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The Effect of Anger Management Training Using Workshop and Training Package Methods on the Aggression of Patients with Addiction

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Abstract

Background: Given the importance of anger controlling on addicts aggression at withdrawal beginning and their specific conditions, it is essential that different educational methods tailored to the content anger management to reduce aggression and control anger in the addicted people.

Aim: This study aimed to compare the effect of anger management training using workshop and training package methods on the aggression of patients with addiction.

Method: In this randomized clinical trial, 60 Clients referred to the addiction withdrawal clinic of psychiatric hospitals of Mashhad in 2014-2015, were allocated into three groups, educational workshops(n=20) (4 sessions over 2 days of anger management training) and training package (n = 20)(trained as a manual and CD) and control (n = 20)(no intervention). Bass & Perry Aggression Questionnaire was implemented immediately before and one month after the intervention. For data analysis, ANOVA, Kruskal-Wallis and paired t-test were performed, using SPSS version 11.5.

Results Based on the results of One-way ANOVA, there was a significant difference between the three groups of workshop (14.7±9.4), training package (10.3±5.3), and control (-2.8±3.6); (P<0.001) with respect to aggression mean score variance. Tukey's post-hoc test reflected a significant difference between the workshop and training package groups (P<0.001) and between the workshop and control groups (P<0.001). However, differences between the training package and control groups were not statistically significant (P=0.97).

Implications for Practice: Holding workshops on anger management can be highly effective in lowering aggression in drug addicts, due to its interactive nature.

Keywords: Anger management training, Addiction, Aggression

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Introduction

Addiction is one of the most serious and distressing social disorders (1), and it is widely recognized as one of the four social determinants of poverty, divorce, and unemployment (2). The progressive nature of addiction affects every aspect of an individual's life, be it physical, mental, emotional, spiritual, and cognitive. This social obstacle imposes a considerable socioeconomic burden on societies and families in addition to individuals (3).

Based on United Nations' official statistics (2008), there are 220 million drug abusers worldwide (4), while the highest addiction prevalence rate belongs to Iran with 8.2% (compared to the 4% global prevalence rate) (5), which accounts for about one third of the country's gross national product each year (6).

In studies performed during the recent years, the relationship of drug abuse with depression and anxiety is well reflected; nonetheless, the experienced emotions, particularly anger, and identification of its impact on drug search behavior, and the strategies to avert relapse were highly disregarded (7). Former studies proved that the main predicting factor of tendency toward drug abuse is aggression. In addition, lack of behavioral control, anger, sensation seeking, and risk-taking are correlated with drug abuse (8).

In fact, drug abuse may propel severe physical, mental, and social outcomes in addicts and may often result in the enfeeblement of one's efficiency, self-efficacy, autonomy, confidence, self-esteem, and decision-making abilities. Accordingly, drug addicts are highly incapable of managing their behaviors, particularly those of an aggressive nature (9).

An addiction rehabilitation process is marked with the prevalence of aggression, anxiety, drug-seeking behaviors, and greediness (10). Based on the frustration-aggression hypothesis, if an individual (after recovery) encounters any obstacles due to certain social and personal issues, s/he may experience fits of anger and aggression. As aggression and aggressive behaviors are deemed inappropriate from the social point of view, the individual might return to drug abuse to control his/her emotions and to reach internal composure (even for a short while) (11).

During rehabilitation programs, drug addicts experience loss of temper accompanied with a number of symptoms including temper instability, provocativeness, aggression, sleep pattern alteration, and anorexia, which can extremely frustrate the patients. Thus, if left untreated, they have a high chance of relapsing. On the other hand, during the rehabilitation process, and even long after that, the patient tends to be restless, lethargic, impatient, and aggressive, and the family members may criticize and blame the patient for his aggression and anger because of their unawareness. Consequently, interpersonal disputes might aggravate and the environment that is supposed to be supportive turns into a hostile atmosphere that can pave the way for relapse (12).

The hypothesis that aggression originates from anger indicates that anger management programs can lower aggression in drug addicts. To attenuate social harms, the World Health Organization recommended teaching life skills, one of the components of which is anger management training (12). Indeed, anger management program is an organized educational-psychological intervention that is administered to promote anger management skills and lessen susceptibility of healthy individuals or a particular group of individuals under treatment. Consequently, it is highly suggested for those diagnosed with and/or susceptible to certain physical and mental disorders due to frequent anger arousal and those with inappropriate manifestation of anger (excessive anger internalization or externalization) (13).

In this regard, Karimi et al. (2013) showed that anger management training and teaching communication skills are extremely advantageous for mitigating aggression among hashish addicts (14). Moreover, in a study by Son et al. (2011) performed in Korea, it was concluded that anger management training can diminish anger manifestation and can lead to anger management in family members of alcoholics (15).

Adopting an appropriate training method, as one of the most essential considerations when designing training methods, must be carefully taken into account in the implementation of training programs (16). Anger management training can be administered through both distance and in-person education methods depending on clients' needs and preferences (12). The majority of interventions on anger management training have incorporated face-to-face methods (17).

One of the in-person methods is training workshop that is a pseudo-consultation session and a problem solving approach where all types of group discussion techniques are applied to encourage

clients in participation. A distinct benefit of this method is the active and live presence of the trainer (18), while it also suffers from a number of disadvantages, including fear of being scorned, embarrassment and shame, low self-confidence, stress, lack of mental and psychological readiness, as well as anxiety and uneasiness (which can involve both trainers and trainees). These drawbacks might discourage clients from taking part in the program, particularly in case of addicts who prefer to stay home due to their special conditions (17).

Nowadays, novel distance education methods, tailored to the needs and conditions of clients, are designed and implemented as successful training programs to which the training package method is but an example. The training package method enjoys a couple of advantages such as provision of homogeneous materials to trainees and accessibility and cheapness of producing and distributing these materials; its disadvantages include absence of an active and live trainer, unfeasibility of using it with illiterate clients, and possibility of inaccurate understanding (19). In this respect, the results of a study by Rasooli et al. (2013) exhibited that both empowerment training methods (i.e. workshop and training package) are the same regarding their efficacy in self-efficacy improvement of diabetes patients (20). Furthermore, Khakbazan et al. (2008) proposed higher effectiveness of the training package method, compared to the lecturing method, in awareness regarding puberty health in girls (21).

Since the face-to-face workshop method is the main method of anger management training, special condition of addicts and their distinct problems might prevent them from participation in these workshops. Anger management is important in inhibiting aggressive behaviors and relapse among rehabilitating addicts, and finding short-term, efficient, and effective treatment methods is a necessity of the modern age that can result in favorable outcomes by saving time and money. However, to the author's best knowledge, no national or international study has explored the effects of anger management programs by workshop and training package methods on aggression control. In this study, therefore, we aimed to compare the effect of anger management training using workshop and training package methods on the aggression of patients with addiction in Mashhad, Iran.

Methods

This randomized, controlled clinical trial with a three-group, pretest-posttest design was conducted during 2013-2014 on 60 addicted clients (under methadone maintenance treatment) presenting to addiction rehab centers of Ibn-Sīnā and Hejazi psychiatric hospitals in Mashhad, Iran. The sample size was calculated based on the pilot study and using the "two-sample mean and standard deviation comparison" formula for all pairwise comparisons (three times). The largest sample size was 22 per group (a total of 66 participants) according to the mean and standard deviation of the total aggression score in the training package (95.1±6.3) and control groups (85.9±8.6) with a 95% confidence interval and an 85% test power after considering the 15% sample loss. Ultimately, two subjects in the workshop group refused to enroll in the study, as did two more in the training package group, and two in the control group. Therefore, the final sample size was 60 (20 in each group).

The inclusion criteria comprised of: 1) minimum educational level of junior high school diploma, 2) male, 3) aged 20-60, 4) no vocal or hearing disorders, 5) no simultaneous use of other addiction rehab methods (e.g. psychotherapy or group therapy), 6) no previous history of participation in anger control workshops, 7) no other psychiatric disorders at the time of the study, 8) no history of using psychiatric medications (for treating psychiatric disorders) in the past six months, 9) no experience of major stress (e.g., death of a family member/relative or divorce) in the past six months, and 10) high aggression score (above 75 total aggression score) on the Buss-Perry Aggression Questionnaire (the reason for setting an above 75 score as the cut-off score for entering the study was to homogenize the participants in terms of their variant aggression scores before the intervention).

The exclusion criteria included: 1) absence in more than 20% of the training workshop sessions (for the workshop group), 2) failure to do the tasks and/or responding to the researcher's follow-up calls in the training package group, and 3) major physical disorders (e.g., fracture or an incapacitating disease) and/or the data collection instruments included a demographic information form and the Buss-Perry Aggression Questionnaire. The demographic information form comprised of 12 items developed with respect to study objectives and based on the latest related references and studies.

The Buss-Perry Aggression Questionnaire is a standard self-report instrument that consists of 29 propositions. This questionnaire consists of four subscales of physical aggression (nine propositions

and a score range of 9-45), verbal aggression (five propositions and a score range of 5-25), anger (seven propositions and a score range of 7-35), as well as hostility or hate (eight propositions and a score range of 8-40). Each proposition was rated using a 5-point Likert scale as follows: 5 (completely describes me), 4 (somehow describes me), 3 (describes me a little), 2 (moderately untrue for me), and 1 (completely untrue for me) where item 7 from the physical aggression subscale and item 4 from the anger subscale are reverse scored.

The total aggression score in this instrument ranged from 29 to 145. The instrument was validated by Mohammadi et al. (2006) using the factor analysis, concurrent validity, and convergent validity methods (22). Its reliability was measured in the present study through internal consistency, and the Cronbach's alpha coefficients were 0.79 (physical aggression), 0.88 (verbal aggression), 0.83 (anger), and 0.73 (hate) with a total Cronbach's alpha coefficient of 0.87.

Using convenience sampling method, clients presenting to addiction rehab centers of Ibn-Sīnā and Hejazi psychiatric hospitals in Mashhad, who met the inclusion criteria for participating in the study, were recruited. Thereafter, informed consent was obtained from the participants, and they were randomly allocated (using a simple draw) to the three daily blocks of “Saturday and Tuesday” (anger management training intervention by workshop method), "Sunday and Wednesday" (anger management training intervention by training package method), and "Monday and Thursday" (control group), depending on the day they presented to the center.

The first intervention group received anger management training by workshop method for four sessions (2 hours each) on two days in one week. The workshop training team included two psychiatric nursing Masters and two clinical psychology PhDs.

The procedure was as follows: on the first day (Saturday) and during the first workshop session, the concept of anger, its importance, its benefits, and its physical symptoms were taught. On the second session held later on the same day and after a break, the participants were lectured on the properties of natural emotions such as anger and ill temper in everyone's life and ways to control them. The participants were then requested to make a list of their and their relatives' ideas on anger and aggression management and to verify them. Afterwards, they were asked to recall a situation where they were extremely angry and describe the emotions they experienced at that moment, and then rate those emotions in the order of appearance. At the end of the second session, the clients were requested to complete these tasks and bring them in the next session (Table 1).

At the beginning of the second day (Tuesday) and the third workshop session, previous subjects were reviewed and the assignments that participants were supposed to do were checked. Thereafter, complementary instructions were provided both as lecture and group discussion. On the fourth session, each participant's answers to the assignments were compared to other clients followed by a group discussion on the causes that can make someone angry under specific conditions where others are not affected.

Subsequently, the participants were asked to remember a memory in detail or a subject that continues to enrage them and to write it down and share it with their close friends and ask for their ideas on that particular memory or subject matter. Thereafter, the participants practiced self-composure under enraging circumstances.

For the second intervention group, anger management training by the training package method (at the same time with the workshop group) was administered as follows: the researcher supplied addiction centers with training packages (CDs and manuals) during one week. Anger management training by simultaneous implementation of the workshop and training package method and based on the contents of the anger management skill manual of Motabi (approved by the Ministry of Health and Medical Education) and under the guidance of a clinical psychology PhD was given to the clients.

Instructions in the anger management training provided to the training package group were in line with the workshop group in terms of content and the number of sessions.

The clients were asked to watch and study the instructions in each section of the package in order of their appearance. In order to better understand the concepts, the participants were recommended to first watch the CD provided by the researcher and then refer to the manual and study and apply the instructions in a step-by-step manner.

During the week, the researcher made phone calls to the clients to check their condition and resolve any ambiguities. To make sure that the group studied the necessary instructions, a number of

questions were asked from the clients at the end of each phone call to which they were supposed to answer (Table 1).

Table 1: Anger management training

Method	Headlines	Duration	Training method	Trainer
Workshop	1- The concept, significance, benefits, and physical symptoms of anger 2- Natural emotions such as anger and rage, their management strategies and reflecting on personal experiences 3- Practicing self-composure exercises at the time of anger	4 two-hour sessions	Face-to face; workshop	Two psychiatric nursing Masters and two clinical psychology Masters
Training package	1. The concept, significance, benefits, and physical symptoms of anger 2. Natural emotions such as anger and rage, their management strategies, and reflecting on personal experiences 3. Practicing self-composure exercises at the time of anger	4 two-hour sessions	Distant; CD and manual	Researcher follow-up phone calls

The control group did not receive any intervention. The questionnaire was filled twice, once before the intervention (when specifying the inclusion criteria) and again one month after intervention, simultaneously in three groups. To observe research ethics, the control group received the training package after interventions and conducting the posttest.

During the entire study process, all the ethical considerations (including getting a written consent from the Ethics Committee of the university, obtaining a letter of reference from the School of Nursing and Midwifery and submitting it to the chairman of Ibn-Sīnā psychiatric hospital, obtaining written consent from the participants, coding the questionnaires to ensure confidentiality of the data, and assuring the participants that they may quit the study anytime at their own will) were observed in the study plan approved by the Deputy of Research of Mashhad University of Medical Sciences.

To test normality of distribution in the quantitative data, Kolmogorov-Smirnov and Shapiro-Wilk tests were used. Homogeneity of the qualitative data was evaluated by Chi-square and Fisher's exact tests, while One-way ANOVA and Kruskal-Wallis tests were run to check homogeneity of the quantitative data with normal distribution and without normal distribution, respectively. For inter-group comparisons of the quantitative variables, One-way ANOVA was run, and for intra-group comparisons paired-samples t-test were performed, using SPSS version 16. Finally, 95% confidence interval and significance level of α=0.05 were observed throughout the entire data analysis.

Results

According to Table 2, non-significant differences were found between the three groups in terms of demogr□phic v□ri□bles (except for educ□tion□l level; P>0.05) □nd the groups were homogeneous in this regard (apart from the level of education). Thus, in order to measure the variant effect of level of education on changes in the level of aggression before and after intervention, the analysis of covariance test was administered; based on the results, variance in the aggression score was to be merely attributed to group effect (P=0.01). Thus, level of education did not have a confounding effect on the variance in the aggression score (P=0.37).

With reference to Table 2, in the anger management training by workshop method group, the majority of participants had educational level of junior high school diploma (14, 70%) and were married (15, 75%); their me□n □ge w□s 43.5±10.8 ye□rs (T□ble 2).

In the anger management training by training package method group, the majority of the clients had junior high school diplom□(11, 50%) □nd were m□rried (12, 60%); the me□n □ge of the p□rticip□nts in the training package group was 40.1±9.8 (Table 2).

In the control group, the majority of the clients had junior high school diploma (11, 55%) and were married (15, 75%); their me□n □ge w□s 41.7±10.6 ye□rs (T□ble 2).

All the scores on the aggression variable and its sub-scales were calculated and represented on a scale of 100; due to heterogeneity of the three groups in terms of the □nger □nd □ggression v□ri□bles,

variance in the mean scores of aggression and its sub-scales were accounted for both pre- and post-intervention.

Table 2: Demographics of clients referred to addiction rehab centers for the two intervention groups and the control group

Group	Workshop	Training package	Control	Test result
Variable	No.(percent)	No. (percent)	No. (percent)	
Educational level				
Junior high school diploma	14 (70)	11(55)	11(55)	
Senior high school diploma	2(10)	9(45)	8(40)	P= 0.03***
Academic	4(20)	0(0)	1(5)	
Occupation				
Clerk	1(5)	2(10)	5(25)	
Worker	6(30)	2(10)	5(25)	
Retired	3(15)	1(5)	1(5)	***P= 0.22
Freelance	9(45)	11(55)	7(35)	
Unemployed	1(5)	4(20)	5(25)	
Marital status				
Single	4(20)	7(35)	4(20)	
Married	15(75)	12(60)	15(75)	**chi Square= 1.63 P= 0.56
Divorced	1(5)	1(5)	1(5)	
Drug abuse history among family members				
None	15(75)	13(65)	15(75)	
Father	1(5)	2(10)	2(10)	
Brother	4(20)	4(20)	3(20)	***P= 0.95
Spouse	0(0)	1(5)	0(0)	
	Mean ± SD			
Age (years)	43.5 ± 10.8	40.1 ± 9.8	41.7 ± 10.6	F= 0.53 P= 0.59*
History of recovery (times)	3.7 ± 8.9	5.2 ± 5.2	4.5 ± 4.0	**Chi-square= 0.26 P= 0.77
Duration of drug abuse (years)	13.2 ± 7.7	14.0 ± 8.3	10.0 ± 7.2	**chi Square = 3.1 P= 0.21

One-way ANOVA*
Kruskal-Wallis test**
Fisher's exact test***

According to Table 3, the results of One-way ANOVA demonstrated no significant differences between the three groups of workshop (67.6±11.1), training package (60.3±10.6), and control (65.7±11.3; P=0.10) before the intervention, with respect to the physical aggression sub-scale and the groups were homogeneous in this regard.

In addition, based on the results of the One-way ANOVA, no significant differences were observed regarding the mean score variance of the physical aggression sub-scale before and after intervention between the workshop (18.6±21.9), training package (7.9±20.7), and control (3.2±14.9; P=0.16) groups.

On the other hand, with respect to intra-group comparisons, the paired-samples t-test reflected statistically significant differences within the workshop (P=0.001) and training package (P=0.04) groups in terms of physical aggression sub-scale mean score pre- and post-intervention; however, inter-group differences in the control group were not significant (P=0.34).

One-way ANOVA demonstrated that verbal aggression mean scores were not significantly different between the three groups of workshop (61.7±17.9), training package (59.0±12.1) and control (56.7±13.5; P=0.56) before the intervention. In addition, non-significant differences (P=0.41) were

presented regarding the mean score of verbal aggression pre- and post-intervention between the workshop (13.1±20.1), training package (9.1±17.6) and control groups (0.00±13.5).

Table 3: Comparison of aggression and its sub-scales in clients referred to addiction rehab centers in the two intervention groups and the control group

Scale		Pre-intervention	Post-intervention	Difference between the two evaluations	P-value (Paired-samples t-test)
Physical	Workshop	67.6 ± 11.1	49.1 ± 12.7	18.6 ± 21/9	t=4.26 P<0.001
	Training package	60.3 ± 10.6	53.1 ± 10.8	7.9 ± 20.7	t=2/25 P= 0/04
	Control	65.7 ± 11.3	62.5 ± 9.3	3.2 ± 14.9	t= 0.97 P= 0.34
P-value (One-way ANOVA)		F= 2.44 P=0.10	F= 0.78 P<0.001	F= 1.88 P= 0.16	
Verbal	Workshop	61.7 ± 17.9	48.5 ± 17.2	13.1 ± 20.1	t= 3.16 P=0.005
	Training Package	59.0 ± 12.1	50.7 ± 14.7	9.1 ± 17.6	t= 2.66 P= 0.02
	Control	56.7 ± 13.5	56.8 ± 14.1	0.00 ± 13.5	t= 0.00 P= 1.00
P-value (One-way ANOVA)		F= 0.58 P=0.56	F=1.48 P=0.24	F= 0.90 P=0.41	
Anger	workshop	68.7 ± 14.6	52.5 ± 11.6	17.5 ± 14.1	t= 5.09 P<0.001
	Training package	56.5 ± 11.3	48.4 ± 12.6	10.4 ± 15.5	t=3.07 P= 0.006
	Control	62.4 ± 12.1	61.04 ± 13.1	1.3 ± 10.4	t= 0/57 P=0/57
P-value (One-way ANOVA)		F= 4.53 P= 0.02	F= 5.40 P= 0.007	F= 2.61 P= 0.04	
Hostility	Workshop	64.7 ± 17.1	52.0 ± 11.1	11.6 ± 26.1	t= 2.52 P= 0.02
	Training package	59.6 ± 15.8	58.6 ± 11.9	2.7 ± 25.8	t= 2.23 P= 0.82
	Control	63.3 ± 9.9	63.3 ± 10.9	0.00 ± 16.8	t= 0.00 P= 1.00
P-value (one-way ANOVA)		66.=0F 52.=0P	06.=5F 01.=0P	17.=2F 12.=0P	
Total aggression	Workshop	63.5 ± 7.3	46.8 ± 7.1	18.4 ± 9.4	t= 8.20 P<0.001
	Training package	55.8 ± 6.2	49.5 ± 6.6	7.7 ± 5.3	t=6.72 P<0.001
	Control	59.1 ± 4.9	60.9 ± 4.9	1.0 ± 3.6	t= 1.20 P= 0.24
P-value (One-way ANOVA)		72.=7F P< 0.001	36.=23F P< 0.001	95.=15F P<0.001	

Paired-samples t-test demonstrated that there were significant differences in the workshop (P=0.005) and training package groups (P=0.02) pre- and post-intervention in relation to verbal aggression mean scores; nonetheless, no signific□nt differences were noted the control group (P=1.00).

Based to the results of One-way ANOVA, anger mean scores of the workshop (68.7±14.6), training package (56.5±11.3), and control groups (62.4±12.1) were significantly different (P=0.02) before the intervention. Additionally, anger mean scores of the workshop (17.5±14.1), training package (10.4±15.5), and control groups (1.3±10.4) were significantly different (P=0.04) pre- and post-intervention. Tukey's post-hoc test exhibited that anger mean score was not significantly different between the workshop (17.5±14.1) □nd tr□ining p□ck□ge groups (10.4±15.5; P=0.79) □nd between the tr□ining p□ck□ge (10.4±15.5) □nd control groups (1.3±10.4; P=0.26) in the pre- and post-intervention st□ges; however, there were signific□nt differences between the workshop (17.5±14.1) □nd control (1.3±10.4; P=0.02) groups.

As for intra-group comparisons, anger mean score pre- and post-intervention was significantly different in the workshop group (P=0.001) and the training package group (P=0.006), but no significant differences were observed in the control group (P=0.57).

One-way ANOVA demonstrated that before the intervention, hostility mean score was not significantly different between the workshop (64.7±17.1), training package (59.6±15.8), and control groups (63.3±9.9; P=0.52). Moreover, no signific□nt differences (P=0.12) were noted in the hostility mean scores (hate) before and after intervention between the workshop (11.6±26.1), training package (2.7±25.8), and control groups (0.00±16.8).

As for hostility mean score before and after the intervention, significant differences were found in the workshop group (P=0.02), but no significant differences in the training package (P=0.82) and control groups (P=1.00).

Before the intervention, mean total score of aggression was significantly different between the workshop (61.5±7.3), training package (59.8±6.2), and the control groups (58.1±4.9; P=0.001). There were no significant differences between the workshop (11.6±26.1), training package (2.7±25.8), and control groups (0.00±16.8; P=0.12) regarding the mean hostility (hate) score pre- and post-intervention. However, in terms of the total mean score of aggression, before and after intervention, differences between the workshop (14.7±9.4), training package (10.3±5.3), and the control groups (-2.8±3.6) were statistically significant (P=0.001). Tukey's post-hoc indicated that in terms of the total aggression mean score pre- and post-intervention, there were significant differences between the workshop (14.7±9.4) and training package groups (10.3±5.3; P<0.001) and between the workshop (14.7±9.4) and control groups (-2.8±3.6; P<0.001), but no significant differences were found between the training package (10.3±5.3) and control groups (-2.8±3.6; P=0.97).

Paired-samples t-test reflected that the total aggression mean score pre- and post-intervention was significantly different in the workshop (P=0.001) and training package groups (P=0.001), but no significant differences were observed in the control group (P=0.24; Table 3).

Discussion

In this study, we purported the effect of anger management training using workshop and training package methods on the aggression of patients with addiction in Mashhad. Comparing the total mean variance score of aggression, significant differences were found pre- and post-intervention between the workshops and training package groups.

In other words, anger management training by workshop method reduced aggression more significantly than the training package method. Nevertheless, paired-samples t-test confirmed the efficacy of anger management training by both methods (workshop and training package) in lowering the level of aggression in drug addicts. In a study by Son et al. (2011), performed in Japan, it was reported that 8 two-hour sessions of group anger management training for female family members of the alcoholics could restrain their anger (15); although it was a one-group study that study entailed more sessions and the study population comprised of women, their results were in line with those of the present study.

Additionally, Hafezi et al. (2011) in their study, conducted in Iran, pinpointed that anger management training by workshop method during seven 90-minute sessions led to reduced impulsive behaviors and anxiety in war-wounded males diagnosed with post-traumatic stress disorder (23). The results of that study, despite its one-group design and inclusion of different variables (impulsive behaviors and anxiety), were congruent with those of the current study.

Additionally, the results of the study by Karimi et al. (2012) on the impact of eight 60-minute sessions of group anger management training and face-to-face communicative skills programs during one month on attenuating aggression in hashish addicts (14) and the study by Maleki et al. (2011) on the efficacy of twelve 1-1.5-hour sessions of in-person group anger management training in lowering aggression among male adolescents aged between 12 and 15 years (24) substantiated the present findings.

In the workshop training method, individuals with one issue in common work in tandem to solve specific problems, offer suggestions to take further actions, raise group discussions on subjects related to a certain field of activity, and find appropriate solutions. The workshop method is a type of problem solving method in which a variety of group discussion techniques are implemented to encourage participants to take part in group discussions (18). However, in the training package method, which is designed by a panel of experts in a specific area of inquiry and is based on educational programs aimed at attainment of certain learning objectives, trainees proceed at their own pace individually, through exercises related to their learning objectives and their level of progress (18).

Due to the numerous obstacles that the addicts encounter during rehabilitation, anger management training by workshop method is more effective because of the inclusion of question and answer and group discussion sessions compared to the training package method where the trainee is supposed to learn alone.

Nevertheless, the results of the study by Rasooli et al. (2013) proved that both workshop self-empowerment program and training package methods could improve self-efficacy in diabetic patients' (7), which is not consistent with our findings. The reasons for this discrepancy may lie in differences in the study sample and the content of training programs as it is highly important, while designing educational programs, to choose the appropriate educational content and target population to train (12).

Anger management program, as compared to empowerment training program (cooperative intervention in caring for diabetes and training the patient), is an educational-psychological intervention. It seems that a workshop training method can help addict's more than diabetic patients as they are at higher risk of psychological problems such as non-acceptance by the society. The results of the study by Saleh Moghaddam et al. (2013) demonstrated positive impact of virtual training by CDs on following the diet plan in type 2 diabetes patients (25), which is also incongruent with the results of the present study. The reasons for this lack of alignment include the use of different educational contents and study populations in addition to the one-group design of the mentioned study.

Furthermore, Khakbazan et al. (2008) concluded higher effectiveness of puberty health training package method compared to lecturing in raising girls' awareness (21). The inactivity of participants in the lecture method, as compared to the workshop method, can negatively affect the quality of the lecture method in comparison with the workshop and virtual methods. Inclusion of disparate educational content and study populations are among the reasons for the incompatibility.

The results of the current study demonstrated non-significant differences between the workshop and training package methods with respect to physical aggression, verbal aggression, and hostility (hate) scores before and after intervention. However, some significant differences were noted between these groups in terms of anger scores before and after intervention, that is, the two methods of workshop training and training package had no positive effects on physical aggression, verbal aggression, and hostility, yet the workshop method could reduce aggression more efficiently. Even though paired-samples t-test pinpointed the effectiveness of anger management training by both workshop and training package methods in mitigating the physical, verbal, and anger dimensions of aggression among addicted patients, anger management training by the workshop method was also efficacious for lowering hostility, whereas the training package method had no such impact. Given the use of different questionnaires to measure aggression in other studies, no study was found to be in line with the above-mentioned results.

Researchers and therapists with a cognitive orientation believe that processes such as individual understanding of events, their interpretations, and their citations are the principal building blocks of every behavior including aggression (12). In an anger management program, the participants are familiarized with various aspects of anger as well as its expression and consequences. They accentuate the necessity of optimal anger management and teaching behavioral skills of anger management by going through a process of cognitive reconstruction. Scholars propose practicing certain exercises that can help trainees behave appropriately when facing enraging situations (26).

The main target of physical and verbal aggression (as the behavioral dimensions of anger) is people in one way or another (22), which is rooted in one's culture and variable depending on one's upbringing and past experiences (27). The hostility aspect, which is the aggressive attitude of the individual (cognitive dimension of aggression) (22), is often represented after a threatening or depriving evaluation of a stimulant or situation (28). The aforementioned dimensions did not change drastically in the present study due to disregarding cultural conditions and social support in anger management training (apart from the method used). As the anger management training program in this study incorporated a series of anger control exercises that the participants were supposed to practice in the context of their family and society, it required the involvement and support of family members, which is absolutely necessary in the case of addicts (due to their non-acceptance).

However, anger management training by the workshop method, compared to the training package method, could affect the emotional dimension of aggression (the anger aspect), which in fact prepares the individual's inner conditions for emotional-physiological arousal (22). Since in the face-to-face workshop training method, the individual improves his problem solving skills through participating in group discussions, the workshop method can more effectively modify this more individualized aspect of aggression.

The results of this study were not aligned with those of Roostaei et al. (2011), conducted on the impact of group anger management training on a variety of aggression dimensions (e.g., physical and verbal) among prisoners (29). Difference in the number of anger management training sessions (eight sessions versus four in this study) and the time of post-test administration (immediately after the eighth session in Roostaei's study) are among reasons for the incongruity among results.
As for the limitations of the present study, the initial time of treatment for addiction recovery could affect the results in terms of the symptoms of rehabilitation as well as the family support that could also influence the outcomes of training programs.

Implications for Practice
Based on our findings, anger management training by the workshop method, due to its interactive nature and active cooperation of participants, can attenuate aggression of clients referred to addiction rehab centers more effectively, compared to the training package method. Thus, the results of this study can be incorporated into face-to-face anger management programs by the workshop method with the aim of reducing aggression in addicted patients referred to psychiatric hospitals. Comparison of the effect of anger management training by workshop and training package methods on the aggression of clients referred to addiction rehab centers of psychiatric hospitals in Mashhad with and without family support and at the same time, with the start of drug recovery is recommended for future studies.

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Conflict of interest
The authors declare that there is no conflict of interest.

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