



# Comparison of the effectiveness of cognitive-behavioral education and acceptance and commitment-based education on distress tolerance in self-harming adolescents

Elahe. Geraily<sup>1</sup>

Shaban. Heydari<sup>2\*</sup>

Mohammadkazem. Fakhri<sup>3</sup>

1. PhD Student, Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran

2. \*Corresponding author: Assistant Professor, Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran

3. Department of Psychology, Faculty of Psychology and Educational Sciences, Zahedan Branch, Islamic Azad University, Zahedan, Iran

Email: shaban.haydari@yahoo.com Received: 10.03.2022 Acceptance: 28.05.2022

Journal of Applied Family Therapy

eISSN: 2717-2430  
http://aftj.ir

Vol. 4, No. 4, Pp: 35-48  
Fall 2023

Original research article

## How to Cite This Article:

Geraily, E., Heydari, S., & Fakhri, M. K. (2023). Comparison of the effectiveness of cognitive-behavioral education and acceptance and commitment-based education on distress tolerance in self-harming adolescents. *aftj*, 4(4), 35-48.



© 2023 by the authors. Licensee Iranian Association of Women's Studies, Tehran, Iran. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0 license) (<http://creativecommons.org/licenses/by-nc/4.0/>)

## Abstract

**Aim:** In this study, the effectiveness of cognitive-behavioral education and education based on acceptance and commitment on tolerating distress in self-harming high school students was studied. **Method:** The quasi-experimental research design was test-post-test and follow-up with a control group. The statistical population of this study was self-injurious adolescents (second grade high school students in district one) in Sari who were studying in the academic year of 2021-2022, of which 45 were targeted by sampling. The sample was selected and randomly divided into two experimental groups and one control group (15 people in each group). The first experimental group, during 8 sessions of 90 minutes per week and based on the behavioral cognitive training package (Beck, 1976) and the second experimental group, during 8 sessions of 90 minutes per week and based on the training package based on acceptance and commitment (Hayes et al., 2013). Data collection tools included Simmons and Gaher (2005) Distress Tolerance Questionnaire and Klonsky & Glenn (2011) Self-Injury Questionnaire. Data were analyzed using SPSS-21 software and statistical tests of repeated measures analysis of variance and two-factor analysis of variance. **Results:** The results showed that cognitive-behavioral education and education based on acceptance and commitment had an effect on distress tolerance ( $F = 6.57, P = 0.002$ ) of self-harming students and the effectiveness of cognitive-behavioral education and training. Acceptance and commitment based on the studied variables were the same. **Conclusion:** It can be concluded that cognitive-behavioral education and education based on acceptance and commitment had an effect on the tolerance of self-harming students and both educations can be used to improve the problems of adolescents with self-harm.

**Keywords:** Cognitive-behavioral therapy, Acceptance and commitment therapy, Anxiety tolerance, Adolescents.

## Introduction

Adolescent boys are one of the most vulnerable groups of society against risky behaviors. According to the statistics of the forensic medicine of the country, the most common causes of death of young people and adolescents under 25 years of age in Iran are primarily traffic injuries, followed by alcohol poisoning, drug poisoning, suicide, and finally cancer. (Bose et al., 2015). Most teenagers have challenges with their family, society and relatives, and the pressure of these problems may push the teenager towards risky behaviors in the decision-making stage. Today's society confronts teenagers and families with many needs (Glavov et al., 2018). Another psychological factor that can be mentioned in self-harming people is distress. Distress is a common construct in research related to emotional disorder, which is expressed as a meta-emotional construct, and as a person's ability to experience and resist negative emotional states. This structure, which may be created as a result of cognitive or physical processes in a person, is an emotional state that is often characterized by practical tendencies to reduce the negative effects of emotional experience (Kils et al., 2020). Moreover, tolerance of distress has a multidimensional nature and includes many dimensions, including the ability to tolerate, evaluate and accept the emotional state, the way of emotion regulation by the individual and the amount of attention attracted by negative emotions and the amount of its contribution to the occurrence of dysfunction. (Hong and Peltzer, 2017).

Distress tolerance affects the evaluation and consequences of experiencing negative emotions, in such a way that people who have less distress tolerance compared to others, show a stronger reaction to stress (Padiyab and Fayazbakhsh, 2020). In addition, these people show weaker coping abilities against distress, and as a result, they try to avoid such emotions by using strategies aimed at reducing negative emotional states (Choi and Jueng, 2019). One of the new approaches of psychology and discussed in this research is education based on acceptance and commitment. It is an effective approach based on the communication framework theory and considers human psychological problems mainly as psychological inflexibility. Scientists believe that this type of treatment can create more psychological flexibility in a person (Kamani et al., 2018).

When behavioral therapy and cognitive therapy are combined, it equips people with powerful tools to stop the symptoms of illness and gain a more fulfilling direction in their lives. In cognitive-behavioral therapy, the patient is helped to change his defined patterns and dysfunctional behaviors, for which regular discussions and precisely organized behavioral assignments are used (Palmo et al., 2017).

The present study tries to compensate for the lack of studies in this field by examining this counseling and cognitive-behavioral counseling on self-harming students, which can be mentioned as the necessity of conducting the present study.

The current research sought to answer the following questions:

1- Was cognitive behavioral training and training based on acceptance and commitment effective on distress tolerance in self-harming teenagers in the post-test stage?

2- Was cognitive behavioral training and training based on acceptance and commitment on suffering distress in self-harming teenagers stable in the follow-up phase?

### **Method**

The quasi-experimental research design was test-post-test and follow-up with a control group. The statistical population of this study was self-injurious adolescents (second grade high school students in district one) in Sari who were studying in the academic year of 2021-2022, of which 45 were targeted by sampling. The sample was selected and randomly divided into two experimental groups and one control group (15 people in each group). The first experimental group, during 8 sessions of 90 minutes per week and based on the behavioral cognitive training package (Beck, 1976) and the second experimental group, during 8 sessions of 90 minutes per week and based on the training package based on acceptance and commitment (Hayes et al., 2013). Data collection tools included Simmons and Gaher (2005) Distress Tolerance Questionnaire and Klonsky & Glenn (2011) Self-Injury Questionnaire. Data were analyzed using SPSS-21 software and statistical tests of repeated measures analysis of variance and two-factor analysis of variance.

### **Results**

The participants in this research were between 15 and 17 years old. The average age (standard deviation) in the experimental group was 16.79 (4.73) and the control group was 16.86 (4.71).

According to the averages, it was observed that the distress tolerance scores of the experimental groups decreased significantly in the post-test of both treatments and remained stable in the follow-up phase.

Before performing the analysis of variance test with repeated measurements between groups, the presumption of normality of the data was performed with the Shapiro-Wilk test.

The difference between the scores of distress tolerance components in three stages of the research is significant ( $P < 0.01$ ). The mean scores of distress tolerance components in both experimental and control groups are significant ( $P < 0.05$ ). The results show that individual differences in distress tolerance components are related to the difference between the two groups. In addition, the interaction between research stages and group membership is also significant in distress tolerance components ( $P < 0.01$ ); In other words, the difference between the scores of distress tolerance components in three stages of the research in two groups is significant, so it can be concluded that cognitive-behavioral therapy and acceptance and commitment therapy have been effective in improving the distress tolerance components. According to the results obtained in the table above, the difference between the pre-test, post-test and follow-up stages in these variables is significant. The difference between the pre-test stage and the two post-test and follow-up stages in the acceptance and commitment treatment group was significant ( $p < 0.01$ ). However, in the control group, the difference between the scores of the pre-test stage and the post-test and follow-up stages and the difference between the scores of the post-test stage and the follow-up scores in the components of distress

tolerance are not significant ( $p < 0.05$ ). The effectiveness of cognitive behavioral training and training based on acceptance and commitment on distress tolerance is not different ( $p < 0.000$ ).

### **Conclusion**

In this research, the effectiveness of cognitive-behavioral training and training based on acceptance and commitment on distress tolerance in self-harming students of the second year of high school was discussed and investigated.

The effectiveness of cognitive-behavioral training and training based on acceptance and commitment on distress tolerance in self-injuring students of the second year of high school is different. The observed results showed that the amount of cognitive behavioral training and training based on acceptance and commitment on distress tolerance is not different. In explaining these findings, it can be stated that teaching acceptance and commitment by emphasizing psychological flexibility, clarifying values and discussing the fact that change is possible can increase the tolerance of distress by people. (Gilen et al., 2019). By paying attention and resorting to cognitive-behavioral training, it is possible to correct cognition, creation, behavior, physiological processes, environmental events and thoughts, which by affecting each other will lead to an increase in the tolerance of psychological distress of people and a decrease in self-injury of self-harming people.

### **References**

- Azizi, A. R. (2010). Reliability and validity of the Persian version of distress tolerance scale. *Iranian journal of psychiatry*, 5(4), 154
- Beck, J. S. (2011). Cognitive-behavioral therapy. *Clinical textbook of addictive disorders*, 491, 474-501.
- Bowes, L., Carnegie, R., Pearson, R., Mars, B., Biddle, L., Maughan, B.,... & Heron, J. (2015). Risk of depression and self-harm in teenagers identifying with goth subculture: a longitudinal cohort study. *The Lancet Psychiatry*, 2(9), 793-800.
- Choi, S. M., & Jeong, M. K. (2019). Mediating Effects of the Distress Tolerance on the Relationship between Negative Emotions and Subjective Well-Being. *Journal of the Korea Academia-Industrial cooperation Society*, 20(5), 145-154.
- Cook, L., Mostazir, M., & Watkins, E. (2019). Reducing stress and preventing depression (RESPOND): Randomized controlled trial of web-based rumination-focused cognitive behavioral therapy for high-ruminating university students. *Journal of medical Internet research*, 21(5), e11349.
- Fang, S., & Ding, D. (2020). The efficacy of group-based acceptance and commitment therapy on psychological capital and school engagement: A pilot study among Chinese adolescents. *Journal of contextual behavioral science*, 16, 134-143.
- Geulayov, G., Casey, D., McDonald, K. C., Foster, P., Pritchard, K., Wells, C.,... & Hawton, K. (2018). Incidence of suicide, hospital-presenting non-fatal self-harm, and community-occurring non-fatal self-harm in adolescents in England (the iceberg model of self-harm): a retrospective study. *The Lancet Psychiatry*, 5(2), 167-174.

- Gholamrezaei, M., Heath, N., & Panaghi, L. (2017). Non-suicidal self-injury in a sample of university students in Tehran, Iran: prevalence, characteristics and risk factors. *International journal of culture and mental health*, 10(2), 136-149.
- Ghielen, I., Rutten, S., Boeschoten, R. E., Houniet-de Gier, M., van Wegen, E. E., van den Heuvel, O. A., & Cuijpers, P. (2019). The effects of cognitive behavioral and mindfulness-based therapies on psychological distress in patients with multiple sclerosis, Parkinson's disease and Huntington's disease: Two meta-analyses. *Journal of Psychosomatic Research*, 122, 43-51.
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25.
- Hong, S. A., & Peltzer, K. (2017). Dietary behaviour, psychological well-being and mental distress among adolescents in Korea. *Child and Adolescent Psychiatry and Mental Health*, 11(1), 1-12.
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79-93.
- Kemani, M. K., Kanstrup, M., Jordan, A., Caes, L., & Gauntlett-Gilbert, J. (2018). Evaluation of an intensive interdisciplinary pain treatment based on acceptance and commitment therapy for adolescents with chronic pain and their parents: A nonrandomized clinical trial. *Journal of pediatric psychology*, 43(9), 981-994.
- Keles, S., & Idsoe, T. (2018). A meta-analysis of group cognitive behavioral therapy (CBT) interventions for adolescents with depression. *Journal of adolescence*, 67, 129-139.
- Klonsky, E. D., & Glenn, C. R. (2009). Assessing the functions of non-suicidal self-injury: Psychometric properties of the Inventory of Statements About Self-injury (ISAS). *Journal of psychopathology and behavioral assessment*, 31(3), 215-219.
- Levin, M. E., Krafft, J., Hicks, E. T., Pierce, B., & Twohig, M. P. (2020). A randomized dismantling trial of the open and engaged components of acceptance and commitment therapy in an online intervention for distressed college students. *Behaviour Research and Therapy*, 126, 103557.
- McGuire, J. F., & Storch, E. A. (2019). An inhibitory learning approach to cognitive-behavioral therapy for children and adolescents. *Cognitive and behavioral practice*, 26(1), 214-224.
- Mosher, C. E., Secinti, E., Hirsh, A. T., Hanna, N., Einhorn, L. H., Jalal, S. I.,... & Johns, S. A. (2019). Acceptance and commitment therapy for symptom interference in advanced lung cancer and caregiver distress: a pilot randomized trial. *Journal of pain and symptom management*, 58(4), 632-644.
- Rith-Najarian, L. R., Mesri, B., Park, A. L., Sun, M., Chavira, D. A., & Chorpita, B. F. (2019). Durability of cognitive behavioral therapy effects for youth and adolescents with anxiety, depression, or traumatic stress: A meta-analysis on long-term follow-ups. *Behavior Therapy*, 50(1), 225-240.
- Padyab Z, Fayazbakhsh H. (2020). The Effectiveness of Positivism with an Emphasis on Quranic Verses in Improving Distress Tolerance and Personal Growth of Mothers with Mentally-Retarded Children. *Journal of Assessment and Research in Applied Counseling*; 2 (3) :32-48
- Palermo, T. M., Beals-Erickson, S., Bromberg, M., Law, E., & Chen, M. (2017). A single arm pilot trial of brief cognitive behavioral therapy for insomnia in adolescents with physical and psychiatric comorbidities. *Journal of Clinical Sleep Medicine*, 13(3), 401-410.

- Simons, J. S., & Gaher, R. M. (2005). The Distress Tolerance Scale: Development and validation of a self-report measure. *Motivation and emotion*, 29(2), 83-102.
- Viskovich, S., & Pakenham, K. I. (2018). Pilot evaluation of a web-based acceptance and commitment therapy program to promote mental health skills in university students. *Journal of Clinical Psychology*, 74(12), 2047-2069.