

## **The Effectiveness of Emotion Regulation Skills Training on Aggressive Students**

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### **Abstract**

The aim of this study was to investigate the effectiveness of emotion regulation skills training on aggressive students. The method of the present study was a semi-experimental pre-test-post-test design with a control group. The statistical population of the study consisted of grade eighth female students of the first secondary school at Baharestan city in Isfahan province in the academic year 2018-2019 (four schools). To select a sample, the Buss and Perry Aggression Questionnaire were performed on all eighth-grade students of four schools and among the students who scored high in questionnaire, 30 were selected and randomly were placed in the experimental group (n=15) and the control group (n=15). Emotional regulation skills were taught to the experimental group during six sessions, then post-test was performed on the experimental and control groups. Data were analysed by univariate analysis of covariance as statistical method. Findings showed that the research hypothesis on the effectiveness of emotion regulation skills training on aggression of students has been confirmed and the students in the experimental group compared to the students in the control group in post-test were significantly less aggressive ones. Emotional regulation training can help people use helpful strategies instead of aggression when they are irritable and use appropriate coping strategies in situations that trigger aggression. Therefore, it can be concluded that the emotional regulation skills training on aggression of students is effective.

**Keywords:** Emotion regulation, Aggression, Aggressive students

## Introduction

Aggression is a common event in schools that is common among adolescents in high school age. Expressing anger and aggression in any types is one of the common issues in society, especially among adolescents and young people, and this in turn leads to many crimes and conflicts in the school and other places (Hosseini & Khayyer, 2011). Aggression among children and adolescents is a common mental health problem that requires fundamental interventions (Alice, Wise, & Lachman, 2009). There are many evidences that show aggression is an important risk factor for delinquency and conduct disorder (Nygen, Mulder, Ilbeigi et al., 2018). Aggression is a broad, multidimensional concept that encompasses multiple behaviours with different functions and multiple precedents and has been described as behaviour that is intended to cause physical or psychological damage to a person (Blair, 2016). Aggression is generally defined as a behaviour that is addictive and leads to damage (Robertson, 2012). Aggression has received a lot of attention in recent years, both theoretically and clinically, due to its serious individual and social consequences it has (Cloreley et al., 2012). Although aggression cannot be attributed to a specific age or period, nevertheless, the highest incidence and prevalence of aggression can be attributed to adolescence and youth. The prevalence of violence and aggression in Iranian society, especially in recent years, is one of the most serious social ills, and studies conducted in the country indicate increase in the rate of aggression among adolescents and young people by 30 to 50% (Zinat Motlagh et al., 2013).

Various treatments are used to treat aggressive adolescents. These methods include styles based on emotion regulation skills (Defendorf, Richard, & Young, 2008). This educational method includes all conscious and unconscious strategies that are used to increase and maintain positive emotional components and reduce negative components (Gross, 2015). Difficulty regulating emotions is a key feature characterized by a variety of psychological traumas throughout life (Fernandez, Jazayeri, & Gross, 2016). Emotion regulation refers to the ability to understand emotions, modulate emotional experience, and express emotions (Brett, Gross, Christensen, & Benonoto, 2001). Emotion regulation skill means reducing and controlling negative emotions and how to use emotions positively. Various studies have shown that emotional regulation is associated with behavioural problems and teaching this cognitive process leads to improved communication, social and behavioural performance of children and adolescents at different stages of development and socialization (Faramarzi, Afrooz, & Malekpour, 2009). Thus, it can be said that emotion regulation is a key and determining factor in mental well-being and effective functioning (Burt, 2001), which plays a key role in adapting to stressful life events (Garnefsky & Kraij, 2006). Now, if students' strategies for mastering, managing, and regulating emotion are well-learned, many of the consequences of expressing aggression in school can be prevented (Parrott, 1993, cited by Chambers, Gallon, & Allen, 2009). Faraji, Makvandi, Bakhtiyarpour, Eftekhari Saadi and Ehteshamzadeh (2021) in a study entitled "The effectiveness of emotion regulation training program on the development of moral judgment, community behavior and anger

management in students in Ahvaz" concluded that training emotion regulation strategies on growth moral judgment, societal behavior, and anger control are significant among students, and this result was lasting in the follow-up phase. Kazemi, Peyman, Kazemi Rezaei and Salehi (2020) in a study entitled "The effectiveness of emotion regulation training based on dialectical behavior therapy on reducing students 'anxiety and anger'" concluded that emotion regulation training based on dialectical behavior therapy on reducing students' anxiety and anger has been effective; this means that in the post-test, the mean scores of anxiety and anger of students in the experimental group compared to the control group showed a significant decrease. Ahmadi, Sohrabe and Borjali (2018) in a study entitled "The effectiveness of emotion regulation training on re-evaluation and emotional suppression of soldiers with opioid use disorder" showed that emotion regulation training increased re-evaluation and decreased emotional suppression. Cahl, Miller, Lopez, and Hastings (2016) found that emotion regulation reduced anger-related symptoms. The results of studies by Schreiber, Grant, and Odlag (2012) entitled "Emotional and Impulsive Regulation in Young Adults" showed that people with emotional disorders had higher scores on impulsivity, traumatic avoidance, and cognitive reasoning.

According to the above-mentioned and the performed researches, the present study was conducted to investigate the effectiveness of emotion regulation skills training on aggressive students.

## Methods

The present study is applied in terms of purpose and in terms of method; it is a semi-experimental in which a pre-test-time-post-test design with a control group has been used. The statistical population of the study consisted of all eighth grade female students in the first year of high school in Baharestan in the academic year 2018-2019 (four schools). To select the sample, the Buss and Perry Aggression Questionnaire (1992) was administered to all eighth grade students in four schools and among the students who obtained a high score in the Aggression Questionnaire, 30 were randomly selected and were randomly assigned to the experimental group (n=15) and the control group (n=15). Research tools are as follows:

***Buss and Perry Aggression Questionnaire (1992):*** The Buss and Perry Aggression Questionnaire (1992) is a 29-item questionnaire that addresses four aspects of aggression; physical, verbal, anger, and hostility, and measures overall aggression. This questionnaire was developed for adolescents and young people. Of the 29 questions in this questionnaire, 5 are verbal aggression questions that include questions (4, 6, 14, 21, 27), and 9 physical questions include questions (2, 5, 8, 11, 13, 16, 22, 25, 7). 29), 7 anger questions including questions (1, 9, 12, 18, 19, 23, 28) and 8 hostility questions including questions (3, 7, 10, 15, 17, 20, 24, 26) Its content on a five-point Likert scale is quite similar to mine (5) somewhat similar to me (4), not similar to me or not (3) somewhat similar to me (2) and not very similar to me (1) Marked; the minimum score is 29 and the maximum is 145. The two expressions 9 and 16 are scored inversely. This questionnaire measures the degree of aggression with the total score of the questions and the scores of

its subscales show the various manifestations of aggression. The sum of each person's scores gives the sum of his or her overall score, which indicates the level of aggression of the subject. Higher scores indicate more aggression. The Buss and Perry Aggression Questionnaire was extracted from a source of 52 questions, many of which were selected from the list of hostility index using main component analysis and confirmatory factor analysis. This questionnaire has a very high internal consistency. Cronbach's alpha coefficient for the subscales of physical aggression, verbal aggression, anger and hostility are 0.85, 0.72, 0.83, 0.77 and the total alpha coefficient of the questionnaire scores is 0.89. The correlation of the test interval after a 9-week period was 0.80, 0.76, 0.72, 0.72 respectively and 0.80 for the total scores of the questionnaire (Leonard, 2005, cited by Ebadi and Motamedin, 2007). The reliability of this test in the retest between 0.72 to 0.80 and the internal consistency of its four factors with the total score for its validity has been reported between 0.72 to 0.89 (Ganjeh, Dehestani, & Mohammadi, 2013).

**Table 1:** Summary of Emotional Regulation Skills Training Sessions [Adopted](#) from the Gross Model

<b>The first session</b>	To communicate appropriately with the students, explain the rules, present the schedule of the sessions and schedule them, share the goals of the training sessions with all members, express the reason and steps of the intervention.
<b>The second session</b>	Familiarity with emotions and their function in daily life and their naming, information about different dimensions of emotion and the short-term and long-term effects of emotions, the importance of learning emotional regulation skills in everyday life and types of emotions (primary and secondary).
<b>The third session</b>	Self-assessment with the aim of recognizing one's emotional experiences, self-assessment with the aim of identifying the level of emotional vulnerability in the individual, self-assessment with the aim of identifying the individual's regulatory strategies, assessing the level of vulnerability and emotional skills of group members.
<b>The fourth session</b>	Situation correction: making a change in the excitatory situation; Agenda: 1- Preventing social isolation and avoidance, 2- Teaching problem solving strategy, 3- Teaching interpersonal skills (dialogue, assertiveness and conflict resolution).
<b>The fifth session</b>	Attention Development: Attention change skills training; Agenda: 1- Stopping rumination and worry, 2- Attention training.
<b>The sixth session</b>	1- Identify wrong assessment and their effects on emotional states, 2- Teaching re-evaluation strategy.
<b>The seventh session</b>	1- Identifying the extent and manner of using the inhibition strategy and examining its emotional consequences, 2- Exposure, 3- Emotion expression training, 4- Behaviour modification through changing environmental enhancers, 5- Emotional evacuation training, relaxation and reverse action, use Confrontational thoughts.
<b>The eighth session</b>	1- Assessing the achievement of individual and group goals, 2- Applying the learned skills in natural environments outside the session, 3- Examining and removing obstacles to doing homework, 4- Performing post-test

## Results

The frequency, mean, and standard deviation reports were used to analysis the data in the descriptive statistics section and univariate analysis of covariance under the SPSS software was used in the inferential statistics section. Table 2 shows the descriptive statistics of the research.

**Table 2:** Descriptive statistics of aggression of students in pre-test and post-test

Stage	Group	Sample size	Mean	Standard deviation
Pre-test	Experimental	15	83/53	5/38
	Control	15	85/75	6/76
Post-test	Experimental	15	71/13	7/81
	Control	15	84/18	7/67

As can be seen in Table 2, the mean and standard deviation of aggression of students in the experimental group in the pre-test stage were 83.53 and 5.38 and the mean and standard deviation of aggression of students in the control group in the pre-test stage were 85.75 and 6.76. Also, the mean and standard deviation of aggression of students in the experimental group in the post-test stage were 71.13 and 7.81 and the mean and standard deviation of aggression of students in the control group in the post-test stage were 84.18 and 7.67.

Covariance analysis was used to test the hypothesis. In analysis of covariance, it is necessary to observe some assumptions (such as normal data distribution, homogeneity of regression line slope). In this study, these assumptions were first investigated and then since these assumptions (normal distribution of data by Shapiro-Wilk test:  $P > 0.01$ , and homogeneity of regression line slope:  $P > 0.01$ ) were established, covariance analysis was used to compare the mean aggression scores of aggressions of students in the experimental and control groups in the post-test, the results of which are presented in the table 3 below.

**Table 3:** Analysis of covariance to compare the mean scores of aggressions of students among the experimental and control groups

Source	Sum of Squares	df	Mean Squares	F	Sig	Partial Eta Squared
Pre-test	73/38	1	73/38	1/23	0/29	0/04
Group	1251/33	1	1251/33	21/04	0/001	0/43
Error	1605/45	27	59/46			

As can be seen in Table 3 ( $F=21.04$ ,  $P < 0.01$ ), after adjusting the pre-test scores, the difference between the experimental and control groups was significant at the alpha level of 0.01; Therefore, the research hypothesis on the effectiveness of emotion regulation skills training on aggression of students and the difference between the experimental and control groups in terms of aggression in the post-test is confirmed

## Discussion

The aim of this study was to evaluate the effectiveness of emotion regulation skills

training on aggression of students. Findings showed that there is a significant difference between the adjusted means of aggressive students in the experimental and control groups in terms of aggression in the post-test. Thus, teaching emotion regulation skills significantly reduced the aggression of students in the experimental group. Findings of the present study is consistent with the findings of the researches of Faraji et al. (2021), Kazemi et al. (2020), Ahmadi et al. (2018), Atadokht et al. (2017), Kahl et al. (2016), Schreiber et al. (2012).

In the explanation of the obtained result, it can be stated that according to Haider's cognitive theory and documentary, which states that man always seeks to know and evaluate the environment and this knowledge and evaluation plays an important role in shaping his behavior and misdiagnosis of internal and external factors is called cognitive error. Based on this, an aggressive behavior has arisen as a result of a kind of wrong appraisal of the situation. It can be said that one of the causes of anger and aggression is students' incorrect appraisal of the situation, which is based on emotion regulation training techniques. Aggression has been controlled (Kazemi et al., 2020). In general, looking at cognitive and behavioral theories, it can be stated that the cause of aggression and anger does not know the feelings of oneself and others, misinterpretation of the situation and lack of behavioral skills required when aggression occurs. Teaching emotion regulation to aggressive students can play an important role in reducing the symptoms of aggression by informing the person about positive and negative emotions, accepting and expressing them in a timely manner. Previous research has shown that high levels of positive emotions and reduced negative emotions play a positive role in reducing aggression. Because aggressive people are more likely to be aroused and act recklessly by being in different situations, and also have less control over their emotions, emotion regulation skills by their effective role in prevention of emotional arousals, impulsive behaviors and reducing the experience of negative emotions in threatening situations can play an effective role in controlling and inhibiting impulses and premature arousal in these people and have a significant effect on their emotional regulation. Emotion regulation training can help people use helpful strategies instead of aggression when they are irritable and use appropriate coping strategies in situations that trigger aggression. Therefore, emotion regulation training as an acceptable educational method can improve the symptoms of aggression in aggressive students (Ahmadi et al., 2018). Psychopathology, researchers believe that a successful performance in social interactions, aggression, violence, impulsivity, feelings of shame and guilt are also the result of inadequate regulation of emotional responses (Sandler, Teen and West, 1994). Students with aggression have difficulty processing their own and others' emotions. Aggressive disorders are also more common among aggressive people. Abramotiz and Bernbaum (2007) have suggested that emotion regulation can be a useful perspective for understanding impulsive behaviors.

People who are not able to regulate their emotions properly may resort to aggressive behaviors to vent their emotions. Replacing more positive emotion management strategies increases people's ability to cope with crises, thereby enabling them to overcome their negative emotions. Some people interpret aggressive behavior as a response to threats and provocations. Emotion regulation training reduces the desired

interpretation of topics by creating a correct perception of oneself and others, and increases the chances of behaviors based on understanding and acceptance. This leads to a reduction in aggressive behaviors. The broad concept of emotion regulation encompasses numerous regulatory processes and strategies that include cognitive, physical, social, and behavioral dimensions. These dimensions will be consistent with the broader dimensions of aggression in the physical, behavioral, and social spheres. Therefore, by using emotion regulation therapy strategies, due to the involvement of broad cognitive, physical, social and behavioral dimensions, the negative consequences of inappropriate emotional expression such as aggression can be prevented. Having the ability to regulate emotions has a strong effect on people's ability to self-regulate. Self-regulation refers to all the psychological processes that individuals must perform in order to function adaptively; thus, emotion regulation affects anger control and aggression by increasing self-regulation.

According to the findings of the present study, it is suggested that emotion regulation skills training are used to reduce aggression in aggressive students. One of the limitations of the present study is the use of female gender for the research sample and this issue makes the generalizability of the difficulty of the results.

## Conclusion

Overall, the results of this study showed that emotion regulation skills training has been helpful in reducing aggression in aggressive students and can be widely used in schools and families and adolescent-related institutions.

## Disclosure Statements

There is no conflict of interest in this study.

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