The Effectiveness of Hypnotherapy in Relapse Prevention, Reduction of Impulsiveness, and Decrease of Craving in Treated Stimulant Users

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Abstract

Objective: The aim of this study was to determine the effectiveness of hypnosis therapy in relapse prevention, reduction of impulsivity, and decline of craving in treated stimulant users. **Method:** In a semi-experimental design, a 40-patient group diagnosed by drug dependence was selected via convenience sampling method. They had undergone the detoxification stage and referred to addiction treatment centers. Then, they were randomly divided into two experimental and control groups. The experimental group received five 45-minute sessions of group hypnotherapy. The participants were evaluated through morphine test, Barratt Impulsivity Scale, and Drug Craving Scale before and after the end of group therapy. The control group did not receive any training and just awaited treatment. **Results:** The results showed that hypnotherapy training was effective in relapse prevention, reduction of impulsivity, and reduction of craving for drugs. **Conclusion:** Hypnotherapy training can be used as an alternative treatment along with other psychological interventions in the treatment of drug dependence.

Keywords: hypnotherapy, relapse, impulsivity, stimulants

Introduction

The repeated involvement with drug abuse, which is physically or socially considered to be hazardous, is called addiction (Bakhshipour, Alilu & Irani, 2000). According to the most optimistic statistics, there are approximately 2 - 2.5 million people in Iran with addiction (Mohammadi et al. 2011). Substance-dependency might have destructive effects on biological, psychological and social processes in individuals. Drug abuse is followed by many irrecoverable risks. Drugs cause changes in alertness and increase emotional desires and feelings in individuals; also they might lead to visual illusions along with disturbance in concentration and decision-making; besides, they can cause changes in temporal and spatial perceptions (Seyed Fatemi, Khoshnavaei Foumani, Behbahani & Hosseini, 2008). Nowadays, substance dependency is assumed as one of the foremost problems for public health across communities. Many individuals suffer from disorders caused by drug abuse in their lifetime and annually, a large number of substance- dependent people pass away through direct and indirect consequences (Martin, Weinberg, & Bealer, 2007). Addiction is deemed as an abnormality with clinical, behavioral and cognitive symptoms for which social and psychological factors on the one hand and biological and pharmaceutical factors on the other hand play a crucial role. The social factors are considered at the beginning of abuse and then biological factors would be important in substance-dependency (American Psychiatric Association, 2013). Illegal trafficking of drugs and psychotropic substances and addiction to them has become a social crisis at the current century. Presently, over 26 million mortality cases for drug abuse are being reported annually in the world, while this figure will reach 40 million cases in the next 20 years; out of which more than one third will occur in the developing countries (Imam Hadi & Jalilvand, 2008). Currently, there are different interventions for treatment of drug abuse and relapse prevention around the world. With respect to the enormous costs spent for treatment and addiction prevention in different physical, psychological and social fields, it is crucially important to achieve new therapeutic methods affecting treatment and reduction of drug abuse. Thus, adoption of techniques effective in solving these problems seems necessary in treatment and prevention of drug abuse relapse.

Psychological theories and studies have created new interventions for prevention of drug abuse relapse during recent years. From among these interventions relating to relapse which are shared in interpretation and intervention of relapse process, one can refer to hypnotherapy. There is a great deal of evidence indicating that hypnotism is widely used in quitting smoking, alcohol, substance, anxiety management, and pain management (Gulati, De Costa, & Zador, 2015). Nonetheless, the study on literature of hypnotherapy for drug abuse disorders indicates that so far no survey has been conducted on the role of hypnotherapy in prevention of relapse, and reduction of craving and

impulsiveness among substance –dependent subjects. The present research intends to examine this effect on relapse prevention, reduction of craving and impulsiveness in drug abuse quitters.

Despite developments in the treatment of substance- dependency, the presence of relapse periods or uncontrollable drug abuse is considered as the definite problems in the field of substance- dependency (Witkiewitz & Mallrat, 2004). Even with respect to due attention and special plans in prevention of relapse and improvements in substance-dependency in the long run, most individuals seeking treatment might not experience continual quit of drugs. The main problem in the treatment of addiction in drug quitters is due to the chronic and frequent relapse. Even after long periods of quitting, a high percentage of those participating in therapeutic plans might return to drug abuse. According to the first nationwide study carried out in Iran by Ministry of Health and Medical Training in collaboration with the UN Office for Prevention and Control of Crime, the number of abusers (opium and heroin) was estimated as 3.67 million people out of whom 1.39 million individuals were classified as drug-abusers and 1.16 million individuals as substance- addicted or dependents (Asian Harm Reduction, 2006). Based on UN report on Drugs and Crime in 2004, the number of abusers of various narcotics was estimated about 185 million individuals, this number includes 3% of the total world population, and among them the psychotropic substances i.e. amphetamines and methamphetamines were at the second rank of use with a total of 30 million abusers (Barati, Verdipour, Farhadinasab & Mahjoub, 2014). Compared to narcotics, drug abuse is followed with many irrecoverable risks. Based on the studies conducted, these substances change consciousness level and increase emotional desires and feelings in individuals; furthermore, the emergence of visual illusions with disorders in concentration and decision-making following the substance abuse would be probable. And abusers might have a quite different temporal and spatial perception (Seyed Fatemi et al. 2008). An unreal feeling of power and achievement, desires for suicide and homicide and severe psychological dependencies are considered as side-effects of consuming these substances (Porafkari, 2007). Since 1990s, wide- ranging investigations were started on the results of drug-abuse treatment, and it was ascertained combined and outpatient interventions without drug use which were focused on psychological- social approaches and behavior-therapeutic plans might be followed by positive therapeutic outcomes (Camacho et al., 1997; quoted from Halgin, 2003). During recent decades, psychological theories and researches, and modern educational and interventional plans have been suggested for treatment and reduction of relapse to drug abuse. The findings of these studies suggest the effectiveness of such interventions. Hypnosis is one of the therapeutic techniques used for treatment of drug-abuse. Hypnotherapy and self-hypnotism training is one of the methods that can control post-quit symptoms including anxiety and insomnia (Qouted from Golabadi & Taban, 2005). In a study carried out by Golabadi and

Taban (2005) it was shown that hypnotherapy had no significant effect on relapse prevention in opioid addicted subjects, but it was clinically noticeable that based on the viewpoint of hypnotherapy patients it was effective on the reduction of insomnia, impatience, pain and diseases of alimentary canal.

Likewise, Vandamme (1986) and Orman (1991) used successfully the tranquil feature of hypnosis in controlling stress for helping two women addicted to heroin and cocaine to overcome addiction. Young (1997) reported positive effects of hypnosis on post-quit symptoms in alcohol addicted individuals as enhancement of stress management (95%), having a good feeling (75%), better potential for controlling impulses (80%) and improved quality of sleeping (65%). The effectiveness of hypnosis on treatment of addiction has been reported in several studies (e.g. Page & Handley, 1993). The hypnotherapy directly acts for aversive conditioning in drug abuse; and serves indirectly as a method for self-empowerment, changing of individual attitude, training of skills and coping with stress (Fathi & Fayyaz Saberi, 2011). There is evidence that shows hypnosis is widely used in quitting smoking, alcohol, drug-abuse and anxiety and pain Management (Gulati et al. 2015).

In this disorder, the high rate of relapse is assumed as one of the challenges that experts are faced with in the field of substance-dependency. Studies have shown that many individuals return to drug abuse after detoxification process because of the chronic and relapsing nature of substance-dependency. Despite great differences in theories concerning the use of relapse level as a major scale for treatment in the literature of drug abuse, the health rate after treatment is rarely reported. (Jafari, Eskandari, Sohrabi & Delavar, 2010). Investigations indicate that, regardless of type of discharge and characteristics of patients or kinds of drugs used, totally 50-60% of patients have returned to drug-abuse within six months after treatment (Mc Lellan, Mckay, Forman, Caccaiola, & Kemp, 2005). Impulsiveness and craving for drug abuse are the other variables effective in substance-dependency, treatment and relapse prevention. The impulsive behavior is assumed as one of the factors that make individuals susceptible to disorders of drug abuse and continue this habit; this issue is important in terms of dependency to stimulants (Edalati, 2007). Impulsiveness has been defined as a preparatory factor for unplanned and quick reactions to internal or external stimuli, regardless of negative consequences to oneself or others (Moeller, Barratt, Dougherty, Schmitz, & Swann, 2007). Similarly, the studies carried out by Verdejo - Garcia, Lawrence, & Clark (2008) indicated that impulsiveness was related to drug abuse disorders. Craving to drug abuse plays an important role in post-treatment relapse phenomenon, preservation of abuse status and substance dependency. After entering the avoidance phase, an intense desire for experiencing effects of psychotropic drugs is seen again in the treatment process of addicts; thus, diagnosis and treatment of this clinical phenomenon is considered important as one of the factors of therapy failure (Abrams, 2000).

With respect to the importance of relapse prevention and the role of variables such as craving for drug abuse and impulsiveness as factors having effect on therapeutic results and strong predictors of failure and success in treatment, it would be necessary to adopt more effective therapeutic methods so as to reduce the rate of these variables. Hypnotherapy is one of the efficient therapeutic techniques in this regard; one of the objectives of the current research is to analyze the role of this treatment in craving for abuse and impulsiveness in the drug-abuse dependent subjects; besides, considering the enormous costs spent in various physical, psychological and social fields for treatment and prevention of addiction, it is crucially important to achieve new therapeutic methods effective in the treatment and reduction of drug abuse. Such a method along with other new medical techniques effective in treatment could reduce drug abuse and substance relapse. Given a high number of substance-dependent subjects in Iran, and also the urgent need for addiction recovery centers, especially for Stimulant addiction, psychotherapeutic plans, and absence of a study that examines effectiveness of hypnotherapy in prevention of relapse, reduction of impulsiveness and craving in the addicted subjects who intend quitting drug abuse, the current research intends to answer this question: Is hypnotherapy effective in relapse prevention, reduction of craving and impulsiveness in substance abuse quitters?

Method

Statistical population, statistical sample and sampling method

The methodology of this study was semi-experimental with a pretest- posttest design followed with a control group. The statistical population of this study included all substance abuse quitters in three residential mid-time detoxification centers in Ardebil city; the number of whom was 90 individuals in a period of one and a half month in 2016. Through convenience sampling, 40 individuals were chosen randomly (20 subjects were placed in the hypnotherapy intervention group and 20 ones were placed in the control group). The inclusion and criteria were: letter of informed consent for participation in the study, the minimum primary education and attendance in residential detoxification courses. The exclusion criteria were also cancellation or inability to participate in therapeutic sessions.

Instrument

1- Thin Layer Chromatography (Morphine Test): This test is one of the most common techniques for diagnosing alkaloids, and is also one of the exclusive methods used for diagnosing morphine and other opium alkaloids in urine, so it is very crucial. The positive result suggests existence of narcotics in urine that indicates drug abuse within one last week. The negative result shows lack of narcotics in urine, and denotes non-use of drugs. In fact, this test can distinguish all psychotropic drugs existing in urine sample. Morphine test is used for

determination of morphine and other opium alkaloid derivatives in the urine sample. The test results can be utilized as accurate tests in detoxification centers. In this research, those people who've had a background of opioid drug abuse, and have succeeded in detoxification during the course of quitting, would be considered as having relapse for drug abuse. In case after detoxification the result of Morphine Tests (TLC) conducted in three times and in every other day is still positive(Cheng, Huang & Shiea, 2011).

2- Barratt's Impulsivity Test (Ernest Barratt et al.): This scale has been developed by Ernest Barratt et al. (1950) and it is well correlated to Eysenk's Impulsivity Inventory (Doustian, Bahmani, Aazami & Goodini, 2013). This scale includes 30 questions with 3 factors (Cognitive impulsivity, motor impulsivity and non-plan impulsivity). The questions have been prepared and scored by a four-item Likert scale (choices: never (score 1), occasionally (score 2), often (score 3) and almost always (score 4)). The highest aquired score is 120 and subjects who acquire total mean score of higher than 64 would be considered as impulsive. The validity of Persian version of this scale has been determined by Ekhtiari et al. (2008) and the correlation of the subscales of non-plan, motor and cognitive impulsivities have been reported between as 0.80, 0.91 and 0.81 respectively. Likewise, in a survey done by Doustian et al, (2013) using comments given by the relevant instructors and teachers, the reliability of questionnaire was confirmed and its validity was obtained as 0.89 by the Cronbach alpha coefficient. .

3- Brief Substance Craving Scale (BSCS): This self-report test includes 8 items that have been developed by Somoza, Dyrenforth, Goldsmith, Mezinskis, and Cohen (1995) and measures period, frequency and intensity of craving for drug abuse on a 5-degree Likert scale ranging from never (0) to very high (4). The questions 2, 3, 4, and 6, 7, 8 are added together and the total score for drug abuse is derived. This test shows a high correlation with scales of intensity of addiction; and its Cronbach alpha coefficient is reported to be 0.88 (Somoza et al. 1995). In another study, Cronbach alpha coefficient was reported to be 0.78 (Basharpour, 2013).

Procedure

Each session lasted for 45 minutes and post-hypnotic induction was presented in any session. In the next step, performance method of self-hypnosis was taught to the clients and they were asked to perform relaxation and self-hypnosis dialy at their homes for 15 minutes. In all sessions, progressive relaxation and eye concentration techniques were employed for performing hypnosis, and deepening methods of deep breathing, countdown and pleasant landscapes were utilized for contemplation. In the following, the numbers of sessions and their contents have been proposed. It should be noted that in order to consider the observance of moral aspects of this study, the control group, after the end of the study, took part in a medical study.

Table 1: contents of hypnotherapy sessions seperately based on sessions

Sessions	*Content of sessions*
First session	Hypnosis, ecstasy and the way they were performed; were explained to the participants and what changes they should expect. To begin this process, general relaxation training was presented.
Second session	After ecstasy, some inductions were presented to them about further tranquility, removal of stress and anxiety and more contemplative ecstasy. Conditioning for ecstasy status was organized through counting up to 3 and order to sleep; so that in the next sessions less time was spent for this matter.
Third session	Since hypnosis process was done in group, therefore it was necessary for all clients to achieve suitable depth of ecstasy level in order to reach mental imagination at a favorable level. In this session, it was initially tried to make ecstasy deeper in subjects further by inductions and then went to imagination process for clients after 10 minutes. Imagination was initially done in pleasant and sedative backgrounds and mental imagination was repeated by alternative activities in the end.
Fourth session	After contemplation of ecstasy, the relevant mental inductions and images were presented to create dislike from drugs and their negative effects. The exercises given in previous sessions were reviewed and conditional inductions were done to facilitate ecstasy after referring to home.
Fifth session	They were told they could use self-hypnosis to reduce problems of quitting drug (e.g., insomnia, impatience, pain, temptation and depression) whenever they liked.

Findings

Descriptive statistics of the demographic variables are given separately based on the groups in Table 1.

Table 1: descriptive statistics of demographic variables seperately based on groups

Variables	*Categories*	*Experimental group*		*Control group*	
		Frequency	*Percent*	*Frequency*	*Percent*
Age	19-29 years	6	30	7	35
	30-39 years	7	35	6	30
	40-49 years	6	30	5	25
	50-59 years	1	5	2	10
Marital status	Permanent marriage	8	40	9	45
	Not married	5	25	6	30
	Widowed	2	10	3	15
	Divorced	5	25	2	10
Occupational status	Student	7	35	8	40
	Self-employed	8	40	4	20
	Unemployed	5	25	8	40
Educational status	Under diploma	19	95	20	100
	Academic	1	5	0	0

Descriptive statistics of studied variables are presented separately based on groups and type of test in Table 2.

Table 2: descriptive statistics of studied variables seperately based on groups and type of test

Variables	*Groups*	*Type of test*	*Mean*	*Standard deviation*
Impulsivity	Tested	Pretest	62.80	9.16
		Posttest	58.15	8.96
		Follow-up	58.55	9.01
	Control	Pretest	62.40	9.23
		Posttest	61.80	9.12
		Follow-up	62.20	8.99
Craving for drug abuse	Tested	Pretest	88.95	18.01
		Posttest	84.30	17.55
		Follow-up	84.15	17.52
	Control	Pretest	89.150	18.28
		Posttest	88.20	18.30
		Follow-up	88.60	18.00

Descriptive statistics for results of Morphine Test are given separately based on groups and type of test in Table 3.

Table 3: descriptive statistics for results of morphine test seperately based on groups and type of test

Result	*Experimental group*			*Control group*		
	Pretest	*Posttest*	*Follow-up*	*Pretest*	*Posttest*	*Follow-up*
Positive	20	5	6	20	18	16
Negative	0	15	14	0	2	4

As seen, all samples have been drug abusers before medical intervention. The substance use and relapse have been noticeably reduced after the intervention was proposed and results derived from bivariate Chi-2 test suggested the effectiveness of intervention in reducing drug-abuse ($X^2 = 13.33$, $P<0.001$).

The Analysis of Covariance (ANCOVA) should be performed to examine the effectiveness of hypnotherapy on the reduction of craving for drug abuse. The equality of error variances is one of the assumptions in this analysis. The results of Leven's test suggest this assumption has been satisfied ($F=1.74$; $P>0.05$).

The results of ANCOVA are given in Table 4.

Table 4: results of ancova for analysis on effectiveness of hypnotherapy on craving for drug abuse

Mean of squares	*F-statistic*	*Significance*	*Squared Eta*
137.11	71.624	0.0005	0.66

Similarly, ANCOVA should be utilized in follow-up results to examine endurance of effectiveness of hypnotherapy on reduction of use craving. Equality of variances of error is one of the assumptions for this analysis. The results of Leven's test suggested this assumption has been satisfied ($F=1.022$, $p>0.05$). The results of ANCOVA are given in Table 5.

Table 5: results of ancova for analysis on survival of effectiveness of nypnotherapy on craving for drug abuse

Mean of squares	*F-statistic*	*Significance*	*Squared Eta*
181.04	77.336	0.0005	0.68

As it is observed, the analysis of data relating to craving of drug abuse has shown in two posttest and follow-up steps that the training of hypnosis leads to significant reduction in craving for drug abuse in addicted users and this process continues.

The multivariate ANCOVA should be used for determining hypnotherapy on impulsivity variables. Equality of variance- covariance matrices is one of the assumptions for such an analysis. The results of Box's test suggested this assumption has been satisfied (P>0.05). Equality of error variances is another assumption for this analysis. The results of Leven's test showed this assumption has been satisfied in variables of cognitive impulsivity (F=1.97, P>0.05), motor impulsivity (F=0.299, P>0.05) and non-plan impulsivity (F=0.517, P>0.05). Therefore, multivariate ANCOVA was conducted and the given results suggested a significant difference between two groups in linear combination of variables (Wilcox's lambda (λ) = 0.08, F= 95.77, P<0.001; Effect value= 0.797). Table 6 illustrates the analysis of different models of univariate ANCOVA.

Table 6: results of univariate ancova to derermine effectiveness of hypnotherapy on impulsivity variables

Variables	*Mean squares*	*F-statistic*	*Significance*
Cognitive impulsivity	1942.10	257.56	0.0005
Motor impulsivity	153.25	30.35	0.0005
Non-plan (impulsivity)	1061.68	290.43	0.0005

To study endurance of hypnotherapy effectiveness on impulsivity variables the multivariate analysis of follow-up scores should be used. Equality of variance- covariance is one of the assumptions in this analysis. The results of Box's test suggested the assumption has been satisfied (P>0.05). Equality of error variances is another assumption in this analysis. The results of Leven's test suggested the assumption has been satisfied in variables of cognitive impulsivity (F=0.81, P>0.05), motor impulsivity (F=1.91, P>0.05) and non-plan impulsivity (F=1.129, P>0.05). Therefore, multivariate ANCOVA was conducted and the given results indicated a significant difference in both groups in linear combination of variables (Wilcox's lambda (λ) = 0.12, F= 76.98, P<0.001, effect-value= 0.765). The univariate ANCOVA was utilized to analyze different models as shown in Table 7.

Table 7: results of univariate ancova to determine survival of effectiveness of hypnotherapy on impulsivity variables

Variables	*Mean squares*	*F-statistic*	*Significance*
Cognitive impulsivity	2024.32	354.82	0.0005
Motor impulsivity	206.64	29.87	0.0005
Non-plan (impulsivity)	1102.27	271.27	0.0005

As seen, the effect of hypnotherapy has been significant both in posttest and follow-up process. In other words, training of hypnotherapy has led to a significant decrease in impulsivity of drug-abusers and survival of this reduction.

Discussion and Conclusion

The present study was carried out with the purpose of analyzing the effectiveness of hypnotherapy on relapse prevention, reduction of impulsiveness and craving for drug abuse in individuals quitting stimulants. The research findings indicated that the hypnotherapy - based training has been effective in relapse prevention in substance- dependent subjects. In other words, those received hypnotherapy training compared to the control group, showed a significant reduction in relapse process. The above finding was consistent with the results of studies carried out by Page and Handley (1993), Mortazavi et al. (2014), Fathi and Fayyaz Saberi (2011) and Gulati et al. (2015). The above research evidence also indicated that the training of hypnotherapy may prevent from relapse. Relaxation techniques are effective in quitting addiction because of bringing about tranquility, feelings of pleasure, wellness and activating the parasympathetic nervous system. In several studies, the hypnotherapy dislike method was used for quitting drug abuse and the results showed success of such techniques. After quitting drug abuse, particularly drugs with stimulant properties, addicted person, would be exposed to sleeping disorders, chronic fatigue, inability in control of craving, some cases of excessive impatience, and anxiety and depression symptoms, thus, these symptoms gradually lead to mental trauma and reduction of mental health in the addicted person. By hypnotherapy and positive inductions the grounds for tranquility and reduction of temperamental complications could be prepared for detoxifying addicted person. in this type of treatment, initially the needed ground for body relaxation is prepared, and inductions concerning more tranquility, stress and anxiety removal, and further contemplation are given to subjects, and by conditioning individuals for the purpose of entering to ecstasy, counting and order to sleep will be done. After deepening ecstasy, the inductions and mental images regarding drug dislike and its negative consequences are given to subjects, that's to say, in hypnotherapy process through negative inductions we help individuals to ignore perceiving negative moods i.e. anxiety, depression and craving for drugs, and along with this process through positive inductions we also help them to increase tolerance in coping with temptations and desire for drug abuse.

The findings of this research also showed that hypnotherapy might be effective in reducing impulsivity; that's to say, in comparison to the control group, the impulsivity had significantly reduced in the experimental group who had participated in hypnotherapy training sessions. One of the foremost influential factors in medical results of patients which have been implied in various studies are the personality and behavioral characteristics i.e impulsiveness, craving for drug abuse and variables of addiction intensity such

as period of drug abuse, type of the consuming substances, consequences caused by drug abuse and number of failures in term of drug abuse quitting (Doran et al. 2004; Perry et al. 2005). Impulsivity is one of distinct dimensions of addiction types. Several studies conducted on the relationship between impulsivity and drug abuse disorder show that impulsive behaviors have been considered as one of the susceptible and continuant factor of the given disorder, and also sometimes as a determinant for type of consuming drugs in the addicted people e.g. tendency to consuming psychotropic and stimulant substances (Hayaky et al. 2005; Leijuez et al. 2005). To explain this finding it can be implied that hypnosis has a positive and common relationship between the hypnotizer and the patient, and this process is undergone only through individual's consent. Hypnosis is a type of interaction between mind and body with a specific concentration, and it is a key phase that can improve health and lead to the avoidance of drug abuse. Although the behavioral change mechanism such as impulsivity has not been precisely specified in hypnotherapy, hypnotherapy might be effective in impulsivity reduction through increasing self-confidence and individual motive. In this method, through unconscious search and entry to ecstasy status, the individual is prepared to receive inductions related to the controlling of behaviors. Similarly in hypnotherapy, using positive inductions and also calming down patients, they are helped to learn coping with temptations and desire for impulsive drug, through concentration increase and cognitive attention and regulation. Also after hypnosis they can make this mode practical. As it is characterized in this study, the given inductions during hypnosis lead to concentration in individuals and this process leads to increase cognitive-emotional regulation, self-motivation and self-confidence in him; therefore, in hypnotherapy process the necessary platform is provided for managing impulsivities by increasing concentration, mental tranquility and cognitive and emotional regulation.

Finally, the research results indicated that training of hypnotherapy led to reduction in craving to drug abuse in the experimental group. In other words, in the experimental group, the level of craving to drugs has been significantly reduced at the end of the therapeutic sessions. This finding is consistent with those of Tiffany and Kanklein (2000). Craving to drug abuse plays an essential role in post-treatment relapse phenomenon, maintaining of using status and substance dependency. In therapeutic process of the addicted people, after avoidance status there would be a great desire for experiencing effects of psychotropic substances for another time. in hypnotherapy process, The therapist takes the subject to the future which has not yet been materialized and through creating visual illusion and imagination induces him/her suffering from respiratory diseases and sense of fear and bitterness of this step, along with feeling of using stimulants, and as a result the subject will have a sense of abhorrence whenever s/he sees drugs or intends to use that; and by creating sense of dislike toward psychotropic substances reduction craving to drug abuse would

be prepared. As the findings showed in a study done by Ahmad Mohammad and Mohammad Elmvafi (2015) hypnotherapy might be effective on reduction of craving to smoking in the studied subjects. The results of other investigations also confirm this fact that hypnotherapy has been utilized as a method for reducing craving during prevention and might be effective in improving of prevention and reduction of craving for drug abuse. Another factor effective in the reduction of craving is that, by creation and activation of nausea sense and combination of that with use of psychotropic substances, the given subject would feel nauseous when s/he uses these substances, and hatred and bad sense by imagination of this type of sense will lead to reduction of craving for drug abuse.

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