# **Effectiveness of Emotion Regulation Instruction on Interpersonal Problems among Female High School Students**

Shiva Ahmady<sup>1</sup>, Mustafa Bolghan-Abadi<sup>2</sup>, Zohre Bozorgmanesh<sup>3</sup>

<sup>1</sup>Department of Humanities Sciences, Neyshabur Branch, Islamic Azad University, <sup>2</sup>Department of Humanities Sciences, Member of Young Researchers and Elite Club, Neyshabur Branch, Islamic Azad University, 3Department of Humanities Sciences, Scientific Applied Training Center of Neyshabur, Neyshabur, Iran ORCID:

Mustafa Bolghan-Abadi: https://orcid.org/0000-0002-5916-8217

## **Abstract**

Aim: This study was conducted to observe the effectiveness of emotion regulation instruction on interpersonal problems among 10th-grade female students in 2016–2017. Methodology: We used the quasi-experimental method and conducted pretests and posttests on the control group. Statistical population of this study is comprised of all 10th-grade female students of Neyshabur (Khorasan Razavi Province). In this study, 30 female students were selected by multistage randomized cluster sampling. Then, they were randomly placed in the central and experimental groups (15 students in each group). Inventory of interpersonal problem questionnaire was used to measure the level of interpersonal problems among the students. The results of this questionnaire were confirmed and its Cronbach's alpha value was 0.88. We performed our emotion regulation instruction for the experimental group during 8 sessions that each lasted 90 min; these instruction sessions were held once a week, and the control group was also included in the list. At the end of these sessions, both the groups were reassessed. **Results:** The results of this study showed that there is a significant difference (P < 0.001) between the experimental and the control groups in the level of their interpersonal problems. Considering the level of emotion regulation effectiveness, we can allegedly claim that 87.6% of changes in interpersonal problems are a result of emotion regulation instruction. Conclusion: It seems that by instructing emotion regulation in schools, the level of interpersonal problems among students can be reduced. The emotion regulation as a model of behavior triggers social support for adolescents. Social support can lead to solve interpersonal problems. Implications of emotion regulation model for basic and clinical research on close relationships are discussed.

Keywords: Emotion regulation instruction, female students, interpersonal problems

## INTRODUCTION

Adolescence is a period in which physical, emotional, and mental changes occur in an individual. During this phase, the child transitions into an adult. An individual's interests, preferences, fantasies, mood swings, and physical attributes undergo changes in this period. These changes cause a person to be more sensitive and increase his/her interpersonal problems; therefore, most psychologists consider this period to be full of emotional turmoil.[1] Interpersonal problems are issues that a person experiences in his/her relationships with others. These problems may cause mental crisis in an individual.[2]

Received: 01-Jan-20 Revised: 22-Feb-2020 Accepted: 02-Mar-2020 Published: 17-Jun-2020

Quick Response Code:

Access this article online Website:

http://iahs.kaums.ac.ir

DOI:

10.4103/iahs.iahs 1 20

Furthermore, interpersonal problems play an important role in various types of psychopathology. [3-5] Issues with certainty, sociability, obedience, intimacy, responsibility, and emotional restraint are among a person's interpersonal problems. [6] Some of the experts believe that severe problems in interpersonal relationships are an indication of personality disorders; thus, people with interpersonal difficulties are more likely to suffer from severe personality disorders.<sup>[7]</sup>

Address for correspondence: Dr. Mustafa Bolghan-Abadi, Young Researchers and Elite Club, Islamic Azad University, Neyshabur Branch, Neyshabur, Iran. E-mail: mbolghan@gmail.com

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow\_reprints@wolterskluwer.com

How to cite this article: Ahmady S, Bolghan-Abadi M, Bozorgmanesh Z. Effectiveness of emotion regulation instruction on interpersonal problems among female high school students. Int Arch Health Sci 2020;7:73-7.

Interpersonal problems are also related to depression. [8] Interpersonal problems among students may cause negative effects such as academy failure, loneliness, suicide, early school dropout, dysfunctional relationships, and drug abuse. [9] Adolescence is a period in which a person undergoes physical, emotional, and social changes and experiences intense emotions. If he/she cannot regulate his/her emotions, he/she will have more interpersonal problems regarding the mental pressure of his/her surroundings. [10] Hence, emotion regulation in adolescence can be a solution to reduce these emotional conflicts.

Psychological studies show that emotional self-regulation is an important factor in the students' mental health, improved school performance, and especially, social interactions. [11] It has become clear that emotion regulation plays a critical role in mental health and having better social relations. [12,13] Poor emotion regulation may cause internalizing disorders (e.g., depression, anxiety, and social isolation) and externalizing disorders (e.g., delinquency and aggressive behaviors). [14] Therefore, focusing on ways to confront emotions during negative experiences of adolescence can be critical because there is a strong connection between internalizing problems and negative thinking or cognitive distortion among individuals.

The ability to confront emotions empowers a person to understand his/her and others' emotions and their effect on his/her behavior. Through this understanding, he/she can better respond to his/her emotions.<sup>[15]</sup> The aim of emotion regulation instruction is to control negative emotions and use emotions positively.<sup>[16]</sup> Cole *et al.*<sup>[17]</sup> believe that emotion regulation in individuals is an indication of their intense emotions and includes changes in self, emotions, or other psychological processes (such as memory and social interactions).

The studies demonstrate that instructing emotion regulation has been effective in reducing emotional disorders, [18] drug addiction, [18] pathology symptoms, [19] and depression. [12]

Since adolescence is a period of physical, mental, social changes and intense emotions, many nervous and cognitive systems that deal with emotions develop during this phase. [20] Accordingly, Hampel and Petermann [21] claim that focusing on confronting one's emotions during the negative occurrences of this period can be important because internalizing problems and negative thinking or cognitive distortion among individuals are strongly connected. Based on the previous sections, the importance of adolescence and emotion regulation effect in reducing behavioral problems, this study aims to examine the effectiveness of emotion regulation instruction on adolescent female students' interpersonal problems.

# **M**ETHODOLOGY

In this research, the semi-experimental method and pretest/posttest with control group design were used. All the 10<sup>th</sup>-grade female students of Neyshabur in 2016–2017 were used as

the statistical population. Among them, 30 individuals were selected by a multistage randomized cluster sampling method. First, two schools were randomly selected among 39 high schools. Then, three classes were chosen from each school and five individuals were randomly singled out from each class. Eventually, these individuals were placed in the control and experimental groups (15 individuals in each group). Inclusion criteria were including having age between 13 and 18 years, being female, and not having any psychological disorders. Exclusion criteria were including having contest to participate in the research and not having more than two absences in intervention sessions.

#### Research tools

# Inventory of Interpersonal Problems-Short Form

The short version of this questionnaire was formulated by Barkham *et al.*<sup>[22]</sup> This questionnaire includes these subscales: assertiveness and sociability, openness, caring, aggression, supportiveness and involvement, and dependency. In Iran, Fath *et al.*<sup>[23]</sup> performed a factor analysis for this questionnaire. Their results showed that among the eight subscales, only six were confirmed. Furthermore, the correlation coefficient of convergent validity for this questionnaire and for the Alexithymia scale was 0.53. The reliability of this questionnaire was calculated using Cronbach's alpha for subscales of assertiveness and sociability, openness, caring, aggression, supportiveness and involvement, and dependency; the resulting values were 0.83, 0.63, 0.60, 0.83, 0.71, and 0.63, respectively. The total score was 0.82.

Table 1 shows the contents and planning of emotion regulation instruction sessions based on Gross's model.<sup>[15]</sup> The data were analyzed using analysis of covariance (ANCOVA) method.

#### RESULTS

In this section, we analyze the descriptive and inferential findings, respectively. The mean and standard deviation for the experimental group members were 15.53 and 0.74 and 15.33 and 0.62 for the control group. Table 1 shows the mean and standard deviation of the subjects' interpersonal problems.

As shown in Table 2, the interpersonal problem subscales among the two groups are different. To study the significance of this difference, we used the multivariate ANCOVA (MANCOVA). All premises were observed for this analysis. The multivariate analysis results in Wilks' lambda measure specified that there is a significant difference in one of the subscales among the two groups. For a more accurate data analysis, an ANCOVA was used in MANCOVA model. The results are shown in Table 3.

As shown in Table 3, the results of multivariate covariance analysis showed that there is a significant difference between all the subscales of interpersonal problems among the two groups. Considering the mean tables, we can state that instructing adolescent female students in the experimental group on emotion regulation has been effective in reducing their interpersonal problems.

Table 1: The contents and planning of treatment in the experimental group Sessions **Contents** Goal **Agenda** Session 1 Familiarity Familiarity with the treatment Acquaintance between the group members and the leader's (counselor) interaction plan with the members Stating the main and secondary goals of the group and group discussion about collective and personal goals Stating the logic of treatment and intervention stages Stating the rules of participation in the group Session 2 Choosing the event Providing emotional instruction Recognizing the emotions and triggering events through the instructions on different functions of each emotion Providing information about different aspects of emotions and their long-term and short-term effects Session 3 Choosing the vent Assessing the members' Discussion among group members regarding the role of emotions in human mental vulnerability and emotional adaptability and their advantages, role of emotions in connecting with others and skills affecting them and also, controlling emotions, human trigger behaviors Discussing real experiences Session 4 Improving the Changing the conditions of the Preventing social isolation and avoidance situation event Instructions on problem-solving strategies Instructions on interpersonal skills Stopping obsessive rumination and anxiety Session 5 Developing mental Shifting focus Instructions on focus Session 6 Cognitive appraisal Changing cognitive assessment Recognizing the false cognitive assessments and their effects on emotional moods Instructions on cognitive reappraisal Session 7 Regulating the Changing the behavioral Recognizing the measure of emotional suppression and examining its consequences emotional response and physiological effects of Confrontation emotions Instructions on expressing emotions Improving behavior through changing emotional amplifiers in a person's Instructions on emotional discharge, relaxation, and reverse psychology Assessing the achievement of personal and collective goals Session 8 Assessment and Reassessment and removing function barriers to effective emotional Using learned skills in the natural environment function Assessing and removing the barriers to performing the given tasks in these sessions

Table 2: Mean and standard deviation of interpersonal problems

Variables	Group	Mean		SD	
		Pretest	Posttest	Pretest	Posttest
Aggression	Experiment	21	17.33	5.49	4.29
	Control	21.93	20.93	5.09	5.12
Assertiveness and Sociability	Experiment	17.73	13.93	6.7	3.22
	Control	17.8	17.53	5.13	4.93
Openness	Experiment	9.4	6.67	3.85	3.11
	Control	9.1	9.67	4.69	2.94
Caring	Experiment	11.6	8.6	3.09	2.99
	Control	11.47	9.73	3.81	2.55
Supportiveness and Involvement	Experiment	11.27	10.73	3.81	2.44
	Control	10.33	7.53	2.19	3.63
Dependency	Experiment	9.33	7.53	3.7	3.16
	Control	9.4	10.27	2.2	3.59

SD: Standard deviation

## DISCUSSION

The goal of this study was to examine the emotion regulation instruction effectiveness in reducing interpersonal problems. The study results show that in posttest stage of the two groups (experimental and control), instructions on emotion regulation have led to the decrease of interpersonal problems. These results corroborate with the results of other studies.<sup>[24-32]</sup>

Therefore, the results of this study can be interpreted as such: interpersonal problems may cause inefficient social interactions and lack of assertiveness in students. Due to this fact, adolescents with interpersonal problems are not assertive and have difficulty regulating their emotions; therefore, they are not skilled in their social relations and do not have the proper social skills. Emotion regulation instruction can be effective in improving social interactions and interpersonal problems. We can claim that emotion regulation is a personal capability that helps individuals to adapt in their social interactions. Poor emotion regulation may lead to interpersonal problems, depression, and personality disorders.<sup>[33]</sup> Gross<sup>[15]</sup> found that suppressing emotions may decline cognitive capabilities. Emotion regulation skills facilitate the teacher-student relations. Cognitive assessment of students' behavior will improve their attitudes and learning skills and consequently increases their motivation and success. Hence, emotion regulation instruction can be seen as a method of reducing interpersonal problems. According to Ciarrochi et al., [34] students who are socially efficient effectively cope with emotions and their effects and manage them. Theoretically, emotion regulation variables such as acceptance may allow

Table 3: The results of analysis of covariance in multivariate analysis of covariance for interpersonal problems

Variables	SS	df	MS	F	P	Effect size
Aggression	57.59	1	57.59	7.21	0.01	0.73
Caring	11.05	1	11.05	1.81	0.01	0.25
Assertiveness and sociability	120.57	1	120.57	9.59	0.01	0.84
Supportiveness and involvement	68.71	1	68.71	6.77	0.01	0.7
Dependency	54.97	1	54.97	4.64	0.01	0.54
Openness	78.03	1	78.03	29.75	0.01	1

SS: Sum of square, df: Degree of freedom, MS: Mean square

individuals who are emotionally vulnerable to live in the present; as a result, they can have a more objective view, rather than having an extreme reaction to their surroundings. People who use poor emotion regulation strategies, ineffective emotional response, and avoidance are more inclined to control their turbulent emotions and balance themselves emotionally when faced with stressful situations. Instead of confronting the source of their stress and finding a solution, they resort to personal methods that can control the negative consequences of mental pressure (e.g., tensions and emotional problems). Using poor emotion regulation strategies during a mental crisis may cause a person to avoid confronting his/her problems and not deal with them in a focused manner.[35,36] On the other hand, focusing on finding a solution means that a person has to try consciously to logically assess the source of his/her stress; this method focuses more on the source of the stress. The proper understanding of emotions is essential to interpersonal relations. The difficulties in understanding emotions and inefficient emotional connection with others may cause many problems in an individual's interpersonal relations. These individuals often experience emotions which they feel they cannot escape from. They are not very cognizant of their emotions; therefore, since they feel as if they have no control over their emotions, they do not strive to control them.

# CONCLUSION

Emotion regulation instruction can reduce these problems. Hence, emotion regulation can be effective in reducing interpersonal problems. In fact, poor emotion regulation strategies are dangerous for mental health and may lead to physical health problems. Recognizing these ineffective strategies and instructions on better methods can help us prevent these difficulties; as a result, this mental dysfunction will not become prevalent in the society. Accordingly, we can improve the students' mental health and reduce their interpersonal problems by providing emotion regulation instruction in schools.

There were limitations in conducting this research; namely, the statistical population of this research was limited to Neyshabur high school female students. Therefore, it is advised to exercise caution in extending the results of this study to other

individuals or students. Furthermore, lack of a follow-up test and controlling all the existing variables simultaneously proved to be problematic.

#### **Acknowledgment**

We appreciate all who help us to conduct this study, especially students who accept to participate in the intervention and those who accept to be on waiting list.

## **Financial support and sponsorship**

Nil.

#### **Conflicts of interest**

There are no conflicts of interest.

#### REFERENCES

- Harris KM, Halpern CT, Smolen A, Haberstick BC. The National Longitudinal Study of Adolescent Health (Add Health) twin data. Twin Res Hum Genet 2006;9:988-97.
- Segrin C. Interpersonal Processes in Psychological Problems. New York: Guilford Press; 2001.
- Segrin C, Taylor M. Positive interpersonal relationships mediate the association between social skills and psychological well-being. Pers Individ Dif 2007;43:637-46.
- Wai ST, Yip T. Relationship among dispositional forgiveness of others, interpersonal adjustment and psychological well-being: Implication for interpersonal theory of depression. Pers Individ Dif 2009;46:365-8.
- Worthington EL Jr., Witvliet CV, Pietrini P, Miller AJ. Forgiveness, health, and well-being: A review of evidence for emotional versus decisional forgiveness, dispositional forgivingness, and reduced unforgiveness. J Behav Med 2007;30:291-302.
- Maniaci G, Picone F, van Holst RJ, Bolloni C, Scardina S, Cannizzaro C. Alterations in the emotional regulation process in gambling addiction: The role of anger and alexithymia. J Gambl Stud 2017;33:633-47.
- Horowitz LM, Rosenberg SE, Baer BA, Ureño G, Villaseñor VS. Inventory of interpersonal problems: Psychometric properties and clinical applications. J Consult Clin Psychol 1988;56:885-92.
- McEvoy PM, Burgess MM, Nathan P. The relationship between interpersonal problems, negative cognitions, and outcomes from cognitive behavioral group therapy for depression. J Affect Disord 2013;150:266-75.
- Inglés CJ, Hidalgo MD, Méndez FX. Interpersonal difficulties in adolescence. Eur J Psychol Assess 2005;21:11-22.
- McCuen-Wurst C, Ruggieri M, Allison KC. Disordered eating and obesity: Associations between binge-eating disorder, night-eating syndrome, and weight-related comorbidities. Ann N Y Acad Sci 2018;1411:96-105.
- Stice E, Agras WS. Subtyping bulimic women along dietary restraint and negative affect dimensions. J Consult Clin Psychol 1999;67:460-9.
- Berking M, Wupperman P. Emotion regulation and mental health: Recent findings, current challenges, and future directions. Curr Opin Psychiatry 2012;25:128-34.
- DeSteno D, Gross JJ, Kubzansky L. Affective science and health: The importance of emotion and emotion regulation. Health Psychol 2013;32:474-86.
- Eisenberg N, Cumberland A, Spinrad TL, Fabes RA, Shepard SA, Reiser M, et al. The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. Child Dev 2001;72:1112-34.
- Gross JJ. Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. J Pers Soc Psychol 1998;74:224-37.
- Greeson J, Brantley J. Mindfulness and anxiety disorders: Developing a wise relationship with the inner experience of fear. In: Clinical Handbook of Mindfulness. New York: Springer; 2009. p. 171-88.
- 17. Cole PM, Martin SE, Dennis TA. Emotion regulation as a scientific construct: Methodological challenges and directions for child

- development research. Child Dev 2004;75:317-33.
- Azizi A, Borjali A, Golzari M. The effectiveness of emotion regulation training and cognitive therapy on the emotional and addictional problems of substance abusers. Iran J Psychiatry 2010;5:60-5.
- Schuppert HM, Timmerman ME, Bloo J, van Gemert TG, Wiersema HM, Minderaa RB, et al. Emotion regulation training for adolescents with borderline personality disorder traits: A randomized controlled trial. J Am Acad Child Adolesc Psychiatry 2012;51:1314-2300.
- Quinn CT, Rogers ZR, McCavit TL, Buchanan GR. Improved survival of children and adolescents with sickle cell disease. Blood 2010;115:3447-52.
- Hampel P, Petermann F. Perceived stress, coping, and adjustment in adolescents. J Adolesc Health 2006;38:409-15.
- Barkham M, Hardy GE, Startup M. The IIP-32: A short version of the Inventory of Interpersonal Problems. British Journal of Clinical Psychology. 1996;35:21-35.
- Fath N, Azadfallah P, Rasoolzadeh-Tabatabaee K Rahimi CH. Validity and Reliability of the inventory of interpersonal problems (IIP-32). Clin Psychol 2013;5:69-80.
- Gratz KL, Bardeen JR, Levy R, Dixon-Gordon KL, Tull MT. Mechanisms of change in an emotion regulation group therapy for deliberate self-harm among women with borderline personality disorder. Behav Res Ther 2015;65:29-35.
- Gratz KL, Gunderson JG. Preliminary data on an acceptance-based emotion regulation group intervention for deliberate self-harm among women with borderline personality disorder. Behav Ther 2006;37:25-35.
- Kafetsios K, Hess U. Seeing mixed emotions: Alexithymia, emotion perception bias, and quality in dyadic interactions. Pers Individ Dif 2019;137:80-5.
- Lim BC, Ployhart RE. Transformational leadership: Relations to the five-factor model and team performance in typical and maximum

- contexts. J Appl Psychol 2004;89:610-21.
- Renna ME, Quintero JM, Fresco DM, Mennin DS. Emotion regulation therapy: A mechanism-targeted treatment for disorders of distress. Front Psychol 2017;8:98.
- Renna ME, Quintero JM, Soffer A, Pino M, Ader L, Fresco DM, et al.
   A pilot study of emotion regulation therapy for generalized anxiety and depression: Findings from a diverse sample of young adults. Behav Ther 2018;49:403-18.
- Szczygiel D, Buczny J, Bazinska R. Emotion regulation and emotional information processing: The moderating effect of emotional awareness. Pers Individ dif 2012;52:433-7.
- Williams WC, Morelli SA, Ong DC, Zaki J. Interpersonal emotion regulation: Implications for affiliation, perceived support, relationships, and well-being. J Pers Soc Psychol 2018;115:224-54.
- 32. Pisani AR, Wyman PA, Petrova M, Schmeelk-Cone K, Goldston DB, Xia Y, et al. Emotion regulation difficulties, youth-adult relationships, and suicide attempts among high school students in underserved communities. J Youth Adolesc 2013;42:807-20.
- Eisenberg N, Spinrad TL, Valiente C, editors. Emotion-related Self-regulation and Children's Social, Psychological, and Academic Functioning. Wiley Online Library; 2018.
- Ciarrochi J, Scott G, Deane FP, Heaven PC. Relations between social and emotional competence and mental health: A construct validation study. Pers Individ Dif 2003;35:1947-63.
- Lavender JM, Anderson DA. Contribution of emotion regulation difficulties to disordered eating and body dissatisfaction in college men. Int J Eat Disord 2010;43:352-7.
- Harrison A, Sullivan S, Tchanturia K, Treasure J. Emotional functioning in eating disorders: Attentional bias, emotion recognition and emotion regulation. Psychol Med 2010;40:1887-97.