



## The Effectiveness of Implementing Motivational Group Interview on Self-Efficacy, Impulsivity and Emotional Regulation on Patients with Methadone Maintenance Treatment

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### A B S T R A C T

The current research has been done for the purpose of reviewing The efficacy of implementing group motivational interview on self-efficacy, impulsivity and emotion regulation of Sanandaj's male regulation of patient's patients with methadone maintenance treatment. The study's design is quasi-experimental pre and post-test type with control group. The sampling method was convenience method and using it 30 of the people who resort to Sanandaj's (Iran) rehabilitation centers were picked and randomly placed in control and experimental groups (15 men each groups). Then Grass and John's emotion regulation scale (2003), Sherer's general self-efficacy (1986) and Barrat's impulsivity (1995) scales were filled by the two groups. The experimental group went under 8 sessions of group motivational interview and after the treatment period the scales had been filled by the groups again. The results had been analyzed with the twenty-second version of SPSS .the statistical method was consist of descriptive statistics(including mean, standard deviation, the scores minimum and maximum) and inferential statistics. The results showed that there is a magnificent difference between self-efficacy, impulsivity and emotion regulation pre and post-test scores of the two groups patients ( $p > 0/05$ ), the results showed that group motivational interview can be used as an useful treatment in order to decrease substance abusers impulsivity and increase their self-efficacy and emotion regulation.

**Keywords:** Motivational Interview, Self-Efficacy, Impulsivity, Emotion Regulation, Substance Abuse.

### INTRODUCTION

Substance abuse is one the complicated disorders that has biological, psychological, social and spiritual cause and consequences and social, psychological, economic and political factors integration in this case made the substance abuse one of the most complicated familial and social issues. Nowadays addiction is considered as public health issue all over the world and in every country(Botvin, Griffin, Diaz, & Ifill-Williams, 2001). Addiction leads to failure in job, education, and family roles or situations and causes substance abuse related legal problems(Videbeck, 2010). Children's educational drops, divorce statistics and domestic violence increase are some of addiction's other consequences(West & Brown, 2013). So it's important to identify and eliminate the phenomena's creator factors. During the recent decades several theory's tried to present a clarified explanation of the reasons for people's tendency

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toward addiction. This theory's had studied a large spectrum of its predisposing factors(Polimeni, Moore, & Gruenert, 2010).

Emotion regulation is one of the most popular psychological factors and in the same time a substantial motivation for substance abuse, in fact substance abusers mostly link their addiction to the material's relaxing property(Frith, 1971; Müller et al., 2016). Emotion regulation includes creating thoughts and behaviors that informs the person about their emotions, when the emotion is created in them and how they should treat it(James J Gross, 1999; James J. Gross & Thompson, 2007). A lot of researches showed that substance abusers with psychological disorders such as stress, anxiety or depression use narcotics to solace their disturbing emotions(Sinha, 2001). The ability to manage emotions leads to a proper use of the emotion regulation in situations with a high risk of substance abuse. People with a powerful emotion regulation are better in predicting other's demands. They understand other's unwanted pressures and control their emotions better so as a result they show much more resilience to substance abuse(González-Yubero, Palomera, & Lázaro-Visa, 2019; Trinidad & Johnson, 2002). Since emotion regulation can influence addiction's prevention and treat process, it has special importance to study and reinforce it in substance abuser patients.

In other hand one of the factors that makes individual vulnerable to addiction is impulsivity. Impulsivity is a wide range of behaviors that the person didn't really think about, behaviors that occur just to reach a reward or joy in an immature way, behaviors that are high risk and have a lot of significant unwanted consequences(Evenden, 1999; Gray, Weidacker, & Snowden, 2019).

Impulsivity is a major pillar in a lot of clinical disorder's recognition such as substance abuse(Dawe & Loxton, 2004), and it's related to substance abuse(Verdejo-García, Lawrence, & Clark, 2008). Recent researches about non-clinical cases indicated that if there is a decrease in impulsivity in a specified period there will be a decreased possibility for addiction and addiction-dependent problems(King, Fleming, Monahan, & Catalano, 2011). Based on these impulsivity is an important target for experimental studies and clinical researchers among people who look for a treatment for substance abuse(Stevens et al., 2014). And problems made by substance abuse such as poor inhibition, planning and decision making can be a major obstacle in the way of the treatment of people with substance abuse especially in the start, following and continuity. So it will make the treatment easier if to control and decrease the factor.

Another feature of those that have a critical importance in terms of substance abuse is self- efficacy(Romer & Hennessy, 2007). Self-efficacy is a perception that the person think they can successfully do essential behaviors to create favorable and pleasant outcomes(Sapp, 2013). An essential aspect of aspect of self-efficacy is that the person think they can influence their life's outcomes trough controlling it. Having the a sense of control over the condition is an important factor to be adapted to different situations specially in facing stressful factors(Masoudnia, 2008). According to Bandura (1993), the behavior of substance abuse is under the influence of modeling, imitation and reinforcement in one hand and in the other hand there are interpersonal factors such as self-efficacy and personal believes.

Nowadays there are various therapeutic methods to treat substance abuse. Considering that the maintenance chemotherapy treatments without psycho-social intervention haven't been successful because of the exclusive emphasis on drug treatment so now it's obvious that using psychological treatments is important and in this field motivational interview can be mentioned.

Motivational interview approach starts with the assumption that the ability and responsibility to change is inside the patient and the therapist's responsibility is to create a set of conditions that reinforces the patient's motivation and commitment toward change (Shannon, 2015). Since that addicts usually have hesitations about quitting drugs, motivational interview can be used with the intention to create motivation in the patient with the aim of changing behavior and hesitance heuristic process. In fact this therapeutic approach's main purpose is to resolve patient's hesitation and encourage them to talk about their personal worries and reasons for quitting drugs (Miller, 1996; Miller & Rollnick, 2002). Taking a look on the recent years researches suggests that those with the patient's motivation played an important role in them has been noticed the most (Miller & Rollnick, 2003) with specially in the field of treating addicts is needed and this regard motivational interview can be effective.

The results of Naar-King et al. (2006), research about motivational interview's efficacy on high risk behaviors such as substance abuse level which has been conducted on 64 HIV positive people who were between 16 to 25 showed that motivational interview can lead to high risk behavior and substance abuse reduction in the therapeutic group.

Hettema, Steele, and Miller (2005), studied motivational interview's efficacy in the fields of smoking and tobacco consumption, HIV, substance abuse, treatment acceptance, intimate and close relationships, eating disorders, diet and physical activity and they reached to the conclusion that the motivational interview is effective in these fields. So considering motivational interviews role in addict's recovery this research is seeking the answer of this question: is motivational group interview effective on under methadone therapy patient's self-efficacy, emotion regulation and impulsivity?

## METHODOLOGY

The study's design is quasi-experimental pre and post-test type with control group. The sampling method was convenience method and using it 30 of the people who resort to Sanandaj's (in Iran) rehabilitation centers were picked and randomly placed in control and experimental groups (15 men each group).

**Gross and John's emotion regulation scale (ERS):** this scale has been made by John and Gross (2003) and it has 10 items and two subscales the reappraisal (6 items) and suppression (4 items). The answers are measured based on Likert spectrum and from totally disagree (1) to totally agree (7). Cronbach's alpha coefficients has been 0.79 for the reappraisal and 0.73 for suppression and after 3 month the test-retest reliability has been 0.69 for the total scale (James J Gross, 1999).

**Sherer and Adams (1983) General Self-Efficacy Scale (SGSES):** this scale has been in

1983 by Sherer and Adams (1983), and includes 17 questions that each are measured from totally disagree to totally agree and based on Likert spectrum .the maximum score of the score is 85 and the minimum score is 17.

**Barratt Impulsivity Scale (BIS) (1995):** the original version of the scale has been made by Patton, Stanford, and Barratt (1995), and since then it has been reconsidered several times. It has 30 question witch would be graded based on 4 score Likert spectrum and it measures impulsivity's multiple aspects. The scale has three subscales: cognitive impulsivity contains rapid cognitive decision making, movement impulsivity contain act without thinking and disorganization impulsivity. A general score will be counted for the scale in addition to subscales separate scores.

Therapeutic interventions used in this research includes 8 session of motivational interview and each one 90 minutes that has been codified and performed for the experimental group relying on Veskolaes and other(2000)'s therapeutic design. A brief explanation about each session's subject is in the table below.

Table 1. Implementing Motivational Group Interview on Self-Efficacy

First	Acquaintance: introduction, the group's norms and processes, motivational approach's introduction, change levels introduction, doing the next level's practice
Second	One living day's definition: defining daily drug using and getting aware about its quantity
Third	Expectations: discussing addict's expectations of using alcohol and drugs.
Fourth	Confidence and temptation: knowing triggers, knowing safe situations, comparing trust and temptation.
Fifth	Reinforcing situations: recognizing the current situation, creating ideas to reinforce self.
Sixth	Effective avoidance: knowing current abusers, practice avoiding the drug bitter, performing the play.
Seventh	Controlling desires and temptations: discussing ways for control desires and temptations, new ways to enjoy life and creating alternative activities.
Eighth	Recommitment after a slip: knowing useful way to quiet in the past, discussing ideas about what should be done after a slip, summary and conclusion.

## RESULTS

There are descriptive statistics indicators including mean and standard deviation for emotion regulation, self-efficacy and impulsivity variables for the study's samples in table one.

Table 2. Regulation, self-efficacy and impulsivity's descriptive indicator

Variables	Statistical indicators	Experimental group		Control group	
		Pre-test	Post-test	Pre-test	Post-test
Emotion-regulation	Mean	24.60	36.86	24.73	29.06
	Std. deviation	8.87	11.43	7.12	8.37
Self-efficacy	Mean	33.66	46.53	33.13	38.33
	Std. deviation	8.28	9.13	7.36	8.59
Impulsivity	Mean	82.20	70.13	84.26	78
	Std. deviation	13.20	14.43	13.52	13.13

As it can be seen in table one, the experimental group's score's mean for emotion regulation and self-efficacy has increased in post -test comparing with the pre- test but it has decreased in impulsivity variable.

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To clarify the experimental intervention's way of influencing target variables the UNCOVA has been used. All of the covariance test assumptions has been tested and considering those assumptions the test has been used.

**Table 3.** Levin's homogeneity of variance test between research variables in the experimental and control group

effect	Target variable	Df 1	Df 2	F	Sig.
group	Emotion regulation	1	28	0.491	0.489
	Self-efficacy	1	28	2.788	0.106
	impulsivity	1	28	0.015	0.904

Obtained results in table 3 show that Levin's test is not significant for emotion regulation variable ( $P=0/489$  and  $F=0.491$ ), self-efficacy variable ( $P=0/106$  and  $F=0/015$ ). So experimental and control groups variables are not significantly different in dependent variables and the homogeneity of variance assumptions is confirmed.

**Table 4.** The covariance test analysis results to compare post-test mean of dependent variables of experimental and control group with pre-test control

Change resource	variables	Sum of squares	Df	Mean of squares	F	Sig.
group	Self-efficacy	439/687	1	239/678	30/444	0/0001
	Emotion-regulation	474/435	1	474/435	32/053	0/0001
	impulsivity	251/114	1	251/114	19/161	0/0001

After controlling the pre-test effect , the motivational interview's effect on experimental and control groups post-test scores in self-efficacy, , emotion-regulation and impulsivity variables has been studied. As data in table three show there is a significant difference between the groups in self-efficacy variable ( $F= 32/053$  and  $P<0/05$ ), emotion regulation variable ( $F=30/444$  and  $P<0/05$ ) and impulsivity variable ( $F=19/161$  and  $P<0/05$ ). This result means that the motivational interview teaching has been effective on experimental group's examinees research variables in post-test level.

## CONCLUSION

The aim of the current study was to study the efficacy of implementing motivational group interview on patients under the maintenance therapy of methadone. The results showed a significant difference between the experimental and control groups examinees in the level of self-efficacy, impulsivity and emotion regulation after implementing motivational interview's session's witch confirms the motivational interview's efficacy. The result show the motivational interviews efficacy on under methadone therapy patient's self-efficacy increase.

Addiction and substance abuse is the kind of behavior witch is not totally in the person's control in individuals have trouble with controlling it because several internal and external factors can be effective so existing variables such as self—efficacy witch is an effective factor in controlling behaviors increases the power to predict the behavior. According to Bandura (1993), believing the power of doing behavior and expecting consequences due to a special act can lead to a favorable behavior witch in the current research using strategies such as rewarding accomplishments and recognizing current successes and also temptation control ways was in the regard to increase the individual's self-efficacy. Considering the case study sample that includes drug users, most of this people have weak volition or resistance and have a mixed

feeling in the field of making decisions for change. Motivational interview in other hand is an empathic and supportive approach to reinforce and increase internal motivation and is been used in order to change trough explore, identify and resolving doubts and ambivalences. Motivational interview's indicators such as collaboration , patient-orientation, being-nonjudgmental , crating trust, resistance decrease , increasing readiness for change and listening with empathy(Hettema et al., 2005), leads to understanding warm and with acceptance and relationship and respect from the therapist and also make the therapy process easier . Therefore, considering the content of motivational interview witch is on the basis of identifying and mobilize the patient's main values in order to change trough making emotional relationship with the participants and promoting their abilities, increasing self-awareness and increasing self-efficacy.

In order to second question of the research, results contain motivational interview has increased emotion regulation. Difficulties in emotion regulation is one of drug user's problems and this issue leads to failure in managing drug abusers emotional state. In order to clarify current finding motivational interview's content and drug abusers emotional features can be cited. Drug abusers define unbearable and frustrating and they can't manage this emotional states without relying on drugs. Drug users use drug's psychological and physical properties in order to regulate and moderate negative emotions and reaching emotional stability. Therefore encouraging drug abusers to quiet is seems to be difficult and any therapeutic way can lead to failure in the very first steps.in fact it's not sufficient to try therapy without considering motivation. Because most of the addicts have an ambivalence feeling in making decisions in the field of change more than having resistance or weak volition . Motivational interview explores the argument inside the patient about the change. In fact motivational interview tries returning the lost confidence of the patient and creating a positive view about themselves and improving strength in patient's trough creating a supportive atmosphere and noticing somebody who doesn't have social support usually trough working on their cognitive processing. Therefore motivational interview increases competency, sympathy, problem solving power and having purpose trough increasing responsibility acceptance, successful identity, and effective relationship and creating commitments in the individuals so they could face the life's challenge and difficulties. As the conclusion the person will gain the ability to remain calm in the difficult times, proper emotion express, emotion management, and resilience increase and failure tolerance power that all are clear aspects of emotion regulation. Impulsivity has a multi aspect structure such as focusing on the present, disability in delaying the reward, risk taking behavior failure to control, emotion digging, and sensitivity to award, impatience potential, joy digging, decision making weakness and aspects.

Considering this aspects, in this variable's decrease process also a therapy must be emphasized that increase confidence and decision making power. In this regard , motivational interview focus on the person's mental state in in losing impulse control moment's and by increasing the persons awareness of the process that leads to create such behaviors leads to crate sustainable changes in daily behaviors. In this therapy the individual is busy with recognizing their own thoughts, feelings, behaviors and act consequences and while finding their doubts and conflicts they spend more time on thinking before any action witch considering limited thinking in impulsive people had a good influence on rational thinking and

decreasing impulsivity by using thought categorizing ways and their interpretations. In other hand implementing motivational interview on groups and also being in the group provided a situation that the individual could reach the feeling that mental ruminations and thoughts and unpleasant states that bothers them dose not just belong to them and a lot of people when countering such situations will face same issues and this issue was effective on recovery's positive process by observing other members in the same situations.

Female's absence, result extension conservatism, difficulty in understanding some of the questions for low education and the possibility of some examinees biased responding can be mentioned as the researches limitations. It is suggested that in order to increase extension the motivational interview be implemented on women and in different cultures. Also in order to reach these patients long-term therapeutic purposes and also providing situations in order to facilitate implementing drug abuse related projects communicate and Collaboration between related centers such as department of medical sciences deputy of treatment, drug coordination council and welfare is can be done.

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