

Effect of Relapse Prevention Program on Self Efficacy of Drug Addict Patients at Menoufia University Hospital

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Abstract: The 20th century ended with the conviction that drug abuse was a global problem and thus global solutions were required. Addiction is a major problem in Egypt, due to rapidly growing and changing patterns of substance use. **Aim:** This study was conducted to examine the effect of relapse prevention program on self efficacy of patients having addiction. **Design:** A quasi experimental study design was utilized. **Setting:** The study was conducted at addiction outpatient clinic at forensic Medicine Technical Toxicology Department (poisoning and addiction control unit) at Menoufia University Hospital. **Sample A Purposive sample of 122 addicts who was divided into two groups (study group contained 63 and control group contained 59 patients).** **Tools:** first tool: an interviewing questionnaire composed of two parts: part one was designed to assess demographic and occupational characteristics of the addicts, and part two was designed to assess pattern of substance abuse including: route & administration, age of starting abuse and motives for abuse. **Second tool:** Self-efficacy Questionnaire and toxic urine assessment. **Results:** the main finding of this study illustrated that, There were statistical significance improvement between the study group than the control group of self-efficacy at the post intervention. The highest percentages of addicts were found among age group between 20-40 years (75.4%) and The majority of the studied addicts (96.7%) were male. The highest percentages of the studied addicts were abused tramadol. **Conclusions:** It could be concluded that relapse prevention program was effective in preventing recurrence of addition among addicts in the study group than control group **Recommendation:** promoting addicts' self-efficacy skills in order to cope with high-risk situations is recommended and regular follow up with family, peer and social support are essential along with vocational rehabilitation to prevent relapse.

Keywords: Abuse, addicts, addiction, self-efficacy, prevention and relapse.

I. INTRODUCTION

Addiction to natural and synthetic agents has increased in the recent decade. As a result, it has become a serious problem in social and psychological health issues (Geramian, Akhavan, Gharaat, Tehrani and Farajzadegan, 2012).

Relapse is considered when a person returns to even a single usage of a substance or process of which they had previously established abstinence. Prevention of relapse is crucial for control of substance abuse disorder. The goals of treatment are abstinence from/ reduction of use of substance, reduction of frequency and severity of relapses and improvement of psychological and social adaptive functioning (Sau, Mukherjee, Manna and Sanyal, 2013).

Statistics of international organization, especially World Health Organization(WHO) showed an increase in drug use worldwide (United Nations Office on Drugs and Crime, 2012). The WHO reported that the prevalence of drug abuse in individuals between 15 and 64 years of age in Egypt was 0.8% (0.64 and 1.3% of drug abusers were found to be in the female and male population, respectively) (WHO, 2014). A 'national survey' in 2007 reported that six million (8.5%) Egyptians are addicted to drugs and the majority of them were between 15 and 25 years of age, and that addicts are considered criminals rather than patients in need for treatment (El-Awady, Elsheshtawy, Elbahaey and Elboraie, 2017)

Bandura's cognitive social theory is based on interactive dynamic relationship between environmental, personal, and individual behavior. This theory could be applied as a basis for interventional strategies. This theory is based on the concepts of personal efficacy, self-regulatory process, and self-efficacy. In other words, self-efficacy is a person's belief in his or her ability to succeed in a particular situation (Heydari et al., 2014).

Community health nurse plays a key role in the identification of drug abuse and planning proper interventions for management of addiction (Marcia and Jeanette, 2011). As pharmaceutical treatment is not sufficient solely and the recurrence rate of clients referred to addiction centers is high, finding proper strategy against addiction recurrence is one of the basic challenges in nursing. Community health nurse could be of great help in prevention and treatment of drug abuse based on his role and tasks and his crucial role in compiling preventive programs across the community. According to the literatures, successful preventive education programs are conducted based on well-known models (Juhnke and Hagedorn, 2006).

Significant of the Study

Drug addiction is one of the serious problems that worry the Egyptian people, as it deals with young people within the age of work and productivity. It may lead to many problems such as bad social adaptation, decreasing productivity at work or dismissing from job (El-Sawy, Abdel Hay and Badawy, 2010). In Egypt, The various substances used by Egyptian youth have been reported to be prevalent worldwide, including cannabis, illegal drugs and prescription drugs (UNODC, 2016).

Nurses can play an important role in the problem of drug addiction through primary prevention to prevent non users from initiating use and to prevent individuals who are experimenting with substance from progressing to chronic and abusive use of substances (Sullivan, 1995).

Aim of the Study:

To examine the effect of relapse prevention program on self efficacy of drug addict patients.

Research Hypotheses

- 1) Addicted patients who will receive relapse prevention program will have lower recurrence of addiction than patients who will not receive the program.
- 2) Addicted patients who will receive relapse prevention program will have higher self efficacy than patients who will not receive the program.

2. METHODOLOGY

Research Design

Quasi experimental research design (study and control design) was utilized to examine the effect of relapse prevention program on self efficacy of drug addict patients at Menoufia University Hospital.

Research Setting

The study was conducted at addiction outpatient clinic at forensic Medicine Technical Toxicology Department (poisoning and addiction control unit) at Menoufia University Hospital, in Shebin El kom, at Menoufia, Governorate, Egypt.

Participants and Sample size Calculation:

Sample: the sample size was estimated to fulfill the aim of the study, with a 95% level of confidence (error=5 %) and a study power of 80% (error=20%). Using the Epi-info computer software program the required sample size was 122 subjects. A Purposive sample of 122 addicts who was divided into two groups (study group contained 63 and control group contained 59 patients).

Inclusion criteria

- Patients who were 19 years and older, attended to the addiction outpatient clinic at Menoufia University Hospital, able to communicate and willing to participate in the study.

Tools of Data Collection

To achieve the aim of the study, data were collected using the following tools:

I Interviewing Questionnaire: it was developed by the researcher after reviewing the literature to collect the necessary data from addicts and include the following:

A- The first part was designed to assess demographic and occupational characteristics of the addict patients such as (age, level of education, occupation, marital status).

B- The second part was designed to assess pattern of substance abuse including: route of administration, age of starting abuse, duration, motives for abuse, effects and number of previous treatment trials. The content validity of this instrument was tested by a jury of three experts in the field of nursing (one professor of Forensic Medicine Technical Toxicology Department, one assistant professor of Psychiatric Health Nursing and one assistant professor of Community Health Nursing) to ascertain accuracy and completeness. Suggestions were incorporated into the instrument. Reliability of the instrument was applied by the researcher for testing the internal consistency of the instrument. The instrument was administered to some patients under the similar conditions and then readministered to the same patients after 2 weeks and compares the results (test-retest Reliability).

Instrument II:

Part 1: **Self-efficacy Questionnaire:** It was developed by Martin, Wilkinson and Poulos (1995), It included 16 questions to examine skills such as problem-solving, decision-making, self-protection, and communication. This questionnaire included 16 questions which they were scored according to 7-point Likert scale, all the questions had 1 to 7 scores and it was arranged as the following:

Items	Score
Certainly no	1
Very likely no	2
Probably no	3
Really can't say	4
Probably yes	5
Very likely yes	6
Certainly yes	7
Total score	112
Grade	Poor < 50% (0-56)
	Fair 50-75% (57-84)
	Good > 75% (85-112)

The overall score of this questionnaire was between 16 and 112 and as the score of subject was higher it indicated higher self-efficacy.

The validity and reliability were tested using Cronbach's Alpha Coefficient test which revealed that reliability of the self-efficacy questionnaire tool was 0.80 as well as it was also calculated and confirmed by Cronbach's alpha (0.91 and 0.87 respectively Martin (1995) and Bramson (1999)). This instrument was translated in to Arabic form then back to English after that it was reviewed by a jury of three experts in the field of nursing (one professor of Forensic Medicine Technical Toxicology Department, one assistant professor of Psychiatric Health Nursing and one assistant professor of Community Health Nursing) to ascertain accuracy, completeness and culture orientation. Suggestions were incorporated into the instrument.

- Part 2: **Toxic urine assessment:** Urine analysis was done on unscheduled meeting to examine the presence or absence of the addictive substance and commitment of the subjects to the program using a special strip for the addictive substance.

3. METHOD

- Data collection extended from August 2017 to the end of May 2018.

Approval:

- An official permission was obtained from the director of Menoufia University Hospital to carry out this study, after submitting official letters from the Dean of the faculty of Nursing, Menoufia University about the purpose of the study. Approval from the ethics committee also was obtained to carry out this study. Oral consent obtained from every participant and the researcher explained the purpose of the study.

Ethical consideration:

The study was conducted with careful attention to ethical standards of research and rights of participants. Oral consent was taken from each patient to participate in this study. During the initial interview, the purpose of the study and the procedures were explained to the patients. They were assured that all information would be confidential and used for the research only to assure the confidentiality of the participants. The participation in the study was voluntary and that they can withdraw from the study at any time and can refuse to participate in the study.

Data Collection Procedure:

An individual interview was conducted for the study and control group, the instrument was filled by the researcher and the aim of the study was explained to each patient to gain their cooperation to participate in the study.

Pilot study:

A pilot study was carried out on 10% (14 patients) to test the content of the questionnaire as well as to estimate the time needed for data collection and the necessary modifications was done. Those who shared in the pilot study were excluded from the study sample.

The researcher initiated data collection by interviewing each participant for assessing patients socio-demographic data, and working characteristics by using a structured interviewing questionnaire. Also, each patient was asked about pattern of substance abuse including: route of administration, age of starting abuse, duration, motives for abuse, effects and number of previous treatment trials.

The intervention was carried out for the study group based on Bandura's social cognitive theory. It took eight sessions (60-90 min) according to the steps of the model, which was done using group discussion, lecture, as follows:

First step (information): pre test for base line assessment was done. Watching video about addiction process, complications, and different treatment modalities were presented.

Second step: patients were divided into groups of six to eight. This step aimed change their attitude through group discussion. The knowledge of health risk was converted to preventive behaviors using education and development of self-regulatory skills and required risk elimination.

Third step (enhancement of social self-efficacy): This step included four sessions.

In the first session, patients was taught problem-solving skill followed by group discussion where, the actual problems encountered by the patients and problem-solving method were discussed, with their objective situations and their strategy for resolving the problem under the supervision of the researcher. The addict patients by attendance at meetings, sees and hears other people's experiences of successes and by announcing his time of cleaning and also his positive and negative experiences about addiction disease, is encouraged by the words and feelings of others, that it can increase his self-efficacy

The second session, decision-making skills were discussed.

The third session was allocated to apply self-projection skills, and in the fourth session, the previous skills were reviewed and communication skills were taught.

Fourth step (social support): It includes two sessions. In the first session, kinds of family support during quitting period were debated. In this session, one of the family members, who is very close to the patient (concerning member), was invited. In the last session, discussion was about self-governing group; their active members were invited and they introduced their group and activities and invited the patients to participate in their meeting.

Finally, at the last session, the presented content during the eight sessions was summed up and patients were guided for their future referrals.

Study group was followed up for 3 months to make sure that they attend the session meetings and an unscheduled drug test was done for them using a special strip according to the type of addictive substance.

At the end, post-test obtained after 3 months from the intervention using the Self-efficacy questionnaire and urine test for evaluating the effect of the relapse prevention program.

Statistical Analysis:

Data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 22. Graphics were done using Excel program. Quantitative data were presented by mean (X) and standard deviation (SD). It was analyzed using student t- test for comparison between two means. Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square (χ^2) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells), or Likelihood Ratio (LR) test (if the table was more than 4 cells). Level of significance was set as P value <0.05 for all significant tests.

4. RESULTS

Table (1): showed the socio-demographic characteristic of the studied participants. It illustrated that the highest percentages of participants were found among age group between 20-40 years (75.4%), male (96.7%) and female (3.3%). Also it showed that, more than half (51.6%) of the studied participants were living at urban setting and the highest percentages of participants were married (49.2%). More than half (61.5%) of the studied participants were secondary education and technical diploma, (64.8%) of the studied participants were working. Regarding occupation before addiction, it showed that more than half (55.7%) of the studied participants were workers. More than half (58.2%) of the studied participants incomes were not enough.

Figure (1): showed that some of socio-demographic characteristic of the studied participants (study group and control group), the main age group of the studied participants was 20- <40 years old, the majority of the studied participants were men and more than half (64.4% and 65.1% respectively) of them were work.

Table (2): illustrated that the majority of the studied participants were smokers (92.6%). Regarding the smoking type, it revealed that two-thirds (71.2%) of the studied participants were cigarettes smoking and more than half (57.4%) of them were smoked mild- moderate amount per day.

Table (3): presented pattern of substance abuse. It illustrated that, the main age group of drug abuse initiation of the studied participants was 15 - < 20 years. Regarding duration of drug abuse, three quarter (75.4%) of the studied participants had abused drug for > 10 years. More than half (52.5%) of the studied participants motives for drug abuse were peer pressure. Near to half of the studied participants (49.2%) abused tramadol and more than half (52.5%) were taking oral drugs. The majority (91.8%) were taking one dose per day and more than three quarter (75.4%) of them bought drugs from dealers.

Figure (2): showed that, the main age group of drug abuse initiation among the studied participants (study and control group) was 15-19 years.

Table (4) : It illustrated that near to half (49.2%) of the studied participants were had severe withdrawal symptoms and more than half (54.9%) of them were had all of the withdrawal symptoms. Also, it showed that around two thirds (66.4%) of the participants relapsed after the last treatment and they were treated once before relapse (33.6%). The highest percentages of them had desire for change (45.9%).

Figure (3): showed that, the common cause of relapse were friends (40.7%) of the control group, while 36.5% of the study group were substances craving.

Table (5): presented groups of total of self-efficacy score among studied (study and control groups) pre intervention. It showed that there was no statistical significance improvement between study group and control group regarding the self-efficacy at pre intervention.

Figure (4): interpreted that, more than half (68.3%) of study group had poor self-efficacy, while 61% of the control group pre intervention.

Table (6): presents the effect of relapse prevention program on total score of self-efficacy among studied groups post intervention. It showed that there was highly statistical significance improvement between study group and control group of self-efficacy at the post intervention.

Table (7): Shows there was highly significant improvement among the study group than the control group at the posttest of toxic urine assessment (p<0.05).

Figure (5): illustrated that, more than half 58.7% of the study group have negative toxic urine assessment compared to 22% of the control group.

Table (1): Socio-demographic characteristics of studied participants (N = 122).

Socio demographic characteristics	Control gr. N0. %	Study gr. N0. %	Total N0. %	P value
Age (Years)				
<20	8 13.5	9 14.3	17 13.9	X ² =0.5, P=0.97 NS
20 – <40	45 76.3	47 74.6	92 75.4	
40 – 60	6 10.2	7 11.1	13 10.7	
Mean ± SD	45.8±3.2	46.1±4.3		t=1.1,P=0.12 NS
Sex:				
Male	58 98.3	60 95.2	118 96.7	Fisher=0.62 NS
Female	1 1.7	3 4.8	4 3.3	
Residence:				
Urban	32 54.2	31 49.2	63 51.6	X ² =0.31, P=0.57 NS
Rural	27 45.8	32 50.8	59 48.4	
Marital status:				
Single	31 52.5	28 44.4	59 48.4	LR=1.4, P=0.48 NS
Married	26 44.1	34 54	60 49.2	
Divorced / widow	2 3.4	1 1.6	3 2.5	
Educational Level :				
Illiterate	5 8.5	11 17.5	16 13.1	X ² =4.2, P=0.23 NS
Elementary (Basic) education	11 18.6	6 9.5	17 13.9	
Secondary school or technical diploma	35 59.3	40 63.5	75 61.5	
University	8 13.6	6 9.5	14 11.5	
Current job:				
Work	38 64.4	41 65.1	79 64.8	X ² =0.006, P=0.93 NS
Not work	21 35.6	22 34.9	43 35.2	
Job before addiction :				
Employer	9 15.3	10 15.9	19 15.6	X ² =02.5, P=0.48 NS
Worker	34 57.6	34 54	68 55.7	
Student	10 16.9	7 11.1	17 13.9	
Unemployed	6 10.2	12 19	18 14.8	
Income:				
Enough	19 32.2	29 46	48 39.3	LR=5.1, P=0.07 NS
Not enough	37 62.7	34 54	71 58.2	
Enough and save	3 5.1	0 0	3 2.5	
Total	59 100	63 100	122 100	

Figure (1): some of socio-demographic characteristic of the studied participants (N=122).

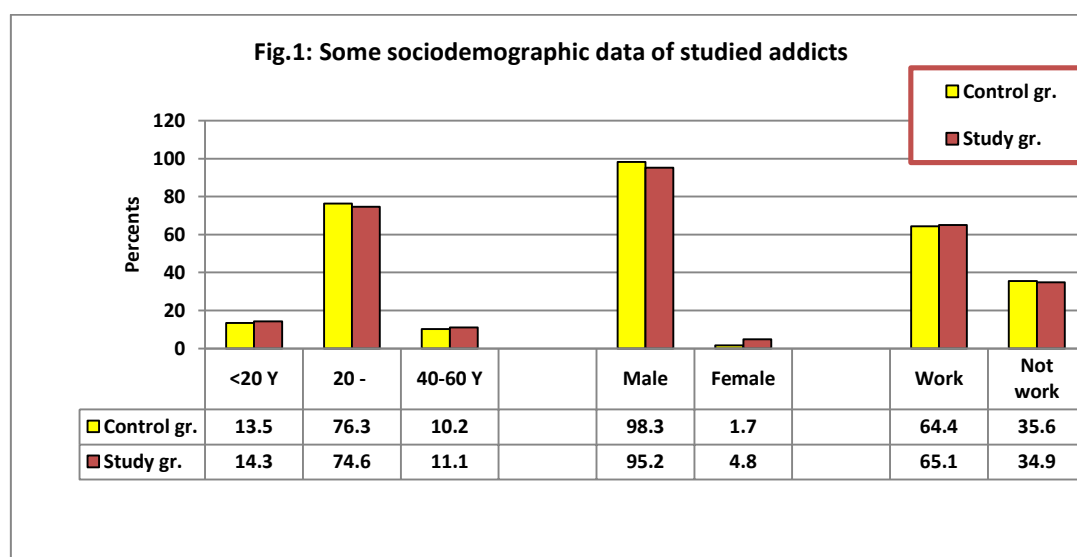


Table (2): Distribution of the studied participants according to their smoking status (N = 122).

Smoking status	Control gr.		Study gr.		Total		P value
	N0.	%	N0.	%	N0.	%	
Smoking:							
Yes	54	91.5	59	93.7	113	92.6	Fisher=0.71, NS
No	5	8.5	4	6.3	9	7.4	
Smoking type:							
Cigarettes	44	74.5	43	68.3	87	71.2	LR=4.2, P=0.2 NS
Goza	5	8.5	3	4.8	8	6.6	
Mixed	5	8.5	13	20.6	18	14.8	
Non smoker	5	8.5	4	6.3	9	7.4	
Smoking amount / day							
Mild –Moderate (< 20 cigarettes)	29	49.1	41	65.1	70	57.4	LR=3.1, P=0.20 NS
Heavy (≥ 20 cigarettes)	25	42.4	18	28.6	43	35.2	
Non smoker	5	8.5	4	6.3	9	7.4	
Total	59	100	63	100	122	100	

Table (3): Pattern of substance abuse of participants (N = 122).

Pattern of substance abuse	Control gr.		Study gr.		Total		P value
	N0.	%	N0.	%	N0.	%	
Age of drug abuse initiation (Y)							
<15	23	39	25	39.6	48	39.3	X2=0.17, P=0.91 NS
15 – <20	24	40.7	27	42.9	51	41.8	
≥ 20 Y	12	20.3	11	17.5	23	18.9	
Duration of drug abuse:							
<10 year	43	72.9	49	77.8	92	75.4	LR=1.6, P=0.41 NS
10 – 20	15	25.4	14	22.2	29	22.9	
>20 years	1	1.7	0	0	1	1.7	
Motives for drug abuse:							
Peer pressure	34	57.6	30	47.6	64	52.5	LR=1.9, P=0.7 NS
Seeking pleasure	3	5.1	5	7.9	8	6.6	

Improve mood	6 10.2	5 7.9	11 9	
Curiosity	9 15.3	13 20.6	22 18	
Others*	7 11.9	10 15.9	17 13.9	
Type of current drug abused:				LR=1.8, P=0.5 NS
Cannabis (hashish)	17 28.8	21 33.3	38 31.1	
Volatile substances (heroin)	10 16.9	6 9.6	16 13.1	
Analgesics (tramadol)	29 49.2	31 49.2	60 49.2	
#Others	3 5.1	5 7.9	8 6.6	
Rout of use drug:				X ² =0.8, P=0.4 NS
Oral	30 50.8	34 54	64 52.5	
Inhalation	7 11.9	6 9.5	13 10.7	
Injection	7 11.9	5 7.9	12 9.8	
Smoking	15 25.4	18 28.6	33 27	
Dose amount				Fisher=1.0 NS
Per day	54 91.5	58 92.1	112 91.8	
Per week	5 8.5	5 7.9	10 8.2	
Drug availability:				LR=3.6, P=0.1 NS
Friends	17 28.8	10 15.9	27 22.1	
Dealers	40 67.8	52 82.5	92 75.4	
Others	2 3.4	1 1.6	3 2.5	
Total	59 100	63 100	122 100	

Figure (2): Age of drug abuse initiation among the studied participants (study and control group) (N = 122).

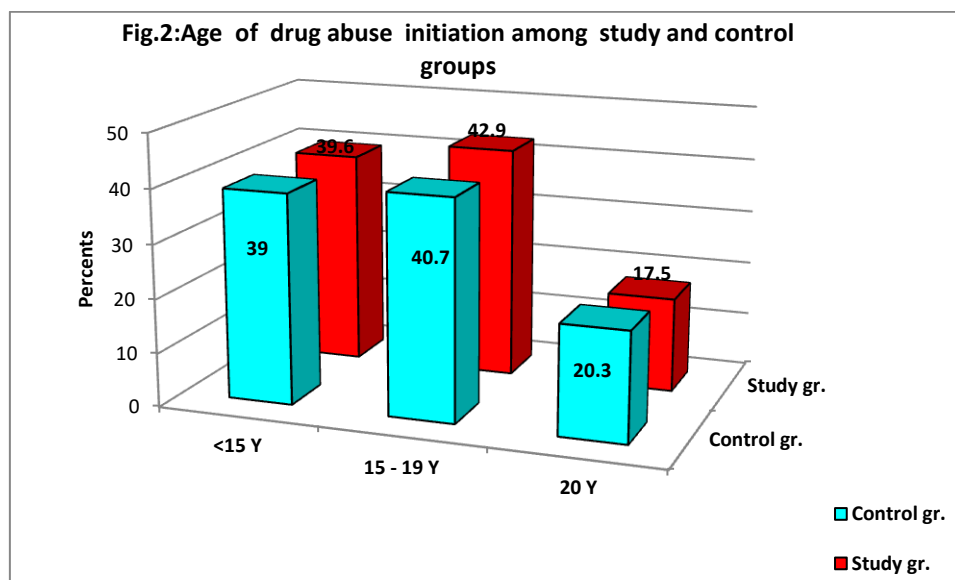


Table (4): Withdrawal and relapse data of participants (N =122).

Withdrawal and relapse data	Control gr.		Study gr.		Total		P value
	N0.	%	N0.	%	N0.	%	
Severity of withdrawal:							X ² =4.7, P=0.06 NS
Mild	5	8.5	15	23.8	20	16.4	
Moderate	24	40.7	18	28.6	42	34.4	
Severe	30	50.8	30	47.6	60	49.2	
Symptoms of withdrawal							X ² =3.9,P=0.41 NS

Headache	8	13.6	12	19	20	16.4	
Irritability	5	8.5	5	8	10	8.2	
Insomnia	9	13.3	4	6.3	13	10.7	
Vomiting& Diarrhea	4	6.8	8	12.7	12	9.8	
All of the above	33	55.9	24	54	67	54.9	
Relapse after last treatment:							
Yes	35	59.3	46	73	81	66.4	X ² =1.9, P=0.15 NS
No	24	40.7	17	27	41	33.6	
Causes of relapse:							
Friends	24	40.7	17	27	41	33.6	LR=6.1, P=0.10 NS
Substance craving	13	22	23	36.5	36	29.5	
Others	4	6.8	1	1.6	5	4.1	
No relapse	18	30.5	22	34.9	40	32.8	
Frequency of treatment before relapse:							
Once	24	40.7	17	27	41	33.6	X ² =3.7, P=0.29 NS
Twice	12	20	10	15.9	22	18	
> twice	9	14.6	12	19	21	17.2	
No relapse	14	24.7	24	38.1	38	31.2	
Reasons for treatment:							
Family troubles	17	28.8	17	27	34	27.9	LR=1.5, P=0.95 NS
Financial troubles	4	6.8	2	3.2	6	4.9	
Health troubles	9	15.3	9	14.3	18	14.8	
Desire for better life	26	44.1	30	47.6	56	45.9	
Others	3	5.1	5	7.9	8	6.5	
Pattern of follow up:							
Regular	38	64.4	48	76.2	86	70.4	LR=3.2, P=0.14 NS
Irregular	15	25.4	13	20.6	28	23	
No follow up	6	10.2	2	3.2	8	6.6	
Total	59	100	63	100	122	100	

Fig 3: Causes of relapse among study and control groups

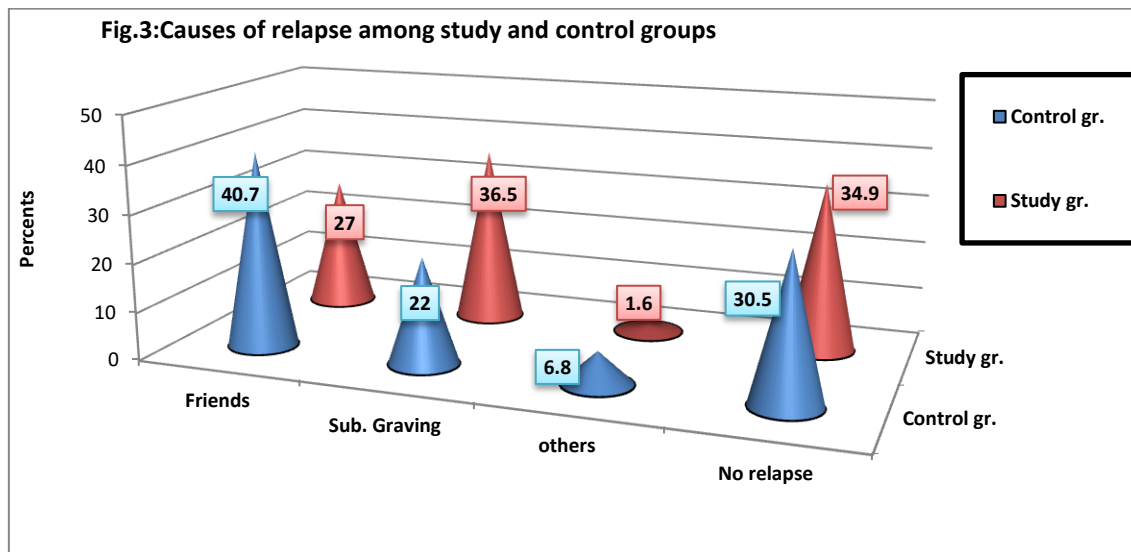


Table (5): Groups of total of self-efficacy score among studied groups pre intervention (N=122).

Groups of self-efficacy total score	Pre intervention				Total NO.	%	P value
	Control NO.	%	Cases NO.	%			
Poor (16 – 56)	36	61	43	68.3	79	64.8	LR=0.71, P=0.7 NS
Fair (57 – 84)	22	37.3	19	30.1	41	33.6	
Good (85 – 112)	1	1.7	1	1.6	2	1.6	
Total	59	100	63	100	122	100	

Figure (4): Self-efficacy among studied participants pre intervention (N=122)

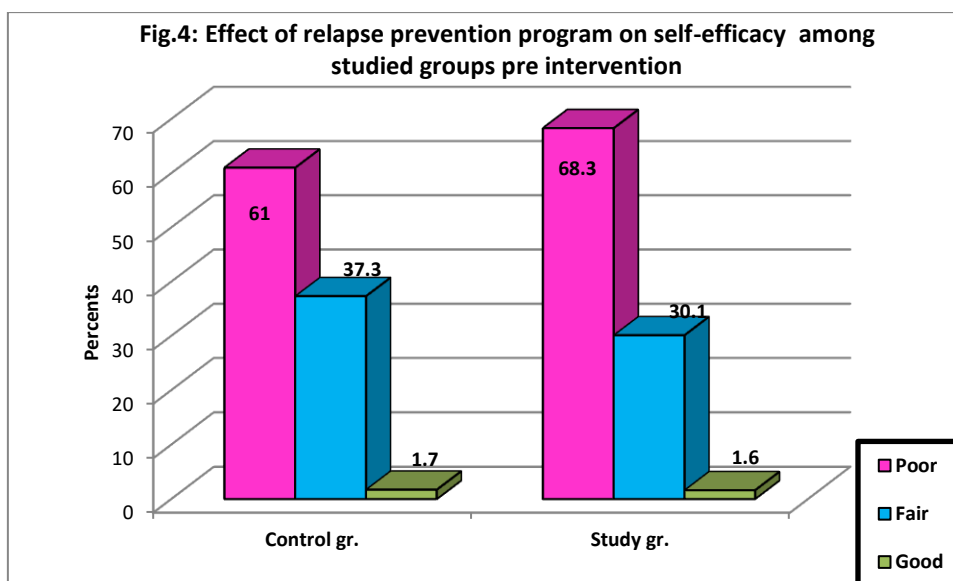


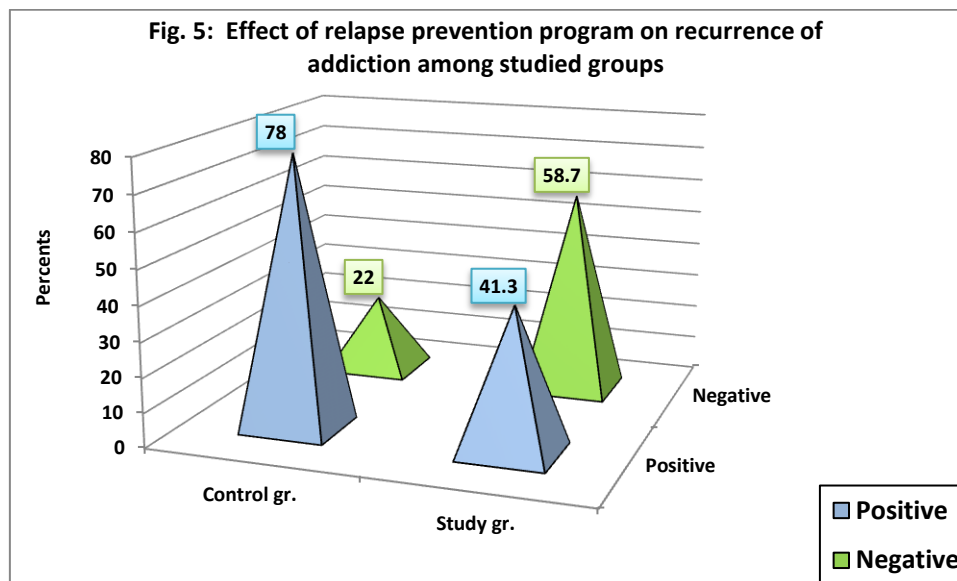
Table (6): Effect of relapse prevention program on total score of self-efficacy among studied groups post intervention (N=122).

Groups of self-efficacy total score	Post intervention				Total NO.	%	P value
	Control NO.	%	Cases NO.	%			
Poor (16 – 56)	22	37.3	5	7.9	27	22.1	X ² =15.6, P=0.000 HS
Fair (57 – 84)	33	55.9	49	77.8	82	67.2	
Good (85 – 112)	4	6.8	9	14.3	13	10.7	
Total	59	100	63	100	122	100	

Table (7): Post drug test of addictive substance for participants on post intervention (N=122).

Toxic urine assessment	Patients				Total NO.	%	P value
	Control NO.	%	Case NO.	%			
positive +ve	46	78	26	41.3	72	59	X ² =16.9, P=0.000 HS
negative _ve	13	22	37	58.7	50	41	
Total	59	100	63	100	122	100	

Figure (5): Recurrence of addiction among studied groups (N=122)



5. DISCUSSION

Drug abuse and addiction should be a concern for all health care professionals. Nurses are frequently providing care for patients with substance abuse, but their role in assessment, management of patients with drug abuse and prevent relapse has yet to be established (Rayan, 2017). Therefore this study was aimed at examining the effect of relapse prevention program on self efficacy of patients having addiction. The study was conducted on (122) addicts at addiction outpatient clinic at forensic Medicine Technical Toxicology Department (poisoning and addiction control unit) at Menoufia University Hospital, in Shebin El kom, at Menoufia Governorate.

Hypothesis (1) Addicted patients who will receive relapse prevention program have lower recurrence of addiction than who will not receive the program.

The current study showed that there was highly significant improvement among the study group than the control group at the post test of toxic urine assessment which indicated that the effectiveness of the relapse prevention program. This result is supported by Kadden and Litt, (2011) who studied the role of self-efficacy in the treatment of substance use disorders. They found a greater increase in self-efficacy at the end of relapse prevention treatment than the social support intervention. Also, Brown et al., (2002) who studied "the process and outcome changes with relapse prevention versus 12-Step aftercare programs for substance abusers". They found that relapse prevention aftercare treatment resulted in increased confidence in high-risk situations during the course of a 10-week aftercare program.

Hypothesis (2): Addicted patients who will receive relapse prevention program have higher self efficacy than who will not receive the program.

The current study revealed that, there was highly statistical significant improvement among the study group than the control group at the post test of self efficacy questionnaire. This finding is similar to the finding of a study conducted by Ibrahim et al., (2011) who studied "self efficacy and relapsed addiction tendency: An empirical study". They illustrated that self-efficacy factor is an important factor towards relapsed addiction amongst addicts. With efforts to enhance the preparation of total human development strategy amongst relapsed drug addicts, it could increase addicts' self-efficacy to live without drugs. It means that serious efforts should be done to restructure weak self-efficacy to enable the addicts to be stronger when facing life challenges after their release. On the other hand, Walton, Blow, Bingham and Chermack, (2003) who studied "the individual and social/environmental predictors of alcohol and drug use 2 years following substance abuse treatment". They reported that there was a negative relationship between self-efficacy and relapse to alcohol use, but not for relapse to drug use. Also, it was similar to the study conducted by Romo et al., (2009) who studied "the role of brief motivational intervention on self-efficacy and abstinence in a cohort of patients with alcohol dependence". They reported the common finding that high self-efficacy was correlated with longer periods of abstinence.

In addition, the results of the present study revealed that, near to half of the study group had self-efficacy to prevent relapse pre intervention that are improved to near to three quarter post intervention. This finding is congruent with study conducted in Iran by Heydari, Dashtgard and Moghadam, (2014) who studied "the effect of Bandura's social cognitive theory implementation on addiction quitting of clients referred to addiction quitting clinics". They reported that, test group was more successful than the control group in addiction quitting. also they found, there was a significant improvement between self-efficacy scores before and after the intervention in the test group. They concluded that using Bandura's social cognitive theory was effective on addiction quitting. So, it is recommended to apply it for clients referring to addiction quitting clinics. This similarity could because, the current study was based on Bandura's social cognitive theory(self-efficacy) implementation.

Moreover, the present study revealed that, there was highly statistical significance improvement among the study group than the control group of self-efficacy at the post intervention. This finding is similar to the study conducted in Sari, Iran by Abdollahi et al., (2014) who studied " the relationship between addiction relapse and self-efficacy rates in injection drug users referred to maintenance therapy center of sari". They concluded that there was a significant difference between relapse and self-efficacy as well as other related factors. Also, this result is supported by Stephens et al., (1995) who studied "Self-efficacy and marijuana cessation: A construct validity analysis". They found that although self-efficacy ratings increased for participants in both social support and relapse prevention interventions, the relapse prevention participants reported significantly greater self-efficacy at the end of treatment than those that received social support

The finding of the current study presented that, more than three quarter of the study group had fair self-efficacy post intervention. This result came on the same line with study conducted by Miller, McCrady, Abrams, and Labouvie, (1998) who made "comparison between two self-efficacy scales in maintenance of smoking cessation". They stated that higher self-sufficient people could quit cigarette smoking more successfully, because they were confident of themselves for quitting smoking.

Regarding personal data of the studied addicts, the present study showed that the highest percentages of addicts were found among age group between 20- 40 years, male, secondary school or technical diploma and married. This result is similar to the findings of the study conducted in Tanta, Egypt by EL-Sherbiny, (2015) who studied "drug abuse among patients of Tanta university hospital outpatient clinic, Gharbia governorate, Egypt". The research illustrated that drug abuse was significantly higher in male population than in female population. Also, it was high among individuals with low educational qualifications than university graduates and those with secondary education. As regard the age, this study showed that the common age between 18 and 25 years of age than in other age categories. Thus, this research recommended monitoring and reassessment of mild drug abusers, further investigation of moderate and substantial drug abusers, and intensive assessment of severe cases.

In terms of the age composition, more than three quarter of the studied addicts were between 20-40 years of age. This result came on the line with study in Iran conducted by Bashirian et al. (2014) who studied "prevalence and factors associated with tramadol abuse among college students in west of Iran: an application of the theory of planned behavior". They revealed similar outcomes, the most likely reasons that could be advanced here are the pervasive effect of peer pressure on young adults and the effects of curiosity and experimentation.

The finding of the current study illustrated that, the majority of the studied addicts were men, this result came on the line with the outcome of earlier studies conducted in Egypt by Nabil et al., (2015) who studied "an epidemiological study of tramadol HCL dependence in an outpatient addiction clinic at Heliopolis psychiatric hospital" and Bassiony et al., (2015) who studied "adolescent tramadol use and abuse in Egypt". They reported that all showed male preponderance. The reason for the male predominance in this study could be attributed to cultural influences and the females might not readily be presented for addiction therapy for the fear of the attendant stigma. Also, In Egyptian culture, male population is more prone to abuse drugs at an earlier age compared with female population due to earlier work career and more freedom.

On the other hand, the finding of the current study was inconsistent with the study conducted by El-Sawy et al., (2010) who studied "gender differences in risks and pattern of drug abuse in Egypt". They found that the prevalence of drug abuse was near to three quarter in the male population, whereas it was more than one quarter in the female population. Our results revealed that the majority of the studied addicts were men. The variation was due to the difference in the study population.

On the other side, the current study is incongruent with study conducted by Hamdi et al., (2013) who studied "the national addiction research program: prevalence of alcohol and substance use among women in Cairo". They illustrated that, the prevalence of substance abuse among women was high. This result is clearly higher compared with the finding of my study. The growing problem of substance misuse among women in Cairo can be explained by the increased exposure of women living in larger and more developed communities within the capital to substances when compared with those living in more rural governorates. The shame and stigma of woman in rural areas would encounter if she disclosed a substance misuse problem.

6. CONCLUSION

- There was highly significant improvement among the study group than control group at the post test of toxic urine assessment.
- There was highly statistical significance improvement among study group than control group of self-efficacy at the post intervention.
- The majority of the studied participants were men.

The highest percentages of the studied participants were abused tramadol

7. RECOMMENDATIONS

Recommendation for addicts:

- promoting addicts' self-efficacy skills in order to cope with high-risk situations is recommended.
- Regular follow up with family, peer and social support are essential along with vocational rehabilitation to prevent relapse. Family members have got a definite role in providing support and care to the relapse cases.

Recommendations to Community:

- The preventive services should be mainly directed towards young and middle aged males, less educated persons, working in technical or commercial jobs, and living in urban areas.
- Communities should identify drug abuse individuals, and refer them to the appropriate centers for treatment and rehabilitation. Pushers and sellers are well known by community members; therefore the community can identify them and send them to court and be charged for possession of illegal drugs. Community through community organization should invite educators and raise awareness about drugs and their effects by dissemination of religious consciousness, and religious culture, and the consolidation of the social and educational values to the members of the community.
- The Ministry of Health should design mass health education programs and messages specifically designed to target all sections of the community since friends' influence was a significant predictor of use of drugs by publication of books, brochures, flyers that address the problem of addiction and how prevent relapse and development of well-trained clinics to deal with addicted people to prevent relapse.
- Encourage media programs across various media such as centralized web resource, radio and television to educate people about the dangers of drug abuse and programs of relapse prevention to deal with addicts.
- Make hot line service in order to answering any question related to addiction and places for rehabilitation.

Recommendations for Further Research

- Large population-based longitudinal studies in young adults are needed to estimate the prevalence, risk factors and consequences of drug abuse in Egypt.
- Further studies for the work of rehabilitation programs for addicts.

REFERENCES

International Journal of Novel Research in Healthcare and Nursing

 Vol. 6, Issue 1, pp: (671-685), Month: January - April 2019, Available at: www.noveltyjournals.com

- [1] Abdollahi, Z., Hamzehg, F., Ardeshi, F., and Bahramzad, O. (2014). Relationship between addiction relapse and self-efficacy rates in injection drug users referred to maintenance therapy center of sari . Global journal of health science; vol. 6, no. 3.
- [2] Bandura A. (1993). Perceived self-efficacy in cognitive development and functioning. Educational psychologist; 28: 117- 48.
- [3] Bashirian S, Barati M, Fathi Y. (2014). Prevalence and Factors Associated With Tramadol Abuse Among College Students in West of Iran: An Application of the Theory of Planned Behaviour. Avicenna J NeuroPsychPhysio.,1(1): e20314.
- [4] Bassiony MM, Salah ElDeen GM, Yousef M, Raya Y, Abdel- Ghani MM, El-Gohari H, Atwa SA. (2015). Adolescent Tramadol Use and Abuse in Egypt. The American Journal of Drug and Alcohol Abuse, 41(3): 2-6.
- [5] Bramson, JH. (1999). The impact of peer mentoring on drug avoidance self-efficacy and substance use. United States: University of Northern Colorado: p.43-52.
- [6] Brown TG, Seraganian P, Tremblay J, Annis H. Process and outcome changes with relapse prevention versus 12-Step aftercare programs for substance abusers. Addiction. 2002; 97(6):677–689. [PubMed: 12084137]
- [7] El-Awady, S., Elsheshtawy, E., Elbahaey, W., and Elboraie, O., (2017) Impact of familial risk factors on the severity of addiction in a sample of Egyptian adolescents: Egyptian Journal of Psychiatry, 38:70–78
- [8] El-Sawy, H., Abdel Hay, M and Badawy, A. (2010) Gender Differences in Risks and Pattern of Drug Abuse in Egypt. Egypt J Neurol Psychiat Neurosurg; 47(3): 413-418.
- [9] El-Sawy, H., Abdel Hay, M., Badawy, A. (2010). Gender differences in drug abuse in Egypt, Egypt J Neurol PsychiatNeurosurg, 47(3): 413-418
- [10] EL-Sherbiny AAM .(2015). Drug abuse among patients of Tanta university hospital outpatient clinic, Gharbia governorate, Egypt: Tanta Medical Journal, 43(3):82–88
- [11] Geramian, N., Akhavan, S., Gharaat, L., Tehrani, AM., Farajzadegan, Z. (2012). Determinants of Drug Abuse in High School Students and their Related Knowledge and Attitude. JPak Med Assoc;62Suppl, 2:S62-6.
- [12] Hamdi, E., Sabry, N., Khoweiled, A., Edward, A., and Enaba, D., (2013). The National Addiction Research Program: prevalence of alcohol and substance use among women in Cairo: Egyptian Journal of Psychiatry, 34:155–163
- [13] Heydari, A., Dashtgard, A., Moghadam, ZE. (2014). The effect of Bandura’s social cognitive theory implementation on addiction quitting of clients referred to addiction quitting clinics. Iranian Journal of Nursing and Midwifery Research. 19:19-23.
- [14] Heydari, A., Dashtgard, A., Moghadam, ZE. (2014). The effect of Bandura’s social cognitive theory implementation on addiction quitting of clients referred to addiction quitting clinics. Iranian Journal of Nursing and Midwifery Research. 19:19-23. <http://www.thelancet.com/commissions/crisis-of-liver-disease-in-the-UK>
- [15] Ibrahim, F., Kumar, N., and Samah, B. A. (2011). Self efficacy and relapsed addiction tendency: An empirical study. *The Social Sciences*, 6(4), 277-282. <http://dx.doi.org/10.3923/sscience.2011.277.282>
- [16] Juhnke, G. and Hagedorn, WB. (2006). Counseling Addicted Families: An Integrated Assessment and Treatment Model. London: Routledge. p. 117-23.
- [17] Kadden, R., and Litt, M. (2011). the role of self-efficacy in the treatment of substance use disorders: addict behav; 36(12): 1120–1126.
- [18] Marcia, S., and Jeanette, L. (2011). Public Health Nursing: Population-Centered Health Care in the Community. 8th ed. St. Louis: Mosby, p. 432-46.
- [19] Martin, G., Wilkinson, DA., Poulos, CX. (1995). The Drug Avoidance Self-Efficacy Scale. J Subst Abuse. 7:151-63.

International Journal of Novel Research in Healthcare and Nursing

 Vol. 6, Issue 1, pp: (671-685), Month: January - April 2019, Available at: www.noveltyjournals.com

- [20] Miller, kJ, McCrady, BS, Abrams, DB and Labouvie, EW. (1998). Taking an individualized approach to the assessment of self-efficacy and the prediction of alcoholic relapse. *J. Psychopathol Behav Assess* 16:111-20.
- [21] Nabil RM, El-Hamrawy LG, Shalaby AS, El-Bahy MS and AbdAllah MM. (2015). An Epidemiological Study of Tramadol HCl Dependence in an Outpatient Addiction Clinic at Heliopolis Psychiatric Hospital. *Menoufia Medical Journal*, 28(2): 591-596.
- [22] Rayan, A. (2017). Assessment and Management of Patients with Drug Abuse: Nurses should be Involved. *J Addict Depend* 3(1): 1- 2.
- [23] Romo, L., Strat, Y. L., Aubry, C., Marquez, S., Houdeyer, K., Batel, P., et al. (2009). The role of brief motivational intervention on self-efficacy and abstinence in a cohort of patients with alcohol dependence. *The International Journal of Psychiatry in Medicine*, 39(3), 313-323. <http://dx.doi.org/10.2190/PM.39.3.g>
- [24] Sau M, Mukherjee A, Manna N, Sanyal S. (2013). Sociodemographic and substance use correlates of repeated relapse among patients presenting for relapse treatment at an addiction treatment center in Kolkata, India, Department of Community Medicine, Medical College Kolkata, *African Health Sciences* Vol 13 Issue 3
- [25] Stephens RS, Wertz JS, Roffman RA. (1995). Self-efficacy and marijuana cessation: A construct validity analysis. *Journal of Consulting and Clinical Psychology*; 63(6):1022–1031. [PubMed: 8543705]
- [26] Sullivan, EJ .(1995). Nursing care of clients with substances abuse. Mosby year Book Inc. p8.
- [27] UNODC (United Nations Office on Drugs and Crime), World Drug Report (2012). United Nations publication, Sales No. E.12. XI.1.
- [28] Walton, M. A., Blow, F. C., Bingham, C. R., & Chermack, S. T. (2003). Individual and social/environmental predictors of alcohol and drug use 2 years following substance abuse treatment. *Addictive Behaviors*, 28(4), 627-642. [http://dx.doi.org/10.1016/S0306-4603\(01\)00284-2](http://dx.doi.org/10.1016/S0306-4603(01)00284-2)
- [29] WHO. (2014). ATLAS of substance use disorders resources for the prevention and treatment of substance use disorders (SUD) country profile. Egypt:WHO; Available at: http://www.who.int/substance_abuse/publications/atlas_report/profiles/egypt.pdf.
- [30] World Health Organization. (WHO). (2006). Lexicon of Alcohol and Drug Terms Published by the World Health Organization. (Accessed,2012). Available at http://www.who.int/substance_abuse/terminology/who_lexicon/en/