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The effectiveness of emotion regulation training based on Gross process model on excitement and relapse in drug dependent patients

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Original article

Abstract

Introduction: Harmful and destructive effects of individual, social and cultural dependence and drug addiction have caused the medical staff of the community to take action to prevent, quit and prevent relapse of drug use. The aim of this study was to determine the effectiveness of emotion regulation training on arousal and relapse in drug-dependent patients.

Methods: The research method in this study was quasi-experimental with pretest-posttest design and control group. In this study, the statistical population was all men with drug abuse in Tabriz in 1399. Using simple random sampling method, 30 of them were divided into two groups of experimental (15 people) and control (15 people). The experimental group underwent 10 sessions of 90-minute emotion regulation training; But the control group remained on the waiting list. The Zuckerman (SSS-V) Emotion Scale (SSS-V) and the Wright (RPS) Prediction (RPS) Scale were used to collect data. Multivariate analysis of covariance with SPSS-24 was used to analyze the data.

Results: The results showed a significant difference between the performance of the experimental and control groups in excitement (0.003) and relapse (0.001) in the post-test stage (P <0.05).

Conclusion: Considering the effect of emotion regulation training on reducing arousal and relapse in drug-dependent patients, it is recommended that counselors, therapists and clinical psychologists use this method to reduce arousal and relapse in these individuals.

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Introduction:

Drug dependence from global crises (1), as a psychiatric disorder (2), with biological (3), psychological (4) and social (5) dimensions is one of the problems of the present age (6). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), substance-related disorders include disorders related to drug and opioid abuse, side effects of drugs, or exposure to toxins and poisons (7). Drug addicts have many problems, including difficulty in regulating emotion (8), aggression (9), anxiety (depression) and anxiety (anxiety) (4), low happiness (10), bias Attentional bias (4) and low quality of life (11) are experienced. In addition, one of the most important factors in vulnerability to drug abuse and dependence is the high level of arousal (21).

Excitement is defined as the need for diverse, new and complex experiences and emotions, as well as the willingness to accept physical, psychological and social risks to achieve such experiences (11). Excitement is defined as a trait characterized by the search for emotions and diverse, fresh, complex, and intense experiences and the desire to take physical, social, legal, and financial risks because of those experiences themselves (13). Enthusiasts are adventurous and extroverted, tired of repetition and monotony, bored, bored and restless, and in search of new, fresh, varied and exciting experiences (3) . The level of arousal in drug addicts of both sexes is significantly higher than the healthy group, and addicts who scored higher in arousal experience drug use at a younger age (14). . Another study has shown that excitement is an important predictor of substance abuse (14).

Also, according to the results of a study, arousal is itself an important factor for relapse of drug abuse (14). Relapse means the inability and failure to maintain a behavioral change and the onset of behavior following a period of withdrawal. Slippage and recurrence in addiction occur for various individual and interpersonal reasons such as depression and sexual abuse in childhood and marital problems (15). However, the high level of arousal in addicted people and the high rate of recurrence of addicted patients in different time periods after the start, during and after treatment have led researchers and therapists to seek therapies that are first of all effective. And secondly show less recurrence rate. Emotion regulation training is one of the psychological interventions that can play an important role in reducing the problems of drug addicts (16).

Numerous studies have suggested the role and effect of emotion regulation on substance use relapse. In studies by Saz, Sezentagota, and Hoffmann. The effects of different emotion regulation strategies on substance use recurrence have been investigated. The findings of this study show that reassessment or reassessment techniques (creating a positive or neutral interpretation to reduce negative stress) are more effective than acceptance and repression (inhibition) techniques for relapse.

According to process theory, Gross defines emotion regulation as suppression and cognitive reassessment (18). Suppression is a form of response-focused strategy, and cognitive reassessment means changing cognition of emotional status and using knowledge as a system of emotion production (19). Therefore, according to what has been mentioned, since one of the important factors underlying drug abuse and relapse is the feature of excitement, and in various studies, the existence of this feature has been repeatedly mentioned as a risk factor for drug abuse. People with higher levels of arousal are more likely to engage in substance abuse and other risky behaviors such as relapse, so the research question is whether emotion-based training based on the Gross process model is based on arousal and Is relapse effective in drug-dependent patients?

Research method:

The present study was a quasi-experimental study based on pre-test-post-test design and follow-up with a control group. In this study, the statistical population of all men was drug abusers in Tabriz in 1399, of which 30 people were selected by random sampling and these people were randomly divided into two groups of experimental (15 people) and control (15 people). Cochran's formula was used for the size of the unknown community. Based on this, with a confidence of 0.95, standard deviation of 0.5 and margin of error of 0.5 - / +, the sample size was set at 30 people. Inclusion criteria included masculinity, age 22-49, drug use, minimum secondary education and satisfaction. Also, cancellation of treatment sessions and absence of more than two sessions in emotion regulation training were the criteria for exclusion from the study. The experimental group underwent 10 sessions of 90-minute emotion regulation training; During this period, the control group was on the waiting list for group therapy. After the treatment sessions, both groups underwent post-test under the same conditions. In this study, descriptive statistics (mean and standard deviation) and inferential statistics (multivariate analysis of covariance) were used. Also, before performing the analysis, its hypotheses including Shapiro-Wilkes test for normality, Levin test for variance homogeneity, Mbox test for variance-covariance matrices, regression line slope and multiple alignment were used. Data analysis software was SPSS version 24.

Table 1. Summary of emotion regulation therapy sessions adapted from Gross

Meeting	Content of the meeting

1. General introduction to emotion regulation training, articulation of logic and intervention steps, necessity of emotion regulation, why should we learn these skills?

2. What are the right perspectives on emotions? An Overview of Primary and Secondary Emotions All emotions help us.

3. Teaching and introducing emotion, normal emotion and problematic emotion, emotional self-awareness, emotion-provoking events, identifying and naming and labeling emotions, distinguishing between different emotions.

4. Identifying emotion in physical and psychological state, success factors in emotion regulation.

5. Self-assessment with the aim of recognizing one's emotional experiences, self-assessment with the aim of identifying the level of emotional vulnerability in the individual.

6. Self-assessment with the aim of identifying strategies for regulating one's emotion, preventing social isolation and avoidance, teaching problem-solving strategies, teaching interpersonal skills (dialogue, assertiveness, and conflict resolution).

7. Stop rumination and worry, teach attention skills.

8. The role of the mind (mental processing and collection of thoughts, ideas and memories) in producing, maintaining, increasing and decreasing emotional response, identifying miscalculations and their effects on emotional states, teaching re-evaluation strategy.

9. Evaluation: Identifying the extent and manner of using the inhibition strategy and examining its emotional consequences. Exposure: Creating emotional states. Skills training, behavior modification by changing environmental enhancers.

10. Training in emotional evacuation, relaxation, adjusting emotional response and reverse action.

Tools

The Zuckerman Emotion Scale (V-SSS) was developed by Zuckerman, Eisenhower, and Eysenck (1978). It is a new tool designed for use by professionals and psychologists in evaluating the trait of emotion. It gives the attribute of excitement by measuring four sub-factors (excitement, experimentation, avoidance of inhibition and boredom) and for each factor, 10 items of scale are considered.This scale consists of 40 two-component items in each item. , One of the two components expresses the level of excitement of the person and the second component is the opposite.

Zuckerman et al. (20) reported the internal consistency of the subscales of the fifth scale of the scale (current form) in the range of 0.83 to 0.86; Fathi and Mehrabizadeh Honarmand (25) reported the internal consistency of the scale as 0.73. In this study, the Cronbach's alpha coefficient was 0.69, which is at an acceptable level and the research is consistent.

Predictive scale of return on burn materials (2):

Return Prediction Scale A self-assessment scale of 45 (Wright, 1993) is a question, and each question contains a situation in which the subject must imagine himself or herself. This scale consists of two parts:

1. The strength of the desire in a particular situation

2- Possibility of consumption in that situation

All questions are scored on a five-point scale including no = 0, 1 = weak, 2 = medium, 3-strong, 4 = very strong. The questionnaire was translated by Goodarzi (2001). In order to assess the reliability, the questionnaire was administered by the researcher on a population of 45 people with substance dependence criteria. The Cronbach's alpha coefficient was calculated to be 0.58 for the first part of the questionnaire, which measures the desire to use substances, and 0.63 for the second part, which measures the probability of consumption and slipping.

This test has two subscales of 45 items, each of which contains situations or situations that can cause temptation and, consequently, the desire to use drugs for a person who is addicted to drugs. The subject answers this test based on the Likert scale (with a score of 0-4). In the study of Mehrabi et al. (2004), the validity calculated for this scale was performed on 40 substance-dependent patients in the initial recovery period and using Cronbach's alpha method for the subscale temptation rate of 0.94 and for the subscale the inclination rate of 0.97. 0 is calculated, the correlation obtained between the two subscales using Pearson correlation method (r = 0.85) also shows a statistically significant relationship (p = 0.001).

Results:

The distribution of subjects according to age, education and duration of marriage is as follows:

The subjects ranged in age from 22 to 41 years, with a mean of 31.37. 6.76 years. In terms of education, 33.3% had a cycle, 53.3% had a diploma and 10% had a bachelor's degree or higher.

Also, in terms of marital status, 36.7% were single, 46.7% were married and 13.3% were divorced. In terms of substance use, 43.3% used opioids, 50% stimulants and 3.3% hallucinogens.

Table 2. Mean and standard deviation of research variables in experimental and control groups

control group		examination Group			The dependent variables
Post-test	pre-exam	Post-test	pre-exam		
۱۰/۶۰	۱۰/۹۳	۸/۷۳	۱۰/۸۷	Average	Excitement
۱/۳۵۲	۰/۷۹۹	۱/۰۳۳	۰/۷۴۳	Standard deviation	
۷/۵۳	۷/۸۰	۴/۸۷	۷/۴۷	Average	Empiricism
۰/۹۱۵	۰/۶۷۶	۱/۱۲۵	۰/۵۱۶	Standard deviation	
۳/۶۰	۳/۸۰	۲/۸۷	۴/۰۰	Average	adventure
۰/۶۳۲	۰/۵۶۱	۰/۹۱۵	۰/۵۳۵	Standard deviation	
۳/۶۷	۳/۸۰	۲/۷۳	۳/۸۰	Average	Diversity
۰/۴۸۸	۰/۴۱۴	۰/۵۹۴	۰/۴۱۴	Standard deviation	
۸۶/۰۰	۸۷/۰۷	۶۶/۹۳	۸۳/۰۷	Average	The degree of temptation
۵/۱۲۷	۳/۰۱۱	۴/۲۵۰	۴/۶۰۵	Standard deviation	
۸۴/۳۳	۸۵/۵۳	۷۲/۱۳	۸۶/۰۰	Average	The amount of desire
۴/۵۳۰	۳/۲۲۶	۸/۸۵۵	۲/۰۳۵	Standard deviation	

Table 2 shows the mean and standard deviation of arousal and craving in the experimental and control groups in two stages of pre-test and post-test. The Shapiro-Wilkes test was used to examine the default distribution of normalization, which was approved by both experimental and control groups (P <05). The presumption of homogeneity of variance was examined and confirmed by Levin test (P <05). The results of the box test to examine the other default of this test, ie equality of variance - covariance were not statistically significant (sig = 0.167, Mbox = 35.479 and F = 1.294) and this means the assumption of matrix equality. Are variance and covariance. The result of Bartlett sphericity test was 0.001. Also, the homogeneity of the regression line slope showed that the significant level of the effect of group interaction and the covariance variable is greater than 0.05. Since the interaction between dependent variables and non-significant co-occurrence was observed, the assumption of homogeneity of the regression line slope for the research variables is accepted. The linearity was checked by plotting the scatter plot since the assumptions were established. In order to examine the research hypothesis, multivariate analysis of covariance has been used, the results of which are shown in Tables 3 and 4.

The results of Table 3 indicate that Wilkes lambda (Sig = 0.001 and F = 20.447) is significant. The results confirm that there is a significant difference between the experimental and control groups in terms of post-test of arousal and craving with pre-test control. Based on this, it can be said that there is a significant difference in at least one of the dependent variables and the coefficient of effect shows that 87.8% of the difference between the two groups is related to the experimental intervention. Next, it must be examined whether each of the dependent variables is affected separately from the independent variable (emotion regulation training). For this purpose, multivariate analysis of covariance test was used, the results of which are presented in Table 4.

Table 3. Results of multivariate tests after the excitement and craving test

Statistical power	Impact factor	Significance	F test	value	Type of test
۰/۹۹۹	۰/۸۷۸	۰/۰۰۱	۲۰/۴۴۷	/۸۷۸۰	Pilay effect
۰/۹۹۹	۰/۸۷۸	۰/۰۰۱	۲۰/۴۴۷	/۱۲۲۰	Wilks Lambda
۰/۹۹۹	۰/۸۷۸	۰/۰۰۱	۲۰/۴۴۷	/۲۱۷۷	Hoteling effect
۰/۹۹۹	۰/۸۷۸	۰/۰۰۱	۲۰/۴۴۷	/۲۱۷۷	The largest root on

Table 4- Results of the effects between the subjects, the scores of the post-test of excitement and craving

Statistical power	Impact factor	meaningful	Statistics F	Degrees of freedom	Total squares	The	dependent variables
۰/۸۹۸	۰/۳۴۲	۰/۰۰۳	۱۱/۴۲۰	۱	۱۳/۹۷۸		Excitement
۰/۹۹۹	۰/۶۱۴	۰/۰۰۱	۳۴/۹۸۸	۱	۳۴/۵۲۳		Empiricism
۰/۶۱۶	۰/۲۰۲	۰/۰۲۸	۵/۵۶۷	۱	۲/۷۲۷		adventure
۰/۹۹۷	۰/۵۳۰	۰/۰۰۱	۲۴/۸۱۶	۱	۴/۲۸۲		Diversity
۰/۹۹۹	۰/۷۸۸	۰/۰۰۱	۸۱/۶۸۴	۱	۱۹۳۴/۶۲۸	The	degree of temptation
۰/۹۹۹	۰/۶۷۷	۰/۰۰۱	۴۶/۲۱۰	۱	۱۵۶۶/۳۷۱		The amount of desire

As can be seen in Table 4, use of emotion regulation training on excitement (Sig = 0.003 and F = 11/420), empiricism (Sig = 0.001 and F = 34.988), adventure (Sig = 0.028 and F = 5.567), diversity (Sig = 0.001 and F = 24.816), temptation rate (Sig = 0.001 and F = 81/684) and desire rate (Sig =

0.001 and F = 46.210) is effective in the post-test stage. Therefore, the research hypothesis that emotion regulation training is effective on excitement and craving was confirmed.

Discussion:

The aim of this study was to determine the effectiveness of emotion regulation training on emotion seeking and relapse in drug-dependent patients. The results showed a significant difference between the performance of the experimental and control groups in arousal and relapse in the post-test phase. This result is consistent with the results of research by Borjali, Azami and Chupan (22), Borjali, Azami, Chupan and Arab Ghohestani (23), Jalalvand, Mohammadi and Mollazadeh (24). Explaining the effectiveness of emotion regulation training on emotion seeking in drug-dependent patients, it can be said that, based on the quality of emotion production model, the model of emotion regulation process has been presented (20). Gross emotion regulation process theory includes five stages: start, position, attention, evaluation, and response; According to Gross, each stage of the emotion production process has a potential regulatory goal, and emotion regulation skills can be applied to different parts of the process (21). Each stage of the Gross emotion regulation process model includes a series of adaptive strategies and a series of incompatible strategies, among which people with emotional problems use incompatible strategies such as rumination, avoidance, and so on. Therefore, it is necessary to intervene in emotional problems, correct or eliminate incompatible strategies, and teach adaptive strategies. Therefore, emotion regulation training reduces the amount of excitement in addicts by eliminating maladaptive emotion regulation strategies and teaching adaptive strategies to addicted people. Therefore, it is logical that emotion regulation training is effective on emotion seeking in drug-dependent patients.

Also, in explaining the effectiveness of emotion regulation training on relapse in drug-dependent patients, it can be said that dysfunctional emotion regulation of emotional experiences is one of the basic nuclei of substance abuse, temptation and relapse. Emotional knowledge helps regulate emotion. With this in mind, individuals need to develop skills related to this level in order to apply its knowledge in practice. Addicted people who are unable to regulate their emotions are more likely to be affected by environmental factors. In general, difficulty in regulating emotions is one of the problems of people with drug abuse, and this issue leads to failure in managing the emotional states of people with drug abuse. A person who uses maladaptive emotion regulation may not adjust his or her behaviors in a way that achieves his or her goals in the environment when faced with a problematic experience. Inconsistent emotion regulation includes emotion over-regulation and emotion under-regulation. Emotional over-regulation occurs when a person employs emotional regulation strategies to prevent the emotional experience from being revealed. In emotion regulation, the behavior one performs in response to an emotion is often indistinguishable from the emotion itself, and the individual cannot use appropriate emotion regulation strategies to control his or her behavior. When addicted people are trained in emotion regulation, they will be able to modify and replace the maladaptive strategies they use in the face of stress. Therefore, it is logical that emotion regulation training is effective on relapse in drug-dependent patients.

Overall, the results showed that abusers who used more adaptive emotion regulation strategies were more successful in treatment sessions. Conversely, people who are unable to control their emotions are more likely to become regular drug users. Therefore, teaching emotion regulation based on Gross process theory by informing people who are abstaining from drugs, temptation, relapse and positive and negative emotions associated with it, as well as reducing the level of excitement of people, can improve the psychological well-being of these people. Upgrade.

Research Limitations:

One of the limitations of this study is that the therapist and the researcher are not different, which may have affected the results of the study. The second limitation was the repeated use of fixed questionnaires in the post-test and follow-up period, which may have affected the results due to the effect of practice. A third limitation may be that the implementation of emotion regulation training techniques that require the therapist's high skill and experience may be associated with shortcomings even after training courses and detailed studies. These limitations necessitate a cautious approach to the findings and precautions need to be taken in generalization.

Research suggestions:

It is suggested that in order to clarify the educational effects of this method with higher accuracy, in more extensive studies with higher sample size, the mentioned treatment should be compared with other common approaches. It is also suggested that drug abuse treatment centers and clinics. By conducting workshops or even in individual therapies, to provide the ground for acquaintance with emotions, types of emotions, how to express and control them, and to identify emotion-provoking situations for the treated people so that they can better integrate with their living environment. Adapt and avoid substance abuse when unpleasant emotions arise.

Research application:

The findings of this study can be used in addiction treatment centers and the Department of Family Injury Prevention; And workshops and conferences in the field of emotion regulation training based on the Gross process model for drug addicts to be held in addiction treatment camps, welfare, law enforcement.

Ethical considerations:

In the present study, the researcher adheres to the observance of high human and moral principles and values of the participants in the research and has been done by obtaining informed consent and commitment to confidentiality of research results and the researcher has committed to protect subjects from financial, human and Mentally safe in this research. Ethical principles have been fully observed in the design, implementation and publication of research results.

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