

## **Efficacy of Integrating Stress Coping Skills Training with Detoxification on Social Adjustment of Addicted Women**

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### **Abstract**

**Background:** Addiction as a biopsychosocial problem has been dramatically increased in our country. Adverse consequences of the addiction in women have been shown to be more than men, which in turn can affect family members' health and wellbeing. The current study examined the efficacy of stress coping skills training in addicted women referring to an outpatient centre of addiction prevention located in Welfare Organization of Gorgan, Iran.

**Methods:** 30 women with low levels of social adjustment measured by Social Adjustment Scale were randomly assigned to coping skills training with detoxification treatments (experimental) or detoxification alone groups. Both groups (n = 15) completed pre-post assessments of Bell's adjustment Inventory. Experimental group received coping skills training program in ten sessions, each session last 90 minutes.

**Findings:** Social adjustment was considerably improved more in addicted women who followed coping skills training program with detoxification treatment in comparison with the women who was undergone only detoxification treatment.

**Conclusion:** Skills training program can help addicted women to better cope with their adjustment problem and these skills should be integrated into detoxification programs for this population.

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**Keywords:** Addiction, Detoxification, Stress, Coping skills training, Social adjustment

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## Introduction

Addiction has been considered as a psychiatric disorder with biopsychosocial dimensions and as one of the most important problems of both global society,<sup>1</sup> and our society.<sup>2</sup> Based on official statistics, about 1200000 to 1800000 individuals suffering addiction live in Iran.<sup>2</sup> Women with addiction are not properly included in the existing statistics. However, it is clear that with increasing the rate of addiction in our country this problem will be aggregated in women too, thus the possibility of involving in addiction adverse consequences will be amplified.<sup>3</sup>

The trend of changing from low-risk substance use (e.g., opioids and smoking)<sup>3</sup> to high-risk ways (e.g., heroine abuse and drug injection) was shown to happen faster in women compared to men. Women experience the adverse consequences of drug abuse sooner and the treatment obstacles more than men.<sup>4</sup> It seems that the women vulnerability is high and health promotion and therapeutic intervention for this population are needed to be considered from different biological, psychological and social aspects.<sup>5</sup>

A large body of literature addressing biopsychosocial causes of addiction suggested different risk factors from genetics and childhood experiences to personality factors, mood disorders, psychosocial status, as well as political, social and cultural conditions.<sup>6</sup> Accordingly, interventional approaches have been suggested to be most benefited from an integrated approach addressing these factors thoroughly. An important psychological concept which is taken a large amount of attention in psychological texts is named "coping". This construct has been defined as the way in which an individual overcome his challenges, manage stressful conditions, and his response (thoughts, feelings and behaviors) in dealing with the challenges.<sup>7</sup> According to Folkman and Lazarus,<sup>7</sup> individuals adopt one of the two emotion-centered and problem-centered coping styles. Those who employ problem-centered way may experience less distress, more dominance on the situation, better adjustment and less pathological symptoms. This claim has been supported by several studies.<sup>8</sup>

Recent studies in the field of addiction have addressed the relation between substance

dependence and stress coping styles.<sup>9,10</sup> It has been suggested that there are maladaptive coping styles being employed to deal with challenges and stressors in addicts daily life.<sup>7,11</sup> Hence one of the most important interventions in addiction is to mitigate the stress and tension in addicted person, and education about coping with addiction and substance abuse (either treatment or prevention) would be necessary. Considering this fact, educating this vulnerable population would be effective in promoting their psychosocial adjustment.<sup>8</sup>

Despite the importance of this issue, there are few studies investigating the effect of stress coping skills training on social adjustment of patients with addiction and substance abuse. The results of this kind of research will have important implications for psychotherapists and clinicians.

Hence, the current study aimed at investigating the effectiveness of coping skills training plus drug detoxification in comparison to sole drug detoxification intervention in promoting social adjustment of women with addiction. Drug detoxification targets the physical dependence, includes medical methods (methadone and buprenorphine) and is employed to return to the normal brain activities.<sup>5</sup> Conjoint intervention includes drug detoxification plus educational sessions about coping with stress according to Meichenbaum's 10-session educational program.<sup>12</sup> The hypothesis of the current study is that conjoint intervention program including stress coping skills training (SCST) along with drug detoxification method will enhance the social adjustment of women with addiction more than detoxification alone.

## Methods

The design of current study was experimental with control group and pre-test post-test. Addicted women who referred to an outpatient clinic located in Gorgan, Iran, were considered as the statistical community. Sampling was employed with getting permission from social Welfare Organization of Gorgan. 100 women completed social adjustment questionnaire. Among those who had low scores in social adjustment ( $n = 67$ ), 30 women were randomly selected and assigned into two groups each included 15 subjects. Participants completed this questionnaire again after 15-session training.

Sociodemographic questionnaire included items asking participants about their age, educational level, marital status and income. Standardized Bell's Adjustment Inventory,<sup>13</sup> comprised of 32-question subscale was used to measure social adjustment according to Naghshbandi.<sup>14</sup> In this stage, subjects responded to yes/no questions; whenever subjects answered questions 1, 3, 4, 6, 5, 7, 24, 22, 20, 18, 16, 15, 12, 11, 31, 29, 28, 27 and 25 with a "yes" and answered the questions 23, 21, 19, 17, 14, 13, 9, 8, 2, 32, 30 and 26 with a "no", they got a point. Those who scored higher than 13.76 were considered incompetent in their social relations and were included in the study. Cronbach's alpha (reliability) of this questionnaire was reported to be 0.86.<sup>15</sup> This questionnaire was standardized by Naghshbandi<sup>14</sup> and its validity and reliability were 0.89 and 0.86, respectively.

This study has been completed under the supervision of the Psychology Department of Payem-e-Nour University. The participants of this research were notified by a public notice in the centre and chose to complete the related survey. After the individuals were selected, the required explanations were given concerning ethics, keeping secrets and not disrespecting other participants in the groups.

The intervention aimed at increasing the level of social adjustment of addicted women. The training sessions were held in group format once a week lasting 1.5 hours per session. The main focus of sessions was to train stress coping skills according to Meichenbaum's package.<sup>12</sup> The package included 10 sessions that are summarized in the following:

First session: Orientation and introduction to group, introducing group rules, motivating participants to learn stress coping skills, defining stress, providing group with a summary of stress coping skills methods according to Meichenbaum's treatment package.

Second session: Introduction, teaching and practicing effective communication skills.

Third session: Introduction, teaching and practicing correct breathing (abdominal and diaphragmatic breathing)

Fourth session: Introduction, teaching and practicing about reinforcing and relaxing spinal cord and back, relaxation and imagination.

Fifth session: Introduction, teaching and practicing to have a comfortable sleep.

Sixth session: Introduction, training and practicing how to communicate with careless and aggressive people.

Seventh session: Introduction, training and practicing anger management skills.

Eighth session: Introduction, training and practice positive thinking skills.

Ninth session: Wrap up all skills and sessions (preparing "to do and not to do" list, assertiveness training, building self-efficacy, to think before action, exercising)

Tenth session: Conclusion of all sessions and planning to maintain the skills in the future.

The subjects in control group were evaluated but just received routine treatments based on standard medical protocol of the settings including medication, injections, etc. and were not offered or reported receiving any other form of intervention over the course of present research.

### Statistical analysis

Analysis of covariance (ANCOVA) was used to analyze the data in which the intervention group (experimental vs. control) assumed to be the independent variable, and the pretest scores (baseline scores in outcome measures, table 1) were used as the covariates in the analysis. To investigate the assumption of linear association between dependent variable and covariate the scatter plot was employed and to address the assumption of consistency in regression coefficients between groups we used a dichotomized independent variable. As the two assumptions of ANCOVA were confirmed, ANCOVA was employed to investigate the effectiveness of the independent variable (type of treatment or group) on dependent variable (social adjustment).

Table 1. Social adjustment score in intervention and control groups before and after intervention

Group	Pre-test	Post-test
Experimental group	18.5 ± 2.6	15.8 ± 2.5
Control group	19.6 ± 3.3	19.3 ± 3.0

Data are presented as mean ± standard deviation

Experimental group received stress coping skills training plus drug detoxification, control group received detoxification alone

### Results

Majority of participants (88.6%) had education lower than high school level, and more than half of them (53.0%) were married with average

level of socioeconomic status (53.3%). There was no significant difference between groups in aforementioned variables.

To investigate the research hypothesis the analysis of covariance was used to study the difference between experimental and control groups in terms of social adjustment level. Assumption of variance-covariance matrix homogeneity was met [ $F(1,28) = 3.10, P = 0.080$ ]. The effect of pre-test social adjustment scores on post-test scores [ $F(1,28) = 80.3, P < 0.001$ ] and the effect of group variable (experimental vs. control) on social adjustment levels [Hotling test,  $F(1,28) = 24.4, P < 0.001$ ] was found to be statistically significant (Table 2). Controlling for the effects of pre-test scores, as shown in table 1, women in experimental group benefited from higher levels of social adjustment compared to women in control group [ $F(1,28) = 24.4, P < 0.001$ ] (Lower scores in social Adjustment scale interpreted as higher social adjustment). Based on these results, we concluded that stress coping skills training was the factor that can lead to changes in social adjustment levels of experimental group.

Table 2. Summary of analysis of covariance for social adjustment score

Source of changes	Sum of squares	Significance level
Pre-test	162.9	< 0.001
Control vs. experimental groups	49.5	< 0.001

## Discussion

Our study showed that the social adjustment increased in addicted women who participated in SCST sessions. This finding is in agreement with basic assumptions of the cognitive behavioral approach. According to this theory, addicted people, use maladaptive coping strategies when they face with challenges. After participation in sessions led by a therapist, they will find possible adaptive cognitive and behavioral coping skills for dealing with their psychosocial problems. The findings of current study are in accordance with the results of previous studies too.<sup>5,16-18</sup> They used similar method for improving the adjustment of addicted people and found improvements in the level of adjustment. They also suggested that this method should be an integral part of interventions for addicts.

Based on the result of the current study, participating in SCST program, may increase social adjustment of addicted women. Addicted women are a vulnerable population. By working on their behaviors and changing the way of dealing with distress as well as training them to work on their cognitive distortion and attitudes, we can help them to achieve better social relations and adjustment. Moreover, by learning life skills such as problem solving and assertiveness, they will learn to have constructive communication with others and gain the social rewards.

The research evidence indicates that these women always encounter environmental stress, and face problems in effective communication in society.<sup>19</sup> These factors can slow down the process of their treatment in long term. Therefore, the importance of training the adaptive and efficient behavior is highlighted. As the predisposing factors in addiction can be found in family and society, the addict person always encounters the dangers related to these environments. If and when an addicted person employs proper coping strategies (e.g., learns how to show his anger in an acceptable way and know how and when to say "no", or control his muscles with relaxation practice and appropriate exercises), then he will strengthen his coping skills in dealing with high-risk situations which may lead to relapse. This issue is especially important in women with maternal roles, as these skills can be taught by mothers to their children.

Although the current study increased our knowledge about the role of stress coping skills training in improving social adjustment levels of addicted women, however it had some limitations such as inadequate number of participants that can increase the type one error. It is suggested that future studies with higher number of participants replicate our study. Furthermore, the measurement procedure of current study was questionnaire which has limitations in estimating the concise level of social adjustment. Future research can use more accurate procedures such as diaries, or observational method to address the changes in the level of social adjustment from pre-test to post-test. Another limitation of current study was that it failed to address the kind of addiction in participants. Probably this treatment approach would be more effective in

special kinds of drug abuse. The current research design was pre-test post-test with control group, and we are not sure about the maintenance of change after treatment. The follow-up studies should be designed to assess the persistence of treatment effects in long run. The current sample may not be representative

of all addicted women in society as majority of addicted women prefer to go to private centers in order to avoid addiction stigma, or some of them would like to benefit from anonymous group of addicts.

**Conflict of Interest:** The Authors have no conflict of interest.

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## اثربخشی تلفیق آموزش مهارت‌های مقابله با استرس با سم‌زدایی بر سازگاری اجتماعی زنان مبتلا به اعتیاد

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### چکیده

**مقدمه:** اعتیاد در کشور ما به عنوان مشکلی روانی، زیستی و اجتماعی به طور قابل ملاحظه‌ای افزایش یافته است. پیامدهای ناگوار اعتیاد در زنان بیش از مردان مطرح شده است که به نوبه خود بر سلامت و تندرستی اعضای خانواده مؤثر خواهد بود. مطالعه حاضر به مقایسه اثربخشی روش سم‌زدایی و مقابله با استرس در ترکیب با سم‌زدایی در زنان مبتلا به اعتیاد مراجعه کننده به مراکز سرپایی پیش‌گیری از اعتیاد سازمان بهزیستی گرگان پرداخت.

**روش‌ها:** ۳۰ نفر از زنانی که در مقیاس سازگاری اجتماعی نمرات پایینی را کسب کرده بودند، به دو گروه ۱۵ نفره درمان سم‌زدایی (شاهد) و گروه درمان سم‌زدایی در ترکیب با آموزش مهارت‌های مقابله با استرس (آزمایشی) تقسیم شدند. هر دو گروه مقیاس سازگاری اجتماعی Bell را در مرحله پیش‌آزمون و پس‌آزمون تکمیل نمودند. گروه آزمایشی به مدت ده جلسه ۹۰ دقیقه‌ای در مهارت‌های مقابله با استرس آموزش دیده و همزمان تحت درمان سم‌زدایی نیز قرار گرفتند.

**یافته‌ها:** سازگاری اجتماعی در زنان گروه آزمایشی در مقایسه با گروه شاهد به طور قابل ملاحظه‌ای بهبود یافت.

**نتیجه‌گیری:** بر اساس نتایج مطالعه حاضر، می‌توان گفت آموزش مهارت‌های مقابله با استرس می‌تواند به زنان مبتلا به اعتیاد برای مقابله بهتر با مشکلات سازگاری کمک کرده و بهتر است این مهارت‌ها در برنامه‌های سم‌زدایی برای این گروه از مبتلایان گنجانده شود. کاربردهای بالینی نتایج نیز به بحث گذاشته شد.

**واژگان کلیدی:** اعتیاد، سم‌زدایی، استرس، آموزش مهارت‌های مقابله، سازگاری اجتماعی

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