±7.43	13.25±4.50		25.33±13.27	22.66±10.96	
Injection	22.87±9.62	12.62±3.06		24.77±10.63	23.44±9.61	
Duration of abuse						
Less than one year	17.00±0.00	6.00±0.00	.000	26.40±9.91	24.40±8.38	.000
More than one year	25.77±8.07	11.59±7.40		26.62±8.44	24.57±7.40	
Motivation for use						
Bad friends	26.30±6.83	12.00±7.45	.001	27.68±7.73	25.43±6.93	.141
Trial	27.16±5.19	12.16±4.21		27.54±8.29	25.72±7.17	
Increase strength and energy	24.00±9.21	11.31±8.48		20.61±8.80	19.07±7.10	
Escape from life stressors	22.00±12.72	5.50±4.94		28.50±7.85	27.25±7.88	
Weakness of sexual ability	27.16±11.32	11.50±8.14		33.66±2.16	30.16±2.40	
Desired effects						
extraversion	25.80±7.92	10.40±7.11	.022	26.90±7.03	24.15±6.90	.228
Stimulation to work	24.88±7.90	11.96±7.74		23.91±9.35	21.95±8.09	
The feeling of sexual potency	27.16±11.32	11.50±8.14		33.66±2.16	30.16±2.40	
Happiness	29.00±2.82	13.00±5.65		40.00±0.00	39.00±0.00	

* Statistically significant difference ($p<0.05$) ** statistically significant difference ($p<0.01$)

Table (6) shows that, there were statistically significant differences between pre and post program intervention for mean scores of anxiety and pattern of drug addiction data in all variables among study and control groups except motivation for use (p= 0.141) and desired effects (p=0.228).

4. Discussion

Psycho-educational program incorporates various approaches, and it is sensitive to the changing needs of the client throughout his or her recovery. Psycho-education program is effective in co-currently reducing drug addiction with anxiety for clients seeking treatment [17].

The current study represented that, about more than half of the study and control groups were poly drug addict. This might be related to that, the study and control groups believed that, taking more than one type of drug may increase their sexual ability, as reported by the patients. In the same context [18] who revealed that, more than half of the study and control groups were poly drug addict. Whereas, this finding was not supported by [19] who found that, the majority of the study and control groups were single drug addict.

As regard types of drug use, the current study showed that, about two third of the study group used mixed types also, more than half of the control group used mixed types as (Tamol, tramadol, Hashish, or Opium). This finding might be due to the uses of mixed types of drugs lead to achieve better effect and gaining more euphoria, as reported by the patients. In the same context [20] who found that, more than half of study and control groups used mixed types as (Tamol, tramadol, Hashish, or Opium). On other hand, [21] demonstrated that, about more than two third of the study and control groups used one type of drug addiction.

Regarding methods of drug use, the current study showed that, more than two thirds of the study and control groups used drug orally. This finding could be explained by that, oral method is easily used, has low risk and is available method to drug addict people as reported by the patients. In the same context, [22] found that, more than two thirds of the study and control groups used drug orally. In contrast with [23] who found that, more than one quarter of the study and control groups used drug injectable.

As regard age of starting abuse, the current study revealed that, the mean age of starting abuse of the study group was between 15- 40 years, while the control group was between 16- 36 years. This could be explained by that the main reason for intake of such drugs due to the nature of adolescent period of life which characterized by for the first time was a sense of emptiness, curiosity, discovery, imitation of others [24]. This finding was similar to [25] who demonstrated that, the majority of the study and control groups initially used drugs in early age of life. However, this finding was not supported by [26] who found that, the majority of the study and control groups initially used of drugs in middle age of life.

As regard duration of abuse, the present study revealed that, the majority of the study and control groups used drug more than one year. This might be attributed to the drug addict people believes that drug addiction becomes a part of their daily life habit for them and unable to dispense about drug addiction. This finding was similar with [27] who demonstrated that, the majority of the study and control groups used drug more than one year. However, this finding was not supported by [28] who found that, more than two thirds of the study and control groups used drugs less than one year.

According to motivation for use, the current study revealed that, more than one thirds of the study and control groups reported that they used drugs because companionship of bad friends who motivated them to drugs use. This might be explained by that, drug addict people take the drugs due to a lot of sit with bad peers and their effect and love to share with them in drug use, as reported by the patients. This finding was similar with [29] who found that, more than one thirds of the study and control groups reported that they used drugs because of bad friends. Whereas, this finding was contrary with [30] who found that, more than two thirds of the study and control groups reported that they used drugs due to weakness of sexual ability.

As regard desired effects of drugs, the present study revealed that, more than one thirds of the study and control groups reported that, they used drugs because of stimulation to work. This might be explained by that drug addict people believes that drug addiction give them strength and energy

that stimulate them to work, as reported by the patients. This result was congruent with [31] who found that, more than one third of the study and control groups reported that, they used drugs because of stimulation to work. Whereas, this finding was not supported by [30] who found that, more than two third of the study and control groups reported that they used drugs because of feeling of sexual potency.

The current study showed that, more than half of the study and control groups had low level of socio- economic status. This might be related to the most of the study and control groups were manual workers and non- stable monthly income. In this respect with [32] showed that more than half of the study and control groups had low level of socio-economic status. While, this finding was contradicted with [33] who found that, about more than third of the study and control groups have middle level of socio-economic status.

The current study revealed that, about more than two thirds of the study and control groups had severe levels of anxiety in pre-program intervention. As regard post-program intervention; more than one third of the study group had minimal anxiety while, slightly more than half of control group had severe levels of anxiety. This could be explained by anxiety commonly presents as a symptom of drugs withdrawal after the drug levels decreased after psycho-education program intervention that help them to receive knowledge about risks of drug addiction and relaxation techniques to reduce anxiety and make them more relaxed [34].

This finding was similar to [35] who reported that, more than two third of the study and control groups had severe level of anxiety in pre-program intervention. As regard post-program intervention, [36] showed that, more than one third of the study group had minimal anxiety while, slightly more than half of control group had severe anxiety. In contrast, this finding was incongruent with [37] who found that, more than half of the study and control groups had severe level of anxiety in pre-program intervention. As regard post-program intervention, [37] found that, less than one quarter of the study group had minimal level of anxiety while, more than one third quarter of control group had severe level of anxiety.

The current study showed that, there were no statistically significant differences between personal data and levels of socio-economic status among study group except residence and level of education. Also, there were no statistically significant differences between personal data and levels of socio-economic status among control group except occupation and level of education. This might be related to the most study group and control group living in rural areas, and both of occupation and level of education were affected on by other vice-versa.

In the same context [39] who demonstrated that there were no statistically significant differences between personal data and levels of socio-economic status among study group except residence and level of education. Also, [40] found that there were no statistically significant differences between personal data and levels of socio-economic status among control group except occupation and level of education. Whereas, this finding was contrary with [41] found that there were statistically significant differences between personal data and levels of socio-economic status among study and control groups.

The present study demonstrated that, there were no statistically significant differences between pattern of drug addiction and levels of socio-economic status among study group except types of drug use and desired effect. Also, there were no statistically significant differences between pattern of drug addiction and levels of socio-economic status among control group except diagnosis and types of drug use and desired effects. In the same context, [42] found that, there were no statistically significant differences between pattern of drug addiction and levels of socio-economic status among study group except types of drug use and desired effect and [43] who found that, there were no statistically significant differences between pattern of drug addiction data and levels of socio-economic status among control group except diagnosis and types of drug use and desired effects. On the other hand, [39] showed that, there were statistically significant differences between pattern of drug addiction and levels of socio-economic status among study and control groups.

The current study showed that, there were statistically significant differences between pre and post program intervention for mean scores of anxiety and personal data among study and control groups except occupation and level of education in control group. This finding was consistent with [37] who revealed that, there were statistically significant differences between pre and post program intervention for mean scores of anxiety and personal data among study and control groups except occupation and level of education in control group. Whereas, this finding was incongruent with [28] who found that, there were no statistically significant differences between pre and post program intervention for mean scores of anxiety and personal data among study and control groups.

The current study revealed that, there were statistically significant differences between pre and post program intervention for mean scores of anxiety and pattern of drug addiction among study and control groups except motivation for use and desired effects. This finding was congruent with [44] who revealed that, there were statistically significant differences between pre and post program intervention for mean scores of anxiety and pattern of drug addiction among study and control groups except motivation for use and desired effects. However, this finding was not supported by [28] who found that, there were no statistically significant differences between pre and post program intervention for mean scores of anxiety and pattern of drug addiction among study and control groups.

5. Conclusion

Based on the results of the present study concluded that before program intervention, it was revealed that more than two third of drug addict people (study and control groups) had severe level of anxiety. After program intervention, it was found that both psycho-educational program and relaxation techniques had highly effect in reducing levels of anxiety among the study group.

6. Recommendations

Based on the current study findings, the following recommendations are suggested

- Educate nursing staff about psychological problems associated with drug addiction.

- -Prophylactic youth programs should involve the whole family members and healthy productive activities should be provided for youth in the community.

7. References

1. Csiernik R. Substance use and abuse: Everything matters, Canadian Scholars' Press, 2016; 12(1):1-20.
2. Sharaf A. Drug abuse on the rise in Egypt, Drug Addiction, Egypt Medical Journal. 2018; 3(1):1-5.
3. Mohamed R, Hammad A, El Hamrawy G, Rajab Z, El Bahy S, Soltan R. Dual diagnosis and psychosocial correlates in substance abuse in Menoufia, Egypt, Menoufia Medical Journal. 2014; 26(2):114.
4. Hamdi E, Sabry N, Sedrak A, Khowailed A, Loza N. Socio-demographic Indicators for Substance Use and Abuse in Egypt. J Addiction Prevention. 2016; 4(1):8-14.
5. Simon N. Mental Health and Substance Abuse-related emergency department visits among Adults, A journal of Biological Psychiatry. 2011; 13(2):1-15.
6. Kushner M, Krueger R, Frye B, Peterson J. Epidemiological perspectives on co-occurring anxiety and drug addiction, Anxiety and drug addiction. New York: Springer. 2010; 31(1):3-17.
7. Nurisna D. Nursing Care Plans, free examples nursing care plans sample, nursing diagnosis, nursing intervention, history of nursing, nursing informatics (9th ed.), Boston A, McGraw-Hill, 2014, 34-50.
8. Werner G. Drug addiction, Psycho education in Addiction Treatment, Journal of American Science. 2015; 9(1):34-41.
9. Rethorst C, Wipfli M, Landers M. The effects of relaxation techniques on drug addiction, A meta-analysis of randomized trials, Sports Medicine. 2009; 39(1):491-511.
10. Mohamed G, Fouad A. "Prevalence of substance abuse among adolescent school students in Zigzag. Egyptian Journal of Psychiatry. 2014; 35(3):161.
11. Compton W, Stinson F, Grant B. Lifetime of DSM-IV mood and anxiety disorders and specific drug use disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. Journal of Clinical Psychiatry. 2014; 17(2):247–257.
12. Gilbert D, John C, Dunkin G, Rudy S. Co-Occurring Disorders and Treatment, Anxiety and Substance Abuse. 2018; 24(9):1080-1088.
13. Fahmy S, El-Sherbini A. Determining simple parameters for social classifications for health research. Bulletin of the High, Institute of Public Health. 1983; 13(1):95–108.
14. El-Gilany A, El-Wehady A, El-Wasify M. Updating and validation of the socioeconomic status scale for health research in Egypt. Eastern Mediterranean Health Journal. 2012; 18(9):962-968.
15. Beck A, Epstein N, Brown G, Steer R. An inventory for measuring clinical anxiety, Psychometric properties, Journal of consulting and clinical Psychology. 1988; 5(6):893-897.
16. Soluman T. Standard characteristics of the Arabic Image of the Peak List of Anxiety in the State of Kuwait - Journal of Education and Psychological Sciences. 2015; 16(2):1-33.
17. Thomas S. Substance Use Disorder Co-Occurring with Anxiety and/or Depression: Evidence-Based CBT Donara Rudman. 2016; 2(4):927-930.
18. Bornovalova M, Gratz K, Daughters S, Hunt E, Lejuez W. Initial RCT of a distress tolerance treatment for individuals with substance use disorders, Drug and alcohol dependence. 2012; 122(2):70-76.
19. Meray M, Ahmed F, Rania A. " Study of Drug Abuse among University Students in Sohag, Egypt, Journal of Forensic, Toxicology and Medico legal Analysis. 2016; 1(2):19-23.
20. Ansari-Moghaddam A, Rakhshani F, Shahraki-Sanavi F, Mohammadi M, Miri-Bonjar M, Bakhshani N. Prevalence and patterns of tobacco, alcohol, and drug use among Iranian adolescents: A meta-analysis of studies, Children and Youth Services Review. 2016; 12 (6):68-79.
21. Johnson J, Zlotnick C. A pilot study of group interpersonal psychotherapy for depression in substance-abusing female prisoners, Journal of Substance Abuse Treatment. 2008; 34(4):371-377.
22. Mohamed N, El Hamrawy L, Shalaby A, El Bahy M, Allah M. An epidemiological study of tramadol dependence in an outpatient addiction clinic at Heliopolis Psychiatric Hospital, Menoufia Medical Journal. 2015; 28(2):59-66.
23. Jabeen S, Raja S, Saeed S, Zafar M, Ghani A, Mahmood A *et al*. Factors Influencing Vulnerability Towards Heroin Addiction in a Pakistani Cohort, Pakistan J. Zool. 2017; 49(1):95-99.
24. Giardiello P. Youth Identities, Media Discourse in the Formation of Youth Identity, Language, Identity and Symbolic Culture. 2018; 3(1):85-99.
25. Austic A. Peak ages of risk for starting nonmedical use of prescription stimulants, Drug and alcohol dependence. 2015; 15(2):224-229.
26. Anagnostou E, Boyle M, Brian J, Burack J, Couture M, Fombonne E. drug addiction, Cannabis-it matters how young you start, the Canadian Journal of Psychiatry. 2018; 75(2):721-722.
27. Womack S, Shaw D, Weaver C, Forbes E. Bidirectional associations between cannabis use and depressive symptoms from adolescence through early adulthood among at-risk young men. Journal of studies on alcohol and drugs. 2016; 77(2):287-297.
28. McHugh K, Votaw V, Bogunovic O, Karakula L, Griffin L, Weiss D. Anxiety sensitivity and nonmedical benzodiazepine use among adults with opioid use disorder, Addictive Behaviors, 2017; 65(2):283-288.
29. El-Sawy. H, Abdel Hay M, Badawy A. Gender differences in risks and pattern of drug abuse in Egypt, Egypt J Neural Psychiatry Nero surge. 2010; 47(1):413-418.
30. Calsyn D, Cousins S, Hatch-Maillette M, Forcehimes A, Mandler R, Doyle S *et al*. Sex under the influence of drugs or alcohol, Common for men in substance abuse treatment and associated with high-risk sexual behavior, The American journal on addictions. 2010; 19(2):119-127.
31. Volkow N. Drug addiction, Brains and Behavior, The Science of Addiction. 2014; 44(1):570-580.
32. Downing J, Chiasson M, Hirshfield S. Recent anxiety

symptoms and drug use associated with sexually transmitted infection diagnosis among an online US sample of men who have sex with men, Journal of health psychology. 2016; 21(12):279-281.
33. Feingold D, Weiser M, Rehm J, Lev-Ran S. The association between cannabis use and anxiety disorders: results from a population-based representative sample. European Nero psychopharmacology. 2016; 26(3):493-505.
34. Serenity V. Alcohol & Drug Withdrawal Relaxation Techniques, American Addiction Centers. 2015; 45(2):575-587.
35. Hodgson K, Almasy L, Knowles M, Kent W, Curran E, Dyer D *et al*. Genome-wide significant loci for addiction and anxiety. European Psychiatry. 2016; 36(7):47-54.
36. Linke S, Ussher M. Exercise-based treatments for substance use disorders: evidence, theory, and practicality, The American journal of drug and alcohol abuse. 2015; 41(1):7-15.
37. Horigian V, Weems C, Robbins M, Feaster D, Ucha J, Miller M *et al*. Reductions in anxiety and depression symptoms in youth receiving substance use treatment. The American journal on addictions. 2013; 22(4):329-337.
38. Giorgi I, Ottonello M, Vittadini G, Bertolotti G. Psychological changes in alcohol-dependent patients during a residential rehabilitation program. Neuropsychiatric disease and treatment. 2015; 11(1):29-89.
39. Patrick M, Wightman P, Schoeni R, Schulenberg E. Socioeconomic status and substance use among young adults: a comparison across constructs and drugs, Journal of studies on alcohol and drugs. 2012; 73(5):772-782.
40. Richardson L, Wood E, Kerr T. The impact of social, structural and physical environmental factors on transitions into employment among people who inject drugs, Social Science & Medicine. 2013; 76(2):126-133.
41. Raeisei A, Arbabisarjou A, Mojahed A. An Investigation of the Socio-Economic Status of the Addicts in Lashar and Nikshahr County and Its Comparison with Ordinary People, Global journal of health science. 2015; 7(3):194-204.
42. Karriker-Jaffe K. Neighborhood socioeconomic status and substance use by US adults. Drug and alcohol dependence. 2013; 133(1):212-221.
43. Humensky L. adolescents with high socioeconomic status more likely to engage in alcohol and illicit drug use in early adulthood, Substance abuse treatment, prevention and policy. 2010; 5(1):19-25.
44. Aslan S, Turkçapar M, Eser Y, Ugurlu M. Reliability and validity of Beliefs about Substance Use (BSU) questionnaire in alcohol dependent patients. 2012; 13(1):162-70.