

## Abstract

**Objective:** The aim of present research was to examine the effectiveness of motivational interviewing in preventing addiction relapse in women addicted to narcotic drugs.

**Method:** A quasi-experimental design along with pretest-posttest and control group was employed for the present study. The statistical population of this study included all the addicted women referring to Ayandeh Roshan rehab center in Isfahan during summer 2012. Then 30 females in the camp were selected and randomly assigned to control and experimental groups. Awareness of Relapse to Drug Abuse Scale was administered to the participants twice. The experimental group participated in eight 90-minute sessions of motivational interviewing. **Results:** The results showed that counselling training in the form of motivational interviewing was effective. **Conclusion:** It can be claimed that motivational interviewing is effective on reducing the relapse to drug abuse.

## Key words

Motivational Interviewing, Relapse Prevention, Women Addicted to Narcotic Drugs

# The Effectiveness of Motivational Interviewing (MI Model) in Preventing Addiction Relapse in Women Addicted to Narcotic Drugs

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## Introduction

Motivational interviewing is a therapeutic, short-term, and guiding approach, which aims to motivate behavior change by helping clients to explore and resolve the inconsistencies existing towards behavior change (Miller & Rollnick, 1991). Motivational interviewing approach starts with the assumption that responsibility and changeability lie within organizations and counselors are bound to create a set of conditions that reinforces motivation and commitment to change (Rowling et al., 2008, translated by Navidian et al., 2010). In fact, MI Model is a clinically skillful technique and style for the extraction of patients' good incentives to create behavioral changes in their health and is aimed at preparing people for change rather than necessarily leading them to change (Miller & Rollnick, 1991). The clinical method of motivational interviewing was designed for the first time in 1983 as a short-term intervention and treatment for alcoholic addicts wherein the patient's motivation was considered a common barrier for change (Ghorbani, 2005). The concept of motivation has been derived from self-regulation theory and is defined under the idea that why people decide to participate in a program, how much effort is devoted to participation, and to what extent they exert persistence and perseverance in that program (Hunter, 2008). Indeed, motivation is a hypothetical construct that is used to describe the internal and external pressures or forces in the initiation, conduct, intensity, and persistence of a particular behavior. Therefore, motivation for treatment is defined as a set of forces that determines entry, commitment, persistence, and perseverance in treatment (Simoneau et al., 2003). Motivation is one of the crucial items in the treatment of psychophysical disorders (Navidian, 2009). In this regard, Prochaska & Dykilmante introduced a trans-theoretical model of behavior change (1992, cited in Ghorbani, 2002). This model suggests that individuals with different levels of readiness and motivation achieve change by going through five stages of change, namely pre-contemplation, contemplation, preparation, action, and maintenance. This process is not linear, but it is orbital and cyclic and each stage can be exited from the circular path (Arkowitz, Westra, Miller & Rollnick 2008). According to Prochaska & Dykilmante (1986), treatment of addictive behaviors can go smoothly if both the client and the therapist can focus on one stage of change. In this regard, motivational interviewing is an approach that has had the greatest impact on creating motivation for the treatment of drug users or behavior change (cited from Velasquez et al., 2011). Nowadays, addiction with its various dimensions has emerged as a global problem and gripped all segments of society, including women so that a lot of men and women take drugs and are dependent on it (Safari, 2004). One of the most serious problems related to addiction is addicts' return to drug use which has always been at play in the treatment of drug addicts. Relapse is a negative process that involves returning to drug use and this return is realized in the increase of the dose or resumption of such behavior that is

indicative of impending relapse. Strong craving, greed, psychological need for drug use usually resurface in the people who have stopped taking drugs. This willingness sometimes directly leads to drug use and sometimes reappears as any of the triggering factors of relapse process as a result of the individual's resistance. Therefore, there is a vicious circle among this craving, triggering factors, and relapse in such a way that the craving causes triggering factors and triggering factors create craving and both of these scenarios lead to relapse (Radi, 2001). All the various factors that influence the development of addiction can be effective in the addiction relapse and return. These include intrapersonal factors (mental and psychological problems, and personality traits), interpersonal factors (those who have left a trace in the patient's drug use, lack of familial faith in the patient's stopping drug use) and environmental factors. Shargh's results suggest that lack of safe recreation at leisure time as a cultural factor takes (40.4 %), the elimination of loneliness and isolation as an individual factor (36%), addicted friends as a social factor (35.5%), unemployment as an economic factor (34.6%), and parents' poor relations with children as a family factor (17.5%) respectively constitute the most important factors in the return to addictive behaviors (2011). As well, Nastizayi concluded that contaminated living environment, addicted friends, the inefficiency of psychotherapy sessions, associative factors involved are effective in addiction relapse(2010). On the other hand, Haghdoost et al (2010) found that 33.5% of, 38 %, and 28.5% of drug dependent persons have experienced treatment failure once, twice or three times, and more than three times, respectively. However, 53% of them had returned to drug use in less than 3 months and only 12% of them had managed to remain drug-free for over a year. The average time of drug avoidance was  $6.3 \pm 3$  months. Generally, insomnia and craving were revealed as the most important personal factors; and easy access to drugs, family conflicts, and lack of commitment to treatment were obtained as the most important environmental factors of addiction relapse based on the calculated mean scores.

On the other hand, gender is an important variable that has a major impact on the relapse and return to drug use. Therefore, primers for the return to drug use are different between men and women. In a study on cocaine addicts, women frequently reported that negative emotions and interpersonal problems had caused their return to drug use whereas men believed that positive feelings had led them to the return to drug use. Studies on alcohol addicts show that men are more likely to return to alcohol use when they are alone; however, women usually return to alcohol use when they are with some persons of their own gender or in a romantic relationship with their partner. In general, women are more likely than men to have suddenly and impulsively relapse. These gender differences suggest that several factors may be involved in the return of women and men (Ebrahimi, 2009). In the field of addiction treatment; different therapeutic approaches, including various types of medication, psychotherapy, counseling, family therapy, and couple therapy have been employed wherein

motivational interviewing is a preliminary treatment method derived from the Trans-theoretical Model of behavior change. Given the lack of research in this area and novelty of the application of motivational interviewing in Iran, the main research question was formulated as whether group counseling in the form of motivational interviewing style is effective in preventing relapse in addicted women.

## **Method**

A quasi-experimental design along with pretest-posttest and control group was employed for the present study. Motivational interviewing is the main independent variable of the study and two control and experimental groups were used to investigate the effectiveness of the present treatment due to the fact that Miller believes most effective intervention strategies are provided in the form of a group. All the addicted women referring to Ayandeh Roshan rehabilitation camp in Isfahan during summer 2012 constituted the statistical population of this study. From among this population, the number of 30 participants was selected as the study sample through convenience sampling. It is noteworthy that four participants in both experimental and control groups were excluded from the final analysis since they had been discharged from the camp. Therefore, final analysis was conducted on 26 participants.

## **Instrument**

**Awareness of Relapse to Drug Abuse Scale:** This scale has been constructed by Pope and translated into Persian by Ebrahimi (2011). It contains 28 items that assess the likelihood of relapse of alcohol and drugs (not just a single slip) in the first year of purity and over the next two months. Responses are scored using a 7-point Likert scale as Never (1), Rarely (2), Sometimes (3), Often (4), Most of the time (5), Almost always (6), and Always (7). Questions numbered 8, 14, 20, 24, and 26 are scored reversely so that the alternative never is assigned the value (7) and always is assigned (1). In total, the questionnaire scores range from 28 to 196 and higher scores represent the existence of warning signs in the addict on treatment. Thus, score 196 predicts the highest possibility of relapse in the next two months. In the present study, the Cronbach's alpha reliability coefficient was obtained 0.91.

## **Procedure**

First, Awareness of Relapse to Drug Abuse Scale was distributed among the participants of both groups. Then, group counseling sessions based on motivational interviewing were administered to the experimental group over eight 90-minute sessions as described in Table 1. However, the control group

received no special training in this field. Finally, post-test was given to both groups.

**Table1: The structure and content of motivational interviewing sessions**

<i>Sessions</i>	<i>Content</i>
<b>First</b>	Acquaintance: Introduction, group norms and processes, the introduction of motivational approach, the introduction of change processes, staging exercise.
<b>Second</b>	Description of a life day: Description of daily consumption of drugs and awareness of its quantity, the physiological effects of alcohol and drugs. Administration of test of alcohol use disorders, and substance screening inventory.
<b>Third</b>	Expectations: Discussion of addicts' expectations of alcohol and drug use.
<b>Fourth</b>	Confidence and temptation: Identification of triggers, identification of safe situations, comparison of temptation and confidence.
<b>Fifth</b>	Reinforcement of success: Identification of current success, creation of some ideas for self-reward.
<b>Sixth</b>	Effective refusal: Identification of current users, practice of refusing substance offer, implementation of role-playing technique.
<b>Seventh</b>	Control of temptations and desires: Discussion about techniques of temptation and desire control and new ways to enjoy life, and creation of alternative activities.
<b>Eighth</b>	Another undertaking after a slip: Identification of useful methods in the past to change substance use, discussion about ideas relating to the measures to be taken after a slip, summary and conclusion.

The structure of motivational interviewing sessions has been extracted from the book entitled *Group Treatment for Substance Abuse: A Stage-of-Change Therapy Manual* written by Velasquez, Maurer, Crouch, & DiClemente (2001, translated by Ebrahimi & Mohammadzadeh (2011). The structure and content of each session is presented in Table 1.

## Results

Descriptive statistics of addiction relapse has been presented in the following table.

**Table2: Descriptive statistics regarding addiction relapse**

<i>Groups</i>	<i>Test</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
<b>Experimental</b>	<b>pretest</b>	13	129.12	32.69
	<b>posttest</b>	13	96.75	47.38
<b>Control</b>	<b>Pretest</b>	13	139.75	29.24
	<b>Posttest</b>	13	135.75	30.10

Covariance test was used to evaluate the effectiveness of motivational interviewing in the relapse of drug use as follows.

**Table3: covariance results regarding effectiveness of motivational interviewing in the relapse of drug use**

<i>Sources</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>P</i>	<i>Eta squared</i>	<i>power</i>
<b>Pretest</b>	18896.27	1	18896.27	67.177	0.0005	0.857	1.000
<b>Group</b>	2700.02	1	2700.02	11.098	0.0005	0.461	0.868
<b>Error</b>	3162.72	13	-	-	-	-	-

As seen in the above table, the results confirm the effectiveness of motivational interviewing in addiction relapse ( $F=11.098$ ,  $p<0.001$ ).

### Discussion and Conclusion

The aim of this study was to evaluate the effect of motivational interviewing on the prevention of relapse in addicted women to drugs. According to Eysenck, hedonism and pain aversion are the first motivations of human beings. Hedonism in most cases is immediate and does not require the passage of time. While consequent punishment in the future is awaiting the individual, the pleasurable misbehavior is repeated due to the time gap between the hedonistic activity and the penalty (Azar, 2010). Addiction is one type of this misbehavior. It seems that female addicts are more vulnerable than male addicts because drug use in women is often followed by social ills such as running away from home, prostitution, and violence. On the other hand, when a woman gets entrapped in addiction, she is not the only person receiving personal and social consequences of drug abuse, but also children and her family are also affected. As well, addicted women are seen as profligate and immodest people not only in Iranian culture, but in most cultures of the world; their family is not spared from such labels. When a woman in her family gets involved in addiction; the foundation of that family collapses and her children, particularly girls undergo irreparable deviations, issues, and consequences as a result of their identification with mother and emotional problems arising from drug use by the kindest family member. In this way, the security of the person, family, and community is threatened. In recent years, more attention has been paid to those health plans in which clients' motivation has assumed high importance (Miller & Rollnick, 2002). Alcohol and drug addicts are often skeptical about stopping drug addiction. This feeling of doubt and hesitation will cause addicts not to seek treatment quickly or even never think about treatment. Another group of addicts come to the conclusion that they need to be treated, but they soon give up the idea and retreat from treatment process. Many of them also actively endeavor to change themselves, but after a while they break their covenant and resume drug use. All these problems relate to motivation towards stopping drug use and its maintenance (Thomas & Dennis, 1999). Direct persuasion is not an effective

way to overcome feelings of hesitation, because it increases the resistance of clients on the one hand and reduces the possibility of change on the other hand (Miller & Rollnick, 2002).

Unfortunately, most people consider addiction in women an immoral issue rather than a healthy issue. In fact, negative social attitudes about the immoral behavior of women becoming involved in drug addiction is a major setback for the treatment of addiction in women because they internalize the dominant attitude in the society that addiction is a form of moral insecurity; therefore, they avoid treating themselves or get embarrassed to introduce themselves as addicts in front of the public. Due to the highly destructive and irreversible effects of addiction on families and society, the main focus of this study has been placed on strengthening female addicts' motivation to maintain their treatment and prevent any relapse. The results showed that participation in group sessions of motivational interviewing had a significant effect on the rate of decline in the propensity to drug use. As well, this method has reduced the tendency to drug use in the experimental group, which is itself a predictor of relapse in patients. The result of this study is consistent with those of several studies in this area.

Various studies have shown that the use of motivational interviewing in alcohol addicts has been effective both in treatment process and effectiveness and in the prevention of relapse and return to drug use. In general, ambivalence about change and avoidance as coping strategies among all drug users is a common treatment problem. Therefore, the efficacy of motivational interviewing in drug use disorders has been proved in different studies. On the other hand, the establishment of optimal therapeutic relationship, empathy, and continued support of the patient are important factors in creating motivation in patients to change the behavior of drug use. Overall, the present study was an attempt to induce some thoughts to the clients, such as: Addiction does not mean being a bad and weak person, addiction means that one is suffering from a disease and there is a big problem in one's lifestyle which is changeable, and there are effective ways to stop taking drugs like any other disease. In this study, the addicts were allowed to express emotions, worries and concerns as much as possible and, consequently, motivational interviewing strategies were used to create motivation for changing the addictive behavior. In fact, this approach is a client-centered counseling and guiding approach that helps clients through the identification of potential problems and the detection and elimination of feelings of hesitation and doubt. Moreover, this type of interview is relatively new and relies on consulting abilities and attempts to change the patient's attitude without exposure to the benefits and losses of drug use continuation.

According to the studies conducted in the field of application of motivational interviewing in drug treatment in Iran, this result is referable that lack of a systematic therapeutic procedure on the one hand and the dominance of medicinal treatment compared to non-medicinal treatment (psychological) for the treatment of addiction on the other hand have caused addiction therapists not

to use this approach on a large scale. Since this is the first study conducted on the effectiveness of motivational interviewing in reducing addiction relapse at the national level, it is recommended to evaluate more accurately the effectiveness of this approach in the case of larger sample sizes in both genders. The statistically small sample size of the study, difficulty in attracting and keeping addicts in treatment program, lack of theoretical resources, and absence of similar studies, especially in Iran were among the limitations of this study. Also, it is noteworthy that the results of this study can be only generalized to female addicts aged 18 to 30 years.

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