

The Effectiveness of Teaching Cognitive Emotion Regulation Strategies and Perfectionism on Reducing Aggression in high School Adolescent Girls in Tehran

Monireh Parsian^{1*}, Somayeh Kamali Igoli²

¹Department of Psychology, Adib University, Mazandaran Province, Sari, Iran; ²Department of Psychology, Islamic Azad University, Roudehen Branch, Iran

ABSTRACT

Emotion regulation is one of the important factors in having a successful performance in social interactions, and emotion regulation training based on recognizing emotions, understanding the views of oneself and others, can be important factors for improving uncompromising behaviors such as aggression. Extreme perfectionism, on the other hand, is associated with a wide range of negative outcomes, such as low self-esteem, anxiety, and externalizing behavioral problems, including aggression. Thus, by teaching adaptive perfectionism, we can significantly help people to have realistic standards that will ultimately lead to a sense of self-satisfaction and self-worth. The aim of this study was to investigate the effectiveness of cognitive emotion regulation skills and perfectionism training on reducing aggression. For this purpose, in a quasi-experimental study of pre-test-post-test with one-month control and follow-up group, 24 high school female students who had high aggression from public high school in Tehran's 18th district, by sampling method Purposefully selected and randomly divided into experimental and control groups. The groups were assessed for aggression before and after the intervention. The members of the experimental group underwent group training on cognitive emotion regulation and perfectionism strategies for 10 sessions and the members of the control group did not receive any intervention. The results of two-factor combined analysis of variance showed that the components of aggression and its total score in the experimental group in the post-test and follow-up stages were significantly reduced compared to the control group. The results of this study indicate that the method of teaching cognitive regulation of emotion and perfectionism can be an appropriate and effective method in reducing aggression.

Keywords: Negative emotion cognitive regulation strategies; Positive emotion cognitive regulation strategies; Perfectionism; Aggression

INTRODUCTION

Adolescence is one of the most sensitive developmental stages in human life and one of its most important features is the many changes in the physical, social, intelligence and psychological fields [1]. From there Adolescence is a period of transition from childhood to adulthood and a change in emotions and feelings. Stress and anxiety, depression and aggression are seen in adolescents [2]. Therefore, knowing this period of life is especially important. Among these, one of the most common problems of adolescents is aggression [3]. Which, if not properly controlled, can ruin social life and this issue is more common among adolescents and young people than other members of society. Storm direction and adolescent stress are often accompanied by

extensive changes during this period [4]. Anger and aggression in adolescents and mainly physical violence are serious mental health problems that have many negative effects on the victim and society [5]. Aggression in adolescents ranges from bullying and beatings, rape and physical violence to murder. In general, different types of violence in adolescents will not only lead to premature death, injury, and disability worldwide, but will also have a serious and lasting effect on a person's psychological and social functioning [6]. On the other hand, one of the most important abilities of children and adolescents is their self-regulation, which plays an important role in regulating emotion. Emotional regulation ability is a key socio-emotional skill that enables flexibility in emotion-provoking situations [7]. Thus, emotional regulation can

Correspondence to: Monireh Parsian, Department of Psychology, Adib University, Mazandaran Province, Sari, Iran, E-mail: mparsian64@yahoo.com

Received date: May 14, 2021; **Accepted date:** May 28, 2021; **Published date:** June 04, 2021

Citation: Parsian M, Eagli SK (2021) The Effectiveness of Teaching Cognitive Emotion Regulation Strategies and Perfectionism on Reducing Aggression in high School Adolescent Girls in Tehran. J Psychol Psychother. 11:404.

Copyright: © 2021 Parsian M, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

generally be the ability to respond to needs. Continuously defined environmental experiences with a wide range of emotions in a way that is socially acceptable and flexible enough; It can cause spontaneous reactions as well as the ability to delay such reactions when needed [8]. And cognitive emotion regulation can be defined as the methodology of managing stimulated emotional information [9]. Research has shown that maladaptive cognitive emotion regulation strategies such as self-blame, catastrophe, blame, and rumination have a detrimental effect on the mental health and quality of life of adolescents and young adults. A few studies have shown that there is a strong relationship between the use of specific cognitive strategies and psychological pathology. In general, there is evidence to suggest that cognitive emotion regulation strategies can be targeted in the treatment of symptoms of psychopathology [10]. When the person faced with an emotional situation, feeling good and optimistic is not enough to control emotion, but he needs to have the best cognitive function in these situations. People use a variety of strategies in the face of stressful situations. Cognitive emotion regulation strategies are actions that indicate ways in which a person copes with stressful situations or unfortunate events [11]. These strategies include rumination, self-blame, blaming others, catastrophic perception and positive refocus, positive reassessment, acceptance, refocus on planning, and perspective development [12]. Strategies fall into two categories: positive strategies (positive refocus, positive reassessment, acceptance, refocus on planning and vision development) and negative strategies (self-blame, blaming others, catastrophic perception, and rumination) Have divided. Emotional responses provide important information about one's experience with others. With this information, people learn how to deal with emotions, what strategies to use in response to emotions, and how to treat others in the context of specific emotions. Therefore, when people have the necessary skills to regulate emotion, they appear with more self-esteem in social interactions, and increasing the frequency of positive emotional experiences leads to effective meditation with stressful situations and even appropriate behaviors and activities. In response to social situations, as a result, we will see fewer behavioral problems, including aggression [13]. Research has shown that positive cognitive emotion regulation strategies are positively related to marketing, psychological health, life satisfaction, positive emotions, psychological, emotional, social, and academic well-being of adolescents. A few studies have shown that there is a strong relationship between the use of specific cognitive strategies and psychological pathology. Children and adolescents with severe emotional and behavioral dysfunction including mood instability, severe irritability, aggression, explosive mood, and hyperexcitability have become a diagnostic challenge in the last two decades in a study entitled "Study of the relationship between cognitive regulation of emotion and aggression in first grade female students of Rezvanshahr High School" with the aim of investigating the relationship between cognitive regulation of emotion and aggression in students showed a positive relationship There is an excitement between cognitive regulation and aggression [14,15]. Their research

showed that emotion regulation significantly reduced aggression in adolescent girls [16]. Found in their studies that emotion regulation strategies have a positive relationship with reducing negative emotions and managing emotion and mental well-being. And cognitive emotion regulation strategies that are less adaptive, such as self-blame, catastrophizing, and focusing on thinking, are significantly associated with manifestations of negative emotions such as stress, anger, depression, and anxiety.

It is also a psychological trait associated with perfectionist aggression. Perfectionism is often considered as a feature or attribute that has a multidimensional structure and can play an effective role in adaptive or maladaptive behaviors. Perfectionism as a personality trait is a multidimensional structure that is defined by very high criteria for performance and evaluative concerns about the individual and social consequences of not achieving these high standards [17]. Perfectionism includes two dimensions, the adaptive dimension such as, individual standards that are related to healthy functioning and life satisfaction, and the incompatible dimension, perfectionist assessments that are associated with negative consequences such as anxiety, depression and anger [18]. Extreme perfectionist concerns can also make people vulnerable through social situations, social cognitions, and dysfunctional coping strategies [19]. On the other hand, there is evidence that striving for high standards when it is realistic can correlate positively with achievement goals and negatively correlate with negative emotions [20]. Thus perfectionism is a multidimensional structure that includes both intrapersonal and interpersonal attributes and other components. The adjectives of perfectionism, as Identity and Felt and Hewit and flett conceptualized, were self-centered perfectionism (obliging oneself to be perfect), other-centered perfectionism (requiring others to be perfect), and community-based perfectionism (perceiving this).

That others expect them to be perfect). Community-based perfectionism has been recognized as a risk factor for a wide range of psychological pathologies, including depression, anxiety disorders, eating disorders, and suicidal behavior. Self-centered and other-centered perfectionism has also been associated with depression, developmental stress, and suicidal behavior [21,22]. Found that those with negative and maladaptive perfectionism face more rumination in the face of adversity. In this regard, it seems that abnormal perfectionists, since they fail to achieve their goals, and one of the most common reactions to these failures is aggression. Among these, perfectionism is one of the variables affecting health and disease, and research on perfectionism with mental health has a long history, and numerous studies have confirmed this relationship [23,24]. A study conducted among adolescents to examine the relationship between perfectionism and aggression showed that having high standards and extreme perfectionism can be a positive predictor of aggression [25]. Reported that negative emotion correlated with perfectionism, high maladaptive and low adaptive cognitive emotional regulation, and high emotional turmoil and low coping, which may increase a person's vulnerability to harm. Increase psychology. Low perfectionism, high adaptive cognitive emotion regulation, and

perceived coping are associated with positive emotion and may play a protective role [26]. Stated that people who are unable to effectively manage their emotional responses to life events experience more intense and prolonged periods of illness that lead to anxiety and they lead to aggression. Meanwhile, people who are capable of regulating emotion seem to have more ability to face life challenges, they also have more mental health and will engage in less aggressive behaviors.

In fact, emotion regulation training means reducing and controlling negative emotions and how to use them positively [27]. Research also shows that emotion regulation training can increase socio-emotional skills, adjustment and social adequacy, reduce aggression and reinforce extra-social behaviors and affect the quality of social relationships [28]. These interventions have been empirically validated and include designing purposeful activities to increase the amount of emotions and positive experiences and helping to facilitate actions and ideas that lead to individuals' prosperity and growth [29]. It seems that these trainings, because they provide people with a set of strategies to control behavior during unpleasant emotional experiences, are likely to increase people's ability to adjust adaptive emotions and significantly reduce aggressive behaviors. Given the above, the identification of cognitive and psychological deficiencies, including deficiencies in inhibition, decision-making and bias, leads to the emergence of cognitive therapies to improve many disorders. Thus, cognitive emotion regulation therapies have moved toward cognitive approaches with the goal of greater effectiveness [30]. Therefore, it seems that the use of adaptive strategies in the cognitive regulation of emotion can overcome emotional problems. On the other hand, because people with clinical perfectionism evaluate their performance in a biased way and are biased through the use of cognitive errors, including selective attention to failure and lack of attention to success, and this bias in information processing. It helps maintain a vicious cycle of incorrect perfectionism, and since research has not yet examined the effects of cognitive emotion regulation and perfectionism on aggression in the female adolescent population at the same time, interventions need to be made. Therefore, in this study, we sought to teach whether cognitive emotion regulation strategies and perfectionism reduce aggression in adolescent girls?

MATERIALS AND METHODS

This study was a quasi-experimental study with a pretest-posttest design and one-month follow-up with a control group. The statistical population of the study included students studying in the second grade of public high school in Tehran at Nedaye Hagh School in District 18 in 1398, who had a high level of aggression. First, an aggression questionnaire was administered to all students of the school in the community, and after analyzing the preliminary data, 55 students were identified as aggressive due to their high aggression score. Among these students, 24 students completed the aggression questionnaire after the intervention and one month after it as a follow-up, according to before and after the intervention, together with the control

group. During the training, 3 members of the experimental group refused to continue cooperating and participating in the class. For this reason, in order to increase the power of the statistical test commensurate with the Z score, obtained from the aggression scores in the screening stage of the participants, three people in the control group who had a similar score in terms of pre-test score were identified and eliminated. Thus, there were 9 participants in each experimental and control group, and the participants in the experimental group (unlike the control group) were trained in cognitive emotion regulation and perfectionism. Inclusion criteria included studying in the second grade of high school, under the supervision of both parents during childhood and adolescence participants' satisfaction and their aggression Z scores were higher than the average by 1.5 points. Exit criteria included no entry criteria.

Participants

The mean and standard deviation of the mean of the participants in the experimental group were (M=6.60; SD=2.10) respectively, and in the control, group were (M=16.58; SD=1.83). The father's job was Four participants in each government group and the father's job was 5 freelancers, the mother of Eight participants in the experimental group and the mother of all Nine participants in the control group were housewives. The level of education of the father was Five of the participants in the experimental group and Four of the control group was under diploma and the level of education of the father was Two of the participants in the experimental group and Three of the control group was the diploma. In each group, the level of education of the father was one of the undergraduate participants and the father was one of the experimental groups of the master and one of the control groups was an associate. The level of education of the mother of six participants in the experimental group and four members of the control group under diploma, the mother of two participants of the experimental group and four members of the control group of diploma and in each group the level of education of the mother was one of the associate participants.

Instrument

Aggression questionnaire: Developed and standardized by [31]. It has 29 phrases and 5 subscales. Behavioral-active-hostile-instrumental subscale, Emotional-reactivehostile subscale, Behavioral-passive-verbal subscale, Behavioral-passive-nonverbal subscale, Cognitivehostile-non-verbal subscale, in any Likert scale The face is not true about me (0), a little (1), Some (2) and More Items (3). To true about me (4) evaluates. The retest coefficient (Pearson) for the aggression questionnaire was 0.95. The total reliability of the test and the reliability of all five factors were also calculated using the internal consistency method, which is as follows. Behavioral-Active-Hostile 0.872, Emotional-ReactiveHostile 0.852, Behavioral-Reactive-Verbal 0.650, Behavioral-Reactive-Non-Verbal 0.534, CognitiveNonverbal-Enemy 0.787, and the whole scale 0.91. To assess the validity of this questionnaire, Cattell Anxiety Tests, Short Form of Social Problem-Solving Skills (Adaptive and Incompatible Problem

Solving) and Scl90 Aggression Subtest were used. And the correlation of the total score of this questionnaire with Cattell Anxiety Test, and inconsistent social problem solving was positive and significant and with social problem solving was negative and significant. Also, the internal consistency of this questionnaire in the present study was 0.87 for the whole test and equal to 0.727, 0.648, 0.703 and 0.667 for the mentioned components, respectively. Combined covariance (intragroup-intragroup) analysis was used to analyze the data.

Execution method

Subjects in the experimental group, during a 90-minute session twice a week under the training of cognitive emotion regulation and perfectionism skills as a group based on 9 components in the Garnsfeky and Craig, questionnaire and the book Overcoming Perfectionism, using the method Cognitive-Behavioral Theories by Rose Shaffran and Sarah Egan Tracy Wade; Translated by Kamali and Idrisi. During this period, the control group did not receive any intervention. In Table 1, the training package used is summarized.

RESULTS

Table 2 information. In addition to the average and standard deviation, the above table shows the Shapiro-Wilk index of aggression dimensions for the two experimental and control groups in three stages: pre-test, post-test, and follow-up. As Table 2 shows, the values of Shapiro-Wilk index of any of the groups in any of the pre-test, post-test and follow-up stages are not significant at the level of 0.05, this indicates that The distribution of data related to all five components of aggression in the experimental and control groups is normal. To evaluate the levels of dependent variables (aggression components) in the pre-test stage, the experimental and control groups were compared using multivariate analysis of variance. Statistical index “M. “Box” was equal to 36.069 which was insignificant at the level of 0.05 (P=0.076, F=1.568). This suggests that the observed covariance matrices of statistically dependent variables are homogeneous in the groups. Also, the result of Bartlett sphericity test with 14 degrees of freedom was obtained at a significance level of 0.01 equal to 32.213. This result shows that there is an acceptable level of correlation between dependent variables and therefore MANOVA was a good way to compare the components of aggression in the five research groups.

The results of analysis of variance showed that the value of F (Wilkes Lambda=0.696, 2 partial h=0.305, P<0.05, F=1.053 (12 and 5)) was not significant at the level of 0.01. Based on this, it is concluded that the components of aggression in the pre-test stage between the two the experimental and control groups were not significantly different and the hypothesis of independence of the pre-test variable from the group membership variable is assumed among the data of the present study.

Consistent with the results of Table 3, the use of Mussel test showed that the sphericity hypothesis in two components of emotional-reactive-hostile (p<0.01, 2c (12.846 (2)) and behavioralpassive-verbal (p<0.05, 572/6=(2) 2c) No aggression. For this reason, the degree of freedom was modified using the Greenhouse-Geisser estimation method.

Based on the results of the above table, the interactive effect of conditions × time on the behavioralactive-hostile-aggression component is significant at the level of 0.01 (2=0.718, P<0.01, F=40.736). Looking at the diagram in Figure 1 (Part A) shows that the mean of the adjusted scores of the behavioral-active-hostile-instrumental component of aggression, in contrast to the control group in the experimental group, decreased significantly in the post-test phase and after One month in the follow-up phase, this average has not changed significantly. This suggests that the effect of cognitive emotion regulation skills and perfectionism training on reducing aggression is lasting over time. In confirmation of this, the use of one-way repeated measures analysis test showed that in the experimental group, the mean scores of the behavioral-active-hostile-aggression component in the three stages of pre-test, posttest and follow-up are significant (2=0.897), 01/0 P, 587/69=(164/1) F). Mean scores of behavioralactive-hostile-aggression component in the post-test stage compared to the pre-test stage (p 0.01, x=14.778, SE=1.801) and in the follow-up stage compared to The pretest (p<0.01, x== 14.889, SE=1.654) was significantly lower (at the level of 0.01). In contrast, no significant difference was observed between the mean of follow-up stage and post-test stage at the level of 0.05 (p<0.05, x=0.111, SE=0.588). It should be noted that previously the use of Mussel test showed that the assumption of sphericity in the behavioral-active-hostile-aggression component was not established (p<0.05, mauchly w=0.282, 8.870 (2)) 2c) Therefore, the degree of freedom was modified using the Greenhouse-Geiser estimation method.

Table 1: Summary of Garn sky’s cognitive emotion regulation skills training.

Meeting	Content meetings
1. First, introduce and familiarize the group members, establish a positive, friendly and strong relationship between the participants and the group training. Also create a positive perception of group membership in the participants by presenting the logic of the training sessions and reviewing the quality of the sessions, evaluating, training, presenting and agreeing on the goals of the training sessions in the context of reducing aggression, a list of situations that lead to conflict, discussion or Situations that in many cases led to their madness, which eventually led to the loss of their friends as homework.	1. Brief review of moods, passing the last session of reviewing assignments, discussing the issues raised in the instructions and awareness of emotions and types of emotions, their physiological symptoms with various examples, training in emotion regulation in communication, discussion and Group discussion in this field in order to understand different examples. Then present homework.

- | | |
|---|--|
| <p>2. A brief review of moods, creating opportunities to practice previously learned skills and progress training in previous sessions, reviewing assignments, continuing the second session and knowing the types of positive emotion regulation strategies, teaching them in communication with different examples, and After completing the Positive Emotion Strategy training, opportunities were created for participants to apply the skills learned, and create role-playing scenes, followed by homework.</p> | <p>2. In this session, as in the previous session, the participants 'mood was examined, and the lessons learned in the previous session were reviewed and the participants' questions were answered, and homework was reviewed. And then awareness of the types of negative emotion regulation strategies, training them in communication, group discussion in this field to understand different examples. Then present homework.</p> |
| <p>3. In this session, the mood of the participants was first examined, and the lessons learned from the previous session were reviewed and the participants' questions were answered. Then, the assignments of the participants were reviewed, discussed, and exchanged one by one. It should be noted that each of the participants was also consulted and asked to provide feedback, and with the help of each other, we provided more examples that cover all the previous 4 sessions. Then they were taught the skills of assertiveness and courage and their training in communication with various examples and summarizing the items of cognitive emotion regulation learned, and finally presented homework.</p> | <p>3. In this session, the mood of the participants was first examined, and the lessons learned from the previous session and the assignments of the participants were examined. The program instructor then defined personality, personality traits, as well as conceptualizing perfectionism. He then taught the effects of personality and personality traits on behavior and its possible consequences along with various examples. Understand the different examples, the participants played a role in this field, and finally presented homework</p> |
| <p>4. In this session, the mood of the participants was first examined, and the lessons learned from the previous session and the assignments of the participants were examined. The program instructor then taught to identify the problem areas of high perfectionism as well as the effects of problem areas of high perfectionism and their possible consequences on the lives of people with different examples in this field. Participants were then asked to fill in a table showing areas of high perfectionism to better understand what was being taught. The meeting also explained 9 common phrases that clear the truth from fantasy and reduce extremist perfectionism. And finally, homework</p> | <p>4. In this session, the mood of the participants was first examined, and the lessons learned from the previous session and the assignments of the participants were examined. The instructor then taught changing cognitive errors and their types, and the consequences of changing cognitive errors in people's daily lives. The instructor also provided participants with various examples of some of the cognitive errors in extreme perfectionists and how these cognitive errors affect the feelings and behaviors of these individuals. And finally, homework.</p> |
| <p>5. In this session, the mood of the participants was first examined, and the lessons learned from the previous session and the assignments of the participants were examined. The program instructor then taught how we can increase the self-critical voice in extreme perfectionists and increase the compassionate voice, and then the effects of the self-critical voice on the lives of extreme perfectionists and the consequences of having a compassionate voice. Explain the lives of these people by giving various examples to better understand. And finally, homework.</p> | <p>5. In this session, the mood of the participants was first examined, and the lessons learned from the previous session and the assignments of the participants were examined. The program instructor then taught us how to exercise flexibility about goals and achieve freedom and freedom from the shackles of life. During this session, the instructor summarizes how perfectionist efforts will lead to inflexibility and self-criticism, as well as reduced success and ultimately lead to fatigue, frustration, and damage to self-esteem. The payment. In this regard, to better understand, he provides various examples. And finally run the post-test.</p> |

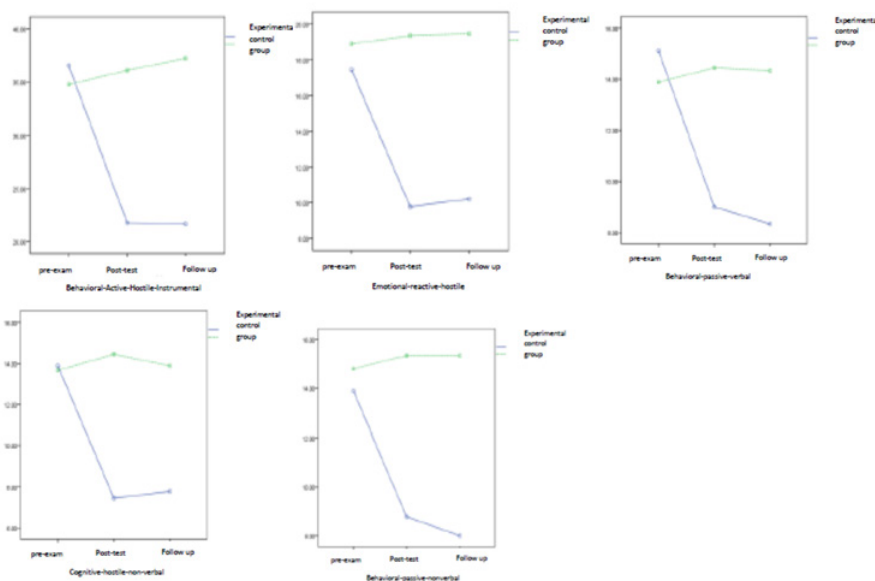


Figure 1 (1A-1E): Diagrams of the interaction between time and situation by aggression components.

Table 2: Average, standard deviation and Shapiro-Wilk index dimensions of aggression in experimental and control groups in three stages: Pre-test, posttest, and follow-up.

Time			Statistical index	Selective focus and attention
Follow up: Post-test pre-exam	Follow up: Post-test pre-exam	Follow up: Post-test pre-exam		
21/66	21/77	36/55	M	Examination group Behavioral-active-hostile-instrumental
5/049	6/30	5/38	S	
0/893 (NS)	0/929 (NS)	0/901 (NS)	ShapiroWilk	
37/72	36/11	34/77	M	
3/07	3/72	4/26	S	
0/946 (NS)	0/965 (NS)	0/907 (NS)	Shapiro Wilk	
10/22	9/77	17/44	M	Examination group Emotional-reactive-hostile
2/53	3/19	3/64	S	
0/982 (NS)	0/973 (NS)	0/971 (NS)	Shapiro Wilk	
19/45	19/33	18/88	M	
1/94	2/29	2/36	S	
0/838 (NS)	0/906 (NS)	0/922 (NS)	Shapiro Wilk	
8/33	9/00	15/11	M	Examination group Behavioral-passive-verbal
2/12	2/39	2/03	S	
0/929 (NS)	0/909 (NS)	0/948 (NS)	Shapiro Wilk	
14/44	14/44	13/88	M	
1/41	1/23	1/61	S	
0/943 (NS)	0/854 (NS)	0/930 (NS)	Shapiro Wilk	
7/77	7/44	13/89	M	Examination group Behavioral-passive-verbal
1/56	1/50	2/93	S	
0/951 (NS)	0/873 (NS)	0/982 (NS)	Shapiro Wilk	
13/89	14/44	13/66	M	
2/71	2/29	2/00	S	
0/915 (NS)	0/871 (NS)	0/952 (NS)	Shapiro Wilk	
8/00	8/77	13/88	M	Examination group Cognitive-hostile-non-verbal
1/80	2/39	2/84	S	
0/960 (NS)	0/881 (NS)	0/915 (NS)	Shapiro Wilk	
15/33	15/33	14/77	M	
1/65	2/34	1/79	S	
0/910 (NS)	0/919 (NS)	0/915 (NS)	Shapiro Wilk	

Table 3: Mussel sphericity test in the covariance error matrix parity test in selective focus and attention dimensions.

ϵ	Significance level	Degrees of Freedom	0/919 (NS)	Muscle Index	Variable
-	0/153	2	3/775	0/779	Behavioral-active-hostileinstrumental
0/635	0/002	2	/846 12	0/425	Emotional-reactive-hostile
0/738	0/037	2	6/572	0/645	Behavioral-passive-verbal
-	0/420	2	1/737	0/891	Behavioral-passive-nonverbal
-	0/207	2	3/154	0/810	Cognitive-hostile-non-verbal

According to the results of Table 4, the interactive effect of time × conditions on the emotional-reactive-hostile component of aggression is significant at the level of 0.01 (2=0.655, P<0.01, F=30.4 (1.272) F). Looking at the diagram in Figure 1 (Part B) shows that the mean of the adjusted scores of the emotional-reactive-hostile component of aggression, in contrast to the control group in the experimental group, decreased significantly in the post-test phase and after one month in the phase. The follow-up of this average has not changed significantly. This indicates that the effect of education is lasting over time. In confirmation of this, the use of one-way repeated measures analysis test showed that in the experimental group, the mean scores of the emotional-reactive-hostile component Aggression is significant in three stages of pre-test, post-test and follow-up (2=0.843, P<0.01, F=072.72 (1.140)). Mean scores of emotional-reactive-hostile component of aggression in the post-test stage compared to the pre-test stage (p<0.01, \bar{x} = 7.667, SE=1.093) and in the follow-up stage compared to the pre-test (01 P<0.02, Δx 2=7.222, SE=1.128) was significantly lower (at the level of 0.01). In contrast, there was no significant difference between the mean of follow-up and post-test at the level of 0.05 (p<0.05, \bar{x} =-0.444, SE=0.338). It should be noted that before that, the use of Mussel test showed that the sphericity hypothesis was not established in the two components of emotional-reactive-hostile aggression (p<0.05, mauchly w=0.245, (2c (9) 893)). The degree of freedom was modified using the Greenhouse-Geiser estimation method.

According to the results of Table 4, the interactive effect of time × conditions on the behavioral-passive-verbal component of aggression is significant at the level of 0.01 (= η^2 =0.869, P<0.01, F=1.081 (1.476)). Looking at the diagram in Figure 1 (Part C)

shows that the mean scores of the modulated behavioral-passive-verbal component of aggression, in contrast to the control group in the experimental group in the post-test phase decreased significantly and after one month in the phase Tracking this average continues to decline. This indicates that the effect of education is lasting over time. In confirmation of this, the use of one-way repeated measures analysis test showed that in the experimental group, the mean scores of the behavioral-passive-verbal component of aggression in the three stages of pre-test, post-test and follow-up were significant at the level of 0.01 (= η^2 =0.966). 2 η^2 , P<01/01, 966/227=(246/1) F). Mean scores of behavioral-passive-verbal component of aggression in the post-test stage compared to the pre-test stage (p<0.01, \bar{x} = 6.111, SE=0.423) and in the follow-up stage compared to the pretest (01 P<0.05, \bar{x} =6.778, SE=0.401) was significantly lower, also the mean follow-up stage was significantly lower at the 0.05 level than the post-test stage (05/0>p, 667/0= $\Delta \bar{x}$, 167/0=SE). It should be noted that before using the mouse test showed that the sphericity hypothesis was not established in the two components of behavior-active-hostile-aggressive tool (p<0.05, mauchly w=0.395, 6.508 (2). 2c) Therefore, the degree of freedom was modified using the Greenhouse-Geiser estimation method.

According to the results of Table 4, the interactive effect of time × conditions on the cognitive-hostile-non-verbal component of aggression is also significant at the level of 0.01 (= η^2 =0.668, P<0.01, F=2.247 (2) F). Looking at the diagram in Figure 1 (Part D) shows that the mean of the adjusted scores of the cognitive-hostile-nonverbal component of aggression, in contrast to the control group in the experimental group, decreased significantly in the post-test phase and after one month in the phase.

Table 4: Significance of the interactive effect of conditions × time for each of the components of aggression.

Partial η^2	Significance level	F	Average error suares	Degrees of freedom	Average suares group	Dependent variable
0/718	0/001	40/736	10/338	2	/130	0/207
421	Behavioral-active-hostile instrument	0/207	0/207	0/207	0/207	0/207
0/655	0/001	30/425	4/908	1/270	149/332	
0/869	0/001	106/081	0/928	1/476	98/472	Behavioral-passive-verbal
0/676	0/001	33/428	2/088	2	69/796	Behavioral-passive-nonverbal
0/668	0/001	32/247	1/727	2	/685	0/207
55	Cognitive-hostile-non-verbal	0/207	0/207	0/207	0/207	0/207

The follow-up of this average has not changed significantly. This indicates that the effect of education is lasting over time. Use size analysis test to confirm this Repeated one-way analysis showed that in the experimental group, the mean scores of cognitive-hostile-nonverbal aggression in the three stages of pre-test, post-test and follow-up were significant at the level of 0.01 ($F=0.864$, $P<0.01$, $626/50=(2) F$). Mean scores of cognitive-hostile-nonverbal aggression in the post-test stage compared to the pretest stage ($p<0.01$, $\bar{x}=5.111$, $SE=0.772$) and in the follow-up stage compared to the pre-test ($01 P<0.05$, $\Delta x=5.889$, $SE=0.716$) was significantly lower. In contrast, there was no significant difference between the mean of follow-up and post-test at the level of 0.05 ($p<0.05$, $\bar{x}=0.778$, $SE=0.324$). It should be noted that before that, the use of Mussel test showed that the sphericity hypothesis was established in two cognitive-hostile-non-verbal components of aggression ($p<0.05$, $mauchly w=0.438$, $2c (5.56 (786))$).

According to the results of Table 4, the interactive effect of time \times conditions on the behavioral-passive-nonverbal component of aggression is also significant at the level of 0.01 ($F=0.676$, $P<0.01$, $F=42.338 (2) F$). Looking at the diagram in Figure 1 (Part E) shows that the mean scores of the modulated behavioral-passive-nonverbal component of aggression, in contrast to the control group in the experimental group in the post-test phase decreased significantly and after one month in the follow-up phase. This average has not changed significantly. This indicates that the effect of education is lasting over time. In confirmation of this, the use of one-way repeated measures analysis test showed that in the experimental group, the mean scores of behavioral-passive-nonverbal component of aggression in three stages of pre-test, post-test and follow-up were significant at the level of 0.01 ($F=0.869$), 2η , $P<0.01$, $095/53=(172/1) F$). Mean scores of behavioral-passive-non-verbal component of aggression in the post-test stage compared to the pre-test stage ($p<0.01$, $\bar{x}=6.444$, $SE=0.868$) and in the follow-up stage compared to the pre-test ($01 P<0.03$ ($\bar{x}=6.111$, $SE=0.807$) was significantly lower. Also, the mean of follow-up stage was significantly lower at the 0.05 level than the post-test stage ($p<0.05$, $\bar{x}=0.289$, $SE=0.333$). It should be noted that before that, the use of Mussel test showed that the assumption of sphericity was not established in two behavioral-passive-non-verbal components of aggression ($p<0.05$, $mauchly w=0.294$, $2c (8.54) (2c)$). The degree of freedom was modified using the Greenhouse-Geiser estimation method.

In general, based on the results of the hypothesis test, it was observed that training in emotional regulation skills and perfectionism reduced the scores of aggression components and this decrease in aggression scores is permanent over time (one month).

DISCUSSION

In this study, we found that training in cognitive emotion regulation and perfectionism skills reduced the scores of aggression components and this decrease in aggression scores is permanent over time (one month). These results are in line with

the results of is in agreement with the results of that teaching cognitive emotion regulation skills increases social skills, which in turn will reduce aggression; also with the result of agree that the more extreme perfectionism individuals have, the more aggressive their behavior is. This shows the need for education to moderate extremist perfectionism to reduce aggression [24,32].

Explaining these findings in relation to emotion regulation skills training, it can be said that emotion regulation is a process through which a person manages his physiological arousals, feelings, and behaviors to achieve his goals, or positional demands. To achieve. Emotional regulation is considered as one of the most important steps in early life that a child must learn for successful emotional social development. Emotionally well-regulated individuals respond flexibly to different experiences and are not uncontrolled or highly controlled [33]. Research has shown that emotion regulation through cognition and thought is inextricably linked to human life and helps people control their emotions during or after experiencing threatening and anxious events. Have control [34]. It seems that people who have difficulty regulating and accepting emotions are more likely to engage in aggressive behaviors. On the other hand, the ability of people to regulate emotion makes it easier for them to face the challenges of life, and they engage in less aggressive and aggressive behaviors, and they have more mental health. Therefore, if aggression training is given to aggressive people, they can better manage their aggressive behaviors using the skills and techniques learned when experiencing negative emotions and improve performance. It becomes their communication, social and behavioral. Positive emotion regulation strategies, in turn, lead to the analysis of events and situations and possibly increase problem solving in individuals. Increasing the ability of positive cognitive regulation of emotions in the face of environmental conditions and gaining control over the environment in adolescents in the long run increases their ability during the critical period of adolescence and effective coping and ultimately reduces negative emotions such as aggression. Regarding perfectionism education use the terms clinical perfectionism to describe people with pathological perfectionism. They define the core of perfectionism as the pathological fear of failure and the stubborn pursuit of success [35]. It seems that Perception of failure leads to self-criticism, and such an approach can lead to the strengthening of negative attitudes about one self-based on the extent to which standards are met. People's self-esteem based on success in achieving individual criteria causes them to set higher standards for themselves, and this is the beginning of a series of continuations of perfectionism. After setting high standards, people usually operate them as an absolute rule and evaluate their performance as completely good or completely bad, and when they do not follow these rules and negatively evaluate the performance. They feel very guilty. Regarding non-achievement of standards, they showed that people with clinical perfectionism evaluate their performance in a biased manner. They are biased by cognitive errors, including selective attention to failure and lack of attention to success. This bias in information processing not only helps maintain the

vicious cycle of perfectionism, but also increases the likelihood of people failing to meet their standards by focusing on mistakes and ignoring successful situations. When perfectionists reach their standards, the standards are re-evaluated because they seem inadequate and therefore readjusted to higher levels, thus increasing the likelihood of failure and self-criticism [35]. In the research literature, most researchers have referred to the types of perfectionism as well as adaptive and incompatible perfectionism. In summary, the results of the present study in line with previous research showed that increasing the dimensions of positive and adaptive perfectionism and reducing clinical perfectionism means reducing perfectionist concerns and increasing realistic individual standards to adolescents in positive emotion regulation. It will also help to regulate negative emotions such as anger and its outward manifestations such as aggression. Therefore, it seems that adaptive perfectionism training will increase social skills, emotions, and social adjustment in times of failure and will lead to a decrease in aggression and an increase in societal behaviors [36,37].

CONCLUSION

In this study, high school adolescent girls were taught positive cognitive emotion regulation strategies such as acceptance, positive attention, re-attention to planning, positive reassessment, adopting perspectives instead of using negative cognitive emotion regulation strategies that include blaming themselves and others, catastrophizing, Was a mental rumination, and through these trainings, these adolescents were able to recognize the eventual process of negative emotions when they occur and then be able to control and manage negative emotions. In fact, by teaching the techniques of applying positive cognitive emotion regulation strategies, we were able to help improve the behavioral and social conditions of aggressive adolescents. This educational process enabled these adolescents to react logically and appropriately when dealing with life's problems and issues through the management of psychological stress, which increases resilience. Thus managing or regulating emotions helps the person; Have the ability to adapt more, especially after a negative emotional experience, and by using the right

Ways to control anger, gain courage, and improve problem-solving ability, they can focus on positive planning for resolving difficult situations and ending them. Unpleasant and negative emotions help, and this reduces aggression. On the other hand, people with extreme perfectionism have a great thirst for perfection and perfection, and in this regard, the approval of others is very important to them, and when they do not meet their predetermined and strict standards, and a relatively high fear of Negatively evaluated by others, they seem to have a mental rumination and react with conditions such as anxiety, anger and aggression. These people are more focused on their own worries when faced with a task due to the high mental occupation of doing everything perfectly and flawlessly, and this provides the ground for reducing their cognitive resources. Thus, by training adaptive perfectionism, we can prepare people with extreme

perfectionism to accept personal limitations and flexibility so that one can enjoy one's efforts and feel satisfied with one's personal performance, which in turn reduces destructive behaviors, including aggression.

LIMITATIONS OF STUDY

Among the limitations of the present study, due to the homosexuality of the subjects in the generalization of its findings to the community of boys and other cultures, caution should be observed. It is suggested that in future research, cognitive emotion regulation and perfectionism training be performed on adolescent boys in other geographical areas and different cultures to reduce vulnerability. Also use other tools such as structured interviews to gather information.

REFERENCES

- Weintraub MLR, Fernald LCH, Adler N, Bertozzi S, Leonard Syme S. Perceptions of social mobility: Development of a new psychosocial indicator associated with adolescent risk behaviors. *Front Public Health*. 2015;3: 62.
- Evans SC, Blossom JB, Canter KS, Poppert-Cordts K, Kanine R, Garcia A et al. Self-reported emotion reactivity among early-adolescent girls: Evidence for convergent and discriminant validity in an urban community sample. *Behav Ther*. 2016;47(3): 299-311.
- Hoogsteder LM, Stams GJM, Figge MA, Changoe K, Van Horn JE, Henriks J et al. A meta-analysis of the effectiveness of individually oriented cognitive behavioral treatment (CBT) for severe aggressive behavior in adolescents. *J Foren Psych Psychol*. 2015;26(1): 22-37.
- Deffenbacher JL. Cognitive-behavioral conceptualization and treatment of anger. *J Clin Psychol*. 2011;18(2): 212-221.
- Riese A, Mello MJ, Baird J, Steele DW, Ranney ML. Prompting discussions of youth violence using electronic previsit questionnaires in primary care: A cluster randomized trial. *Acad Pediatr*. 2015;15(3): 345-352.
- Ojanen TT, Boonmongkon P, Samakkeekarom R, Samoh N, Cholratana M, Guadamuz TE. Connections between online harassment and offline violence among youth in central Thailand. *Child Abuse Neg*. 2015;44: 159-169.
- Young KS, Sandman CF, Craske MG. Positive and negative emotion regulation in adolescence: Links to anxiety and depression. *Brain Sci*. 2019;9(4): 76.
- Huh HJ, Kim KH, Lee HK, Chae JH. The relationship between childhood trauma and the severity of adulthood depression and anxiety symptoms in a clinical sample: The mediating role of cognitive emotion regulation strategies. *J Affect Disord*. 2017;213(1):44-50.
- Patthoff S, Garnefski N, Miklósi M, Ubbiali A, Domínguez-Sánchez F J, Martins EC et al. Cognitive emotion regulation and psychopathology across cultures: A comparison between six European countries. *Personality and Individual Differences*. 2016;98: 218-224.
- Izadpanah Sh, Schumacher M, Arens EA, Stopsack M, Ulrich I, Hansenne M. et al. Adolescent harm avoidance as a longitudinal predictor of maladaptive cognitive emotion regulation in adulthood: The mediating role of inhibitory control. *J Adolesc*. 2016; 52: 49-59.

11. Garnefski N, Koopman H, Kraaij V, Cate RT. Brief report: Cognitive emotion regulation strategies and psychological adjustment in adolescents with a chronic disease. *J Adolesc.* 2009;32(2): 449-454.
12. Garnefski N, Kraaij V, Spinhoven P. Negative life events, cognitive emotion regulation and emotional problems. *Person Ind Diff.* 2001;30(8):1311-1327.
13. Verzeletti C, Zammuner VL, Galli C, Agnoli S. Emotion regulation strategies and psychosocial well-being in adolescence. *Cog Psychol.* 2016;3 (1): 1-15.
14. Azarian A, Farokhzadian A A, Motaghi Z. A study of the relationship between cognitive regulation of emotions and aggression in the female students of the first grade of high school in Rezvanshahr. *Int J Human Cul Sta.* 2016.
15. Esmaili L, Aghaei A, Abedi MR, Esmaili M, Aghaei M. The efficacy of emotional regulation on the aggression of epileptic girls, (14-18) in Isfahan. *Proc Soc Behav Sci.* 2012;46: 2183-2187.
16. Martini TS, Busseri MA. Emotion regulation strategies and goals as predictors of older mothers' and adult daughters' helping-related subjective well-being. *Psychol Aging.* 2010;25(1): 48-59.
17. Stoeber J, Mutinelli S, Corr PJ. Perfectionism in students and positive career planning attitudes. *Person Ind Diff.* 2016;97: 256-259.
18. Park HJ, Jeong DY. Psychological well-being, life satisfaction, and self-esteem among adaptive perfectionists, maladaptive perfectionists, and non-perfectionists. *Person Ind Diff.* 2015;72, 165-170.
19. Beks V, Dunkley D, Taylor G, Zuroff D, Lewkowski M, foley J et al. Chronic stress and attenuated improvement in depression over 1 year: The moderating role of perfectionism. *Behav Ther.* 2015; 46(4): 478-492.
20. Marten M, Smith-simon B, Sherry- katerina R, Donald H, Saklofske-Murray E, Tara G. Are perfectionism dimensions vulnerability factors for depressive symptoms after controlling for neuroticism? A meta-analysis of 10 longitudinal studies. *Euro J Person.* 2016;30(2): 201-212.
21. Chen C, Hewitt PL, Flett GL. Ethnic variations in other-oriented perfectionism's associations with depression and suicide behavior. *Person Ind Diff.* 2017;104: 504-509.
22. Schiena RD, Luminet O, Philippot O, Douiliez C. Adaptive and maladaptive perfectionism in depression: Preliminary evidence on the role of adaptive and maladaptive rumination. *Person Ind Diff.* 2012;53(6): 774-778.
23. Chang, Y. The relationship between maladaptive perfectionism with burnout: Testing mediating effect of emotion-focused coping. *Pers Ind Diff.* 2012;53(5): 635-639.
24. Ongwn DE. The relationships between perfectionism and aggression among adolescents. *Proc Soc Behav Sci.* 2009;1(1),1073-1077.
25. Juliana C, Soares MJ, Pereira AT, Macedo M. Perfectionism, cognitive emotion regulation and perceived distress/coping. *European Psychiatry.* 2016;33.
26. Aldao A, Nolen HS, Schweizer S. Emotional regulation strategies across psychopathology: A meta-analytic review. *Clin Psychol Rev.* 2010;30(2): 217-237.
27. Arabatzoudis T, Rehm IC, Nedeljkovic M, Moulding R. Emotion regulation in individuals with and without trichotillomania. *Journal of Obsessive-Compulsive and Related Disorders.* 2017;12(3): 87-94.
28. Mu GM, Hu Y, Wang Y. Building resilience of students with disabilities in China: The role of inclusive education teachers. *Teaching Teach Edu.* 2017;67(3): 125-134.
29. Lambert L, Passmore HA, Joshanloo M. A Positive Psychology intervention program in a culturally- diverse university: Boosting happiness and reducing fear. *J Happin Stud.* 2018;20(4): 1141-1162.
30. Reinholdt-Dunne ML, Mogg K, Bradley BP. Attention control: Relationships between self-report and behavioral measures, and symptoms of anxiety and depression. *Cogn Emot.* 2013;27(3): 430-440.
31. Kamali Igoli S, Abolmaali Alhosseini KH, Hashemian K. Prediction of Aggression adolescent girls base on family communication processes and perfectionism with the mediating role of cognitive emotion regulation in Tehran city. *Quarterly. Journal Psychological Studies.* 2017;13(3): 129-1146.
32. Muratori P, Pisano S, Milone A, Masi G. Is emotional dysregulation a risk indicator for auto-aggression behaviors in adolescents with Oppositional Defiant Disorder? *J Affect Disord.* 2017; 208,15, 110-112.
33. Eisenberg N, Morris AS. Children's emotion-related regulation. In R. V. Kail (Ed.). *Adv Child Dev Behav.* 2002;30: 189-229.
34. Garnefski N, van Den Kommer T, Kraaij V, Teerds J, Legerstee J, Onstein E. The relationship between cognitive emotion regulation strategies and emotional problems: Comparison between a clinical and a non-clinical sample. *Europ J Person.* 2002;16(5): 403-420.
35. Shafran R, Cooper Z, Fairburn CG. Clinical perfectionism: A cognitive behavioral analysis. *Behav Res Ther.* 2002;40(7): 773-791.
36. Holland KM, Vivolo-Kantor AM, Cruz JD, Massetti GM, Mahendra R. A qualitative evaluation of the 2005-2011 National Academic Centers of Excellence in Youth Violence Prevention Program. *Eval Program Plann.* 2015;53: 80-90.
37. Shafran R, Egan S, Wade T. *Overcoming Perfectionism: A self-help guide using scientifically supported cognitive behavioural techniques* Paperback. Tehran Arjmand. 2010.