



## **The Effect of the Mixed Empathy and Anger Management Intervention on Loneliness, Emotional Autonomy and Responsiveness to Stress in Divorce Students**

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**ABSTRACT:** The aim of this study was to investigate the effect of the mixed empathy and anger management intervention on loneliness, emotional autonomy and responsiveness to stress in divorce students. To this end, the present study used a quasi-experimental pretest posttest control group design. The statistical population of the study included all guidance school students who were studying in schools in District 1 of Bandar Abbas in 2021. The study sample consisted of 30 guidance school divorce students who were selected through available sampling from all students and randomly assigned to two groups of 15 (15 students in control group and 15 in experimental group). Data were collected using Russell, Pilva and Cortona (1980) Loneliness Questionnaire, Etseinberg and Silverberg (1986) Emotional Autonomy Questionnaire, and Kuh et al. (2001) Stress Response Questionnaire. Data analysis was performed at descriptive (including demographic tables and graphs) and inferential (analysis of covariance) levels. The results showed that the mixed empathy and anger management intervention was effective and reduced the loneliness of divorced students ( $p < 0.05$ ). Moreover, it was shown that there was no significant effect of the mixed empathy and anger management intervention on emotional autonomy and its dimensions (nondependency, individuation and deidealization- parents as people) in divorce students ( $p < 0.05$ ). The results also indicated that the intervention was effective on responsiveness to stress and its dimensions (anger-aggression, tension, frustration, depression, somatization-fatigue) in divorce students. Therefore, the mixed empathy and anger management intervention can be used to positively affect the life dimensions of divorce students.

**Keywords:** Empathy, Anger Management, Loneliness, Emotional Autonomy, Responsiveness to Stress, Divorce Student.

### **Introduction**

The family is the first social organization in which a person lives. The family is essentially a center of help, relief, and healing. The family is the center that must alleviate the psychological pressures on its members and pave the way for their growth and prosperity. In general, every family is a cell to form the body of society and life and health of these cells is the guarantor of health and social life of society, so the health of family members and their relationships will undoubtedly have positive effects on society ([Gottman, 2014](#)). In fact, marriage and family formation is one of the most important phenomena in life that can cause the growth and flourishing of abilities and meet the various needs of human beings and then provide peace of mind, but despite the importance and important functions of marriage, the phenomenon that should always be considered is marital compatibility, satisfaction with marriage and avoiding any coldness and reducing emotion in couples' relationships ([Tafreshi, Amiri Majd, & Jafari, 2014](#)).

Among the emotional issues that can be the product of the phenomenon of divorce in children and that should necessarily be paid attention, stress and consequently, responsiveness to stress can be mentioned, as confirmed by psychologists. Stress means pressure or any stimulus that causes tension in humans and is inversely related to physical and mental health. It can also cause headaches, insomnia, weakened immune system, mood swings and impaired concentration ([Amani Shurbariki, 2017](#)). Based on process-oriented conceptual models in the field of stress studies, the concept of bio-psychological responsiveness to stress or individual differences in response to stressors accounts for part of the quantitative pattern of variability of quantities of vulnerability differentiation in the face of stressors ([Louison, Adhikari, Stein, & Suski, 2017](#)). The perceived responsiveness to stress is a quality that underlies individual differences in physiologic and psychological responses to stress ([Amani Shurbariki, 2017](#)). In other words, the perceived responsiveness to stress is an attribute that identifies relatively stable individual differences in response to stressful experiences and is almost constant over time.

Another emotional-perceptual issue that, according to the existing research, originates from parental separation and divorce, and is abundantly visible in the community of children and adolescents, is the undesirability of emotional autonomy that should be considered as one of the research variables. Emotional autonomy is one of the variables affecting a person's performance in childhood and adolescence, which is defined as the distinction between his feelings and family feelings and the distinction between one's emotions from his/her thoughts ([Deniz & Uzun, 2019](#)) and it should be necessarily checked. Emotional autonomy is one of the central tasks in pre-adolescence; it has been described as the process by which individuals give up their dependence on their parents and begin to develop a more mature, realistic, and balanced perception of their parents and their roles ([Safara & Moazemabadi, 2018](#)). In this regard, researchers of the psychoanalytic view ([Blos, 1967](#)) call emotional autonomy a process of separation and define it as a positive emotional and physical separation from the family. According to them, for a consistent outcome, adolescents must find a sense of autonomy from their parents and achieve personal individuality. Additionally, Erickson believes that the formation of a mature identity that paves the way for intimacy with others depends on achieving emotional autonomy ([Finkeldey, Longmore, Giordano, & Manning, 2020](#)). The importance of emotional autonomy in reducing anxiety, depression and other psychological problems in adolescence, has caused a growing interest of researchers in research in this regard ([Chen et al., 2017](#)).

The last issue that has been mentioned in children and adolescents of divorce in previous research, and according to the experience of researchers, needs to be examined, is the perception of loneliness caused by parental divorce in this group. Feelings of loneliness indicate shortcomings and deficiencies in establishing emotional and social bonds ([Deckers, Muris, & Roelofs, 2017](#)). In other words, the feeling of loneliness is a disturbing mental experience that indicates shortcomings and deficiencies in interpersonal emotional and social ties. Someone may be in a group, but he/she does not have satisfactory social or emotional connections and complains of feeling lonely. Therefore, being physically away from others does not mean being alone; although loneliness and being alone are related to each other ([Salimi, Joukar, & Nikpour, 2009](#)). Overcoming loneliness is a very difficult task without constant

and regular contact with others. People with loneliness are more likely to miss out on social networking opportunities because they are less likely to do so, and this is more pronounced and should be more seriously investigated in children of divorce who feel different about themselves than other people.

Review of the research results shows that so far, limited interventions have been used on divorce students and although some interventions have been applied, no research was found on the effect of the mixed empathy and anger management intervention on loneliness, emotional autonomy and stress response in divorce students. One of the interventions that can affect a wide range of problems of divorce students is the mixed empathy and anger management intervention, which has been considered in few studies. Empathy plays an important role in psychological and social adjustments ([Darvishi, 2016](#)). Empathy is an important ability that prevents harm to others and is the motivating force of social behaviors that lead to group cohesion ([Akrami Ebrahimabad, 2017](#)). It also helps a person to be able to better understand others and the situation in which others find themselves in social relationships ([Novaco, 2016](#)). Empathy training by increasing a person's understanding by raising his/her awareness of himself/herself and others leads to increasing empathetic responses by using emotion regulation and taking perspective which in turn leads to increased accuracy in empathy and positive feedback to the person. [Aktas and Pasinlioglu \(2021\)](#) showed that empathy training promotes a sense of responsibility and sensitivity by promoting empathy and compassion as a component. By empathy training and strengthening, the possibility of maladaptive behaviors can be reduced ([Green, Missotten, Tone, & Luyckx, 2018](#)). Empathy training reduces students' aggressive behaviors ([Gilliam, 2015](#)), increases adolescents' level of adjustment ([Rasouli, 2011](#)) and improves their social, academic and emotional adjustment scores ([Powell, 2018](#)). Another educational method that has been less studied in terms of its effectiveness on children's problems is anger management training based on cognitive-behavioral approach. The biggest application of cognitive-behavioral interventions in child and adolescent psychopathology is focused on reducing problems such as disobedience, conflict and breaking the law ([Garmeh, 2016](#)). Researchers have been able to increase adaptation by using anger management training based on cognitive-behavioral approach. In these studies, the target groups included a wide range from children and adolescents to delinquent adults in rehabilitation centers. Anger management skills training leads to increased social adjustment ([Kabosi & Ghorbani, 2016](#)) and increased individual adjustment of delinquent adolescents ([Kim et al., 2018](#)).

With a view to the topic of the study and also the importance of the lives of divorce students who are considered as the affected group of society and the lack of research in this field, the aim of this study was to answer the question 'Does the mixed empathy and anger management intervention affect loneliness, emotional autonomy and responsiveness to stress in divorce students?

## Material and Methods

The method of the present study was quasi-experimental pre-test-post-test with two experimental and control groups of divorced students. The statistical population of the study included all guidance school students who were studying in schools in District 1 of Bandar Abbas in 2021. The study sample consisted

of 30 guidance school divorce students who were selected through available sampling from all students and randomly assigned to two groups of 15 students (15 in the control group and 15 in the experimental group). Before starting the study, written consent was taken from the participants for participation in the study. In the present study, the required data were collected in two stages. In the first stage, by referring to library resources including books, journals and reliable scientific articles, materials related to research literature have been collected. In the second stage, research data were collected using the following questionnaires:

**Loneliness Questionnaire (UCLA):** The Loneliness Questionnaire, developed by [Russell \(1996\)](#), consists of 20 four-choice items, 10 negative statements and 10 positive statements. The validity of this test was reported to be 0.78 in the new revised version. In this scale, the choice never scores (1), rarely (2), sometimes (3), and always (4). But the items 1, 5, 6, 9, 10, 15, 16, 19 and 20 are scored in reverse. That is, never scores (4), rarely (3), sometimes (2) and always (1). The score range is between 20 (minimum) and 80 (maximum). So the average score is 50. A score higher than the average indicates greater intensity of loneliness. The reliability of this questionnaire in the present study was calculated to be 0.79.

**Emotional Autonomy Questionnaire:** Emotional autonomy scale was used to assess the degree of autonomy in students. This scale was developed by [Steinberg and Silverberg \(1986\)](#). This scale includes thirteen four-point Likert items within three factors of nondependency, individuation and deidealization-parents as people. The total validity coefficient of this scale and the three factors of nondependency, individuation and deidealization- parents as people in [Samani \(2006\)](#) study have been reported to be 0.70, 0.78, 0.77 and 0.70, respectively. The reliability of this questionnaire in the present study was calculated to be 0.81.

**Stress Response Questionnaire:** The Stress Response Questionnaire was developed by [Koh, Park, Kim, and Cho \(2001\)](#) to assess the emotional, physical, cognitive, and behavioral aspects of stress. This test is a self-report tool and the subject should determine on a Likert scale (from Not at all = 0 to Completely = 4) how much he experiences each of the mentioned symptoms. The stress response questionnaire has 39 items and measures 7 subscales of stress (6 items), aggression (4 items), anger (6 items), depression (8 items), frustration (7 items) and somatization-fatigue (8 items). The scoring method of this questionnaire to obtain the score for each subscale is that the points related to the items of each subscale are added together. The reliability of this questionnaire in the present study was calculated to be 0.83.

**Lotfi Kashani (2008) Empathy and Anger Management Training Protocol:** The experimental group underwent empathy and anger management training in 8 sessions for one and a half hours, while the control group did not receive any training. The brief description of the sessions is as follows:

**Table 1.** Brief description of the training sessions

Sessions	content
Session 1	Familiarity of the group members with each other, recognition of individual skills and abilities related to the present (real self). Familiarity with your ideals and aspirations in order to conceptualize the selves related to the future (ideal self). Knowing one's duties from the perspective of oneself and others (ought self).
Session 2	Using the knowledge of the stages of anger expression to manage anger hierarchy.
Session 3	Using the knowledge of the stages of anger expression to manage anger hierarchy.
Session 4	Operationalizing the concept of anger and selecting appropriate solutions to manage anger.
Session 5	Teaching anger management skills using model presentation
Session 6	Role playing in appropriate visual situations
Session 7	Using the cognitive self-learning method to control negative self-expression in order to manage anger and increase empathy
Session 8	Anger management in anger-provoking situations and ensuring that the content presented in the training sessions is understood

In this study, data analysis was performed at two levels: descriptive and inferential. In the descriptive part, the data were reported using the mean, standard deviation. Also, in the inferential part, due to the fact that the research design was pre-test-post-test control group, analysis of covariance was used. It should also be noted that in this study, all the assumptions of analysis of covariance, including normality, homogeneity of covariance matrices and homogeneity of variance were investigated. All analyzes in this study were performed using SPSS version 23.

## Results

Kolmogorov-Smirnov test was used to check the normality of the data. The findings are presented in Table 2. Based on the results in the table, the significance level of the calculated statistic is greater than 0.05. Therefore, the assumption that the distribution of scores is normal is accepted.

**Table 2.** Kolmogorov-Smirnov test results to check the normality of the distribution of scores

Variable	Pre-test		Post-test	
	Kolmogorov-Smirnov Z	Sig	Kolmogorov-Smirnov Z	Sig
Feeling lonely	.09	.93	.10	.86
Autonomy	.15	.88	.13	.95
Individuation	.11	.86	.10	.85
deidealization- parents as people	.09	.94	.14	.59
Emotional autonomy	.12	.74	.02	.92
Anger-Aggression	.21	.67	.20	.61
Tension	.15	.58	.13	.71
frustration	.10	.49	.14	.49
Depression	.11	.51	.53	.62
Somatization-fatigue	.38	.71	.41	.71
Responsiveness to stress	.45	.95	.92	.91

The first hypothesis of the study: the mixed empathy and anger management intervention is effective on the loneliness of divorced students.

In order to test this hypothesis, one-way analysis of covariance (ANCOVA) was used. The results of this test are presented in Table 3.

**Table 3.** Results of analysis of covariance (ANCOVA) to compare the feeling of loneliness in the experimental and control groups

Source	Sum of squares	df	Mean square	F	Sig	Effect size
Pre	65.466	1	65.466	16.399	0.001	0.378
Group	27.808	1	27.808	6.966	0.014	0.205
Error	107.785	27	3.992			
Total	194.883	29				

Table (3) shows the results of ANCOVA to compare the scores of loneliness in the experimental and control groups in the post-test. The value of F was equal to 6.966 that is significant at the alpha level of 0.05, so the null hypothesis is rejected and the research hypothesis is confirmed. Based on this, and considering the higher mean scores of the experimental group in the post-test, it can be concluded that the mixed empathy and anger management intervention is effective in reducing the loneliness of divorced students.

The second hypothesis of the study: the mixed empathy and anger management intervention has an effect on emotional autonomy and its dimensions (nondependency, individuation and deidealization-parents as people) in divorce students.

Multivariate analysis of covariance (MANCOVA) was used to test the second hypothesis. The results are presented in Table 4.

**Table 4.** Results of MANCOVA to compare emotional autonomy in the experimental and control groups

Effect	Tests	Values	F	Effect df	Error df	p	Effect size
Group	Pillai's Trace	0.587	.827	4	22	.21	.14
	Wilks' Lambada	0.413	.827	4	22	.09	.14
	Hotelling's Trace	1.423	.827	4	22	.13	.14
	Roy's Largest Root	1.423	.827	4	22	.19	.14

As can be seen, the significance level of all four relevant multivariate statistics, namely Pillai's Trace, Wilks' Lambada, Hotelling's Trace and Roy's Largest Root, is greater than 0.05 ( $p > 0.05$ ). Thus, the null hypothesis is confirmed and it is determined that there is no significant difference between the emotional autonomy of the experimental and control groups in the post-test. Based on this, it can be concluded that the mixed empathy and anger management intervention did not have an effect on emotional autonomy and its dimensions (nondependency, individuation and deidealization-parents as people) in divorce students.

The third hypothesis of the study: the mixed empathy and anger management intervention affects responsiveness to stress and its dimensions (anger-aggression, tension, frustration, depression, somatization-fatigue) in divorce students. Multivariate analysis of covariance (MANCOVA) was used to test the third hypothesis. The results are presented in Table 5.

**Table 5.** Results of MANCOVA to compare responsiveness to in the experimental and control groups

effect	tests	values	F	Effect df	Error df	p	Effect size
group	Pillai's Trace	.61	25.82	6	28	.001	.55
	Wilks' Lambada	.61	25.82	6	28	.001	.55
	Hotelling's Trace	3.31	25.82	6	28	.001	.55
	Roy's Largest Root	3.31	25.82	6	28	.001	.55

As can be seen, the significance level of all four relevant multivariate statistics, namely Pillai's Trace, Wilks' Lambada, Hotelling's Trace and Roy's Largest Root, is lower than 0.05 ( $p < 0.05$ ). Thus, the null hypothesis is rejected and its reverse is confirmed: there was a significant difference between the responsiveness to stress of the experimental and control groups in the post-test. Based on this, it can be concluded that the mixed empathy and anger management intervention affects responsiveness to stress and its dimensions (anger-aggression, tension, frustration, depression, somatization-fatigue) in divorce students.

**Table 6.** Test of between-subjects effects of the intervention on responsiveness to stress and its dimensions

Variable	Source	Sum of squares	df	Mean square	F	p	Effect size
Anger-aggression	Between groups	27.63	1	27.63	41.43	.001	.58
	Within group	54.93	25	5.39			
Tension	Between groups	39.98	1	39.98	39.51	.001	.54
	Within group	36.41	25	4.73			
Frustration	Between groups	37.89	1	37.89	38.88	.001	.53
	Within group	74.12	25	4.39			
Depression	Between groups	82.12	1	82.12	39.79	.001	.54
	Within group	164.25	25	3.91			
Somatization-fatigue	Between groups	69.46	1	69.46	31.81	.001	.51
	Within group	141.02	25	5.01			
Responsiveness to stress	Between groups	758.98	1	758.98	40.01	.001	.55
	Within group	152.03	25	4.55			

Table (6) shows the test results of between-subjects effects to compare responsiveness to stress in the experimental and control groups in the post-test. According to the presented results, the value of F is significant for all variables at the level of 0.05 ( $p < 0.05$ ). Therefore, the statistical null hypothesis is rejected and the reverse is confirmed. Considering the lower mean scores of the experimental group in the post-test, it can be concluded that the mixed empathy and anger management intervention affects responsiveness to stress and its dimensions (anger-aggression, tension, frustration, depression, somatization-fatigue) in divorce students.

## Discussion

The aim of this study was to investigate the effect of the mixed empathy and anger management intervention on loneliness, emotional autonomy and responsiveness to stress in divorce students. The results showed that the mixed empathy and anger management intervention was effective and reduced the loneliness of divorced students. Regarding the significant effect of the mixed empathy and anger management intervention on loneliness of divorce students, studies have shown that this finding is largely consistent with the results of research by [Taher, Abolghasemi, and Narimani \(2016\)](#) and [Zhou, Gan, Hoo, Chong, and Chu \(2018\)](#). In explaining the significant effect of the mixed empathy and anger management intervention on loneliness of divorce students, it can be said that this treatment program provided the ground for reducing the loneliness of students in two ways. Firstly, it strengthened students' ability to control and manage anger, and accordingly enhanced the quality of their interpersonal

relationships. Many students, due to their verbal and non-verbal violence during their interpersonal relationships, had caused many of their friends and associates to avoid interacting with them. This paved the way for the group to become lonely and intensify their feeling of loneliness. During this treatment process, students' awareness of their inner feelings increased.

Also, due to the lack of difference in the mean scores of the experimental group, it can be concluded that the mixed empathy and anger management intervention did not affect emotional autonomy and its dimensions (nondependency, individuation and deidealization- parents as people) in divorce students. On the other hand, due to the lower mean scores of the experimental group in the post-test of responsiveness to stress and its dimensions (anger-aggression, stress, frustration, depression, somatization-fatigue), it can be concluded that the intervention affected responsiveness to stress and its dimensions in divorce students.

Regarding the significant effect of the mixed empathy and anger management intervention on responsiveness to stress and its dimensions in students, previous studies have shown that this finding is consistent with the results of the studies by [Green et al. \(2018\)](#) and [Aktas and Pasinlioglu \(2021\)](#). In explaining the significant effect of the mixed empathy and anger management intervention on responsiveness to stress and its dimensions in students, it can be said that the first core of this therapeutic approach that played a role in improving students' responsiveness to stress was anger control and management training in students. Many students behaved aggressively when faced with stressful events. During this treatment process, the therapist informed the members about this aggressive reaction and while strengthening their ability to immediately recognize this impulse, she taught them desirable verbal and non-verbal skills during the treatment sessions in the form of continuous exercises for correct expression of such skills. The therapist also focused specifically on empathetic and constructive exposure to different situations when experiencing tension and stress. Members discussed perceptual stress as they encountered stressful events with the therapist and each other. This conversation led them to the view that such an experience is quite obvious and that everyone will experience it throughout their lives.

According to the results, it is suggested that active counseling centers at schools use the mixed empathy and anger management intervention to improve loneliness, emotional autonomy and responsiveness to stress in students with divorced parents and in this way, enhance their efficiency in fulfilling their duties and responsibilities in other aspects of life by improving this group's mental health. It is also suggested that other researchers replicate this study according to the gender of the participants and in other cultural situations and contexts. The use of self-report questionnaires as well as focusing only on guidance school students with divorced parents and lack of incorporation of students of other educational levels was one of the most important limitations of the present study that should be considered in generalizing the findings.

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## References

Akrami Ebrahimabad, A. (2017). *The effectiveness of empathy training on communication beliefs of women with marital conflict*. (MA), Islamic Azad University, Shahroud.

Aktas, S., & Pasinlioğlu, T. (2021). The effect of empathy training given to midwives on the empathic communication skills of midwives and the birth satisfaction of mothers giving birth with the help of these midwives: A quasi-experimental study. *Journal of Evaluation in Clinical Practice*, 27(4), 858-867.

Amani Shurbariki, S. (2017). *The effectiveness of narrative educational exposure on improving anxiety sensitivity, stress responsiveness and quality of life in people with cancer-related post-traumatic stress disorder*. (MA), Mohaghegh Ardabili University, Ardabil.

Blos, P. (1967). The second individuation process of adolescence. *The psychoanalytic study of the child*, 22(1), 162-186.

Chen, C.-Y., Lo, F.-S., Chen, B.-H., Lu, M.-H., Hsin, Y.-M., & Wang, R.-H. (2017). Pathways of emotional autonomy, self-care behaviors, and depressive symptoms on health adaptation in adolescents with type 1 diabetes. *Nursing outlook*, 65(1), 68-76.

Darvishi, I. (2016). *Prominent indicators of empathy in the Quran and Hadith*. (Master Thesis), Holy Quran University and Quranic Sciences, Ilam.

Deckers, A., Muris, P., & Roelofs, J. (2017). Being on your own or feeling lonely? Loneliness and other social variables in youths with autism spectrum disorders. *Child Psychiatry & Human Development*, 48(5), 828-839.

Deniz, M. E., & Uzun, A. E. (2019). An Examination of Loneliness And Emotional Autonomy as the Predictor of Empathic Tendency among Adolescents. *Elementary Education Online*, 18(3), 1007-1015.

Finkeldey, J. G., Longmore, M. A., Giordano, P. C., & Manning, W. D. (2020). Identifying as a troublemaker/partier: The influence of parental incarceration and emotional independence. *Journal of Child and Family Studies*, 29(3), 802-816.

Garmeh, M. (2016). *The relationship between self-differentiation and emotional self-awareness with psychological well-being of self-employed women*. (Master Thesis), Islamic Azad University, Shahroud

Gilliam, F. (2015). Social Cognition and Epilepsy: Understanding the Neurobiology of Empathy and Emotion: Social Cognition and Epilepsy. *Epilepsy currents*, 15(3), 118-119.

Gottman, J. M. (2014). *What predicts divorce?: The relationship between marital processes and marital outcomes*: Psychology Press.

Green, L. M., Missotten, L., Tone, E. B., & Luyckx, K. (2018). Empathy, depressive symptoms, and self-esteem in adolescence: The moderating role of the mother-adolescent relationship. *Journal of Child and Family Studies*, 27(12), 3964-3974.

Kabosi, M. B., & Ghorbani, A. (2016). Effects of Cognitive-behavioral Anger Management on Adolescents with Conduct Disorder. *Journal of Exceptional Education (J Except Educ)*, 1(138), 22-30.

Kim, J., Nafiujjaman, M., Nurunnabi, M., Lim, S., Lee, Y.-K., & Park, H.-K. (2018). Effects of polymer-coated boron nitrides with increased hemorheological compatibility on human erythrocytes and blood coagulation. *Clinical hemorheology and microcirculation*, 70(3), 241-256.

Koh, K. B., Park, J. K., Kim, C. H., & Cho, S. (2001). Development of the stress response inventory and its application in clinical practice. *Psychosomatic medicine*, 63(4), 668-678.

Louison, M. J., Adhikari, S., Stein, J. A., & Suski, C. D. (2017). Hormonal responsiveness to stress is negatively associated with vulnerability to angling capture in fish. *Journal of Experimental Biology*, 220(14), 2529-2535.

Novaco, R. W. (2016). Anger. In *Stress: Concepts, cognition, emotion, and behavior* (pp. 285-292): Elsevier.

Powell, P. A. (2018). Individual differences in emotion regulation moderate the associations between empathy and affective distress. *Motivation and Emotion*, 42(4), 602-613.

Rasouli, F. (2011). The Impact of Anger Control Training on Resiliency in Adolescents with Addiction Preparation. *Research on Addiction*, 4(16), 7-24.

Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of personality assessment*, 66(1), 20-40.

Safara, M., & Moazemabadi, M. (2018). Effectiveness of Positive Thinking on Reducing Bullying and Increasing Emotional Independence Adolescents in Tabas. *Clinical Psychology Studies*, 8(29), 163-181. doi:10.22054/jcps.2018.8319

Salimi, A., Joukar, B., & Nikpour, R. (2009). Internet And Communication: Perceived Social Support And Loneliness As Antecedent Variables. *Journal of Psychological Studies*, 5(3), 81-102. doi:10.22051/psy.2009.1607

Samani, S. (2006). Family Cohesion and Emotional Autonomy in Runaway Girls. *Iranian Journal of Psychiatry and Clinical Psychology*, 12(3), 258-262.

Steinberg, L., & Silverberg, S. B. (1986). The vicissitudes of autonomy in early adolescence. *Child development*, 841-851.

Tafreshi, M., Amiri Majd, M., & Jafari, A. (2014). The Effectiveness of Anger Management Skills Training on Reduction Family Violence and Recovery Marital Satisfaction. *Journal of Family Research*, 9(3), 299-310.

Taher, M., Abolghasemi, A., & Narimani, M. (2016). The efficacy of empathy and anger management training based on cognitive-behavioral approach on adjustment in children with oppositional defiant disorder. *Journal of school psychology*, 5(1), 26-47.

Zhou, Y. Q., Gan, D. Z. Q., Hoo, E. C. C., Chong, D., & Chu, C. M. (2018). Evaluating the violence prevention program: group and individual changes in aggression, anger, self-control, and empathy. *The Journal of Forensic Psychiatry & Psychology*, 29(2), 265-287.



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