

Original/Research Paper

Effect of educational workshops related to self-efficacy on drug rehabilitation among addicts visiting drug rehabilitation clinics: A randomized controlled trial

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Abstract

Addiction presents itself as a multifaceted issue encompassing medical, psychological, social, and economic dimensions. The staggering relapse rate, surpassing 80%, underscores an inadequate understanding of addiction treatment approaches and their effectiveness. Self-efficacy represents an individual's belief in their capability to complete a task. This study investigates the correlation between self-efficacy and drug rehabilitation among individuals seeking assistance at a rehabilitation clinic in Mashhad, Iran. This research entails a randomized controlled trial involving 60 clients (30 in the intervention group and 30 in the control group) who were referred to the drug rehabilitation clinic at Imam Reza Hospital in Mashhad, Iran. Data collection tools comprise a demographic questionnaire for patients and a drug rehabilitation self-efficacy questionnaire. Initially, data were collected before the intervention, followed by the implementation of the intervention in the study group, after which a retest was conducted in both groups. Statistical analyses indicated a notable contrast in successful rehabilitation rates between both groups ($P < 0.05$). Additionally, there was a significant variation in the average self-efficacy scores within the study group post-intervention ($P < 0.05$). In summary, the results demonstrate that enhancing self-efficacy contributes to successful and lasting drug rehabilitation. Implementing this approach is advisable for clients referred to rehabilitation clinics during their recovery process.

Keywords: Rehabilitation, Drug Rehabilitation, Addiction, Workshops, Self-efficacy.

1 | Introduction

Addiction is the result of acute or chronic exposure to natural or industrial toxins, leading to acquired resistance and a need for increased amounts of the substance to achieve the same effect. In the latest mental disorder classification, substance-related disorders encompass a spectrum of issues linked to the misuse of substances like alcohol and heroin, which individuals use to alter their thoughts, emotions, and actions [1]. In numerous countries worldwide, addiction, particularly its treatment, has emerged as a primary challenge within the healthcare system, particularly in recent years [2]. Consequences associated with addiction encom-

pass divorce, homelessness, societal distrust, exclusion, panhandling, deviations in sexual behavior, theft, coercion, suicide attempts, joblessness, and precarious living situations, among others [3]. The proliferation of addiction has the potential to undermine the moral, economic, and social pillars of a society, inducing internal corruption and ultimately resulting in societal decay [4].

The objective of addiction treatment is to assist individuals in acknowledging addiction as a chronic condition and altering their lifestyle to halt its advancement. Given that addiction arises from various factors including structural conditions, communication triggers, and individual traits, effective recovery necessitates

structural shifts, adjustments in communication patterns, and alterations in individual characteristics [5].

Self-efficacy, a key concept in social cognitive theory, was initially introduced by Bandura [6] and later became a focal point for other theorists of behavior change. It refers to an individual's belief in their capability to successfully perform a specific behavior and anticipate favorable outcomes. Self-efficacy stands as a crucial precursor to behavior, functioning as an autonomous facet of an individual's foundational abilities. Bandura posits that cultivating the right environment for skill acquisition and success can augment an individual's self-efficacy and competence [7].

Hence, acknowledging that drug treatment alone may not suffice for these individuals and considering the high rate of relapse among clients seeking addiction treatment centers [5], addressing relapse triggered by addiction stands as a primary challenge for treatment teams. Given the imperative nature of modifying individual traits to rectify undesirable behaviors in addicted clients, and recognizing the significance of this issue from various angles, researchers have undertaken a study to explore the impact of self-efficacy training on Drug Rehabilitation for those attending Drug Rehabilitation Clinics.

2 | Methods

2.1 | Study design

This study is a pretest-posttest, randomized controlled trial that was conducted to investigate the effect of educational workshops related to self-efficacy on drug rehabilitation among addicts visiting drug rehabilitation clinics in line with CONSORT criteria [8] (Figure 1). This study constituted a randomized controlled trial employing a pretest-posttest design. Approval from the Ethics Committee of Birjand University of Medical Sciences was secured under the number IR.BUMS.REC.1401.389.

2.2 | Participants

Following the convenience sampling method, individuals meeting the inclusion criteria among addicts visiting the Drug Rehabilitation Clinic at Imam Reza Hospital in Mashhad were selected as subjects. The total sample size comprised 60 individuals, equally divided into two groups: intervention and control.

2.3 | Intervention

Following the collection of initial data and the random allocation of participants into test and control groups, an intervention was conducted spanning eight sessions over three weeks, structured as follows:

1. **Initial education (Knowledge Enhancement):** Subjects received information on addiction, its complications, and treatment based on identified training needs.
2. **Cultivating vulnerability awareness:** Participants engaged in small group discussions aimed at altering their attitudes towards addiction. Training focused on developing self-regulation and risk-averse skills to transform health risk information into preventive actions.
3. **Building self-efficacy skills:** Four sessions were dedicated to this step. The first focused on problem-solving skills, discussed within group sessions. Subjects practically engaged in problem-solving processes, sharing their experiences and solutions under the author's supervision. The second session centered on decision-making skills, allowing participants to practically navigate decision-making steps. The third session covered self-expression training, followed by a fourth session addressing communication skills, and consolidating previously learned abilities.
4. **Social support:** Acknowledging the significance of family and self-help groups in supporting addicts, the first session emphasized different forms of family support during and after rehabilitation, involving a family member closely connected to the addict. The subsequent session introduced self-help groups through active member participation, concluding with guidance for future meetings.
5. **Post-intervention phase:** Participants underwent a one-month follow-up, during which they completed the Quit Addiction Self-Efficacy Questionnaire as a post-intervention assessment.

Initially, participants completed two questionnaires (the demographics questionnaire and the Quit Addiction Self-Efficacy assessment) before the intervention. The test group received the intervention outlined in the training program, while the control group underwent conventional treatment.

The questionnaires used included a demographics questionnaire gathering personal and addiction-related data, administered via interviews and referencing the addicts' medical records. The Quit Addiction Self-Efficacy Questionnaire, comprising 16 items assessing skills like problem-solving, decision-making, self-expression, and communication, was also employed. Martin (1995) and Bramson (1995) previously validated this questionnaire, reporting Cronbach's alpha coefficients of 0.91 and 0.87, respectively [9]. In this study, its reliability was reaffirmed with a Cronbach's alpha coefficient of 0.89. Additionally, face and content validity were confirmed in this study, building upon the previous assessments conducted by Martin (1995) and Bramson (1995) [9].

2.4 | Statistical analysis

The analysis of data was conducted utilizing SPSS software (version 16.0, SPSS Inc., Chicago, IL, USA). Descriptive statistics, such as means (standard deviation [SD]) for continuous variables and frequencies (percentages) for categorical variables, were presented. The paired t-test was utilized to analyzing study variables. Statistical significance was determined at a significance level of 0.05.

3 | Results

3.1 | Self-efficacy

As shown in Table 1, a notable contrast in the self-efficacy scores before and after the intervention within the test group, showcasing a significant increase ($P < 0.001$) from an initial mean score of

65.3 to 84.9. This improvement suggests a 30.0% rise in the self-efficacy level post-intervention. Conversely, results demonstrate no substantial variance in the self-efficacy scores before and after the intervention within the control group ($P = 0.111$).

As depicted in Table 2, the examination of self-efficacy's impact on drug rehabilitation revealed that 90% of individuals in the test group successfully quit, compared to 73.3% in the control group. The Proportions Difference Test highlighted a significant disparity between the intervention and control groups regarding success rates in addiction recovery. Hence, it can be inferred that self-efficacy played a pivotal role in enhancing the success rate of quitting.

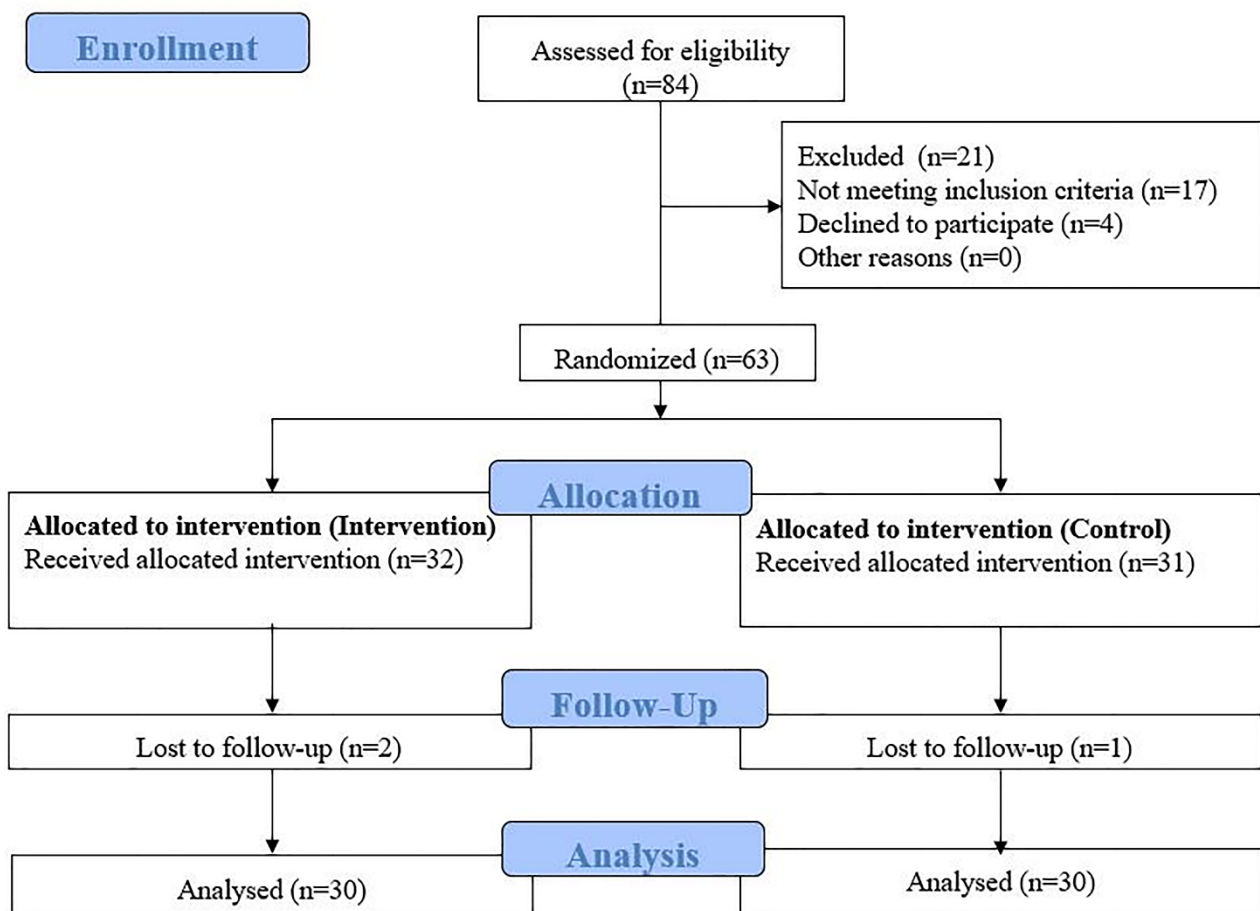


Figure 1. Flow diagram of participants.

Table 1. Self-efficacy score before and after the intervention.

	Groups	
	Intervention (n=30)	Control (n=30)
Self-efficacy		
Before intervention	65.3 (SD=15.1)	71.6 (SD=14.37)
After intervention	84.9 (SD=15.6)	77.53 (SD=14.97)
P-value	$P < 0.001$	$P = 0.111$

Table 2. Comparison of subjects in test and control groups in terms of the success rate of quitting.

	Intervention (N=30)	Control (N=30)
Success in quitting		
Successful	27 (90.0%)	22 (73.3%)
Unsuccessful	3 (10.0%)	8 (26.7%)
$Z=3.37, P<0.001$		

4 | Discussion

Based on the findings, the training program notably boosted the self-efficacy of individuals grappling with addiction, showcasing an increase of 19.64% in the test group and 5.93% in the control group. Despite both groups experiencing elevated self-efficacy levels (potentially influenced by ongoing clinic programs like pharmacotherapy, counseling, and social activities) only the test group displayed a significant increase. Consequently, it's evident that the intervention successfully heightened self-efficacy within the test group. Shabani & JaferNodeh (2019) and Rahimian & Ghodrati Mirkouhi (2013) similarly highlighted in their studies that individuals with high self-efficacy exhibit greater tendencies to quit smoking due to their confidence in their capability to do so, whereas those with low self-efficacy are less inclined to even attempt quitting [10, 11].

The findings suggest that heightened self-efficacy has the potential to enhance quitting rates and deter the reoccurrence of abnormal behaviors like smoking and addiction, as both are considered deviations from typical behavior patterns.

Varaei *et al.*, (2009) discovered a correlation between maternal breastfeeding self-efficacy and breastfeeding practices, noting that mothers with high self-efficacy demonstrate higher rates of exclusive breastfeeding and sustain it for longer durations compared to those with lower self-efficacy [12].

The findings indicate that training programs aimed at enhancing self-efficacy significantly influenced addicts' success in quitting, with the test group exhibiting a 16.7% higher success rate compared to the control group. A study by Royani *et al.*, (2015) similarly demonstrated a significant positive link between self-care and self-efficacy among hemodialysis patients [13], a correlation that aligns with the findings observed in the current study.

The study's results emphasize the crucial need for a comprehensive approach to addiction rehabilitation. While pharmacotherapy remains a primary choice among doctors, it's evident that for effective and enduring behavior change, addicts require a combination of detoxification drugs and non-drug therapies.

4.1 | Limitations

This study faces several limitations. Firstly, its applicability to a broader population may be constrained as it was conducted

within a specific location, potentially limiting its universal relevance to all individuals seeking rehabilitation for addiction. Secondly, the study's reliance on self-reported measures to gauge changes in both self-efficacy and rehabilitation success introduces the possibility of bias. Self-reported data might not always accurately depict participants' actual behaviors or long-term outcomes. Additionally, the interventions within the educational workshops focused on self-efficacy, possibly overlooking other crucial aspects pertinent to comprehensive drug rehabilitation, potentially impacting long-term recovery outcomes.

4.2 | Recommendation for future research

Future research arising from this study can explore several paths to enhance understanding and effectiveness in drug rehabilitation programs. Follow participants longitudinally to assess the enduring impact of self-efficacy workshops on rehabilitation success and relapse rates. Compare diverse intervention combinations (varying types or intensities of self-efficacy workshops) to ascertain the most effective approaches for aiding addiction recovery. Collaborate with multiple drug rehabilitation facilities for multi-center studies, ensuring a larger sample size for more robust and reliable results. Explore the efficacy of technology-based interventions, like mobile apps or virtual support groups, designed to enhance self-efficacy and support drug rehabilitation efforts.

5 | Conclusions

Thus, by the aforementioned findings, the research hypothesis suggesting a favorable influence of self-efficacy on quitting among addicts visiting the Drug Rehabilitation Clinic is validated.

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Authors' contributions

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AD, SS, HS, SMM; Drafting the work or revising it critically for

important intellectual content: AD, SS, HS, SMM; Final approval of the version to be published: AD, SS, HS, SMM; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: AD, SS, HS, SMM.

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Ethics approval and consent to participate

The ethics committee of Birjand University of Medical Sciences reviewed and approved the study protocol (ethics code IR.BUMS.REC.1401.389). Before participation, all individuals provided informed consent after receiving detailed information about the study's aims. Participants were explicitly informed of their right to withdraw from the study at any time if they chose to do so.

Competing interests

We do not have potential conflicts of interest with respect to the research, authorship, and publication of this article.

Availability of data and materials

The datasets used during the current study are available from the corresponding author on request.

Using artificial intelligent chatbots

None.

References

1. Boland R, Verduin M. Kaplan & Sadock's Concise Textbook of Clinical Psychiatry. Lippincott Williams & Wilkins; 2021.
2. Ghane T, Zamani N, Hassanian-Moghaddam H, Beyrami A, Noroozi A. Lead poisoning outbreak among opium users in the Islamic Republic of Iran, 2016-2017. *Bull World Health Organ.* 2018;96(3):165-172.
3. Afzali R, Sarrami H, Irankhah Kokhaloo A. Explaining the social harm of addiction from the viewpoint of its victims in Tehran. *QJ Res Addict.* 2019;13(52):35-50.
4. Khammami M, Peyvand M. The Reasons of Return to Drug Addiction and Suggested Solutions among the People Referring to Rehabilitation Centers: A Qualitative Study. *J Rafsanjan Univ Med Sci.* 2018;17(6):523-538.
5. Bashirian S, Barati M, Mohammadi Y, Zamagh HG, Bagheri S. Predictors of drug abuse relapse for Iranian addicted women: an application of social cognitive theory. *Addict Disord Their Treat.* 2021;20(4):260-267.

6. Bandura A. Self-efficacy mechanism in human agency. *Am Psychol.* 1982; 37(2):122-147.
7. Bandura A. Toward a Psychology of Human Agency: Pathways and Reflections. *Perspect Psychol Sci.* 2018;13(2):130-136.
8. Cheng A, Kessler D, Mackinnon R, Chang TP, Nadkarni VM, Hunt EA, et al. Reporting guidelines for health care simulation research: extensions to the CONSORT and STROBE statements. *Adv Simul (Lond).* 2016;1:25.
9. Bramson JH. The impact of Peer Mentoring on Drug Avoidance Self-Efficacy and substance Use. USA; Publisher University of Northern Colorado: 1999. p. 43-52.
10. Shabani J, JaferNodeh AH. Students' Smoking Abstinence Self-efficacy toward Early Maladaptive Schemas. *J Community Health Res.* 2019;8(2):83-91.
11. Rahimian Boogar I, Ghodrati Mirkouhi M. Successful Smoking Cessation: The Role of Self-efficacy, Mindfulness and Demographic Factors. *J Mazandaran Univ Med Sci.* 2013;23(103):54-65.
12. Varaei S, Mehrdad N, Bahrani N. The Relationship between Self-efficacy and Breastfeeding, Tehran, Iran. *Hayat.* 2009;15(3):31-38.
13. Royani Z, Rayyani M, Vatanparast M, MahdaviFar M, Goleij J. The relationship between self-care and self-efficacy with empowerment in patients undergoing hemodialysis. *Mil Caring Sci J.* 2015;1(2):116-122.

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